IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

FEDERAL TRADE COMMISSION, Plaintiff, v. META PLATFORMS, INC., Defendant.	Case No. 1:20-cv-03590-JEB **PUBLIC RECORD VERSION**

FEDERAL TRADE COMMISSION'S REPLY
TO META PLATFORMS, INC.'S RESPONSE TO FEDERAL TRADE
COMMISSION'S COUNTERSTATEMENT OF MATERIAL FACTS

TABLE OF CONTENTS

Page

I. Background 14

A. The FTC's Allegations, Interrogatory Responses, and 30(b)(6) Testimony 14

1. The FTC's Allegations 14

2. The FTC's Response to Meta's Classification Exercise 17

3. The FTC's 30(b)(6) Witness 19

B. The FTC's Experts 29

1. Professor Hemphill's Opinions 29

2. Professor Lampe's Opinions 46

3. Mr. Hearle's Opinions 61

4. The FTC's Other Experts 67

a) Professor Aral's Opinions 68

b) Mr. Bray's Opinions 70

c) Mr. Malkiewicz's Opinions 73

d) Professor McCoy's Opinions 75

e) Professor Rim's Opinions 78

C. Meta's Experts 79

1. Professor Carlton 80

a) Professor Carlton's testimony regarding Meta's high economic profits 88

b) Professor Carlton's testimony regarding market definition principles and the hypothetical monopolist test 90

c) Professor Carlton's testimony regarding qualitative evidence 95

d) Professor Carlton's testimony regarding market power and dimensions of quality-adjusted price 99

e) Professor Carlton's testimony regarding evidence of price discrimination 105

f) Professor Carlton's testimony regarding the competitive effects of Meta's acquisitions of Instagram and WhatsApp 107

2. Professor List 116

3. Professor Tucker 118

4. Meta's Other Experts 128

II. Meta Possesses Monopoly Power Over PSN Services in the United States 132

A. PSN Services in the United States Are a Relevant Antitrust Market. 133

1. Meta and other firms recognize that different types of apps serve different types of consumer demand. 137

2. There is a distinct consumer demand for friends and family sharing. 151

3. PSN apps emerged to serve the distinct demand for friends and family sharing. 168

a) Original PSN apps include Friendster and Myspace. 169

b) Facebook emerged and became the largest PSN app in the United States by 2009.....171

c) Instagram emerged as a compelling mobile-first PSN app, only to be acquired by Meta. 179

d) Other PSN apps have gone defunct. 193

(1) Google+ 193

(2) Path 197

e) Smaller PSN apps exist today but do not dent Meta's dominance. 199

(1) Snap..... 200

(2) MeWe..... 209

(3) Foreign-based PSN apps 211

4. *Brown Shoe* practical indicia delineate a market for PSN services. 212

a) PSN apps have a "peculiar use" of friends and family sharing. 213

(1) Facebook—at its launch and since—has had a core use of friends and family sharing. 226

(2) Instagram—at its launch and since—has had a core use of friends and family sharing. 244

(3) Since the launch of Stories, Snapchat has had a core use of friends and family sharing. 251

(4) MeWe has a core use of friends and family sharing. 259

(5) Now-defunct PSN apps have had a core use of friends and family sharing. 261

(6) Survey evidence shows that PSN apps have a core use of friends and family sharing. 266

(7) Data analysis shows that PSN apps have a core use of friends and family sharing. 282

(8) PSN apps' core use of friends and family sharing creates a norm that makes personal connection and sharing readily acceptable. 287

b) PSN apps have "peculiar characteristics" that facilitate and foster friends and family sharing. 308

(1) PSN apps have a social graph centered on connecting users to friends and family. 309

(2) PSN apps have tools to foster building network connections with friends and family. 327

(3) PSN apps deliver engagement with friends and family in a shared social space. 334

c) There is "industry [and] public recognition" of PSN services. 342

(1) Recognition of a distinct consumer demand and product offering. 343

(2) Recognition of PSN apps as serving demand for friends and family sharing. 366

d) PSN apps have "unique production facilities" that foster and enable friends and family sharing. 396

e) Lack of sensitivity to price changes, distinct customers, and distinct prices. 404

5. Other types of online services ("non-PSN apps") are not reasonable substitutes for PSN services. 408

a) Specialized social networking apps are not reasonable substitutes for PSN services. 412

(1) LinkedIn lacks core functionality and use for friends and family sharing. 414

(a) LinkedIn has a core use of professional social networking, not friends and family sharing. 419

(b) LinkedIn lacks functionality to foster and facilitate friends and family sharing. 443

(2) Nextdoor lacks core functionality and use for friends and family sharing. 461

(a) Nextdoor has a core use of neighborhood connection, not friends and family sharing. 465

(b) Nextdoor lacks functionality to foster and facilitate friends and family sharing. 477

(3) Strava lacks core functionality and use for friends and family sharing. 491

b) Entertainment consumption apps are not reasonable substitutes for PSN services. 499

(1) YouTube lacks core functionality and use for friends and family sharing. 501

(a) YouTube has a core use of entertaining video consumption, not friends and family sharing. 505

(b) YouTube lacks functionality to foster and facilitate friends and family sharing. 523

(2) TikTok lacks core functionality and use for friends and family sharing. 537

(a) TikTok has a core use of entertainment, not friends and family sharing. 541

(b) TikTok lacks functionality to foster and facilitate friends and family sharing. 565

c) Interest-based apps are not reasonable substitutes for PSN services. 579

(1) Twitter lacks core functionality and use for friends and family sharing. 581

(a) Twitter has a core use of interest-based public conversation, not friends and family sharing. 585

(b) Twitter lacks functionality to foster and facilitate friends and family sharing. 604

(2) Reddit lacks core functionality and use for friends and family sharing. 619

(a) Reddit has a core use of interest-based community conversation, not friends and family sharing. 622

(b) Reddit lacks functionality to foster and facilitate friends and family sharing. 632

(3) Pinterest lacks core functionality and use for friends and family sharing. 641

(a) Pinterest has a core use of lifestyle interest discovery, not friends and family sharing. 645

(b) Pinterest lacks functionality to foster and facilitate friends and family sharing. 667

d) Mobile messaging apps are not reasonable substitutes for PSN services. 681

(1) Mobile messaging apps lack a core use of friends and family sharing. 688

(2) Mobile messaging apps lack functionality to foster and facilitate friends and family sharing. 709

(3) PSN usage is not shifting to mobile messaging. 725

e) Meta's experts fail to rebut that non-PSN apps lack a core use of friends and family sharing. 731

6. A hypothetical monopolist of PSN services in the United States would be able to profitably raise quality-adjusted price above a competitive level. 737

7. Meta's incorporation of other activities in its PSN offerings does not undermine the PSN market or Meta's monopoly power. 758

a) Meta has incorporated other activities into Facebook and Instagram in an integrated manner. 760

b) Friends and family sharing remains large and important and a core use of Facebook and Instagram. 788

c) "Other activities" do not call for expansion of the relevant market and do not constrain Meta's exercise of monopoly power. 813

(1) Competition for other activities does not replace the lack of competition for friends and family sharing. 816

(2) Meta also price discriminates, targeting inelastic users for higher quality-adjusted price. 820

8. Meta's empirical analyses are irredeemably flawed. 828

a) The empirical analyses fail to adhere to the basic elements of a properly executed SSNIP test. 833

b) The failure to adhere to the elements of the SSNIP test is consequential. 862

c) Professor Carlton's algorithmic approach to market definition is unmoored from the evidence and established market definition principles. 878

(1) There is no "closest substitute" requirement for market definition. 880

(2) The flaws in Meta's experts' empirical analyses infect their derived orders of diversion. 886

~~d)~~ Aspects of the empirical results support the relevant market and the conclusion that Meta has monopoly power. 904

e) Meta's experts fail to opine on the ultimate question. 913

9. The United States is a relevant geographic market for PSN services, which Meta does not dispute. 923

a) PSN services exhibit country-level network effects. 924

b) Meta tailors its offerings by country. 928

c) PSN services track various metrics at the country level. 929

B. Meta Has a Dominant Share of the U.S. Market for PSN Services, which is Protected by Significant Entry Barriers. 931

1. Meta's shares in the market for PSN services have been greater than 60% at all times since 2011 932

a) Professor Hemphill's market share calculations, from multiple sources, all show Meta's dominant position. 933

b) Meta's economic expert conceded that if Professor Hemphill identified the correct set of market participants, then Professor Hemphill properly calculated market shares. 944

2. Meta is protected by significant barriers to entry and expansion. 946

a) Facebook and Instagram are protected by significant barriers to entry and expansion including strong network effects, switching costs, and capital costs. 948

(1) Network effects 948

(2) Switching costs 969

(3) Capital investment 981

b) Failures of other apps to enter and the absence of meaningful entrants in the market for PSN services demonstrate significant barriers to entry. 987

C. Direct Evidence Indicates that Meta Exercises Monopoly Power Over PSN Services in the United States 1000

1. Meta exercises monopoly power over PSN services in the United States despite charging users of Facebook and Instagram a monetary price of zero. 1002

2. Meta's sustained high profits are direct evidence of its monopoly power over PSN services in the United States. 1022

a) Meta has earned sustained high economic profits for a long period of time, which indicates monopoly power. 1023

b) Meta's ability to sustain exceptionally high profits is due to its exercise of monopoly power over users of Facebook and Instagram. 1032

3. Meta has profitably increased the quality-adjusted prices of Facebook and Instagram, which is further direct evidence of its monopoly power over PSN services. 1048

a) Despite recognizing that ad load is a tax on user engagement and users dislike ads, Meta has increased ad load over time, to increased user dissatisfaction. 1052

(1) Users of Facebook and Instagram dislike viewing ads and perceive increased ad load as a decrease in product quality. 1052

(2) Meta sets the level of ad load to maximize profits, optimizing the tradeoff between revenue and engagement..... 1062

(3) Over time, Meta has raised ad load significantly on Facebook and Instagram. 1068

b) Meta has also raised quality-adjusted price by reducing quality across multiple other product quality dimensions. 1080

c) Meta has raised quality-adjusted price by underinvesting in friends and family sharing. 1092

4. Inelastic demand and price discrimination are direct evidence of Meta's monopoly power over PSN services. 1106

a) Inelastic user demand for Facebook and Instagram indicates monopoly power. 1108

(1) Users' response to the Cambridge Analytica scandal shows users' lack of alternatives..... 1109

(2) Other evidence of inelastic user demand for Facebook and Instagram..... 1119

b) Meta price discriminates against inelastic users in setting ad load and through diminished investment in friends and family sharing. 1124

(1) Meta imposes higher ad load on users with less elastic demand. 1126

(2) Meta's underinvestment in friends and family is a form of price discrimination. 1162

5. Meta's high profits, increases in quality-adjusted price, and exploitation of inelastic user demand reinforce each other as direct evidence of monopoly power over PSN services. 1163

6. Meta recognizes its ability to exclude PSN competition. 1172

7. Meta's monopoly power over users of Facebook and Instagram suppresses output and harms consumer welfare. 1175

a) Higher ad load reduces user engagement. 1181

b) Meta's underinvestment reduces user engagement. 1189

III. Meta's Acquisitions of Instagram and WhatsApp Constitute Exclusionary Conduct 1208

A. The Shift to Mobile Opened a Rare Window of Vulnerability for Facebook 1208

1. The shift to mobile began in earnest in late 2010 as smartphones began to gain wide adoption. 1210

2. The shift to mobile presented a rare opportunity for entrants and a major threat to Meta. 1212

3. Meta stumbled in its attempts to adapt to the shift to mobile. 1214

4. To address the Facebook's application's shortcomings in mobile, Facebook was forced to focus on re-writing its code from scratch for approximately 18 months in 2011 and 2012. 1223

B. Meta's Acquisition of Instagram Eliminated a Significant Competitor and Protected its Monopoly Power.....1227

1. Instagram Was Well-Positioned to Threaten Facebook's Dominance in Personal Social Networking Services, And Was Already Doing So 1227

a) Instagram launched as a mobile personal social network with a focus on photos. 1227

b) Instagram achieved immediate and sustained success from its launch through its acquisition. 1240

c) Instagram was well-funded and had access to industry expertise. 1250

d) Instagram's founders understood that they were in competition with Facebook. 1268

e) Instagram was an attractive acquisition target for a large, established technology company seeking to enter into the market for personal social networking services. 1272

2. Meta Recognized the Competitive Threat that Instagram Posed to Facebook's Monopoly Power in Personal Social Networking Services. 1278

a) Photo-sharing features were critical to Facebook's success in friends and family sharing prior to the shift to mobile. 1285

b) Meta recognized that Instagram's network was exerting increasing competitive pressure on Facebook's friends and family sharing offering. 1287

3. Other Photo-Related Apps and Services Did Not Threaten Facebook the Way Instagram Did. 1296

a) Desktop-based photo applications were not a significant threat to Facebook in 2012. 1298

b) Camera utility apps either lacked personal social networking functionality entirely or were little-used for such purposes. 1306

c) The few other mobile apps that supported friends-and-family sharing in 2012 were not threatening to Facebook because they were relatively small and were not growing rapidly. 1308

4. Meta Initially Attempted to Compete with Instagram. 1320

a) Meta stumbled in its early mobile photo efforts.....1320

b) Meta attempted to improve Facebook's deficient photo-sharing features by launching a standalone application, Facebook Camera, to improve Facebook's mobile photo sharing experience as a direct competitive response to Instagram. 1326

c) Facebook Camera was Meta's way of attempting to improve the friends and family sharing experience of Facebook users.....1332

d) Meta struggled to develop Facebook Camera.....1337

e) After lengthy development struggles, Meta launched Facebook Camera in May 2012. 1344

5. Rather than Continuing to Compete with Instagram, Meta Chose to Neutralize the Threat by Buying Instagram. 1352

a) Meta had identified Instagram as a "significant threat" given Meta's weaknesses (and Instagram's corresponding strengths) in mobile and photos.....1352

b) In February 2012, Mr. Zuckerberg reached out to an Instagram board member about acquisition prospects, and he explained the financial details of and rationale for the acquisition with Meta's then-CFO, David Ebersman. 1354

c) Meta's acquisition of Instagram was finalized in April 2012, less than two months after Mr. Zuckerberg's initial outreach to Instagram, because Instagram's continued growth drove Mr. Zuckerberg to close the deal quickly despite the "really expensive" price. 1358

d) Meta's executives have acknowledged, both at the time and in the years following, that Meta purchased Instagram to neutralize it as a threat. 1365

e) Consistent with its monopolistic intent, Meta paid a large premium over Instagram's market value. 1376

C. Meta's Acquisition of WhatsApp Eliminated a Significant Competitive Threat and Protected its Monopoly Power 1379

1. With the Shift to Mobile, Meta Faced a Threat of Entry into Personal Social Networking Services by Leading Mobile Messaging Apps.....1379

a) Emergence of over-the-top ("OTT") mobile messaging. 1379

b) Other mobile messengers emerged as the leaders in the space, while Meta's solution, Facebook Messenger, struggled to compete.....1386

c) By 2012, large mobile messaging apps in Asia had pivoted into personal social networking services. 1408

2. WhatsApp Posed a Significant Mobile Messaging Personal Social Networking Pivot Threat to Facebook. 1414

a) WhatsApp was a serious threat to pivot into personal social networking services because it had significant scale, growth, and engagement. 1414

(1) WhatsApp was the global leader in mobile messaging. 1414

(2) WhatsApp was growing in the United States before the acquisition and was well-positioned to keep growing. 1431

(3) WhatsApp had the metrics and support necessary to successfully pivot into personal social networking services..... 1442

(4) WhatsApp needed a viable monetization approach, which a personal social networking pivot provided. 1468

b) Meta viewed WhatsApp as a significant threat to enter personal social networking services, either on its own or as a result of acquisition by another firm. 1496

(1) Meta recognized that leading mobile messaging providers posed a significant competitive threat to its personal social networking services because they could pivot into personal social networking services. 1496

(2) Meta restricted leading OTT mobile messengers, including WhatsApp, from accessing growth tools, and refused to sell advertising to OTT messengers that had already pivoted to offer personal social networking services. 1513

(3) Meta recognized that WhatsApp posed a significant competitive threat to Meta's personal social networking services because WhatsApp could pivot into offering personal social networking services, as other large OTT mobile messengers did. 1522

(4) Meta recognized that WhatsApp posed a significant competitive threat to Meta's personal social networking services because WhatsApp could be acquired by another firm that either already offered personal social networking services or was capable of doing so. 1530

c) Other mobile messaging apps posed a lesser threat than WhatsApp to pivot successfully into personal social networking services. 1548

(1) Apple was not a pivot threat. 1548

(2) Google Messages did not represent a pivot threat. 1551

(3) Other mobile messaging applications posed a lesser threat to pivot than WhatsApp posed. 1555

3. Meta acquired WhatsApp to neutralize it as a pivot threat, paying a significant premium. 1557

D. Meta's Acquisitions Eliminated Head-to-Head Competition and Raised Barriers to Entry. 1602

1. Acquiring Instagram Eliminated Head-to-Head Competition between Facebook and Instagram. 1602

a) The acquisition removed the competitive pressure that Instagram had been putting on Facebook, and Meta responded by relaxing its competitive efforts. 1602

b) After Meta acquired Instagram, it attempted to ensure Instagram did not grow at the expense of Facebook. 1614

c) The acquisition raised barriers to entry in personal social networking services. 1643

2. Acquiring WhatsApp Prevented it from Competing Head-to-Head in Personal Social Networking Services and Provides a Competitive Moat for Meta. 1649

a) The acquisition prevented WhatsApp from competing with Meta's personal social networking services directly as a standalone company or as part of a potential acquirer. 1649

b) WhatsApp serves as a competitive moat that has raised barriers to entry. 1655

IV. Meta's Exclusionary Conduct and Protection of Its Monopoly Has Harmed Consumers 1669

A. In the limited instances when Meta has faced PSN competition, Meta worked harder to improve the user experience and consumers received more choice. 1678

1. Meta initially responded to PSN entry by Google+ by improving Facebook, including efforts to improve privacy. 1681

2. Snapchat innovated in friends and family sharing with the introduction of Stories, forcing Meta to respond by building a similar feature. 1694

B. Meta's acquisition of Instagram directly extinguished competitive pressures, allowing Meta to raise quality-adjusted price for consumers, including by increasing ad load and reducing investment in quality and innovation. 1701

1. With the acquisition having relieved competitive pressure, Meta reduced efforts to innovate and improve Facebook. 1703

2. Meta has raised the quality-adjusted price on Instagram by increasing its ad load. 1708

a) Meta has used control of Instagram to increase Instagram's ad load significantly, including over the concerns and objections of Instagram's co-founder. 1709

b) Meta's ad load increases harmed usage and user satisfaction on Instagram, underscoring the reduction in quality and consumer harm. 1727

3. With the acquisition having relieved competitive pressure, Meta has reduced innovation on Instagram and hampered its growth. 1733

C. With Instagram and WhatsApp neutralized as competitive threats, Meta has underinvested and reduced quality across multiple dimensions. 1747

1. Quality has declined on Facebook and Instagram across numerous product quality dimensions, all while Meta reaps enormous profits. 1749

2. Having insulated itself against competition by acquiring Instagram and WhatsApp, Meta has been able to raise ad load significantly on Facebook and Instagram, harming consumers. 1749

a) Competition impacts the level of ad load on providers of PSN services. 1750

b) Meta's ability to raise ad load on Instagram allowed Meta to account for higher ad loads on Facebook and set higher ad loads across both apps. 1759

c) Meta consistently declined to improve user sentiment with respect to ad load, recognizing it would harm profits. 1765

3. Meta has underinvested in the friends and family use case on Facebook and Instagram, harming consumers. 1767

4. Meta has poor privacy and data protection practices, harming consumers. 1773

a) Meta understands that its users care about privacy and perceive reduced privacy as a decrease in product quality. 1775

b) Privacy is a dimension of competition for online services, including among providers of PSN services. 1790

(1) Firms that provide PSN services compete on the basis of privacy. 1790

(2) More broadly, firms that are engaged in the collection and use of personal information also compete on the basis of privacy. 1797

c) Meta has deprioritized privacy and data protection, harming consumers. 1801

(1) Meta is competitively unconstrained on privacy and data protection. 1801

(2) Meta's lax approach to privacy has led to declining user sentiment on privacy. 1810

(3) Meta's lax approach to privacy has also led to multiple privacy breaches, violations, and scandals. 1821

5. Meta has underinvested in integrity, producing serious integrity harms to consumers. 1832

6. Meta has contemplated but declined to provide greater value to users through rewards and incentives. 1846

V. Meta Has Not and Can Not Meet Its Burden to Demonstrate Extraordinary Cognizable Procompetitive Benefits Stemming From Its Acquisitions of Instagram and WhatsApp 1858

A. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Succeed and Grow. 1858

1. Meta's acquisition of Instagram was not necessary for Instagram to continue its rapid growth. 1860

a) Instagram was growing rapidly before Meta acquired it and had plans for continued growth that did not require acquisition by Meta. 1860

b) Meta's own executives acknowledged that Instagram was growing rapidly without Meta's ownership, and that even post-acquisition most of Instagram's growth was not due to Meta. 1866

c) Meta did not need to acquire Instagram to help it grow in the manner that it did. 1881

d) Instagram could have implemented effective growth strategies without being acquired by Meta. 1893

2. Instagram could have grown in other ways, even if Meta had acted contrary to the interests of consumers and restricted Instagram's ability to access Meta's APIs. 1898

a) Eliminating Instagram's ability to cross-post photos onto Facebook would have harmed consumers and been contrary to Meta's representations. 1898

b) Instagram could have grown in other ways even if Meta cut off Instagram's ability to cross-post to Facebook. 1904

3. Meta's acquisition of Instagram impeded Instagram's growth. 1906

B. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Add Features. 1920

1. Prior to the acquisition, Instagram had established itself as an innovative competitor to Facebook that had added attractive features. 1925

2. Meta's acquisition of Instagram was not necessary for Instagram to launch the asserted features. 1932

a) As a general matter, Instagram was able to, and planned to, launch additional innovative features had it not been acquired by Meta. 1932

b) Meta's acquisition was not necessary for Instagram to launch video. 1935

c) Meta's acquisition was not necessary for Instagram to launch live video. 1939

d) Meta's acquisition was not necessary for Instagram to launch direct messaging. 1943

e) Meta's acquisition was not necessary for Instagram to launch Stories, which launched in spite of Meta's ownership. 1946

f) Meta's acquisition was not necessary for Instagram to develop a ranked feed algorithm. 1952

g) Meta's acquisition was not necessary for Instagram's launch of Reels. 1958

h) Meta's acquisition was not necessary for Instagram to launch any of the features listed in Appendix C of Professor Carlton's Report. 1960

3. In fact, Meta hampered the development of Instagram features. 1962

C. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Monetize Successfully. 1975

1. Meta's acquisition of Instagram was not necessary for Meta's claimed monetization-related benefits to accrue to Instagram. 1978

2. Meta's monetization expert concedes that any benefits that Meta brought to Instagram's monetization have significant limitations. 1984

3. Meta's acquisition of Instagram was not necessary for Instagram to monetize successfully via digital advertising. 1995

a) Instagram's founders always planned to monetize via advertising. 1995

b) Before the acquisition, Instagram was drawing significant interest from large brands and their advertisers. 2004

c) Instagram had venture capital support positioned to support its monetization efforts. 2007

d) According to Meta, many other apps have monetized successfully via digital advertising. 2010

4. Meta's acquisition of Instagram was not necessary for Instagram to introduce the advertising capabilities that Meta asserts it brought to Instagram. 2020

a) Meta's acquisition of Instagram was not necessary for Instagram to introduce the advertising technologies and tools that Instagram introduced following its acquisition by Meta. 2020

(1) Many apps have built "integrated products and services" that support their digital advertising businesses. 2020

(2) As Meta has acknowledged, many publishers have made self-service advertising capabilities available for advertisers. 2023

(3) Meta's acquisition of Instagram was not necessary for Instagram to introduce the advertising formats Instagram introduced following its acquisition by Meta. 2024

b) Meta's acquisition of Instagram was not necessary for Instagram to pursue the business plans that Meta asserted it implemented for Instagram. 2026

(1) Meta's acquisition of Instagram was not necessary for Instagram to change its advertising strategy to emphasize self-service and direct-response advertising. 2026

(2) Meta's acquisition of Instagram was not necessary for Instagram to introduce advertising sales teams. 2030

(3) Meta's acquisition of Instagram was not necessary for Instagram to introduce a marketing partners program. 2031

5. Instagram's advertising business has experienced significant problems under Meta's control. 2031

a) Meta's direction of Instagram's advertising business was erratic and marked by confusion and uncertainty. 2031

b) Meta has had problems with its self-service advertising platform. 2039

c) Meta has had many problems with its advertising measurement tools, and advertisers have repeatedly complained about Meta's failures to offer third-party measurement. 2042

D. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Manage Integrity Issues at Scale. 2055

1. Integrity expert Professor McCoy has opined that Meta's acquisition of Instagram was not necessary for Meta's claimed integrity-related benefits to accrue to Instagram. 2067

2. Meta's integrity expert concedes that Meta's assertions about the benefits it brought to Instagram's integrity systems have significant limitations. 2073

3. Meta's acquisition of Instagram was not necessary for Instagram to successfully manage integrity issues at scale. 2087

a) Instagram was not facing critical integrity issues prior to the acquisition by Meta. 2087

b) Instagram was using widely accepted tools to address its integrity issues prior to its acquisition by Meta. 2093

c) Instagram was responsively addressing its integrity issues prior to the acquisition by Meta. 2103

d) Instagram had the fundamentals to continue scaling its response to spam and objectionable content without the acquisition by Meta. 2113

4. Meta's acquisition of Instagram was not necessary for Instagram to address integrity issues at scale. 2127

a) Other online platforms have scaled their integrity systems successfully without an acquisition by Meta. 2127

b) The tools and techniques Meta uses to manage integrity issues on Instagram are commonly used by other online platforms and not unique to Meta. 2129

c) Integrity expertise is widely available and not unique to Meta. 2207

d) Meta's implementation of integrity tools and techniques on Instagram was stunted, incomplete and delayed. 2222

e) On various occasions, Meta has failed to allocate the resources that Instagram needed to protect users of Instagram. 2241

f) Meta tended to focus integrity resources, including employees with relevant skills, on Facebook rather than Instagram. 2264

5. Meta has not demonstrated that that it delivered overall improved integrity performance for users of Instagram. 2275

a) Metrics are an important tool for monitoring, assessing, and improving the performance of integrity systems. 2275

b) Meta does not maintain prevalence metrics for spam, fake accounts, and CSAM on Instagram and only started maintaining prevalence measurements for other categories of integrity issues on Instagram in 2021 and 2022. 2277

c) The other metrics Meta cites suffer from limitations that Meta itself has acknowledged. 2287

d) Meta did not cite quantitative measurements in its advocacy materials or Professor Subrahmanian's expert report despite having access to them. 2294

e) Instagram has experienced material integrity problems under Meta's control. 2296

(1) Instagram has experienced a proliferation of child sexual abuse material under Meta's ownership. 2296

(2) Instagram has seen a proliferation of policy-violating adult nudity and pornography under Meta. 2308

(3) Instagram has suffered meaningful spam-related integrity problems under Meta. 2313

6. Meta has made policy choices that have impaired Instagram's integrity performance. 2318

a) Meta's cross-check program has exposed Instagram users to significant harmful content. 2318

b) Meta's approach to integrity issues on Instagram has resulted in users having negative experiences on the platform and may have contributed to teen mental health issues. 2333

c) Meta's approach to advertising has resulted in users seeing harmful advertisements on Instagram. 2346

E. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Scale Its Technical Infrastructure. 2353

1. Instagram was growing rapidly on public cloud infrastructure prior to its acquisition by Meta and was well-positioned to continue growing without Meta's infrastructure. 2355

a) Instagram achieved immediate and sustained rapid growth on public cloud infrastructure prior to its acquisition by Meta. 2356

b) After the acquisition, Instagram continued to use its public cloud infrastructure for a period of time—and continued to achieve significant scale. 2362

c) Instagram was well positioned to continue growing, as it was on a well-proven path to scaling without Meta's infrastructure. 2369

(1) Instagram's infrastructure needs were not unique. 2378

(2) Instagram was on a well-proven path for scaling that other large-scale companies have followed. 2381

d) Instagram had access to engineering expertise, which would have further helped Instagram scale absent the acquisition and which did not require Meta's acquisition. 2389

2. Meta did not contemplate migrating Instagram to its infrastructure at the time of the acquisition, and while Meta has provided little to no support for its claims, Instagram would have been able to achieve the claimed benefits without Meta's infrastructure. 2395

a) Before and after the acquisition's close, Meta made no plans to move Instagram onto Meta infrastructure. 2395

b) The infrastructure that Instagram had been using before migrating was capable of supporting Instagram's scaling needs and was often better performing than Meta's infrastructure. 2402

(1) Instagram's pre-acquisition media storage provided better reliability and performance than Meta's media service. 2402

(2) It took years for Instagram to migrate to Meta's in-house CDN, and there is no evidence that Meta provided performance benefits that Instagram could not have achieved through alternative available solutions. 2415

(3) Meta's migration of Instagram to Meta's in-house graph database was not completed until four years after the acquisition, and during this time Instagram could have achieved equivalent performance in a similar timeframe. 2421

(4) Operating from multiple data centers is not at all unique to Meta and did not require Meta's acquisition of Instagram. 2427

(5) Meta decided to migrate Instagram to its ZippyDB database for internal consolidation reasons and did not start this migration until nearly seven years after the acquisition. 2433

c) Meta's infrastructure has not been shown to improve Instagram's user experience. 2435

(1) There is an absence of reliable data from which to conclude that Meta infrastructure was necessary to improve the user experience on Instagram. 2435

(2) Meta's experts' claimed latency benefit claims are flawed. 2446

(a) Meta's experts have claimed certain latency benefits stemming from Instagram's migration to Meta's infrastructure. 2446

(b) The majority of Instagram's latency reduction occurred by virtue of Instagram migrating to updated AWS infrastructure. 2452

(c) Meta's claimed latency benefits are contradicted by Meta's own underlying data, which shows [redacted]. 2455

3. After migrating to Meta's infrastructure, Instagram faced significant infrastructure challenges and performance issues. 2459

a) Certain Meta technologies performed worse than publicly available alternatives or required significant engineering work to adapt to Instagram's needs. 2459

b) As part of Meta, Instagram lost control over its own infrastructure capacity and has suffered from capacity restrictions imposed by Meta's allocation processes. 2469

(1) Instagram was able to readily access needed capacity on AWS whereas Meta's capacity allocation process deprioritized Instagram's capacity needs. 2469

(2) Meta's capacity limits have negatively impacted Instagram and Instagram's users. 2479

c) As Meta has grown, so too have outages and internal reports of cascading failures, impacting users. 2499

F. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Succeed and Grow 2506

1. Meta's acquisition of WhatsApp was not necessary for WhatsApp to continue its rapid growth.....2507

2. After its acquisition of WhatsApp, Meta prioritized the promotion of Facebook and Facebook Messenger.....2514

G. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Add Features.....2519

1. Prior to the acquisition, WhatsApp had a strong record of enriching its product and adding attractive new features.....2521

2. WhatsApp had begun developing end-to-end encryption, voice calling, video calling, and other features prior to its acquisition by Meta, and Meta's acquisition was not necessary for WhatsApp to launch these features. 2527

a) WhatsApp had begun developing end-to-end encryption prior to the acquisition, and Meta's acquisition was not necessary for WhatsApp to launch this feature. 2527

b) WhatsApp had begun developing voice and video calling prior to the acquisition, and Meta's acquisition was not necessary for WhatsApp to launch these features. 2530

3. Meta's acquisition of WhatsApp was not necessary for WhatsApp to launch other features such as a Status feature and asserted improvements to WhatsApp's camera features.....2536

4. Meta pushed WhatsApp to develop a payment feature that failed, while other apps have themselves developed payment features successfully. 2541

5. Meta's infrastructure expert's analysis of Meta's introduction of features on WhatsApp has several limitations. 2542

H. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Monetize Successfully 2544

1. Meta's assertions about the benefits it brought to WhatsApp monetization have significant limitations. 2546

2. Meta has failed to effectively monetize WhatsApp to date. 2553

3. WhatsApp had the ability, incentive, and ultimate need to monetize if not acquired by Meta.....2566

4. Meta's acquisition of WhatsApp was not necessary for WhatsApp to introduce paid messaging. 2567

5. Meta's acquisition of WhatsApp was not necessary for WhatsApp to utilize Click-to-WhatsApp-style advertising.....2569

I. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Scale Its Underlying Technical Infrastructure.....2572

1. WhatsApp demonstrated it could scale successfully on third party infrastructure because it in fact did. 2575

a) WhatsApp had already achieved significant scale on its pre-acquisition infrastructure prior to being bought by Meta. 2575

b) Prior to the acquisition, Meta recognized WhatsApp as already operating at a much larger scale than Facebook Messenger, with WhatsApp outperforming Facebook Messenger by a "huge gap" and "stark" difference. 2580

c) WhatsApp continued to scale on its pre-acquisition infrastructure for years after its acquisition by Meta. 2582

2. WhatsApp did not migrate to Meta's infrastructure to improve its performance or reliability.....2584

3. WhatsApp's infrastructure migration was motivated by the fact that Meta lacked expertise in WhatsApp's bespoke infrastructure. 2588

4. WhatsApp encountered significant challenges and had to expend significant engineering resources in migrating from its customized infrastructure to Meta's own infrastructure, which had performance and reliability issues.....2599

a) The migration presented significant technical and engineering challenges, in part because of performance and reliability issues with Meta's own infrastructure. 2599

b) Due to these challenges, the migration did not begin for years after the acquisition, and it took years to complete. 2607

5. Meta's assertions about infrastructure benefits for WhatsApp are unsupported. 2613

a) Meta's acquisition of WhatsApp was not necessary for WhatsApp to attain any proffered benefits from migrating to Meta's infrastructure. 2613

b) WhatsApp's New Year's Eve usage spikes were not evidence of Meta's infrastructure benefits. 2627

c) Meta's CDN did not provide any advantages to WhatsApp for media serving over readily available third-party CDNs. 2630

d) Meta fails to show that WhatsApp saved costs by switching to Meta's infrastructure. 2635

J. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Manage Integrity Issues at Scale. 2639

1. Integrity expert Professor McCoy has opined that Meta's acquisition of WhatsApp was not necessary for Meta's claimed integrity-related benefits to accrue to WhatsApp. 2643

2. Meta's assertions about the benefits it brought to WhatsApp's integrity efforts have significant limitations. 2645

3. Meta's acquisition of WhatsApp was not necessary for WhatsApp to manage integrity issues at scale. 2652

a) WhatsApp was successfully addressing its integrity issues prior to the acquisition. 2652

b) WhatsApp had the fundamentals to scale its integrity systems without the acquisition by Meta. 2657

4. The tools, techniques, and expertise Meta uses to manage integrity issues on WhatsApp are commonly used by other companies and not unique to Meta. 2667

5. Meta's implementation of integrity tools and techniques on WhatsApp was stunted, incomplete, and delayed. 2670

6. Meta has not demonstrated that it delivered overall improved integrity performance for WhatsApp users.....2677

K. Meta's Inflated Claims Regarding Investment and Innovation Are Flawed. 2688

L. Meta's Claims Regarding Consumer Surplus Are Unreliable, Unsupported, and Immaterial. 2705

VI. The HSR Reviews in 2012 and 2014 Were Brief and Lacked Information That Is Available in This Litigation. 2712

A. The FTC's HSR Review of Instagram in 2012 Was Brief and Lacked Information. 2712

B. The FTC'S HSR Review of WhatsApp in 2014 Was Brief and Lacked Information. 2722

C. The Record in This Case Contains Voluminous Evidence That Was Not Available to the FTC in 2012 and 2014.....2725

1. The record in this case contains voluminous information that was not available to the FTC in 2012 and 2014. 2725

2. The record in this case includes many documents that Meta could have produced in the 2012 and 2014 investigations but did not.....2727

3. The record in this case contains significant post-acquisition evidence of Meta's anticompetitive conduct, monopoly power, and substantial and enduring consumer harm. 2743

VII. Meta's Justifications for Its Acquisitions of Instagram and WhatsApp.....2745

A. Meta's Instagram Justifications. 2745

1. Meta's Computing & Programming Infrastructure Claim. 2747

2. Meta's Integrity Tools & Expertise Claim. 2766

3. Meta's Features & Growth Initiatives Claim. 2771

4. Meta's Independent Product & Brand Claim. 2783

5. Meta's Monetization Resources Claim. 2792

6. Meta's Technical & Administrative Resources Claim.....2799

7. Meta Has Not Claimed that the Acquisition of Instagram Improved any of Meta's Services Other than Instagram. 2804

B. Meta's WhatsApp Justifications. 2807

1. Meta's Improved Reliability & Engagement Claim. 2808

2. Meta's Monetization Strategies Claim. 2823

3. Meta's Technical & Administrative Resources Claim.....2824

4. Meta's Strategic Positioning Claim. 2828

FTC INTRODUCTION

Pursuant to Rule 56 of the Federal Rules of Civil Procedure and Civil Rule 7(h) of the Local Rules of the United States District Court for the District of Columbia, Plaintiff Federal Trade Commission ("the FTC") submits this Counterstatement of Material Facts. This Counterstatement is a statement of undisputed material facts as to which the FTC contends that there is no genuine issue to be tried in support of the FTC's Motion for Partial Summary Judgment and in support of the FTC's opposition to the Motion for Summary Judgment filed by Defendant Meta Platforms, Inc. ("Meta")[1].

INTRODUCTION TO META'S RESPONSE

Pursuant to Federal Rule of Civil Procedure 56 and Local Civil Rule 7(h), Defendant Meta Platforms, Inc. ("Meta") submits this Response to Plaintiff Federal Trade Commission's ("FTC") Counterstatement of Material Facts in Support of the FTC's Motion for Partial Summary Judgment and in Opposition to Meta's Motion for Summary Judgment (ECF No. 328-3) (the "Counterstatement" or "Counter SMF").

The FTC's Counterstatement is objectionable for several recurring reasons. Meta states those objections here rather than repeatedly restating them when responding to each of the Counterstatement's 1,751 paragraphs – which contain hundreds of subparagraphs (or more) – spanning 1,098 pages.

1. ***The Counterstatement includes immaterial statements as part of an improperly argumentative narrative.*** The Counterstatement includes extraneous (and often redundant or

[1] To avoid any overlap with the numbers in Meta's Rule 7(h) Statement in Support of Its Motion for Summary Judgment (ECF No. 325-2), the FTC begins this Counterstatement at No. 870. Where a citation date, name, or title includes a leading asterisk (e.g. *Jan. 1969, *Jane Doe) that information was taken from or inferred from metadata produced with the cited document.

duplicative) statements that are not material to either party's motion for summary judgment, in an attempt to tell an argumentative narrative rather than identify genuine disputes of material fact. Courts routinely find such tactics improper. *See*, *e.g.*, *Himes v. Medstar-Georgetown Univ. Med. Ctr.*, 753 F. Supp. 2d 89, 91 n.1 (D.D.C. 2010) (plaintiff's "Statement of Facts" filed in opposition to motion for summary judgment was improper because it did not "explicitly controvert any of the facts identified in Defendants' Statement and instead set[ ] forth an opposing factual narrative"); *Spiegel v. Leavitt*, 2006 WL 3220412, at *1 (D.D.C. Nov. 3, 2006) (similar); *Cotton v. WMATA*, 2004 WL 473658, at *7 (D.D.C. Mar. 3, 2004) (similar). In responding to the FTC's Counterstatement, Meta does not concede that any statement therein is material, including but not limited to where Meta has responded that a statement is "undisputed" in full or in part. In addition, where Meta has responded to a statement as undisputed in full or in part, Meta does so for purposes of the parties' motions only. *See* Fed. R. Civ. P. 56(g) & advisory committee's note to 2010 amendment (noting "a party's ability to accept a fact for purposes of the [summary judgment] motion only").

2. *The Counterstatement asserts legal arguments that are not facts.* The Counterstatement includes improper legal contentions. *See Johnson v. District of Columbia*, 2019 WL 3767103, at *3-4 (D.D.C. Aug. 9, 2019) (explaining that a supposed fact statement should not include "[a]rguments and invocations of legal authority" or "facts that are not material" to the motion). For example, the Counterstatement asserts as "fact" statements: "Extensive direct and indirect evidence indicates that Meta has monopoly power with respect to the provision of personal social networking services in the United States" (at ¶ 1006); and "PSN services are a properly defined relevant market and . . . non-PSN apps should not be included as participants in the PSN services market" (at ¶ 1328); among others. These are improper legal

conclusions – or assertions that belong in a brief – not facts. *See Jackson v. Finnegan, Henderson, Farabow, Garrett & Dunner*, 101 F.3d 145, 153 (D.C. Cir. 1996) (statement of a nonmovant "[r]eplete with factual allegations not material to . . . substantive claims and repeatedly blending factual assertions with legal argument" was contrary to purpose of local rule); *Mack v. Strauss*, 134 F. Supp. 2d 103, 108 (D.D.C.) (nonmovant's statement "is riddled with self-serving, conclusory statements"), *aff'd*, 2001 WL 1286263 (D.C. Cir. Sept. 28, 2001) (per curiam); *see also* 10A Charles Alan Wright & Arthur R. Miller, *Federal Practice & Procedure* § 2727.2 (4th ed. 2024 update) ("the opposing party cannot discharge its burden" of showing a genuine dispute of material fact "by alleging legal conclusions").

3. ***The Counterstatement's headers are improper.*** The Counterstatement's headers and sub-headers are similarly inappropriate because they are argumentative, conclusory, and sometimes inflammatory. *See Jackson*, 101 F.3d at 153; *Mack*, 134 F. Supp. 2d at 108. For instance, the FTC included headers asserting as "facts" that it had satisfied the essential legal elements of its claim, such as: "Meta Possesses Monopoly Power Over PSN Services in the United States," "PSN Services in the United States Are a Relevant Antitrust Market," and "Meta's Acquisitions of Instagram and WhatsApp Constitute Exclusionary Conduct." No header and sub-header cites any evidence as Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h) require, and therefore none creates a genuine dispute of material fact. Rather than object to every header individually, Meta objects here to all headers (and sub-headers) on this basis.

4. ***The FTC uses vague or inconsistently defined terms to make loaded assertions.*** The Counterstatement uses repeatedly – hundreds of times – terms that are vague, defined inconsistently, or both. These are often part of argumentative and conclusory statements or legal assertions. Meta disputes every statement that uses any of the below terms (or derivations)

because they are vague and used so inconsistently that Meta and the Court cannot reasonably evaluate whether the evidence cited for these statements supports them, as Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h) require. In responding to statements that include these terms, Meta will generally object to the term (citing this Introduction) and otherwise respond based on context in the specific statement.

***"Personal Social Networking" (and all derivations of the term, including "personal social networking services," "PSNS," "PSN Service," "PSN," and "PSNS apps")*:** The FTC's use of the phrase "personal social networking" is objectionable because the FTC's description of the phrase incorporates vague and ambiguous terms – such as "core use" and "core functionality," *see*, *e.g.*, Counter SMF ¶¶ 1008, 1020 – and for additional reasons. To start, the FTC's use of the term relies on a legal conclusion: "personal social networking services" is the made-for-litigation label that the agency gave its claimed relevant market, which the FTC must prove exists to survive summary judgment. By repeatedly using the loaded term as a purported fact or in "fact" statements, the FTC inappropriately injects its legal contentions throughout the Counterstatement. Moreover, the FTC's definition is internally inconsistent: "PSNS" apparently means apps that share a certain functionality, but the FTC also asserts that only four apps – Facebook, Instagram, Snapchat, and MeWe – qualify as PSNS without consideration for what other apps share functionalities. *See* Meta SMF ¶¶ 209-210 (TikTok), ¶¶ 280-282 (Twitter), ¶¶ 431-432 (iMessage). Further, the FTC uses the term inconsistently. For example, the FTC states that a "key element of personal social networking services is 'features that allow users to find and connect with other users, to make it easier for each user to build and expand their set of personal connections.'" Counter SMF ¶ 872(c) (quoting Am. Compl. at ¶ 169 (Sept. 8, 2021), ECF No. 81). Yet the FTC's principal expert, Professor Hemphill (who the FTC cites hundreds

of times in its Counterstatement), testified that – as he defines and understands PSNS – "[t]he possession or absence" of that "connectivity tool[ ]" is "not essential" to his "analysis of functionality." Meta SMF ¶ 617 (quoting Ex. 283 at 21:15-22:15 (Hemphill Dep. Tr.)). Meta objects to this vague, inconsistent, and loaded term wherever it appears.

***"Core Use" and "Core Functionality" (and all derivations of those terms)*:** The FTC also uses (repeatedly) the phrases "core use" and "core functionality," in addition to incorporating those vague terms as part of the already vague "PSNS" definition. In some instances, the FTC appears to treat "core use" as synonymous with *any* use of an application. *See* Counter SMF ¶¶ 1324, 1324(d) (citing testimony of one of Meta's experts stating that "connecting friends and family is definitely *possible* on Facebook" to support assertion that "Meta's experts do not dispute that Facebook and Instagram have a core use case of friends and family sharing" (emphasis added; internal quotation marks omitted)). But the FTC also implies that a "core use" must be the "primar[y]" use of the application as a whole – without defining what that means. *See id.* at ¶¶ 1200, 1200(b) (citing testimony from a former Meta employee agreeing that "TikTok was not *primarily* used to communicate with friends and family" to support the FTC's assertion that "Meta also recognizes TikTok as having a core use of entertainment, not friends and family sharing" (emphasis added)). For example, the FTC's proffered industry expert, Professor Lampe, has suggested that it is possible for a "core use" to account for less than 10% of time spent on an application, *see* Ex. 281 at 298:14-299:3 (Lampe Dep. Tr.), but he also testified that whether something that only 20 percent of users of an application use is a "core use" would depend on the "context" and "a lot of factors," *id.* at 301:8-302:5. The FTC's proffered economic expert, Professor Hemphill, opined that an application can have "more than one core use," PX9000 at ¶ 375 (Hemphill Rep.), but suggested at times

that "core use" should be assessed at the individual customer level because different users of the same application can have different "core use[s]," PX9007 at ¶ 480 & A-14-A-17 (Hemphill Rebuttal Rep.). In responding to the statements below, Meta reserves the objection that the term "core use" is vague and undefined. Meta will generally treat "core use" as synonymous with "use" for purposes of its responses, except where otherwise noted in response to an FTC statement.

FTC REPLY TO META'S RESPONSE TO FTC COUNTERSTATEMENT

To avoid further burdening the Court with paper, the FTC replies only to three paragraphs and three subparagraphs of Meta's voluminous responses to the FTC's Counterstatement of Material Facts ("CMF" or "Counterstatement"): Paragraphs 1832, 1832(b), 1832(f), 1832(g), 1839, and 2435.

The FTC's lack of in-line reply to Meta's other CMF responses should not be construed as conceding the accuracy or propriety of any of Meta's responses. Instead, the FTC generally foregoes replies because none are necessary to demonstrate Meta's failure to designate specific facts suggesting that its proffered justifications for its conduct are legally cognizable. *See* Pl. FTC's Reply Mem. of Law in Supp. of Pl.'s Cross-Mot. for Partial Summ. J. §§ I-III (addressing Meta's proffered justifications).

Likewise, no reply is necessary to contradict Meta's argument that the FTC's motion for partial summary judgment is moot. *See id.* § IV (addressing Meta's mootness argument). The parties plainly have numerous material factual disputes related to monopoly power and exclusionary conduct. *See id.* Indeed, the sheer length of Meta's CMF responses underscores the existence of numerous material factual disputes on those issues—Meta adds over 1,700 pages of exposition, much of which inappropriately flouts the page limits this Court imposed on the

parties' briefing by adding additional argument. *See, e.g.*, Meta Resp. CMF at ¶ 1276 (in response to the proffered fact "Professor Hemphill concluded that 'mobile messaging apps are not reasonable substitutes for personal social networking apps,'" Meta concedes that Professor Hemphill offered the opinion, but then adds three additional pages of argumentation attempting to dispute Professor Hemphill's opinion); *see also, e.g.*, Meta Resp. CMF at ¶¶ 1130, 1148, 1166, 1173, 1195, 1219, 1255, 1293 (each functionally admitting the fact proffered by the FTC then adding additional pages of unrelated argumentation).

Further, as detailed below, Meta's responses in many instances fail to properly dispute facts proffered by the FTC. In such instances, no response is necessary, and the FTC respectfully submits that those facts proffered in the FTC's Counterstatement should be treated as undisputed. *See* Fed. R. Civ. P. 56(e)(2); L.R. 7(h)(1).

1. Meta's responses fail to provide clear and concise answers as to whether Meta is disputing facts proffered by the FTC. Local Rule 7(h) requires that oppositions to summary judgment be accompanied by "a concise statement of genuine issues setting forth all material facts as to which it is contended that there exists a genuine issue necessary to be litigated," along with accompanying cites to the record in support of the contended dispute. *See* L.R. 7(h). Among other purposes, the "procedure contemplated by" Rule 7(h) is intended to "distinguish[] disputed facts from undisputed facts." *Lu v. Lezell*, 45 F. Supp. 3d 86, 92 (D.D.C. 2014) (citations omitted).

Meta's responses to the Counterstatement fail to serve this purpose, because, for one or more of the following reasons, they almost uniformly fail to clearly and concisely state whether Meta disputes a given fact:

a. Meta's responses claim that facts are "disputed" or "disputed in part" based on unrelated argumentation.

Meta consistently responds to facts proffered by the FTC by stating that the fact is "disputed" or "disputed in part" on the basis of arguments that are irrelevant to the truth or falsity of the proffered factual statement. For example, Meta responds "disputed in part" to simple statements in Subparagraphs 1010(a) and (b). *See* CMF at ¶ 1010(a) ("Mr. Zuckerberg agreed that one of Facebook's 'jobs to be done' is 'connecting with friends.'"); CMF at ¶ 1010(b) ("Current Head of Instagram Adam Mosseri has referred to Instagram's friend use case as one of the 'two main jobs that people hire Instagram for.'"). In both cases, Meta fails to make clear whether the proffered fact is disputed or undisputed, and inappropriately injects irrelevant argumentation rather than citing material in the record that might call the fact into question. *See* Meta Resp. CMF at ¶ 1010(a) (arguing about issues such as improvements in Meta's algorithms, disputed statistics provided by Meta's experts, and a cross-reference to further lengthy argumentation); Meta Resp. CMF at ¶ 1010(b) (unrelated argument pertaining to Meta's claim that friends and family content is declining on Instagram).

In a similar vein, Meta repeatedly disputes facts proffered by the FTC because the fact does not support a different point that Meta inserts into its response. For example, Paragraph 1293 proffers the simple fact: "[b]oth PSN usage and mobile messaging are growing in absolute terms." CMF at ¶ 1293. Meta responds "disputed in part," based on the unrelated assertion that "consumers can substitute between so-called PSN services and mobile messaging services." *See* Meta Resp. CMF at ¶ 1293 (internal quotation omitted); *see also, e.g.*, Meta Resp. CMF at ¶ 1286 (disputing in part the proffered fact that "[i]n messaging apps, users' communications with other users are organized into individual conversations," not because Meta disputes the statement contained in the paragraph, but because "the material cited in the subparagraphs below does not

support the assertion that messaging apps are not also used for friends and family sharing"); Meta Resp. CMF at ¶ 1280 (disputing that "[o]ther firms recognize that mobile messaging apps are not social networking apps" on the grounds that "the material cited in the subparagraphs below does not support the assertion that messaging apps are not also used for friends and family sharing").

All such responses, which are pervasive, violate Local Rule 7(h) because they fail to dispute the FTC's proffered facts based on citations to the record. *See, e.g.*, Meta Resp. CMF at ¶¶ 1189, 1276, 1278(a), 1281(a), 1294, 1765, 2387.

b. Meta's responses claim that facts are "disputed" or "disputed in part" based on legal argumentation.

Meta repeatedly disputes facts proffered by the FTC based solely on legal argumentation, and not based on citations to the record as required by the Federal and Local Rules. For example, Meta repeatedly responds "disputed in part" to proffered facts by referring to legal arguments about what the FTC should be required to show about the but-for world. *See, e.g.*, Meta Resp. CMF at ¶¶ 2021, 2109, 2019(d), (e) (referencing Meta's response to Paragraph 2019, which does not cite any record evidence, but instead refers to legal argument about the but-for world provided in Meta's response to Paragraph 2017). Other examples abound:

- Meta repeatedly disputes proffered facts based on a claim that the fact fails to provide evidence of what Meta deems is necessary to show "substitution." *See, e.g.*, Meta Resp. CMF at ¶ 1280 (including subparts) (conceding that firms recognize that mobile messaging and personal social networking are different but disputing the facts in part "because the FTC provides no evidence that other parties' supposed recognition of messaging apps as 'not social networking apps' is relevant to substitution"); Meta Resp. CMF at ¶ 1019 (responding to a different fact than that proffered, then disputing it in part

on the grounds that the "FTC provides no evidence that '[d]emand for friends and family sharing' is relevant to substitution"); Meta Resp. CMF at ¶ 1312(a) (referring back to Meta's response to Paragraph 1312, which disputes the paragraph partly on the grounds that it is "not relevant to substitution" and cross-references Meta's response to Paragraph 1310, which is disputed for the same reason).

- Subparagraph 1293(a) proffers facts relating to the number of broadcast posts on Facebook and Instagram; Meta claims this fact is "disputed," not because the proffered statements about the number of posts are inaccurate, but instead because the FTC allegedly cannot show what Meta deems relevant price discrimination, and also because Meta makes separate unrelated assertions about the frequency of sharing on other applications, or the frequency of sharing "[redacted]." *See* Meta Resp. CMF at ¶ 1293(a).

All such responses violate Local Rule 7(h) by failing to dispute the FTC's proffered facts based on citations to the record, and instead offering legal arguments. Moreover, Meta's legal arguments are incorrect for the reasons explained in the FTC's briefing.

c. Meta's responses address a different fact than the one proffered by the FTC.

Meta repeatedly responds to a particular fact proffered by the FTC by stating that a different fact is "undisputed." For example, Paragraph 1492(a) proffers the fact: "From the third quarter of 2014 through the [redacted], ad load on Facebook Mobile Feed in North America [redacted]." Rather than admitting the accuracy of the proffered factual statement, or disputing it with citation to material in the record, as is required by the Federal and Local Rules, Meta states simply: "Undisputed that the cited report contains this

calculation." *See* Meta Resp. CMF at ¶ 1492(a).[2] But this response does not satisfy Meta's obligation under Federal Rule of Civil Procedure 56 and Local Rule 7(h), as Meta has not actually admitted or disputed the fact proffered by the FTC—namely, that ad load on Facebook Mobile Feed in North America [redacted] from the third quarter of 2014 through the [redacted].

Meta employs this tactic repeatedly throughout its responses to the Counterstatement. *See, e.g.*, Meta Resp. CMF at ¶¶ 2296, 2305(d), 2430(d), 2494. Where Meta has failed to dispute the fact proffered by the FTC, and has instead addressed a different fact, the fact proffered by the FTC should be treated as undisputed. *See* L.R. 7(h)(1).

2. Meta's responses claim to dispute facts based on Meta's responses to *different* facts. Meta's responses frequently dispute a fact by incorporating Meta's responses to other facts, which can in turn incorporate Meta's responses to still more facts. *See, e.g.*, Meta Resp. CMF at ¶¶ 1273, 1282(e)-(g), 1290(a)-(c). Frequently, this incorporation chain yields a nonsensical result. For example, Meta disputes statements adducing evidence from Signal, WhatsApp, and Skype that none of those applications contain a "people you may know feature" by referring back to its response to a paragraph solely discussing Apple. *See* Meta Resp. CMF at ¶ 1288(b)-(d).

Other times, Meta will dispute a statement for reasons supposedly contained in Meta's responses to subparagraphs, only to dispute the subparagraphs for the reasons supposedly contained in the top-level paragraph—creating a circularity that obscures whether Meta has any

[2] In support of this statement, the FTC cites to Professor Hemphill's expert report, which in turn relied upon internal data from Meta. *See* CMF at ¶ 1492(a) (citing PX9000, Hemphill Report, at ¶ 718, which cites to Meta data productions as set forth in Hemphill Exhibit 53).

evidentiary basis to dispute the FTC's stated factual proposition. *See, e.g.*, Meta Resp. CMF at ¶ 1832 (including subparts).

These responses again fail to provide a concise explanation of why Meta disputes a given fact, or intelligible references to parts of the record providing a basis for doing so, as required by Local Rule 7(h)(1).

3. Meta improperly disputes facts by rewriting the term "core use" in its responses and thus disputing a fact different from the fact proffered by the FTC. Meta's response to the FTC's Counterstatement declares that it will "generally treat 'core use' as synonymous with 'use' for purposes of its responses, except where otherwise noted." Meta Resp. CMF at 6. In doing so, Meta fails to comply with its obligations under Federal Rule of Civil Procedure 56 and Local Rule 7(h), as Meta does not actually address many of the FTC's proffered statements of fact as written, but rather rewrites the claimed statement and responds to the fact Meta created.

Meta cannot hide behind its assertion that the term "core use" is vague to justify its failure to comply with the Federal and Local Rules. Meta Resp. CMF at 5-6. Indeed, "core use" is a term Meta itself used repeatedly in the ordinary course of business, *see, e.g.*, CMF at ¶ 1057(c) (presentation to Meta leadership describing "Friends and Family" as Facebook's "core use case"), CMF at ¶ 1057(e) (Meta presentation noting that Facebook's "[redacted]" and expressing desire to "[redacted]"), and is a concept that both Meta and third parties use to describe a central reason why consumers "hire" a given app. *See, e.g.*, CMF at ¶ 1060(a) (Instagram founder testifying that "sharing photos with friends and family [] was a core use case of Instagram from the beginning"); CMF at ¶ 1010(b) (head of Instagram referring to Instagram's "friend use case" as one of the "two main jobs that

people hire Instagram for"); CMF at ¶ 1150(a) ([redacted]); CMF at ¶ 1011(b) (Twitter executive describing connecting people as "Facebook's core job that it gets hired for"); CMF at ¶ 1027(e) (Mr. Zuckerberg stating in 2018 that Facebook has "always put friends and family at the core of the experience").

Underscoring the frivolity of its litigation position, Meta disputes as vague even its own documents that use the phrase "core use." *See, e.g.*, Meta Resp. CMF at ¶ 1057(c) (disputing Meta presentation describing "Friends and Family" as Facebook's "core use case" for the reasons set forth in Meta's response to Paragraph 1057, which claims a dispute in part "on the ground that 'core use' is vague and undefined"). Such manufactured disputes are improper. Indeed, Meta itself argues that "objections that common terms are vague or undefined . . . are a makeweight." ECF No. 369-1 (Meta Reply SMF) at 6.

***

With the service of this Reply Counterstatement, the FTC has also corrected typographical errors, as reflected in the following errata table:

Counterstatement No.	Citation (Original)	Citation (Corrected)
1320	*See supra* CMF at §§ I.A.3(b), I.A.4(a)(1) (citing documents and testimony from last several years).	*See supra* CMF at §§ II.A.3(b), II.A.4(a)(1) (citing documents and testimony from last several years).
1321	*See supra* CMF at §§ I.A.3(c), I.A.4(a)(1) (citing documents and testimony from last several years).	*See supra* CMF at §§ II.A.3(c), II.A.4(a)(2) (citing documents and testimony from last several years).
1806(a)	*See supra* CMF at §§ I.C.1(c), I.C.2(b)(1).	*See supra* CMF at §§ III.C.1(c), III.C.2(b)(1).
1824(c)	*See, e.g., supra* at CMF § C.2(b)(1).	*See, e.g., supra* CMF at § III.C.2(b)(1).
1832(g)	PX6010, Acton (Meta/WhatsApp) IH Tr., at 181:12-17.	PX6009, Acton (Meta/WhatsApp) IH Tr., at 181:12-17.
2001(d)(i)	*Supra* CMF at § V.C.4(a).	*Supra* CMF at § IV.C.4(a).

I. Background

A. The FTC's Allegations, Interrogatory Responses, and 30(b)(6) Testimony

1. The FTC's Allegations

870. The FTC has alleged that Meta possesses monopoly power in the relevant market for personal social networking services ("PSN services") in the United States. *See* FTC's Substitute Am. Compl. at ¶¶ 164-217 (Sept. 8, 2021), ECF No. 81 [hereinafter, "Am. Compl."].

<u>Meta Response</u>: Undisputed that the document contains the paraphrased statement.

871. The FTC has alleged that "[p]ersonal social networking services consist of online services that enable and are used by people to maintain personal relationships and share

experiences with friends, family, and other personal connections in a shared social space." Am. Compl. at ¶ 166 (Sept. 8, 2021), ECF No. 81.

Meta Response: Undisputed that the document contains the quoted language.

872. The FTC has alleged that there are "[t]hree key elements" that "distinguish personal social networking services from other forms of online services provided to users." Am. Compl. at ¶ 166 (Sept. 8, 2021), ECF No. 81.

Meta Response: Undisputed that the document contains the quoted language.

a. The FTC has alleged that the first key element of personal social networking services is "a social graph that maps the connections between users and their friends, family, and other personal connections." Am. Compl. at ¶ 167 (Sept. 8, 2021), ECF No. 81.

Meta Response: Undisputed that the document contains the quoted language.

b. The FTC has alleged that the second key element of personal social networking services is "features that many users regularly employ to interact with personal connections and share their personal experiences in a shared social space, including in a one-to-many 'broadcast' format." Am. Compl. at ¶ 168 (Sept. 8, 2021), ECF No. 81.

Meta Response: Undisputed that the document contains the quoted language.

c. The FTC has alleged that the third key element of personal social networking services is "features that allow users to find and connect with other users, to make

it easier for each user to build and expand their set of personal connections." Am. Compl. at ¶ 169 (Sept. 8, 2021), ECF No. 81.

Meta Response: Undisputed that the document contains the quoted language.

873. The FTC has alleged that Meta "provides personal social networking to users via its Facebook Blue and Instagram services, and has been the dominant provider of such services since at least 2011." Am. Compl. at ¶ 181 (Sept. 8, 2021), ECF No. 81.

Meta Response: Undisputed that the document contains the quoted language.

874. The FTC has alleged that Meta's "acquisition and control" of Instagram ("a singularly threatening personal social networking competitor") and WhatsApp ("the popular and widely used messaging app" that was "the most significant threat" "to *enter* the personal social networking market") each "represent[] the neutralization of a significant threat to Facebook Blue's personal social networking monopoly and the unlawful maintenance of that monopoly by means other than competition on the merits." Am. Compl. at ¶¶ 100, 105, 107, 127 (Sept. 8, 2021), ECF No. 81.

Meta Response: Disputed in part. Undisputed that the FTC's amended complaint contains the allegations described. Disputed that the FTC can pursue a claim that Meta's continuing "control" of Instagram and WhatsApp is unlawful. In interrogatory responses, the FTC identified no basis for its position that Meta is engaged in an ongoing violation of Section 2 of the Sherman Act other than "holding" and "operat[ing]" Instagram and WhatsApp. *See* Meta SMF ¶ 653.

875. The FTC has alleged that Meta's anticompetitive conduct has "harmed, and continues to harm, competition by limiting and suppressing competition that Facebook otherwise

would have to face in the provision of personal social networking. As a result, users of personal social networking in the United States have been deprived of the benefits of competition for personal social networking." Am. Compl. at ¶ 220 (Sept. 8, 2021), ECF No. 81.

Meta Response: Undisputed that the document contains the quoted language.

2. The FTC's Response to Meta's Classification Exercise

876. On August 22, 2022, Meta sent the FTC a list of 322 features or activities on Meta's services and asked the FTC whether each of the 322 features or activities identified in Meta's list was or was not within the definition of "personal social networking" alleged in the FTC's complaint. *See* PX15562, Meta's List of Features or Activities for Classification by the FTC (Aug. 22, 2022).

Meta Response: Undisputed.

877. On September 12, 2022, the FTC responded to Meta's list to "the best of its present ability after a reasonably diligent inquiry and while discovery in this matter is ongoing, and thus the FTC reserves its right to supplement, revise, or correct any of its responses pursuant to Fed. R. Civ. P. 26(e)." PX15563 at -001, FTC's Resp. to Meta's List of Features or Activities (Sept. 12, 2022).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed to the extent this statement suggests that the FTC could somehow alter its responses after the close of discovery. The Court's Order states: "If, at any point in the future, the FTC takes a different position on any such feature or activity, the FTC shall so supplement its response." Meta SMF ¶ 574 (quoting Order at 2 (Aug. 1, 2022), ECF No. 165). The FTC has not supplemented its response.

a. The FTC's response stated:

> In sum, all of the features/activities identified by Meta for Facebook and Instagram are part of Meta's personal social networking offering, except Facebook Dating. The FTC's classifications are driven in large part by the connection between the feature/activity and users' ability to share and experience each of the various features and activities with their social networks of friends, family, and personal connections in a shared social space—all built and maintained within the Facebook and Instagram applications—using Facebook's and Instagram's integrated and personalized social experiences.

Id. at -002.

Meta Response: Undisputed that the document contains the quoted language.

b. The FTC's response also explained that:

> [w]ith the exception of Facebook Dating, the evidence presently available to the FTC suggests that the various features/activities identified by Meta for Facebook and Instagram are experienced and perceived by users, and/or are presented to users, as aspects of personal social networking, and users are engaging with that content along with their networks of friends, family, and personal connections, built and maintained within the respective applications, and using Facebook's and Instagram's integrated and personalized social experiences.

Id. at -003.

Meta Response: Undisputed that the document contains the quoted language.

c. As an example, the FTC clarified that it "currently classifies 'Posting Original photo(s)' on Facebook's Feed as within the definition of 'personal social networking' in significant part because users engaged in that activity are doing so with their network of friends, family, and personal connections, built and

maintained within Facebook, and using Facebook's integrated and personalized social experience." *Id.* at -004.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

d. Furthermore, the FTC indicated that its "classifications are limited to the features/activities identified by Meta as they are implemented on Facebook, Instagram, WhatsApp, and Messenger. The FTC's classifications have no implication for whether any specific feature or activity offered by a different product is or is not within the definition of personal social networking." *Id.* at -004.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

3. The FTC's 30(b)(6) Witness

878. Meta's Topic 6 for its 30(b)(6) deposition of the FTC was limited to facts that supported the FTC's previous written responses to certain interrogatories; the FTC's 30(b)(6) witness did not purport to testify regarding all facts known to the FTC at the time his deposition occurred. *See* PX6156, Takashima (FTC) Dep. Tr., at 15:8-12.

<u>Meta Response</u>: Disputed. Topic 6 of Meta's deposition notice called for "[t]he facts supporting Your response to Meta's List of Feature or Activities (Sept. 12, 2022) and Your responses to Meta's Interrogatory Nos. 13, 14, and 16." Ex. 424 at 7 (Meta's Notice of 30(b)(6) Dep. of FTC (Apr. 3, 2023)). Meta's Interrogatory No. 16 states: "With reference to Your Response to Meta's List of Features or Activities (Sept. 12, 2022) and Your Supplemental Objections and Responses to Meta's Interrogatory No. 14 (Jan. 24, 2023), identify all relevant facts supporting Your contention that use of each

Listed Feature on Facebook, Instagram, or Messenger is a PSNS usage while use of the corresponding Listed Feature on the other products or services is not a PSNS usage." Ex. 297 at 8, Meta's Interrog. No. 16 (FTC's Objs. & Resps. to Meta's Third Set of Interrogs. (May 3, 2023)).

879. Edward Takashima, the FTC's 30(b)(6) representative, was prepared to address Meta's Topic 6. PX6156, Takashima (FTC) Dep. Tr., at 15:8-16:1, 36:11-38:22.

Meta Response: Disputed in part. Undisputed that the FTC represented that Mr. Takashima was prepared to respond to Topic 6. Disputed that he was adequately prepared for the deposition. Due to Mr. Takashima's inadequate responses, Meta moved to compel written responses to 30(b)(6) questions, and the Court granted in part Meta's motion. *See* Meta SMF ¶ 601.

880. Mr. Takashima clarified in his deposition that the scope of Meta's Topic 6 did not encompass any information that was not set forth in or used to support the text of the FTC's relevant interrogatory responses. PX6156, Takashima (FTC) Dep. Tr., at 36:11-38:22. Accordingly, Mr. Takashima's testimony was limited to the text of the FTC's responses to the relevant interrogatories, as well as the facts that supported the text of the FTC's responses. PX6156, Takashima (FTC) Dep. Tr., at 36:11-38:22, 240:5-241:7.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 878.

a. In response to Meta's questioning, Mr. Takashima testified:

> I don't think I can point you to facts supporting a portion of an interrogatory response that—that I don't see, that isn't here. And I can't, I think, make a judgment or express a judgment about what facts the FTC might rely on, to use

> your words, regarding a position that is not articulated in the interrogatory response I'm here to talk about today.

PX6156, Takashima (FTC) Dep. Tr., at 46:3-11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 878.

b. Mr. Takashima further clarified:

> The topic [of the deposition] is the facts supporting certain interrogatory responses and—and the response to Meta's list of features or activities. I'm prepared to discuss those facts supporting those responses. But you're asking me about something that at least I don't see in the responses, and you've declined so far to point me to, and are asking me about facts . . . that the FTC might contend or might rely on, related to, again, a contention that is not here. So we're I think two or three steps away from the question that I'm here to actually talk about, the topic I'm actually here to talk about.

PX6156, Takashima (FTC) Dep. Tr., at 48:11-22.

Meta Response: Disputed in part. Undisputed that Mr. Takashima provided the quoted testimony, except the quoted language in PX6156 appears at 48:7-22. Disputed for the reasons stated above in Meta's response to paragraph 878.

881. Edward Takashima, the FTC's 30(b)(6) representative, was repeatedly asked to testify about matters beyond the scope of the FTC's interrogatory responses and the facts supporting those responses.

Meta Response: Disputed. Disputed because Mr. Takashima was exclusively asked to testify about topics within the scope of the noticed deposition topics, and a deponent cannot alter the scope of noticed topics. *See* Jt. Status Rep. at 6-9 (May 31, 2023), ECF No. 302-1. The FTC's statement – and the below subparagraphs – confirm that the FTC

classified features and activities as "PSNS" (or not) in response to Meta's interrogatories without considering consumer substitution.

a. Mr. Takashima testified that he was "not aware, as I sit here right now, looking at the pages you've [Meta] pointed me to look at, that any of this addresses consumer substitution behavior." PX6156, Takashima (FTC) Dep. Tr., at 43:20-44:6. This topic was outside the scope of the 30(b)(6) notice. *See* Jt. Status Rep. at 15 (May 31, 2023), ECF No. 301 ("Meta asserts that the FTC has argued its interrogatory responses 'addressed substitutability' . . . but the fact that the FTC's responses illuminate an issue does not re-write the relevant interrogatory responses, or suggest that facts specific to the issue of 'substitutability' were provided to support the FTC's responses"); *see generally* PX15572, Meta's Notice of Rule 30(b)(6) Dep. of FTC (Apr. 3, 2023).

Meta Response: Disputed in part. Undisputed that Mr. Takashima provided the quoted testimony, except in the first sentence the quoted language in PX6156 appears at 43:20-44:10. Disputed for the reasons stated above in Meta's response to paragraph 881. Further disputed because the FTC's 30(b)(6) witness was asked: "In its interrogatory responses, is the FTC relying on any facts regarding whether consumers would substitute usage for the specific features on Meta's services to the specific features on the 12 non-Meta services?" PX6156 at 43:11-15 (Takashima (FTC) Dep. Tr.). That question fell within the scope of Meta's Topic 6, which asked for, among other things, the facts supporting the FTC's "contention that use of each Listed Feature on Facebook, Instagram, or Messenger

is a PSNS usage while use of the corresponding Listed Feature on the other products or services is not a PSNS usage." Meta Resp. to Counter SMF ¶ 878.

b. Mr. Takashima continued: "And as a result, I don't think I can say—point you to specific facts on that issue without a little further mooring." PX6156, Takashima (FTC) Dep. Tr., at 44:10-12.

Meta Response: Disputed in part. Undisputed that Mr. Takashima provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 881 and subparagraph 881(a). Further disputed that the response creates a genuine dispute of material fact relating to the content of the FTC's interrogatory responses. The FTC confirmed for the Court following the deposition that "[n]one of the FTC's interrogatory responses address 'switching' behavior or 'reasons why consumers use' a particular application or whether applications can 'effectively compete' for certain use cases" or "suggest that facts specific to the issue of 'substitutability' were provided to support the FTC's responses." Jt. Status Rep. at 15-16 (May 31, 2023), ECF No. 302-1; *see also* Meta SMF ¶ 600.

c. Following this, Mr. Takashima was not directed to any particular interrogatory responses or supporting facts regarding consumer substitution behavior. PX6156, Takashima (FTC) Dep. Tr., at 44:19-47:3; *see also id.* at 50:9-51:22 ("Q. I don't believe the—the contention, I guess, that you're talking about, is set forth in the interrogatory responses—or at least not in an interrogatory response I can see among 13, 14, and 16 and the list of features or activities. Again, if it is, please point me to it. They're quite voluminous, and I don't pretend to have them

memorized. But based—based on—again, I think that based on the few pages I have in front of me, that we've been talking about, the issue you're talking about is not covered here[.]").

Meta Response: Disputed in part. Undisputed that Mr. Takashima provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 881 and subparagraphs 881(a) and 881(b).

d. When Mr. Takashima testified that he did not "see a portion of the response to—to Rog 114 that addresses—I think the terms you used were 'consumer substitution' and 'Reels' in particular," he further noted: "[b]ut if I'm missing something, or there's something you want me to ask about in another rog response, I'm—I'm happy to do that, if you can point me to it." PX6156, Takashima (FTC) Dep. Tr., at 129:5-13. Mr. Takashima was not directed to any portion of the FTC's interrogatory responses addressing consumer substitution, Facebook Reels, Instagram Reels, or TikTok following this exchange. PX6156, Takashima (FTC) Dep. Tr., at 129:14-18; *see also id.* at 130:2-8 ("Again, Mr. Dorris, I don't see a part of the response here in 52 and 53 of Rog 14 that specifically address[es]—I think you used the term 'switching,' or 'switch,' and 'Reels.' But if there is something in particular that you are looking at, I am happy to address it if you can point me to it.").

Meta Response: Disputed in part. Undisputed that Mr. Takashima provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 881 and subparagraphs 881(a) and 881(b).

e. When Mr. Takashima testified that he did not "see anything, as I sit here right now, looking, in the TikTok specific response to Rogs 14 or 16, that specifically address[es], I think, competition or Reels," he had just prior pointed Meta's counsel to "the FTC's responses to Rog—supplemental responses to Rog 13 and 4 on page 14" and explained why those responses "[came] to mind regarding your question about competition." PX6156, Takashima (FTC) Dep. Tr., at 131:16-132:12. Meta's counsel responded that "I think that does answer my question." *Id*. at 132:22-133:1.

Meta Response: Disputed in part. Undisputed that Mr. Takashima provided the quoted testimony, except in the first sentence the word "response" should read "responses," and the quoted language in PX6156 appears at 131:16-132:17. Disputed for the reasons stated above in Meta's responses to paragraph 881 and subparagraphs 881(a) and 881(b). Further disputed because the cited language is incomplete; Mr. Takashima did not point to any facts about competition, just the FTC's legal position that it did not need to engage in a feature-by-feature assessment and had not done so. *See* PX6156 at 130:10-13, 131:16-132:17 (Takashima (FTC) Dep. Tr.) (stating that the portion of the FTC's response that "comes to mind regarding your question about competition" is the portion stating, "[i]ndeed, the FTC has clarified repeatedly that 'it is not necessary to perform a highly granular and burdensome, feature/activity-by-feature/activity analysis of some indeterminate number of features/activities on Meta's applications in order to define a relevant market and show market power,'" and that as to TikTok he did not see anything "that specifically address[es], I think competition or Reels").

882. Edward Takashima, the FTC's 30(b)(6) representative, clarified in his deposition that he was unable to provide information outside the scope of Meta's Topic 6 without violating various privileges. PX6156, Takashima (FTC) Dep. Tr., at 36:11-38:22, 240:5-241:7.

Meta Response: Disputed in part. Undisputed that Mr. Takashima refused to provide testimony in response to certain questions. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 881 and its subparagraphs.

a. When Mr. Takashima testified that "the FTC has not presently conducted a feature-by-feature analysis comparing the individual features available on these 19 third-party applications and those available on Facebook Blue, Instagram, and Facebook Messenger," Mr. Takashima was reading the FTC's interrogatory response rather than presenting his own analysis. PX6156, Takashima (FTC) Dep. Tr., at 38:5-12. Mr. Takashima noted that Meta was asking him for "an analysis interpreting those documents [cited in the FTC's interrogatory responses]," and that he could not engage in such analysis "without getting into privileged territory." PX6156, Takashima (FTC) Dep. Tr., at 38:13-22.

Meta Response: Disputed in part. Undisputed that Mr. Takashima read the cited language from the FTC's interrogatory response – after stating, "as stated in the interrogatory response" – except the first sentence should read "conducted such a." PX6156 at 35:11-36:8 (Takashima (FTC) Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 881 and its subparagraphs.

b. When Mr. Takashima was asked about "facts in the FTC's interrogatory responses concerning the reasons why consumers would watch a reel posted by an account that user does not follow and that does not follow user [sic]," Mr. Takashima testified that he had not performed such an analysis and that to do so he "would need a considerable amount of time," and further that "answering that would entail forming a legal judgment, which would implicate work product issues." PX6156, Takashima (FTC) Dep. Tr., at 240:5-241:7.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 881 and its subparagraphs.

883. The FTC provided, in response to the Court's Order, ECF No. 304, supplemental responses to Questions 4 and 5 of Meta's request for written responses following Meta's 30(b)(6) deposition of the FTC, which were:

> Does the FTC's different market classifications of specified pairs of features and activities on-and-off Meta's platform (like watching short-form video on Instagram and TikTok) rely on any facts regarding the circumstances under which consumers have switched (or would be willing to switch) between those pairs of features and activities). And if so, explain those factual contentions and provide the factual support on which the FTC relies.
>
> Does the FTC's different market classifications of specified pairs of features and activities on-and-off Meta's platform (like watching short-form video on Instagram and TikTok) rely on any facts regarding whether there are impediments to consumers switching between those pairs of features and activities? And if so, explain those factual contentions and provide the factual support on which the FTC relies.

PX15569 at -001, -011, FTC's Written Supp. Resps. to Questions 4-5 of Meta's Req. for Written Resps. Following Meta's 30(b)(6) Dep. of FTC (July 6, 2023).

Meta Response: Undisputed.

a. The FTC's written responses to Question 4 stated:

> The FTC does not believe it is necessary to rely on facts regarding the circumstances under which consumers have switched (or would be willing to switch) between alleged pairs of features and activities). Nonetheless, the FTC notes that the FTC's responses to Meta's interrogatories 3, 10-16, and 23 provide explanations and evidence relevant to the circumstances under which consumers have switched (or would be willing to switch) between Facebook and Instagram and other applications because they explain which firms provide personal social networking services and which firms provide other online services that are not reasonable substitutes and cite evidence supporting these conclusions.

PX15569 at -005, FTC's Written Supp. Resps. to Questions 4-5 of Meta's Req. for Written Resps. Following Meta's 30(b)(6) Dep. of FTC (July 6, 2023). The FTC also cited numerous ordinary-course documents and witness testimony relevant to these circumstances. *See id.* at -005-10.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the FTC did not cite any evidence or offer any explanation in response to the question it was directed to address. *See* PX15569 at -005 (FTC's Suppl. Resp. to Questions 4-5 of Meta's Req. for Written Resps. Following Meta's 30(b)(6) Dep. of FTC (July 6, 2023)).

b. The FTC's written responses to Question 5 stated:

> The FTC does not believe it is necessary to rely on facts regarding whether there are impediments to consumers switching between those pairs of features and activities. Nonetheless, the FTC notes that the FTC's responses to Meta's interrogatories 3, 10-16, and 23 provide explanations and evidence relevant to impediments to consumers switching between Facebook and Instagram and other applications because they explain which firms provide

> personal social networking services and which firms provide other online services that are not reasonable substitutes and cite evidence supporting these conclusions.

PX15569 at -012-13, FTC's Written Supp. Resps. to Questions 4-5 of Meta's Req. for Written Resps. Following Meta's 30(b)(6) Dep. of FTC (July 6, 2023). The FTC also cited numerous ordinary-course documents and witness testimony relevant to these impediments. *See id.* at -013-17.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to subparagraph 883(a).

B. The FTC's Experts

1. Professor Hemphill's Opinions

884. Professor Hemphill is an expert in industrial organization economics. PX9000, Hemphill Report at § 1.1 (explaining that Professor Hemphill holds a J.D. and a Ph.D. in economics from Stanford University and a M.Sc. in economics from the London School of Economics, and that his "academic research has focused, in substantial part, on the economics of competition and innovation").

Meta Response: Disputed in part. Undisputed that the FTC proffers Professor Hemphill as an expert in industrial organization economics and that the above-cited materials reflect accurately what Professor Hemphill identifies in his report as credentials. Disputed that "Professor Hemphill is an expert in industrial organization economics," including because this is a legal conclusion. Disputed that Professor Hemphill's academic record or area of research creates a genuine dispute of material fact, including as to whether he is able to opine competently on the matters at issue. Professor

Hemphill disclaimed his familiarity with the services at issue, stating that he does not "use Instagram," had not spent time with Instagram in "probably a year" as of the date of his deposition in this case, and only used TikTok "[a] little bit." Ex. 283 at 32:17-33:10 (Hemphill Dep. Tr.) (regarding Instagram and TikTok usage); *see also id.* at 40:3-41:22 (suggesting he has never used Reels on Instagram, only on Facebook).

885. Professor Hemphill's assignment in connection with his opening report was to provide an economic analysis of the competitive effects of Meta's acquisitions of Instagram and WhatsApp, including an assessment of whether Meta possesses monopoly power relevant to an analysis of that conduct and whether Meta has harmed competition through the acquisitions. PX9000, Hemphill Report at ¶ 7.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the paraphrased opinion. Disputed that Professor Hemphill provided an "economic analysis of the competitive effects of Meta's acquisitions." When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." Meta SMF ¶ 635 (quoting Ex. 283 at 143:12-144:4 (Hemphill Dep. Tr.)). Further disputed that the assignment the FTC gave to Professor Hemphill creates a genuine dispute of material fact.

886. In his opening report, Professor Hemphill opined that Meta possesses monopoly power in personal social networking services in the United States that has proved durable for over more than a decade. PX9000, Hemphill Report at ¶¶ 20-42, 55. Professor Hemphill reached this conclusion by evaluating both direct and indirect evidence of monopoly power. *Id.* at ¶¶ 25-42. With respect to indirect evidence, Professor Hemphill conducted

a relevant market analysis and opined that there is a relevant market for personal social networking services in the United States. *Id.* at ¶¶ 24-30. He further found that Meta has a dominant share of that relevant market as measured through multiple engagement metrics and data sources, and that there are significant barriers to entry. *Id.* at ¶¶ 31-34.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the paraphrased opinions. Disputed that the paraphrased opinions – many of which assert legal conclusions – create a genuine dispute of material fact. The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Disputed that Professor Hemphill analyzed "direct and indirect evidence of monopoly power," reached a valid conclusion that "there is a relevant market for personal social networking services in the United States" protected by "significant barriers to entry," or measured correctly shares in that purported market using "multiple engagement metrics and data sources." For example, Professor Hemphill provided no quantitative assessment of substitutability between Facebook, Instagram, and apps supposedly outside of the FTC's alleged PSNS market. *See*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data), ¶¶ 643-644 (Professor Carlton's market share calculations when including time spent on TikTok, Twitter, and YouTube). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id*. at ¶ 635 (quoting Ex. 283 at 143:12-144:4 (Hemphill Dep. Tr.)).

887. With respect to Meta's conduct, Professor Hemphill explained that given the consumer benefit at stake, the importance of Instagram and WhatsApp as competitive threats was heightened by the subsequent lack of successful entry into personal social network services. PX9000, Hemphill Report at ¶¶ 43-53.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. Professor Hemphill did not "explain[]" the statement in this paragraph, let alone with evidence. The 11 paragraphs in Professor Hemphill's report that the FTC cites in support of this statement do not cite a single piece of evidence. Further disputed that Professor Hemphill "explained" that there was a "lack of successful entry into personal social network services" subsequent to the acquisitions. Professor Hemphill himself found that U.S. time spent as well as the aggregate number of U.S. monthly active users on "personal social networks" that Meta does not own [redacted]. *See* Meta SMF ¶¶ 730-732. Further, the FTC itself contends that new "personal social networking services" entered following the Instagram and WhatsApp acquisitions. *See id.* at ¶ 729. Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." *Id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

888. In his opening report, Professor Hemphill opined that Meta's elimination of the dual threats of Instagram and WhatsApp through acquisition has had continuing harms for consumers. PX9000, Hemphill Report at ¶¶ 47-54.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the paraphrased opinion. Disputed that this statement creates a genuine dispute of material fact. Professor Hemphill did not support his conclusion with competent evidence; the eight paragraphs the FTC cites from Professor Hemphill's report do not cite a single piece of evidence. Further disputed that Meta "eliminat[ed]" Instagram and WhatsApp; Meta grew both apps following the acquisitions. *Compare* Meta SMF ¶¶ 657-658, *with id.* at ¶¶ 723-724 (regarding Instagram growth pre- and post-acquisition); *compare id*. at ¶¶ 772-778, *with id.* at ¶¶ 833-835 (regarding WhatsApp growth pre- and post-acquisition). Disputed that Professor Hemphill found or explained that the acquisitions "had continuing harms for consumers." Professor Hemphill does not dispute that output increased following the acquisitions – after which Meta kept the price of Instagram at zero and cut the price of WhatsApp to zero – which he testified indicates, "as a general matter" of economics, declining quality-adjusted price. *Id*. at ¶ 130 (quoting Ex. 283 at 233:3-12 (Hemphill Dep. Tr.)). Regarding app quality, Professor Hemphill testified regarding the number of advertisements that consumers see on Facebook and Instagram: "Q. . . . You don't identify any competitive benchmark for Meta's level of ad load, correct? . . . A. I don't know what you mean by a competitive benchmark for ad load, what that would mean or what purpose that would serve." *Id*. at ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)). Professor Hemphill also testified that Meta adding features to Instagram (like Stories and Reels) was a "quality improvement." *Id*. at ¶ 127

(quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Professor Hemphill testified regarding the quality of Meta's services: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." *Id*. at ¶ 129 (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)).

889. Professor Hemphill's assignment in connection with his rebuttal report was to review the expert reports submitted by Meta and assess whether, in light of Meta's expert reports, any of the conclusions in his opening report had changed. PX9007, Hemphill Rebuttal Report at § 1.1. In his rebuttal report, Professor Hemphill reaffirmed the conclusions in his opening report in full. PX9007, Hemphill Rebuttal Report at § 1.

Meta Response: Disputed in part. Undisputed that this statement reflects the assignment the FTC gave Professor Hemphill for his rebuttal report and that his rebuttal report purports to "reaffirm" the conclusions he reached in his opening report. Disputed that Professor Hemphill's assignment or reaffirmation of the conclusions in his opening report creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 888.

890. Among other things, in his rebuttal report, Professor Hemphill explained how the presence of features and uses that are not directly tied to friends and family sharing on Facebook or Instagram did not undermine the market for personal social networking services or Meta's monopoly power over users. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 23-24; *id.* at § 2.2.2.4.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The FTC's proffered expert, Professor Hemphill, did not "explain[] how the presence of features and uses that are not directly tied to friends and family sharing" and that face competitive constraints does "not undermine" his conclusion regarding Meta's supposed power. Professor Hemphill testified: "We're interested in whether small price changes are chosen by a profit-maximizing monopolist and the changes that we anticipate and are focused on are the changes of marginal customers as opposed to the inframarginal customers as well." Meta SMF ¶ 636 (quoting Ex. 283 at 162:10-15 (Hemphill Dep. Tr.)). He also testified, in this industry, "[t]here is a sense in which competition often occurs at . . . the margin," and Meta's incentive is "to gain users and usage wherever [it] can" by "pursuing users and usage on the margin." *Id*. at ¶ 637 (quoting Ex. 283 at 164:11-165:6, 165:14-15, 166:18-20 (Hemphill Dep. Tr.)). Accordingly, Professor Hemphill testified that there is a "tendency toward" marginal competition between Reels on Instagram, YouTube, and TikTok. *Id*. at ¶ 638 (quoting Ex. 283 at 168:9-21 (Hemphill Dep. Tr.)). Regarding the makeup of marginal content consumption that consumers might reduce on Facebook Feed in response to a decrease in quality, Professor Hemphill testified that users "would be reducing their consumption of feed content overall" because "they are seeing a consolidated feed" with not just friends-and-family content. *Id*. at ¶ 639 (quoting Ex. 283 at 195:4-196:16 (Hemphill Dep. Tr.)). And regarding whether Meta "[price] discriminates" against an asserted demand for friends-and-family content by increasing ad load for that asserted demand, Ex. 283 at 253:8-11 (Hemphill Dep. Tr.), Professor Hemphill testified: "I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you

know, some numerical value of inelasticity and responding with a change in ad load." *Id.* at 253:14-17. The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

891. Professor Hemphill also addressed Meta's claimed procompetitive benefits and explained how Meta's experts did not demonstrate that the acquisitions were necessary to achieve the claimed benefits or that the claimed benefits improved the welfare of PSN users. PX9007, Hemphill Rebuttal Report at ¶¶ 53-54; *id.* at § 4.3. In any event, Professor Hemphill concluded that the acquisitions were not procompetitive overall. PX9007, Hemphill Rebuttal Report at ¶¶ 54, 826-27.

Meta Response: Disputed in part. Undisputed that Professor Hemphill "addressed" some (but not all) of the procompetitive benefits of Meta's acquisitions. Disputed that this statement, which cites an entire section of Professor Hemphill's report without explanation, creates a genuine dispute of material fact. Professor Hemphill did not address all of Meta's procompetitive benefits (e.g., de-platforming, output growth, and more), nor did he "explain[]" the statement in this paragraph. Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Professor Hemphill does not dispute that output increased following the acquisitions – after which Meta kept the price

of Instagram at zero and cut the price of WhatsApp to zero – which he testified indicates, "as a general matter" of economics, that quality-adjusted price is declining. *Id*. at ¶ 130 (quoting Ex. 283 at 233:3-12 (Hemphill Dep. Tr.)). Professor Hemphill testified that Meta adding features to Instagram (like Stories and Reels) is a "quality improvement." *Id*. at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). The FTC's use of "PSN" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

892. In his opening and rebuttal reports, and in his deposition, Professor Hemphill explained how Meta's monopoly power and exclusionary conduct in acquiring Instagram and WhatsApp reduced output relative to the but-for world, and how a focus on higher output is incomplete and does not equate with higher consumer welfare. PX9000, Hemphill Report at ¶¶ 37, 51, 695, 721, 1095, 1143-44; PX9007, Hemphill Rebuttal Report at ¶¶ 356-59, 606-11, 798, 805; PX6184, Hemphill (FTC) Dep. Tr., at 268:3-20, 273:1-274:2.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. Professor Hemphill did not "explain[]" how Meta's acquisitions "reduced output relative to the but-for world." Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Professor Hemphill does not dispute that output increased

following the acquisitions – after which Meta kept the price of Instagram at zero and cut the price of WhatsApp to zero – which he testified indicates quality-adjusted price is declining "as a general matter." *Id*. at ¶ 130 (quoting Ex. 283 at 233:3-12 (Hemphill Dep. Tr.)). None of the cited paragraphs from Professor Hemphill's report addresses output in the but-for world or the relation of output to consumer welfare. *Cf.* PX9000 at ¶ 37 (Hemphill Rep.) (about ad load), ¶ 51 (same), ¶ 695 (same), ¶ 721 (same), ¶ 1095 (same), ¶¶ 1143-1144 (same). None of the cited paragraphs from Professor Hemphill's rebuttal report addresses output in the but-for world or disputes that output is a measure of consumer welfare. *Cf.* PX9007 at ¶¶ 356-359 (Hemphill Rebuttal Rep.) (regarding friends-and-family investment), ¶¶ 606-611 (discussing market-wide output and innovation), ¶ 798 (cross-referencing earlier paragraphs), ¶ 805 (regarding academic studies about consumer surplus from the acquisitions). Professor Hemphill found that U.S. time spent as well as the aggregate number of U.S. monthly active users on "personal social networks" that Meta does not own [redacted]. *See* Meta SMF ¶¶ 730-732. Professor Hemphill did not calculate a baseline or benchmark against which to measure post-acquisition investment, innovation, or consumer surplus. *Cf. id*. at ¶¶ 710-713, 823-824 (collecting evidence of Meta's investments and post-acquisition consumer surplus). Professor Hemphill testified that Meta investing to add features to Instagram (like Stories and Reels) is a "quality improvement." *Id*. at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)).

893. In his Opening Report, Professor Hemphill offered analysis that is directly informative of *Brown Shoe* factors.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 890 regarding economic substitution. Further disputed that the FTC's proffered expert, Professor Hemphill, offered analysis that is "directly informative of *Brown Shoe* factors" applied to the as-alleged relevant market, i.e., "personal social networking services" that includes all time spent on Facebook, Instagram, Snapchat, and MeWe (plus smaller or defunct firms) – insulated from competition beyond that four-app set.

a. With respect to "industry or public recognition," Professor Hemphill presented extensive evidence of the widespread understanding, shared by firms and users alike, that PSN apps provide a means to engage in friends and family sharing, and non-PSN apps do not. PX9000, Hemphill Report at ¶¶ 189-589.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 893, and because citing to a range of 401 paragraphs in Professor Hemphill's report without explanation does not create a genuine dispute of material fact. Professor Hemphill did not "present[]" any evidence – including from a single nonparty or Meta – that shows or supports "industry or public recognition" of the as-alleged relevant market, i.e., "personal social networking services" that includes all time spent on Facebook, Instagram, Snapchat, and MeWe (plus smaller or defunct firms) but no other app. *See* Meta SMF ¶¶ 461-477. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. With respect to "peculiar characteristics and uses," Professor Hemphill presented extensive evidence that PSN apps—and only PSN apps—have the requisite functionality and use for friends and family sharing. *Id.* at ¶¶ 225-36, 385-86.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 893, and because Professor Hemphill's own testimony comprises part of the substantial evidence disclaiming any such peculiar characteristics or uses. Professor Hemphill testified that TikTok "has something of a social graph" and that "one to many communications can be sent and received over that social graph." Meta SMF ¶ 210 (quoting Ex. 283 at 46:16-47:10 (Hemphill Dep. Tr.)). He also testified that TikTok is "a shared social space within which content delivery and interactions occur." *Id.* (quoting Ex. 283 at 47:11-18 (Hemphill Dep. Tr.)). Professor Hemphill testified that it would be consistent with his opinions that [redacted] *Id.* at ¶ 216 (quoting Ex. 283 at 92:16-21 (Hemphill Dep. Tr.)). Professor Hemphill testified that "conceivably there are individuals" who "turn to TikTok for a place to engage in demand for maintaining relationships and sharing experiences with friends, family, and social acquaintances in a shared social space." *Id.* at ¶ 242 (quoting Ex. 283 at 56:12-57:7 (Hemphill Dep. Tr.)). And Professor Hemphill opined that, [redacted] *Id.* at ¶ 282 (quoting Ex. 279 at ¶ 453 (Hemphill Rep.)). Professor Hemphill also testified that iMessage's "network of connections" includes "nodes and connections and these are people that you know in the real world," and he "suppose[s] it could be a

social graph of a kind." *Id*. at ¶ 431 (quoting Ex. 283 at 97:22-98:15 (Hemphill Dep. Tr.)). When asked if posts in a group on iMessage "appear in a shared social space," Professor Hemphill testified, "[t]here are aspects I think of a shared social space there." *Id*. at ¶ 432 (quoting Ex. 283 at 98:16-99:3 (Hemphill Dep. Tr.)). The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. With respect to "unique production facilities," Professor Hemphill explained how a central element in the production of PSN services, from the standpoint of user substitution, is the presence of a network of other users producing friends and family content to share with their connections. *Id.* at ¶¶ 227-32, 244-49, 280-82, 295-97.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 893, and because none of the above-cited paragraphs from Professor Hemphill's report addresses unique production facilities. Disputed that the type of content that populates an app or service constitutes a production facility, instead of the content distribution and storage infrastructure that underlies the app or service. Regarding content on Facebook and Instagram, [redacted]. *See* Meta SMF ¶¶ 11-17, 56-66. Further disputed because Professor Hemphill testified that he does not know whether [redacted] *Id*. at ¶ 216 (quoting Ex. 283 at 92:16-21 (Hemphill Dep. Tr.)). And virtually all content on a messaging app (like iMessage) is generated by friends or family with whom the user is familiar in the real world, *see id*. at ¶ 431,

meaning that these services would share production facilities with so-called PSNS if the type of content on a service is the way to make that assessment (it is not). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

d. With respect to "price sensitivity," Professor Hemphill demonstrated in detail the low sensitivity of PSN users to increases in the quality-adjusted price. *Id.* at ¶¶ 727-60, 777-86.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 893, and because citing to a range of 44 paragraphs in Professor Hemphill's report without explanation does not create a genuine dispute of material fact. None of those paragraphs cites a single piece of evidence that users are more willing to tolerate or accept higher quality-adjusted prices when viewing friends-and-family content, when sharing with friends and family, or when satisfying a demand for friends-and-family sharing content. When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, "I have not done an analysis of that kind." Meta SMF ¶ 635 (quoting Ex. 283 at 143:12-144:4 (Hemphill Dep. Tr.)). Disputed that Professor Hemphill could purport to have performed such an analysis given his sworn testimony regarding the quality of Meta's services: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one

would do that." *Id*. at ¶ 129 (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)). Regarding whether Meta can "price discriminate" against supposed demand for friends-and-family content by increasing ad load for that asserted demand, Ex. 283 at 253:8-11 (Hemphill Dep. Tr.), Professor Hemphill testified, "I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." *Id*. at 253:14-17; *see also* Meta SMF ¶ 640 (quoting Ex. 283 (Hemphill Dep. Tr.)). The FTC's use of "PSN" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

894. In his Rebuttal Report, Professor Hemphill addressed Professor Ghose's arguments with respect to the *Brown Shoe* factors.

Meta Response: Disputed. Disputed that Professor Hemphill addressed all parts of Professor Ghose's analysis or that Professor Hemphill disputed with evidence any part of Professor Ghose's analysis.

a. With respect to "industry or public recognition," Professor Hemphill explained that even if people recognize Facebook and Instagram as competing in a broad sense for user time or attention, or in a broader set of apps that involve user-generated content, that fact does not refute, or imply the absence of, a narrower relevant antitrust market for PSN services that satisfies the hypothetical monopolist test. PX9007, Hemphill Rebuttal Report at ¶ 310.

Meta Response: Disputed. Disputed that the single paragraph the FTC cites in this statement – which references a sentence in Professor Hemphill's rebuttal

report that does not cite a single piece of evidence, let alone any evidence regarding consumer substitution – creates a genuine dispute of material fact. Further disputed for the reasons stated above in Meta's response to subparagraph 893(a). The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. With respect to "peculiar characteristics and uses," Professor Hemphill explained that the feature overlap between PSN apps and non-PSN apps discussed by Professor Ghose is not informative about an app's functionality and use for friends and family sharing because it does not assist with the inquiry into economic substitution. *Id.* at ¶¶ 312-13.

Meta Response: Disputed. Disputed that the two paragraphs the FTC cites in this statement – paragraphs in Professor Hemphill's rebuttal report that do not cite a single piece of record evidence, let alone any evidence regarding consumer substitution – creates a genuine dispute of material fact. Further disputed for the reasons stated above in Meta's response to subparagraph 893(b). The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. With respect to "unique production facilities," Professor Hemphill explained that the documents and testimony cited by Professor Ghose do not address the key question of app capability, namely whether the apps are capable of supporting friends and family sharing. *Id.* at ¶ 314.

Meta Response: Disputed. Disputed that the single paragraph the FTC cites creates a genuine dispute of material fact. Further disputed that Professor

Hemphill "explained" this point, which he contradicted in sworn testimony, as stated above in Meta's response to subparagraph 893(c).

d. With respect to "price sensitivity," Professor Hemphill stated that Professor Ghose offered "nothing informative about economic substitution" and reiterated that the empirical studies of diversion offered by Meta's experts are not illuminating. *Id.* at ¶ 315.

Meta Response: Disputed in part. Undisputed that this statement paraphrases the assertions that Professor Hemphill "stated" and "reiterated" in his rebuttal report. Disputed that the single paragraph the FTC cites – which references a paragraph in Professor Hemphill's rebuttal report that does not cite a single piece of evidence, let alone any evidence regarding pricing or substitution – creates a genuine dispute of material fact. Further disputed for the reasons stated above in Meta's response to subparagraph 893(d).

e. Professor Hemphill further explained that the "remaining factors discussed by Prof. Ghose are uninformative about economic substitution in this matter. Accordingly, I conclude that the enumerated factors support rather than undermine the existence of a relevant antitrust market for PSN services." *Id.* at ¶ 316.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that the single paragraph the FTC quotes – which is a two-sentence conclusion from Professor Hemphill's rebuttal report that does not cite a single piece of evidence – creates a genuine dispute of material fact. Professor Hemphill did not address the "remaining factors" that Professor Ghose

addressed. Disputed that Professor Hemphill's assertion – without evidence, citation, or analysis – that "the enumerated factors support[ed]" the claimed PSNS market creates a genuine dispute of material fact. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

2. Professor Lampe's Opinions

895. Professor Lampe is a highly qualified expert in the areas of Human-Computer Interactions, Social Computing, and Computer-Mediated Communication. PX9004, Lampe Report at ¶¶ 2-8.

Meta Response: Disputed. This statement uses a vague term ("highly qualified") to assert a legal conclusion regarding the admissibility of Professor Lampe's offered opinions, which is improper for a purported fact statement, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

896. Professor Lampe's assignment in connection with his Opening Report was to evaluate whether computer-mediated communication centered on personal social network connections is a distinct human interaction experience and, if so, to elaborate on the features, functionalities, usage norms, value propositions, context, and other characteristics that distinguish it among other forms of computer-mediated communications. PX9004, Lampe Report at ¶ 1.

Meta Response: Disputed in part. Undisputed that this statement recites Professor Lampe's assignment. The FTC's use of "personal social network connections" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

897. In his Opening Report, Professor Lampe concluded that only a subset of computer-mediated technologies combine design with user motivations and norms centered in efficient personal relationship maintenance across an individual's social network, including their strong and weak ties. PX9004, Lampe Report at ¶ 9.

Meta Response: Undisputed that Professor Lampe offered the paraphrased opinion.

898. Professor Lampe opined "that there are distinct platforms whose design, motivations, and norms enable masspersonal, low cost maintenance of broad personal relationship networks that are comprised of real life connections." PX9004, Lampe Report at ¶ 13.

Meta Response: Disputed in part. Undisputed that the FTC's proffered expert, Professor Lampe, offered the quoted opinion. Disputed that any of Professor Lampe's opinions are material, as they do not bear on economic substitutability among competing apps, as Professor Lampe admitted. *See* Meta SMF ¶ 613 (Professor Lampe testified, "I don't feel qualified to determine whether two corporations are actually competitors or not within any kind of economic situation." (quoting Ex. 281 at 160:8:17 (Lampe Dep. Tr.))); *see also id.* ("When asked, 'did you in forming your opinions in this matter attempt to determine whether any specific mobile app was in economic competition with another mobile app in this case,' Professor Lampe testified: 'I did not. My expertise isn't in economic analysis.'" (quoting Ex. 281 at 163:4:10 (Lampe Dep. Tr.))). Professor Hemphill's opening report does not cite any of Professor Lampe's analysis even once.

a. Professor Lampe "call[s] this collection of providers Personal Social Network Sites (PSNS)." PX9004, Lampe Report at ¶¶ 13. In Professor Lampe's opening

report, he opined that this set of providers includes Facebook, Instagram, Snapchat. *Id.* at ¶¶ 13-15.

Meta Response: Disputed in part. Undisputed that the FTC's proffered expert, Professor Lampe, offered the quoted and paraphrased opinions. Disputed that any of Professor Lampe's opinions are material, for the reasons stated above in Meta's response to paragraph 898. Further disputed because Professor Lampe testified that uses of Facebook and Instagram are not solely related to personal relationship maintenance but instead are "extremely heterogeneous," Meta SMF ¶ 604 (quoting Ex. 281 at 165:12-166:4 (Lampe Dep. Tr.)); those uses include watching video for entertainment, viewing content from celebrities and influencers, and interest-based discussions on Facebook Groups, *see id.* at ¶¶ 604-608. Professor Lampe also testified that messaging apps are "commonly used for the purpose of maintaining personal relationships" so that Facebook is "unlikely to be a critical communication channel for close friends." *Id.* at ¶ 612(a) (quoting Ex. 281 at 41:3-42:8, 52:20-53:19 (Lampe Dep. Tr.)). Professor Lampe testified that several apps can be used for personal relationship maintenance. *See*, *e.g.*, *id.* at ¶ 209 (Professor Lampe agreeing it is "definitely possible" to use TikTok for "personal social networking" (quoting Ex. 281 at 334:2-11 (Lampe Dep. Tr.))), ¶ 281 (Professor Lampe agreeing personal relationship maintenance is "a possible use of Twitter" (quoting Ex. 281 at 340:4-8 (Lampe Dep. Tr.))). The FTC's use of "Personal Social Network Sites" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. Professor Lampe classified Facebook, Instagram, Snapchat, and MeWe as Personal Social Network Sites. PX9010, Lampe Rebuttal Report at ¶ 78 ("[U]sers motivated by relationship maintenance will choose PSNS platforms like Facebook, Instagram, Snapchat, and MeWe that are designed around relationship maintenance and have user norms that support that use over other types of platform that lack.").

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted and paraphrased opinion. Disputed that any of Professor Lampe's opinions are material, for the reasons stated above in response to Meta's responses to paragraph 898 and subparagraph 898(a). The FTC's use of "PSNS" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. Professor Lampe examined the designs, norms, and user motivations of Facebook, Instagram, and Snapchat. PX9004, Lampe Report at ¶¶ 128-42 (Facebook), 161-68 (Instagram), 169-82 (Snapchat).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the paraphrased opinion. Disputed that Professor Lampe adequately examined the designs, norms, and user motivations of Facebook and Instagram users. Professor Lampe considered no data on how users spend time on Facebook or Instagram. *See* Meta SMF ¶ 609. Disputed that any of Professor Lampe's opinions are material, for the reasons stated above in Meta's responses to paragraph 898 and subparagraph 898(a).

d. Professor Lampe also examined the design, motivations, and norms of Friendster, Myspace, Google+, and Path, and concluded that they satisfied the criteria needed to be considered a Personal Social Network Site. *Id.* at ¶¶ 113-27, 143-60.

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the paraphrased opinion. Disputed that any of Professor Lampe's opinions are material, for the reasons stated above in Meta's responses to paragraph 898 and subparagraphs 898(a) and 898(c). The FTC's use of "Personal Social Network Site" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

e. Professor Lampe examined the designs, norms, and user motivations of other online services including Nextdoor, LinkedIn, Pinterest, Reddit, TikTok, Twitter, YouTube, mobile messengers, and streaming services and mass media, and concluded that they lack the designs, norms, and user motivations that distinguish Personal Social Network Sites from other online sites. *Id.* at ¶¶ 187-93 (Nextdoor); 194-204 (LinkedIn); 205-12 (Pinterest); 213-23 (Reddit); 224-38 (TikTok); 239-54 (Twitter); 255-62 (YouTube); 263-70 (mobile messengers); 271-72 (streaming services and mass media).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the paraphrased opinion. Disputed that Professor Lampe adequately examined the designs, norms, and user motivations of the listed apps. Among other things, Professor Lampe considered no data on how users spend their time on those apps. *See* Meta SMF ¶ 609. Further disputed that any of Professor Lampe's opinions – including the claim that other services are "distinguish[ed]" from Facebook and

Instagram – are material, for the reasons stated above in Meta's response to paragraph 898. Further disputed that Professor Lampe opined that the listed apps are "distinguish[ed]" from Facebook or Instagram. Professor Lampe's testimony was to the contrary:

- As to mobile messengers, Professor Lampe testified they are used for personal relationship maintenance like Facebook and Instagram. *See* Meta SMF ¶ 612(a); *see also id.* [redacted]. Professor Lampe testified that what he calls PSNS are distinct from mobile messengers only because PSNS allow personal relationship maintenance with "weak ties" like distant friends but that mobile messengers are used for personal relationship maintenance with strong ties. *Id.* at ¶ 610.
- As to TikTok, Professor Lampe testified it is used for watching entertaining video and celebrity content like Facebook and Instagram. *See* Meta SMF ¶¶ 607(a), 612(b)-(c). Professor Lampe also testified TikTok is used for personal relationship maintenance like Facebook and Instagram. *See id.* at ¶¶ 244-271 (competition with TikTok).
- As to YouTube and streaming services, Professor Lampe testified they offer similar features as Facebook and Instagram, including with respect to watching video. *See* Meta SMF ¶¶ 607(a), 612(b)-(c); *see also id.* at ¶¶ 181-203 (competition with YouTube).
- As to Twitter, Professor Lampe testified it is used for consuming interest-based content like Facebook and Instagram. *See* Meta SMF ¶ 612(d).

Indeed, Professor Lampe testified Instagram had a "core use" of consuming interest-based ("lifestyle") content. *See id.* at ¶ 608. Professor Lampe also testified Twitter is used for personal relationship maintenance. *See id.* at ¶¶ 311-326 (competition with Twitter).

- As to LinkedIn, Professor Lampe offers no opinion on that app's current use. He conducted no analysis of how that app is currently used or has been used since approximately 2020 (the pandemic). *See* Ex. 281 at 335:10-12 (Lampe Dep. Tr.) (published no papers on LinkedIn), 337:7-19 (no awareness or reliance on post-2020 studies of use of LinkedIn), 339:19-340:3 ("I did not look at pandemic effects on LinkedIn norm changes or collect primary data on that, no."). Accordingly, Professor Lampe testified that he was [redacted] whether [redacted] since 2020. *Id.* at 337:20-338:12 ([redacted] that [redacted]). Further, Professor Lampe testified that Facebook and LinkedIn both offer features related to professional networking. *See id.* at 219:16-220:8; *see also* Meta SMF ¶¶ 408-414 (competition with LinkedIn).
- As to Nextdoor and Pinterest, Professor Lampe testified they offer similar features of viewing interest-based content centered on local communities (Nextdoor) or lifestyle interests (Pinterest) as Facebook and Instagram.

See Meta SMF ¶ 612(d); *see also id.* at ¶¶ 342-356 (competition with Pinterest), ¶¶ 364-379 (competition with Nextdoor).

The FTC's use of "Personal Social Network Site" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

f. Professor Lampe primarily focused on "computer-mediated communications that provide personal social networking within the United States," but also discussed personal social networking offerings available in other countries. *See id.* at ¶¶ 100-04, 263 n.685.

Meta Response: Disputed in part. Undisputed that Professor Lampe purported to discuss the listed subjects. Disputed that any of Professor Lampe's opinions are material for the reasons stated above in Meta's response to paragraph 898. The FTC's use of "personal social networking offerings" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

899. Professor Lampe contrasted Personal Social Network Sites with mobile messaging services and other non-PSN social networking sites, explaining in his deposition that "the key feature of PSNS is that it includes close friends and the weak network at the same time. That's the important thing is the including of both, but that doesn't then make it so that close friends and family are not there." PX6175, Lampe (FTC) Dep. Tr., at 71:13-72:5; *see also* PX9004, Lampe Report at ¶ 183 (distinguishing PSNS from "social media sites that facilitate formation of new social relationship ties usually around a shared interest"); *id.* at ¶ 263 ("Mobile messengers . . . do not afford users the ability to create robust profiles, they do not facilitate connection discovery and identity confirmation, and

they do not support a stream of broadcast activity across a network of contacts. As such, mobile messengers, including Signal, WhatsApp, Apple Messages, Google Messages, and SMS, are not Social Network Sites and thus are also not PSNS. Moreover, their use is aligned with motivations and norms of interpersonal communication not mass personal communication.”).

Meta Response: Disputed in part. Undisputed that the FTC’s proffered expert, Professor Lampe, provided the quoted testimony and offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta’s responses to paragraph 898 and subparagraph 898(e). Further disputed because the statement does not accurately summarize Professor Lampe’s testimony: Professor Lampe testified that what distinguishes what he calls a “PSNS” and mobile messengers is the use of a PSNS to maintain relationships with “weak ties” – which he defines as distant friends with whom one is unlikely to devote a meaningful amount of time. *See* Meta SMF ¶¶ 610-611. Professor Lampe asserted, however, that the “most common use” for Facebook was communicating with close friends, which he agrees is also a common use of mobile messengers. Ex. 281 at 57:6-20, 60:8-16 (Lampe Dep. Tr.). By contrast, Professor Lampe asserted that people spend far less time communicating with “weak ties,” *see id.* at 19:1-21:22, and admitted that he performed no analysis of how much time users of Facebook or Instagram spend on maintaining relationships with weak ties that would show this was more than an immaterial use of time, *see id.* at 44:17-45:1, 75:1-15. The FTC’s use of “Personal Social Network Sites,” “PSN,” and “non-PSN social networking sites” is disputed for the reasons stated in Meta’s Introduction to its Response to the FTC’s Counterstatement.

900. In his Opening Report, Professor Lampe also concluded that "Personal Social Network Sites also serve a distinct purpose than interpersonal sites (*e.g.* messaging) and mass media (*e.g.* Netflix), neither of which enable maintenance of weak ties at scale through networked interactions." PX9004, Lampe Report at ¶ 24.

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 898-899 and subparagraph 898(e). The FTC's use of "Personal Social Network Sites" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

901. Professor Lampe testified that while Facebook and Instagram offer "other types of use than personal social networking," Facebook's core use of personal social networking "remains remarkably consistent," with its variable uses "related to personal social networking." PX6175, Lampe (FTC) Dep. Tr., at 167:6-8, 253:1-17.

Meta Response: Disputed in part. Undisputed that the FTC's proffered expert, Professor Lampe, provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 898 and subparagraph 898(e). The FTC's use of "core use" and "personal social networking" is disputed for the reasons stated in Meta's Introduction to Its Response to the FTC's Counterstatement. Professor Lampe did not offer the opinion that so-called "personal social networking" is the only core use of Facebook. He testified an app may have "multiple core uses." Ex. 281 at 127:2-7 (Lampe Dep. Tr.); *see*, *e.g.*, Meta SMF ¶¶ 608, 612(d) (Professor Lampe acknowledging other "core use" for Instagram). And with respect to Facebook, he testified: "I don't have an opinion on"

whether Facebook has "other core uses in addition to personal social networking," and, "I identified the core use of personal social networking and wasn't looking for other types of core uses in that assessment." Ex. 281 at 169:13-170:21 (Lampe Dep. Tr.); *see id.* at 125:22-126:14, 147:4-8. In the testimony the FTC cites, Professor Lampe stated: "I'm not claiming that every activity that occurs on Facebook is motivated by personal social networking," but rather that "Facebook's a PSNS" where people can do other things like "watch a comedy video." *Id.* at 253:1-17. Professor Lampe testified that many uses of Facebook are not motivated by personal social networking. *See* Meta SMF ¶ 607.

902. Professor Lampe's assignment in connection with his rebuttal report was to review the expert reports submitted by Meta and assess whether, in light of Meta's expert reports, any of the conclusions in his opening report had changed. *See* PX9010, Lampe Rebuttal Report at ¶ 6.

Meta Response: Undisputed.

903. In his rebuttal report, Professor Lampe reaffirmed the conclusions in his opening report in full. PX9010, Lampe Rebuttal Report at ¶ 6.

Meta Response: Undisputed.

a. Professor Lampe additionally explained that PSN apps provide benefits with respect to strong and weak ties. PX9010, Lampe Rebuttal Report at ¶ 100 ("PSNS specifically help the maintenance of these weaker friend and family ties (in addition to supporting closer ties) in a manner that is distinct from other communications technologies.").

Meta Response: Disputed in part. Undisputed that the FTC's proffered expert, Professor Lampe, offered the quoted opinion. Disputed that this statement creates

a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 898-899 and subparagraph 898(e). The FTC's use of "PSN apps" and "PSNS" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

904. Professor Lampe also explained in his rebuttal report that "superficial similarities between Facebook and Instagram on the one hand and other non-PSNS platforms on the other do not change the fact that these other online platforms lack the design, motivation, and norms for relationship maintenance and lack such a core use." PX9010, Lampe Rebuttal Report at ¶ 87.

Meta Response: Disputed in part. Undisputed that the FTC's proffered expert, Professor Lampe, offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 898-899 and 901 and subparagraph 898(e). The FTC's use of "non-PSNS platforms" and "core use" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

905. In his opening report, Professor Lampe offered analysis that is directly informative of *Brown Shoe* factors.

Meta Response: Disputed. Disputed that this legal argument can create a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. In any event, the FTC's proffered expert, Professor Lampe, expressly disclaimed any opinion regarding the *Brown Shoe* factors. *See* Meta SMF ¶ 614 ("[Q]. Do you have any opinion regarding the Brown Shoe factors?

. . . A. I do not, no. I – no." (quoting Ex. 281 at 273:5-8 (Lampe Dep. Tr.))). Professor Lampe also gave no opinion on economic substitution or competition. *See id.* at ¶ 613.

a. With respect to "industry or public recognition," Professor Lampe presented extensive evidence of widespread recognition that platforms such as Facebook have designs, motivations, and norms for relationship maintenance that are distinct from other types of platforms. PX9004, Lampe Report at ¶¶ 128-42, 161-82.

Meta Response: Disputed. Disputed that the argumentative characterization of Professor Lampe's opinion creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 905. Further disputed because the cited material from Professor Lampe's report is not "extensive evidence" that recognizes differences between Facebook (and other "such" platforms) and unidentified services. *See* Meta SMF ¶¶ 461-477 (collecting evidence confirming no industry recognition of the as-claimed PSNS market comprised of all time spent on only four apps). Professor Lampe testified that he was aware of no industry or public recognition of the term "personal social networking service," Ex. 281 at 281:1-283:1 (Lampe Dep. Tr.), or any academic study (or even a single document, anywhere) that categorized Facebook, Instagram, Snap, and MeWe separately from other social medial platforms, *see id.* at 283:2-284:11.

b. With respect to "peculiar characteristics and uses," Professor Lampe presented extensive evidence that demonstrates that PSNS platforms like Facebook and Instagram have a core use of personal relationship maintenance demonstrated by

that their designs, motivations, and norms, whereas non-PSNS platforms do not. *Id.* at ¶¶ 128-272.

Meta Response: Disputed. Disputed that the argumentative characterization of Professor Lampe's opinion creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 898-899, 901, and 905 and subparagraph 898(e). The FTC's use of "non-PSNS platforms" and "core use" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because Professor Lampe testified that Facebook and Instagram share many features and uses with other apps that he claims are not PSNS, including with respect to personal relationship maintenance specifically. *See* Meta SMF ¶¶ 604-608, 612. For example, Professor Lampe testified that messaging applications are "commonly used for the purpose of maintaining personal relationships." *Id.* at ¶ 612(a) (quoting Ex. 281 at 41:3-42:8, 52:20-53:19 (Lampe Dep. Tr.)). He testified that several other apps are also used for personal relationship maintenance. *See*, *e.g.*, *id.* at ¶ 209 (Professor Lampe agreeing it is "definitely possible" to use TikTok for "personal social networking" (quoting Ex. 281 at 334:2-11 (Lampe Dep. Tr.))), ¶ 281 (Professor Lampe agreeing personal relationship maintenance is "a possible use of Twitter" (quoting Ex. 281 at 340:4-8 (Lampe Dep. Tr.))).

906. Similarly, in his rebuttal report, Professor Lampe addressed Professor Ghose's arguments with respect to the *Brown Shoe* factors.

Meta Response: Disputed. Disputed that this legal argument can create a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its

Response to the FTC's Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 905. The FTC's proffered expert, Professor Lampe, expressly disclaimed any opinion regarding the *Brown Shoe* factors. *See* Meta SMF ¶ 614 ("[Q]. Do you have any opinion regarding the Brown Shoe factors? . . . A. I do not, no. I – no." (quoting Ex. 281 at 273:5-8 (Lampe Dep. Tr.))). Further disputed because Professor Lampe gave no opinion on economic substitution. *See id.* at ¶ 613.

a. With respect to "industry or public recognition," Professor Lampe explained that Professor Ghose's materials recognizing platforms in broad categories of "time and attention" and "social media" do not preclude there also being recognition of PSN apps as distinct platforms whose design, motivations, and norms distinguish them from other types of platforms. PX9010, Lampe Rebuttal Report at ¶¶ 18-20.

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the paraphrased opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to paragraphs 905-906 and subparagraph 905(a). The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. With respect to "peculiar characteristics," Professor Lampe explained that the presence of various page types and activities on Facebook and Instagram not based on relationships with friends and family, which Professor Ghose describes, does not change his conclusion that Facebook and Instagram have a core use of maintaining relationships. *Id.* at ¶ 89.

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the paraphrased opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to paragraphs 898-899, 901, and 905-906, and subparagraph 898(e). The FTC's use of "core use" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. Professor Lampe further explained that while Professor Ghose discussed other *Brown Shoe* factors, namely, distinct prices, distinct customers, sensitivity to price changes, and specialized vendors, "[t]hese factors are not informative for my assessment of whether PSNS are a distinct type of platform." *Id.* at ¶ 210.

Meta Response: Undisputed that Professor Lampe disclaimed any opinion regarding the *Brown Shoe* factors, *see* Meta Resp. to Counter SMF ¶ 905, including the factors of distinct prices, distinct customers, sensitivity to price changes, and specialized vendors.

3. Mr. Hearle's Opinions

907. Mr. Hearle is a highly qualified expert in the field of financial analysis, particularly in "applying corporate finance, valuation, and accounting expertise to economic analyses of antitrust and other competition issues." PX9005, Hearle Report at ¶¶ 1-2.

Meta Response: Disputed. This statement uses a vague term ("highly qualified") to assert a legal conclusion regarding the admissibility of Mr. Hearle's offered opinion, which is improper for a purported fact statement, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Mr. Hearle has never been professionally involved in valuing a company for an acquisition. *See* Ex. 460 at 75:12-76:18 (Hearle Dep. Tr.). He has never been professionally involved in a merger

or acquisition of software companies. *See id.* at 78:20-22. He has never performed a valuation of an early-stage company like WhatsApp. *See id.* at 81:13-82:1.

908. Mr. Hearle's assignment in connection with his Opening Report was to address:

a. The valuation methods Meta used to justify the $19 billion purchase cost it expected to incur when it acquired WhatsApp, and, relatedly, the size and sources of any dollar transaction premium reflected in this amount, PX9005, Hearle Report at ¶ 5;

Meta Response: Undisputed.

b. WhatsApp's revenues and expenses since its acquisition by Meta, *id.*;

Meta Response: Undisputed.

c. The profitability of Meta relative to an appropriate benchmark, *id.*;

Meta Response: Undisputed.

d. The verifiability of Meta's claim of infrastructure cost savings for Instagram, *id.*; and

Meta Response: Undisputed.

e. The verifiability of Meta's claims of other cost savings for Instagram and WhatsApp. *Id.*

Meta Response: Undisputed.

909. In his opening report, Mr. Hearle concluded the following:

a. Meta's Valuation Framework did not explain the premium paid by Meta to acquire WhatsApp, nor did it "quantify the sources of the deal's transaction premium." PX9005, Hearle Report at ¶ 7.

Meta Response: Disputed in part. Undisputed that the FTC's proffered expert, Mr. Hearle, offered the paraphrased opinion. Disputed that this statement creates a genuine dispute of material fact, including because what Meta paid for WhatsApp is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Disputed that the conclusion creates a genuine dispute of material fact regarding whether Meta paid a "premium" to acquire WhatsApp. Mr. Hearle's opinion that there was a premium is based on the incorrect statement that Meta paid $19 billion for WhatsApp, when Meta in fact paid $16 billion. *See* Meta Resp. to Counter SMF ¶ 1835. His opinion is also based on the incorrect statement that there was no contemporaneous valuation of WhatsApp that exceeded [redacted]; there were [redacted] valuations in the weeks leading up to Meta's acquisition of WhatsApp that valued WhatsApp at more than [redacted]. *See id.* at ¶ 1838. Mr. Hearle did not consider [redacted] of those valuations but testified that he would have wanted to consider them had he been aware of them. *See id.* at ¶¶ 1844-1845. The presentation made to Meta's Board of Directors and the minutes of the meeting at which the Board of Directors considered the acquisition both explain reasons for the purchase price, including that acquiring WhatsApp would make it more difficult for dominant mobile operating system providers (Google and Apple) to exclude Meta's mobile applications, in addition to helping Facebook and WhatsApp grow. *See* Meta SMF ¶ 813.

b. WhatsApp generated [redacted] *Id.* at ¶ 8.

<u>Meta Response</u>: Disputed in part. Undisputed that Mr. Hearle offered the quoted and paraphrased opinions and that Meta has incurred losses at certain times with respect to WhatsApp. Disputed that this statement creates a genuine dispute of material fact, including because WhatsApp's profitability is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed that Mr. Hearle offered an accurate calculation of those losses for all the months and years in which Click-to-WhatsApp earned revenue. Mr. Hearle's calculations of Meta's purported losses from operating WhatsApp in those years are based on the assumption that [redacted] of Click-to-WhatsApp revenue should be allocated to WhatsApp. *See* PX9005 at ¶¶ 8(c), 61 & pp. 48-50, tbls. 6.1-6.3 (Hearle Rep.). But Mr. Hearle chose his [redacted] range based on three employees' calculations of WhatsApp's possible incremental revenue in March 2019 (an analysis the employee noted had a "wide range of error and many caveats build into [it]," PX15275 at -747 (FTC-META-011627747)); June 2021; and November 2021, and then used those calculations for all months and years in which Click-to-WhatsApp earned revenue between 2018 and the second quarter of 2022. *See* PX9005 at ¶ 8(c) & pp. 48-50, tbls. 6.1-6.3 (Hearle Rep.). Evidence shows that,

soon after these analyses, WhatsApp began to generate significant revenue for Meta that is not included in Mr. Hearle's calculations. *See* Meta SMF ¶ 831 ("Global revenue from Click-to-WhatsApp has grown from [redacted] to [redacted]," and "[a]s of 2022, Click-to-WhatsApp had 'passed a $1.5 billion run rate' and was 'growing more than 80% year-over-year'" (internal citations omitted)). The FTC provides no evidence of what the incrementality of Click-to-WhatsApp revenue has been since this dramatic growth in the use of those ads. In addition, Mr. Hearle's revenue and expense figures only extend through the first half of 2022. The two primary components of revenue for WhatsApp – Click-to-WhatsApp ads and Paid Messaging – have grown rapidly since then. *See* Meta SMF ¶¶ 828-829 (paid Messaging generated [redacted] in revenue in 2022 and has been growing [redacted] with projected revenue of [redacted]); *id.* at ¶ 831 (Global Click-to-WhatsApp revenue was [redacted]); Ex. 460 at 296:11-21 (Hearle Dep. Tr.) (acknowledging that WhatsApp's revenue has been increasing). Mr. Hearle ignored this information, as well as WhatsApp revenue data that Meta produced for the second half of 2022 and the first quarter of 2023. *See* Ex. 469 at 3 (May 5, 2023 Production Cover Letter) (Click-to-WhatsApp revenue data through March 2023); Ex. 497 at 1 (May 31, 2023 Production Cover Letter) (WhatsApp paid messaging data through March 2023).

c. "Meta has earned an average annual rate of return on its investments between [redacted] per year," indicating that Meta has been highly profitable. *Id.* at ¶ 9.

Meta Response: Disputed in part. Undisputed that Mr. Hearle offered the paraphrased opinion. Disputed that this statement creates a genuine dispute of material fact, including because Mr. Hearle does not compare Meta's profits to other benchmark firms or offer any opinion that Meta's profits are attributed to Meta's market power in the relevant product market. *See* Ex. 460 at 257:6-258:2 (Hearle Dep. Tr.). On the contrary, Mr. Hearle disclaimed any expertise in "interpret[ing] any meaning" from Meta's profitability. *Id.* at 251:1-9.

d. "Meta has not provided adequate substantiation to verify its infrastructure cost savings claim related to Instagram." *Id.* at ¶ 10.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta has substantiated cost savings. Meta has substantiated infrastructure cost savings related to the Instagram acquisition. *See* Ex. 5 at ¶¶ 75-87, 208-211 (Nieh Rep.); Meta Resp. to Counter SMF ¶ 925.

e. "Meta has not provided adequate substantiation to verify any cost savings related to WhatsApp or other financial, legal, regulatory, or administrative efficiencies (for either Instagram or WhatsApp)." *Id.* at ¶ 11.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta has substantiated cost savings. Meta has substantiated infrastructure cost savings related to the WhatsApp

acquisition. *See* Meta SMF ¶¶ 856-857; Ex. 5 at ¶¶ 75-87, 268-269 (Nieh Rep.); Meta Resps. to Counter SMF ¶¶ 2507-2510.

910. Mr. Hearle's assignment in connection with his rebuttal report was "to respond to claims in five expert reports that the Defendant submitted on October 3, 2024 that were identified to me by counsel for the FTC as relevant to the opinions I disclosed in my opening report." PX9009, Hearle Rebuttal Report at ¶ 2.

Meta Response: Undisputed.

911. In his rebuttal report, Mr. Hearle reaffirmed the conclusions in his opening report in full. PX9009, Hearle Rebuttal Report at ¶ 5.

Meta Response: Undisputed.

4. The FTC's Other Experts

912. The FTC also submitted expert reports from Professor Sinan Aral (the David Austin Professor of Management, Marketing, IT and Data Science at the Massachusetts Institute of Technology, Director of the MIT Initiative on the Digital Economy, and a Founding Partner at two venture capital firms, Manifest Capital and Milemark Capital), PX9003, Aral Report at ¶ 1; Mr. Tim Bray (a computer scientist, co-founder of two software companies, and former employee of Sun Microsystems, Google, and Amazon Web Services), PX9001, Bray Report at ¶¶ 1-9; Mr. Michal Malkiewicz (Vice President at Charles River Associates and a former Managing Director at Ankura, Director at Epsilon Economics, Associate Director at Navigant, and Senior Associate at LECG), PX9006, Malkiewicz Report at ¶¶ 1-2; Professor McCoy, a tenured Associate Professor of Computer Science and Engineering at New York University's Tandon School of Engineering, PX9002, McCoy Report at ¶ 1; and Professor Jihoon Rim (Adjunct

Professor in the Management & Organizations Department at NYU Stern School of Business and former CEO of Kakao), PX9014, Rim Rebuttal Report at ¶¶ 1, 17-18.

Meta Response: Undisputed.

a) Professor Aral's Opinions

913. Professor Aral's assignment in connection with his opening report was "to evaluate Meta's claimed monetization benefits related to acquiring Instagram and WhatsApp, and to assess (1) whether Meta's acquisitions of Instagram or WhatsApp were necessary to achieve the claimed benefits, and (2) whether, and if so, to what extent, the claimed benefits were actually achieved." PX9003, Aral Report at ¶ 8.

Meta Response: Undisputed.

914. In his opening report, Professor Aral opined that "the claimed monetization-related benefits of the acquisitions of Instagram and WhatsApp were either not achieved, were not verifiable as having been achieved or having resulted from the acquisitions, or were achievable without the acquisitions." PX9003, Aral Report at ¶ 11(c).

Meta Response: Disputed in part. Undisputed that Professor Aral offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including because Professor Aral testified that he did not offer any opinion that Instagram or WhatsApp could or would have monetized more successfully absent the acquisitions. *See* Meta SMF ¶ 722 (citing Ex. 287 at 167:1-7, 180:18-22 (Aral Dep. Tr.)).

915. Professor Aral's assignment in connection with his rebuttal report was:

a. "[T]o assess in light of Meta's expert reports, (1) whether Meta's acquisitions of Instagram or WhatsApp were necessary to achieve Meta's claimed monetization-related benefits, and (2) whether, and if so to what extent, the claimed

monetization-related benefits were actually achieved," PX9008, Aral Rebuttal Report at ¶ 11(a);

Meta Response: Undisputed.

b. "[T]o review and offer [his] opinion on claims related to the utility of advertising for users that Professors Tucker and Carlton make in their reports, including in particular their claims that increases in ad load are not necessarily 'bad' or 'always costly' for users," *id.* at ¶ 11(b); and

Meta Response: Undisputed.

c. "[T]o review and offer [his] opinion on claims related to advertising targeting made by Professors Ghose and Tucker." *Id.* at ¶ 11(c).

Meta Response: Undisputed.

916. In his rebuttal report, Professor Aral reaffirmed the evaluation in his opening report concerning Meta's claimed monetization benefits. PX9008, Aral Rebuttal Report at ¶ 15.

Meta Response: Disputed in part. Undisputed that Professor Aral offered the paraphrased opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 914.

917. In his rebuttal report, Professor Aral also concluded that "the assertions made by Meta's experts about the utility of advertising for consumers are not adequately supported." PX9008, Aral Rebuttal Report at ¶ 16.

Meta Response: Disputed in part. Undisputed that Professor Aral offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 914. Further disputed because Professor Aral himself has stated: "Lots of people want targeted advertising and

research shows they value free access to FB," which "creates tons of non-monetary value." Ex. 498 at 3 (MetaFTC-DX-1159); Ex. 287 at 215:1-17 (Aral Dep. Tr.).

918. In his rebuttal report, Professor Aral also opined that Professors Tucker and Ghose ignore "limitations and drawbacks" of advertising targeting. PX9008, Aral Rebuttal Report at ¶ 17.

Meta Response: Disputed in part. Undisputed that Professor Aral offered the paraphrased and quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 914 and 917.

b) Mr. Bray's Opinions

919. Mr. Bray's assignment in connection with his opening report was "to evaluate Meta's claimed infrastructure-related benefits related to acquiring Instagram and WhatsApp, and assess (1) whether Meta's acquisitions of Instagram or WhatsApp were necessary to achieve the claimed benefits, and (2) whether the claimed benefits were actually achieved." PX9001, Bray Report at ¶ 20.

Meta Response: Undisputed.

920. In his opening report, Mr. Bray opined that "Meta's acquisition of Instagram was [not] necessary for it to receive the claimed benefits," and that "Meta failed to demonstrate that the claimed benefits were actually achieved." PX9001, Bray Report at ¶ 35.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed that Mr. Bray's opinions create a genuine dispute of material fact, including because Mr. Bray's opinion relied purely on speculation on how Instagram may have developed absent the acquisition. Further disputed because Mr. Bray could not rule out that Meta's apps – including Instagram – have lower latency, higher availability, and

lower variability than any other apps, *see* Meta SMF ¶ 154 (citing Ex. 289 at 41:11-18, 45:10-18, 48:13-19 (Bray Dep. Tr.)). Mr. Bray also testified that he has no opinion whether Instagram or WhatsApp are worse today, as compared to before the acquisition, and that he has not compared the speed of Instagram or WhatsApp to any other apps. *See id.* at ¶ 155 (citing Ex. 289 at 41:2-9, 128:11-18, 130:8-12 (Bray Dep. Tr.)); *see also id.* at ¶ 762 (discussing Mr. Bray's testimony that he has not opined on any "shortfalls" in Meta's infrastructure compared to other providers and has not performed any analysis regarding whether Instagram exceeds any industry standard for speed (citing Ex. 289 at 37:2-12, 129:16-130:3, 286:3-17 (Bray Dep. Tr.))).

921. Similarly, in his opening report, Mr. Bray opined that he did "not believe that the acquisition of WhatsApp was necessary for it to receive the claimed benefits," and that "Meta has failed to demonstrate that the claimed benefits were actually achieved." PX9001, Bray Report at ¶ 40.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 920.

922. Mr. Bray's assignment in connection with his rebuttal report was to assess, "in light of [Meta's submitted expert reports in this matter], (1) whether Meta's acquisitions of Instagram and WhatsApp were necessary to achieve Meta's claimed infrastructure-related benefits, and (2) whether, or to what extent, the claimed infrastructure-related benefits were actually achieved." PX9011, Bray Rebuttal Report at ¶ 9.

Meta Response: Undisputed.

923. Mr. Bray's assignment in connection with his rebuttal report was also to "assess (1) whether the Meta experts' assertions that the acquisitions produced infrastructure-related cost savings were supported by evidence accounting for all relevant technology-related costs, and (2) whether, or to what extent, there were engineering approaches to achieve the claimed cost savings benefits absent the acquisitions." PX9011, Bray Rebuttal Report at ¶ 9.

Meta Response: Undisputed.

924. In his rebuttal report, Mr. Bray reviewed the submitted reports by Professor Nieh and Professor Carlton and reaffirmed the conclusions in his opening report. PX9011, Bray Rebuttal Report at ¶ 11.

Meta Response: Undisputed.

925. Mr. Bray also concluded "that Meta's expert reports have failed to support assertions of infrastructure-related cost savings due to the acquisitions with evidence accounting for all technology-related costs, nor have they demonstrated that the claimed cost savings were not otherwise available." PX9011, Bray Rebuttal Report at ¶ 11.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 920. Further disputed because there is extensive evidence documenting infrastructure-related costs savings attributable to the acquisitions. *See* Meta Resps. to Counter SMF ¶¶ 2284, 2288 (Instagram), ¶¶ 2507-2510 (WhatsApp). Such evidence includes detailed internal analyses comparing Meta's costs of using its own infrastructure to run its apps to the costs of using third-party cloud services to do so. *See* PX9022 at ¶¶ 77-78 (Nieh Rep.).

c) Mr. Malkiewicz's Opinions

926. Mr. Malkiewicz's assignment for his Opening Report was to "review and analyze economic, statistical, and industry literature" relevant to "consumers' usage of and attitudes towards Meta's services and other online services," and to "design and conduct [his] own consumer survey on issues relating to usage of these services." PX9006, Malkiewicz Report at ¶¶ 8-9.

Meta Response: Undisputed.

927. In his opening report, Mr. Malkiewicz concluded that "users are more likely to use Facebook, Instagram, and Snapchat for sharing information and keeping up with their friends and family than for any other reason, in contrast to the other services surveyed," like Twitter, LinkedIn, TikTok, and YouTube. PX9006, Malkiewicz Report at ¶ 11. Mr. Malkiewicz also concluded that "to the extent users utilize messaging services"—like text messaging, Facebook Messenger, and WhatsApp—to keep up with their friends' and families' lives, "users consider Facebook and Instagram [to be the] best for consuming or sharing friends and family content in a more public setting, whereas they prefer and utilize messaging services for communicating with friends and family in a more private setting." *Id.* Mr. Malkiewicz finally concluded that the results of his survey were consistent with the results of surveys conducted on the subject by Meta and third parties, as well as with academic literature and other third-party research. *Id.*

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed that Mr. Malkiewicz's conclusions create a genuine dispute of material fact, including because he admitted that his survey – even if it were valid and reliable, which it was not – does not measure economic substitution. *See* Meta SMF ¶ 652. Further disputed because Mr. Malkiewicz's survey found that more that 63% of

the respondents did not select "keeping up with their friends and family" as the "most important" reason for using Instagram. *See id.* at ¶ 646; *see also id.* at ¶ 649 (reporting similar results from Mr. Malkiewicz's survey with respect to Snapchat).

928. Mr. Malkiewicz's assignment for his rebuttal report was to review and respond to the report of Meta's survey expert, Professor Itamar Simonson. PX9012, Malkiewicz Rebuttal Report at ¶ 8.

Meta Response: Undisputed.

929. In his rebuttal report, Mr. Malkiewicz concluded that Professor Simonson incorrectly criticized Mr. Malkiewicz's opening report for its purpose, design, wording, service inclusion, and analysis. *See* PX9012, Malkiewicz Rebuttal Report at ¶ 11. In response, Mr. Malkiewicz asserted that his survey was sufficiently comprehensive, properly articulated, and designed according to widely accepted guidelines and that he has no reason to believe that any of Professor Simonson's suggested changes would have altered the survey results if implemented. *See id.* Mr. Malkiewicz further concluded that Professor Simonson erred in criticizing Professor Hemphill for referencing Mr. Malkiewicz's survey, and that Professor Simonson's attempts to distinguish Mr. Malkiewicz's survey from Meta's surveys were misleading and improperly granular. *Id.*

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the paraphrased opinion. Disputed that Mr. Malkiewicz's opinions create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 927. Further disputed because Mr. Malkiewicz admitted that his survey did not determine the amount of time spent "keeping up with friends and family" on any Internet

service. Ex. 301 at 84:10-14 (Malkiewicz Dep. Tr.); *see also id.* at 85:10-14. Mr. Malkiewicz also testified that he did not ask survey users about the frequency of the use cases reported. *Id.* at 85:22-86:12, 87:7-12. Mr. Malkiewicz testified that he did not review any data sets regarding actual time spent. *Id.* at 92:17-94:6.

d) Professor McCoy's Opinions

930. Professor McCoy's assignment for his opening report was to "evaluate Meta's claimed integrity-related benefits related to [its acquisition] of Instagram and WhatsApp, and to assess (1) whether Meta's acquisitions of Instagram and WhatsApp were necessary to achieve the claimed benefits, and (2) whether the claimed benefits were actually achieved." PX9002, McCoy Report at ¶ 13.

Meta Response: Undisputed.

931. In his opening report, Professor McCoy opined that "Meta's acquisition of Instagram was not necessary for Instagram to successfully attack integrity issues at scale, or to achieve any of the other specific integrity benefits" claimed by Meta. PX9002, McCoy Report at ¶ 17(a). Professor McCoy further opined that he could not verify that Meta did in fact deliver any integrity benefits to Instagram, due to both Meta's lack of data regarding Instagram's integrity performance post-acquisition as well as "significant qualitative evidence" suggesting that Meta "failed to adequately plan for the integration of Instagram into Meta's systems," failed to "effectively customize and maintain its systems for Instagram," consistently prioritized Facebook over Instagram to the latter's detriment, and "imposed its own integrity deficiencies on Instagram in ways that may have caused users and non-users of Instagram alike significant harm." *Id.* at ¶ 17(b). Professor McCoy lastly opined that Meta "has not articulated any clear claim that it provided any integrity benefits" to WhatsApp. *Id.* at ¶ 17(c).

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted and paraphrased opinions. Disputed that Professor McCoy's opinions create a genuine dispute of material fact, including because he testified that it is possible that Instagram's integrity today is superior to what Instagram would have achieved in a but-for world without the acquisition, and he acknowledged that he did not know what integrity problems Instagram would face, what integrity systems Instagram would use, or how many users or integrity engineers Instagram would have in that but-for world. *See* Meta SMF ¶ 754 (citing Ex. 313 at 176:1-11, 192:22-193:16 (McCoy Dep. Tr.)); *see also* PX9013 at ¶ 32 (McCoy Rebuttal Rep.) ("The farther we move away from 2012, the more difficult it is to assess what kind of integrity problems Instagram would have had and what kind of resources and solutions it would have been able to deploy independent of Meta."). Professor McCoy also testified that he rendered no opinions excluding the possibility that, in a but-for world without the acquisition, Instagram could have experienced the same integrity challenges identified in his report. *See* Ex. 313 at 241:6-13 (McCoy Dep. Tr.).

932. Professor McCoy's assignment for his rebuttal report was to assess the report and conclusions of Meta's integrity expert, Professor V.S. Subrahmanian, as well as the report and conclusions of Meta's advertising expert, Professor Catherine Tucker, as they related to integrity. PX9013, McCoy Rebuttal Report at ¶ 4.

Meta Response: Undisputed.

933. In his rebuttal report, Professor McCoy reaffirmed the conclusions he drew in his opening report in response to the reports of Professors Subrahmanian and Tucker. PX9013, McCoy Rebuttal Report at ¶ 7. Professor McCoy opined that Professor Subrahmanian

did not address several key issues highlighted in Professor McCoy's opening report, such as Meta's failure to plan for and customize Instagram's integrity systems, Meta's failure to quantitatively substantiate its claims that it improved integrity outcomes on Instagram, the fact that Meta's integrity systems were neither exceptional nor unique, and evidence suggesting that Instagram actually suffered meaningful integrity challenges as a result of the acquisition, such as with the proliferation of child sexual abuse material. *See id.* at ¶¶ 13-25. Professor McCoy also responded to Professor Subrahmanian's "new claims of integrity benefits to Instagram and WhatsApp" purportedly brought by Meta, which suffered from a "lack of timeliness," an absence of "meaningful quantitative metrics," and the unsupported assumption that evidence regarding integrity at Facebook applied also to integrity at Instagram or WhatsApp. *See id.* at ¶¶ 26-30. Professor McCoy also concluded that he could not verify that "Meta delivered improved integrity to WhatsApp" or that "Meta's acquisition of WhatsApp was necessary for WhatsApp to successfully address its integrity issues." *Id.* at ¶ 30.

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted and paraphrased opinions. Disputed that Professor McCoy's opinions create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 931. Further disputed that Professor McCoy's opinions are supported by the evidence in this case, including for the reasons stated below in Meta's responses to paragraphs 2183 and 2511. Disputed because Professor McCoy testified at his deposition that he is not aware of any "industry standard" regarding integrity. Ex. 313 at 180:3-14 (McCoy Dep. Tr.).

e) Professor Rim's Opinions

934. Professor Rim's assignment for his rebuttal report was to "review and respond to certain portions of the expert reports of Professors Steven Kaplan and Dennis Carlton," expert witnesses for Meta. PX9014, Rim Rebuttal Report at ¶¶ 26-28.

Meta Response: Undisputed.

935. In his rebuttal report, Professor Rim first opined that "there is no reason to believe that Instagram and WhatsApp were likely to fail at the time of their respective acquisitions by Meta." PX9014, Rim Rebuttal Report at ¶ 30. Professor Rim concluded that Professor Kaplan's report "creates a misleading impression of the likelihood of failure for VC-backed startup companies in general," "ignores the clear evidence that Instagram and WhatsApp were in fact not typical companies, and therefore even less likely to fail," unpersuasively cites to seven examples of failed startups, and misleads the reader by emphasizing the "'typical' or 'median' VC investment to imply that Instagram and WhatsApp would have been a losing investment to their VC backers." *Id.* at ¶¶ 30-34.

Meta Response: Disputed in part. Undisputed that Professor Rim offered the quoted and paraphrased opinions. Disputed that Professor Rim's opinions create a genuine dispute of material fact, including because Professor Rim did not offer opinions regarding the features or consumer benefits that Instagram would have provided if it had not been acquired by Meta. *See* Ex. 310 at 113:13-114:12 (Rim Dep. Tr.); *see also* Meta SMF ¶ 714 (citing Ex. 310 at 120:18-121:4 (Rim Dep. Tr.)). Professor Rim testified that he could not identify any start-up acquisition of a mobile app in the United States that resulted in more user growth than Instagram (and stated that he did not know how users had grown for even Instagram). *See* Meta SMF ¶ 728. Professor Rim testified that he performed no analysis of how consumers would have fared but for Meta's acquisition of

Instagram, that he was unaware of any evidence regarding how consumers would have fared, and that he had not performed any computations of how Instagram would have grown, in the "counterfactual world" where it was not acquired by Meta. *See id.* at ¶ 733 (quoting Ex. 310 at 113:13-21 (Rim Dep. Tr.)).

936. Professor Rim then assessed Professor Kaplan's and Professor Carlton's opinions as to how WhatsApp likely would have evolved had it remained independent, concluding that they were incorrect in suggesting that WhatsApp was unlikely to monetize by offering social networking services like Facebook had it remained independent. PX9014, Rim Rebuttal Report at ¶¶ 35-37. Professor Rim explained that "the most likely evolution path for WhatsApp would have included monetization, absent its acquisition by Meta," and further that "a likely evolution path for WhatsApp would have involved expansion into adjacent uses, e.g., a social networking offering similar to Facebook." *Id.*

Meta Response: Disputed in part. Undisputed that Professor Rim offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 935. Further disputed because, at his deposition, Professor Rim could not provide any evidence indicating that Apple, Google, Kakao, Path, Pinterest, MeWe, Snapchat, or Twitter thought that WhatsApp was a potential entrant into "personal social networking" before the acquisition, nor could he identify any "personal social networking" company that stated it perceived WhatsApp as the only entrant into the market. *See* Meta SMF ¶ 797.

C. Meta's Experts

937. Meta submitted expert reports from nine individuals: Professor Dennis Carlton, PX9019; Professor John List, PX9018; Professor Catherine Tucker, PX9015; Professor Daniel Fischel, PX9021; Professor Anindya Ghose, PX9016; Professor Steven Kaplan, PX9023;

Professor Jason Nieh, PX9022; Professor Itamar Simonson, PX9017; and Professor V.S. Subrahmanian, PX9020.

Meta Response: Undisputed.

1. Professor Carlton

938. Meta has proffered Professor Dennis Carlton's expert opinion for the purpose of "analyz[ing] the economics of the FTC's claims in this matter," responding to "Prof. Hemphill and his opinions on market definition, monopoly power, and claims of competitive harm," and reviewing the other expert reports submitted by the FTC. PX9019, Carlton Report at ¶ 6.

Meta Response: Undisputed that Professor Carlton offered the quoted opinion, which encompasses part (not all) of Professor Carlton's assignment and the purposes for which Meta proffers Professor Carlton as an expert witness.

939. In the last four years, Professor Carlton has served as a testifying expert for defendants in over twenty different matters. PX6179, Carlton (Meta) Dep. Tr., at 15:20-17:17; *see also id.* at 22:17-20 ("I would say it's fair to say as I recollect, most of my – many of my cases, probably the majority are on the behalf of the defendants.").

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted and paraphrased testimony and that he has testified on behalf of defendants in over 20 matters. Disputed that the statement in this paragraph creates a genuine dispute of material fact. Professor Carlton also testifies on behalf of plaintiffs – in antitrust cases – as his resume discloses, and as he addressed in his deposition testimony. *See* PX6179 at 21:21-22:20 (Carlton Dep. Tr.).

940. Courts have excluded or disregarded Professor Carlton's economic opinions in at least seven different cases over the last seven years.

Meta Response: Disputed. Disputed that courts have excluded or disregarded all the opinions Professor Carlton has offered in the below-referenced cases. Further disputed that the FTC's observations about Professor Carlton's testifying history – which the agency limits to a snapshot of time; dozens of courts have accepted and relied upon his economic opinions, including in antitrust cases – is capable of creating a genuine dispute of material fact. The statements in this paragraph and its subparagraphs are irrelevant to the pending motions before the Court and improper for a supposed "fact" statement, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. In 2023, Professor Carlton offered expert opinions in the *American Airlines-JetBlue* matter in the District of Massachusetts. The court found that Professor Carlton's testimony was "tainted by bias" and entitled to no weight. *See U.S. v. Amer. Airlines Grp. Inc.*, 675 F. Supp. 3d 65, 101-04 (D. Mass. 2023).

Meta Response: Disputed in part. Undisputed that Professor Carlton offered expert opinions in the above-referenced case. Disputed for the reasons stated above in Meta's response to paragraph 940. Further disputed that the statements in this subparagraph are material to the resolution of either party's motion. Further, the above quote – "tainted by bias" – was made in reference to defense experts as "*a general matter*" in that case, and not about Professor Carlton's opinions specifically. *United States v. Am. Airlines Grp. Inc.*, 675 F. Supp. 3d 65, 101 (D. Mass. 2023) (emphasis added), *appeal pending*, No. 23-1802 (1st Cir. filed Oct. 5, 2023). The agency omits that the court *contrasted* Professor Carlton

with other defense experts on the ground that he had expressed his opinions "more carefully and narrowly than those of his colleagues." *Id.* at 103.

b. In 2022, Professor Carlton offered expert opinions in *In re Payment Card Interchange Fee and Merchant Discount Antitrust Litigation* in the Eastern District of New York. The court excluded some of Professor Carlton's opinions because they relied on assumptions contrary to the available record evidence and they were not sufficiently supported by facts. *See In re Payment Card Interchange Fee and Merch. Disc. Antitrust Litig.*, 2022 WL 15044626, at *23-28 (E.D.N.Y. Oct. 26, 2022).

Meta Response: Disputed in part. Undisputed that Professor Carlton offered expert opinions in the above-referenced case and that the court did not accept all his opinions in that case. Disputed for the reasons stated above in Meta's response to paragraph 940. Further disputed that the statements in this subparagraph are material to the resolution of either party's motion. The FTC mischaracterizes the court's decision, which rejected multiple attempts to limit Professor Carlton's opinions. *See In re Payment Card Interchange Fee & Merch. Disc. Antitrust Litig.*, 2022 WL 15044626, at *20-21 (E.D.N.Y. Oct. 26, 2022) ("The Court does not exclude Professor Carlton's net price opinion or pass-through analysis."); *id.* at *23 ("The Court also does not exclude Professor Carlton's second [Redacted] opinion." (brackets in original)); *id.* at *24 ("The Court does not exclude Professor Carlton's use of the [Redacted]." (brackets in original)); *id.* at *25 (declining to exclude a particular report paragraph despite accepting defendants' critique as "valid in part").

c. In 2018, Professor Carlton offered expert opinions in the *Arista Networks v. Cisco Systems* matter in the Northern District of California. The court excluded Professor Carlton's opinions in part, finding portions of his opinions "inflammatory" and that he "essentially opin[ed] that certain conduct should not be punished by the antitrust laws." *See Arista Networks, Inc. v. Cisco Sys. Inc.*, No. 16-cv-00923-BLF, 2018 WL 8949299, at *5 (N.D. Cal. June 15, 2018).

Meta Response: Disputed in part. Undisputed that Professor Carlton offered expert opinions in the above-referenced case and that this subparagraph accurately quotes a handful of words from the court in that case. Disputed for the reasons stated above in Meta's response to paragraph 940. Further disputed that the statements in this subparagraph are material to the resolution of either party's motion. The FTC mischaracterizes the court's decision, which excluded four paragraphs and two sentences from Professor Carlton's overall report. *See Arista Networks, Inc. v. Cisco Sys. Inc.*, 2018 WL 8949299, at *5 (N.D. Cal. June 15, 2018). The court rejected all other challenges to the remaining portions of Professor Carlton's report. *See id.* at *5-8.

d. In 2018, Professor Carlton offered expert opinions in *In re Solodyn Antitrust Litigation* in the District of Massachusetts. The court excluded Professor Carlton's opinions in part where his analysis relied upon and "overstate[d]" another expert's testimony. *See In re Solodyn Antitrust Litig.*, No. 14-md-02503, 2018 WL 734655, at *7 (D. Mass. Feb. 6, 2018).

Meta Response: Disputed in part. Undisputed that Professor Carlton offered expert opinions in the above-referenced case and that this subparagraph accurately

quotes one word from the court's decision. Disputed for the reasons stated above in Meta's response to paragraph 940. Further disputed that the statements in this subparagraph are material to the resolution of either party's motion. The FTC mischaracterizes the court's decision, which rejected three of the arguments seeking exclusion of Professor Carlton's opinions and analyses. *See In re Solodyn (Minocycline Hydrochloride) Antitrust Litig.*, 2018 WL 734655, at *6-7 (D. Mass. Feb. 6, 2018). Further disputed that the court found that Professor Carlton "overstate[d]" another expert's testimony. The court allowed Professor Carlton to state his opinion and preemptively warned against "overstat[ing]" the other expert's testimony while "declin[ing] otherwise to exclude his breakeven analysis." *Id.* at *7 ("Carlton cannot, therefore, overstate Howson's testimony, to the extent he would use it to suggest Medicis's expectations of commercial success, but the Court declines otherwise to exclude his breakeven analysis.").

e. In 2017, Professor Carlton offered expert opinions in *In re Delta/AirTran Baggage Fee Antitrust Litigation* in the Northern District of Georgia. The court excluded Professor Carlton's opinions in part because he expressed an opinion "about what conduct the antitrust laws should and should not punish," which "potentially encourag[ed] jury nullification." *See In re Delta/Airtran Baggage Fee Antitrust Litig.*, 245 F. Supp. 3d 1343, 1362-63 (N.D. Ga. 2017).

Meta Response: Disputed in part. Undisputed that Professor Carlton offered expert opinions in the above-referenced case. Disputed for the reasons stated above in Meta's response to paragraph 940. Further disputed that the statements in this subparagraph are material to the resolution of either party's motion. The

FTC mischaracterizes the court's decision, which excluded just one of Professor Carlton's several opinions and "denied" the motion "in all other respects," allowing Professor Carlton to offer each of the other challenged opinions. *In re Delta/Airtran Baggage Fee Antitrust Litig.*, 245 F. Supp. 3d 1343, 1362-64 (N.D. Ga. 2017).

f. In 2017, Professor Carlton offered expert opinions in *UFCW Local 1776 v. Teikoku Pharma USA* in the Northern District of California. The court excluded Professor Carlton's opinions in part, agreeing with plaintiffs' argument that Professor Carlton's opinion amounted to "an impermissible legal conclusion and outside the realm of his expertise in economics." *See UFCW Local 1776 v. Teikoku Pharma USA*, 296 F. Supp. 3d 1142, 1177-78 (N.D. Cal. 2017).

Meta Response: Disputed in part. Undisputed that Professor Carlton offered expert opinions in the above-referenced case and that this subparagraph accurately quotes a handful of words from the court's decision. Disputed for the reasons stated above in Meta's response to paragraph 940. Further disputed that the statements in this subparagraph are material to the resolution of either party's motion. The FTC mischaracterizes the court's decision; plaintiffs challenged two aspects of Professor Carlton's testimony, one of which the court accepted. *See UFCW Local 1776 v. Teikoku Pharma USA*, 296 F. Supp. 3d 1142, 1177-78 (N.D. Cal. 2017). In granting the motion in part, the court wrote: "*No expert* may opine that there is a legal significance to cash versus non-cash payments in reverse payment settlements. However, the expert economists can discuss any differences

that various types of payments had or have on competition." *Id.* at 1178 (emphasis in original). That has no bearing on the issues here.

g. In 2017, Professor Carlton offered expert opinions in *Kleen Products v. International Paper* in the Northern District of Illinois. The court excluded Professor Carlton's opinions in part, barring Professor Carlton's "proffered testimony that Plaintiffs' impact analysis needs to account for the possibility that class members' overcharge may have been reduced by lower prices paid in other transactions." *See Kleen Prods. LLC v. Int'l Paper*, No. 10 C 5711, 2017 WL 2362567, at *27 (N.D. Ill. May 31, 2017).

Meta Response: Disputed in part. Undisputed that Professor Carlton offered expert opinions in the above-referenced case and that this subparagraph accurately quotes one sentence of the court's decision. Disputed for the reasons stated above in Meta's response to paragraph 940. Further disputed that the statements in this subparagraph are material to the resolution of either party's motion. The FTC mischaracterizes the court's decision; the plaintiffs' motion to exclude part of Professor Carlton's testimony was "unopposed and therefore granted" without analysis. *See Kleen Prods. LLC v. Int'l Paper*, 2017 WL 2362567, at *27 (N.D. Ill. May 31, 2017).

941. Professor Carlton is not an expert in "computer media[ted] communications," social networking, social media, or digital advertising. PX6179, Carlton (Meta) Dep. Tr., at 23:10-24:3.

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted testimony. Disputed that the FTC characterizes Professor Carlton's expertise

correctly; it omits necessary context. Professor Carlton testified: "I regard myself as an economic expert that can study an industry and apply economics to understand the economics of the industry." PX6179 at 23:13-15 (Carlton Dep. Tr.); *see id.* at 23:16-24:3. Disputed that this statement is material to the resolution of either party's motion.

942. Professor Carlton testified that the evidentiary basis for every opinion in his expert report is itself in the report. PX6179, Carlton (Meta) Dep. Tr., at 307:2-4.

Meta Response: Undisputed.

943. Professor Carlton concedes that he does not dispute Professor Hemphill's opinion concerning the relevant geographic market. PX6179, Carlton (Meta) Dep. Tr., at 110:1-4.

Meta Response: Undisputed.

944. Professor Carlton concedes that Facebook's and Instagram's services exhibit strong user-side network effects. PX6179, Carlton (Meta) Dep. Tr., at 256:2-257:4.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact. The cited testimony does not support the statement and is taken out of context. Professor Carlton testified: "If you're asking me does the network matter, I would agree the network *can* matter." PX6179 at 256:11-12 (Carlton Dep. Tr.) (emphasis added). When asked, "Q. We're in agreement that Facebook and Instagram services exhibit strong user-side network effects; correct?," *id.* at 256:13-15, Professor Carlton answered: "A. Probably Facebook more than Instagram, but I would agree that there are network effects. Exactly what you mean by 'strong' you would have to measure them. But even if network effects exist, that doesn't mean another firm can't create a network or hasn't created a network," *id.* at 256:16-21. Professor Carlton opined

that network effects have not prevented entry into the claimed relevant market, including because "the widespread use of smartphones" lowers switching costs for users and distribution costs for app developers. *See* Ex. 2 at ¶¶ 190-196 (Carlton Rep.).

a) Professor Carlton's testimony regarding Meta's high economic profits

945. Professor Carlton concedes that Meta earns high economic profits, meeting his own textbook definition of monopoly power. *See infra* CMF at § II.C.2(a); *see also* PX6179, Carlton (Meta) Dep. Tr., at 31:8-33:12.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that "Meta is a highly successful and profitable firm." PX6179 at 31:8-11 (Carlton Dep. Tr.). Disputed that the statement in this paragraph creates a genuine dispute of material fact because it is not supported by the evidence cited. To the extent this statement incorporates the FTC's statements in Section II.C.2(a), Meta incorporates its responses to those statements here. The cited deposition testimony does not support the statement about Professor Carlton's textbook. Professor Carlton testified about the difference between monopoly power and market power, contradicting the FTC's statement in this paragraph: "And I also explain in my text that just because a firm earns an above competitive rate of return, that's not necessarily a bad thing. It could be a good thing if it's, for example, a firm innovates and earns above competitive rate of return, we want to reward that. I believe in my report I explain that a firm like Meta is generating a lot of consumer surplus, that's to be applauded." PX6179 at 26:15-27:16 & errata (Carlton Dep. Tr.). Professor Carlton also stated in the cited testimony that "Facebook has earned very high profits, and that is a reflection together with all the consumer surplus it's generating, the firm is producing a highly valued product," *id.* at 31:22-32:5 & errata, and

that "Meta is a very successful firm and has brought great value to consumers," *id.* at 32:11-17. Further, Professor Carlton testified that his economics textbook uses the "economic definition," not the "legal definition" of monopoly power, which he understands to be different. *Id.* at 155:17-156:14 & errata ("I'm fairly certain I'm not using the legal definition of monopoly power. I'm fairly certain I'm using my economic definition of monopoly power. My economic definition of market power is price above marginal cost.").

946. Professor Carlton does not opine that Meta has monopoly power over advertisers nor that Meta's high profits are attributable to market power over advertisers. *See* PX6179, Carlton (Meta) Dep. Tr., at 52:4-12 ("Q. So you do not render an opinion in your report that Meta has monopoly power over advertisers; correct? A. I do not render that opinion. Q. And you offer no opinion in your report that Meta's high profits are derived from market power over advertisers; correct? A. I don't attempt to investigate its profits, Meta's profits other than what I've done.").

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted testimony. Disputed that this statement is material to the resolution of either party's motion; there is no claim that Meta has monopoly power over advertisers. Professor Carlton also testified that Meta's "profits are coming from mainly advertising," and that Professor Hemphill failed to explore the advertising side of Meta's business. PX6179 at 46:22-48:2 (Carlton Dep. Tr.).

b) Professor Carlton's testimony regarding market definition principles and the hypothetical monopolist test

947. Professor Carlton concedes that a relevant antitrust market need not include all alternatives that customers would switch to in response to a quality-adjusted price increase above the competitive level. PX6179, Carlton (Meta) Dep. Tr., at 110:12-19.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that a relevant antitrust market does not include all alternative products or services to which a consumer might substitute. Disputed that the FTC's paraphrasing of Professor Carlton's testimony (without providing any quotes) creates a genuine dispute of material fact, as it leaves out necessary context. Professor Carlton testified: "I would agree you don't include all substitutes. Whenever you are defining a market, you try to include the most important ones." PX6179 at 110:12-19 (Carlton Dep. Tr.). He further explained: "If you want to include the most important competitive constraints on a product, you ordinarily would include the most important substitutes." *Id.* at 111:7-14. Professor Carlton explained: "You can certainly have a technical definition in which you gerrymand[er] the markets so that you leave out important substitutes, but then you come [up] with a silly market." *Id.* at 112:7-10.

948. Professor Carlton concedes that, where a hypothetical monopolist controlling firms A and B can impose a 5 percent price increase, the Hypothetical Monopolist Test (HMT) is satisfied and the relevant market includes firms A and B alone. PX6179, Carlton (Meta) Dep. Tr., at 114:19-115:17; *see also id*. at 121:1-13 (conceding that, in running a SSNIP test, a small but significant price increase is an increase of approximately five percent).

Meta Response: Undisputed.

949. Professor Carlton agreed "[g]enerally" with the principle from the 2010 Horizontal Merger Guidelines that "[e]vidence that a reduction in the number of significant rivals offering a group of products causes prices for those products to rise significantly can itself establish that those products form a relevant market." PX15346, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 4 (2010); PX6179, Carlton (Meta) Dep. Tr., at 117:3-10.

Meta Response: Undisputed.

950. Professor Carlton agreed with the following principle regarding the Hypothetical Monopolist Test from the 2010 Horizontal Merger Guidelines: "Groups of products may satisfy the hypothetical monopolist test without including the full range of substitutes from which customers choose. The hypothetical monopolist test may identify a group of products as a relevant market even if customers would substitute significantly to products outside that group in response to a price increase." PX15346, 2010 Horizontal Merger Guidelines § 4.1.1; PX6179, Carlton (Meta) Dep. Tr., at 117:11-118:1.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that Professor Carlton provided the paraphrased testimony. Disputed that this statement creates a genuine dispute of material fact, because Professor Carlton also clarified in the same testimony: "That, of course, is different from a statement to exclude a product where the substitution is greater than those in the market." PX6179 at 117:11-118:1 (Carlton Dep. Tr.). Professor Carlton also explained: "Whenever you are defining a market, you try to include the most important ones." *Id.* at 110:12-19. And: "If you want to include the most important competitive constraints on a product, you ordinarily would include the most important substitutes." *Id.* at 111:7-14.

951. Professor Carlton concedes that, as a conceptual matter, the HMT can be executed in terms of an increase in quality-adjusted price. PX6179, Carlton (Meta) Dep. Tr., at 121:18-122:11.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the cited testimony does not support the statement. When the FTC asked, "Q. But you would agree conceptually that the hypothetical monopolist test can also be executed in terms of an increase in quality-adjusted price; correct?," Professor Carlton answered: "A. You've got to be a little careful what you mean by it. We went back to our discussion, can you define it for me? As a general statement I could agree with it, but in a specific application you'd have to say how you are defining quality-adjusted price. There's some places where it's easy to do. There are other places where it's much – very ambiguous how you would do it. And it's especially hard if people disagree – if consumers disagree about what's an increase in quality and what's a decrease in quality." PX6179 at 121:18-122:11 & errata (Carlton Dep. Tr.).

952. Professor Carlton concedes that the 2010 Horizontal Merger Guidelines did not require the HMT to be executed in a manner that expands the market based on the order of diversion. PX6179, Carlton (Meta) Dep. Tr., at 124:11-125:3.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed the 2010 Horizontal Merger Guidelines do not "require" what the FTC describes. Disputed that the FTC's paraphrasing of Professor Carlton's testimony creates a genuine dispute of material fact, because it omits the complete response and necessary context. Professor Carlton said: "It didn't require it, but it indicated a general preference for it. And I think that would reflect the thinking in prior guidelines, and, in fact, there's a very specific

example." PX6179 at 124:11-21 (Carlton Dep. Tr.); *see also* PX15346 at § 4.1.1 (2010 Horizontal Merger Guidelines) ("When applying the hypothetical monopolist test to define a market around a product offered by one of the merging firms, if the market includes a second product, the Agencies will normally also include a third product if that third product is a closer substitute for the first product than is the second product."). Professor Carlton added: "There's a paper from the Department of Justice that tells you how to implement the test. And they do tell you to implement it in order of closeness of substitution." PX6179 at 124:22-125:3 (Carlton Dep. Tr.).

953. Professor Carlton concedes that, in a monopoly maintenance case, executing the HMT by imposing a SSNIP on top of prices that are already supracompetitive would mean committing the Cellophane Fallacy and thereby overlooking the existing exercise of market power. PX6179, Carlton (Meta) Dep. Tr., at 139:3-140:12.

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the paraphrased testimony about a hypothetical price increase above a prevailing price that is already known to be supracompetitive. Disputed that this statement creates a genuine dispute of material fact, as the *Cellophane* fallacy is irrelevant to whether a prevailing price is already supracompetitive or the order in which consumers substitute to other products when faced with a price increase above an already supracompetitive price. *See* Ex. 2 at ¶¶ 22-24 (Carlton Rep.) (discussing the *Cellophane* fallacy). As Professor Carlton explained: "Because Prof. Hemphill does not claim that there is only one product or one firm in the relevant market, actual substitution patterns can be used to determine whether consumers consider products that Prof. Hemphill claims are in the relevant market to be closer substitutes to Facebook and Instagram than products outside his

alleged market. That is, the Cellophane fallacy is about marginal products being made closer substitutes than they would be in a more competitive market – but if the products are not marginal (i.e., are as close or closer a substitute than products Prof. Hemphill claims are in the alleged market), then the Cellophane fallacy does not apply. Prof. Hemphill claims that Snapchat is in his market now and in his hypothetically more competitive world, but if there are closer current substitutes to Facebook or Instagram today than Snapchat (and there are, as discussed below), then they should be in his market in his hypothetical world as well, even accounting for the Cellophane fallacy." *Id.* at ¶ 7 (at pp. 5-6).

954. Professor Carlton concedes that a monopolist would be expected to raise its price sufficiently above competitive levels such that it faces competition from other products and that, therefore, a firm may have monopoly power even if its monopolized product faces demand substitutes at the monopoly price. PX6179, Carlton (Meta) Dep. Tr., at 155:5-156:19.

Meta Response: Disputed in part. Undisputed that Professor Carlton acknowledged that a monopolist would generally be expected to behave as described and that the implication is that a monopolist already charging the profit-maximizing price will lose marginal consumers if it increases price further (i.e., above the monopoly price) because it faces a downward-sloping demand curve. *See* Ex. 2 at ¶¶ 22-24 (Carlton Rep.). Disputed that the FTC's reference to "monopoly power" creates a genuine dispute of material fact, because it does not summarize the testimony accurately. Professor Carlton testified that he was answering the question by using his "economic definition," which is

different from the "legal definition" of monopoly power. PX6179 at 155:17-158:3 (Carlton Dep. Tr.).

c) Professor Carlton's testimony regarding qualitative evidence

955. Professor Carlton does not dispute that the 2010 Horizontal Merger Guidelines indicate that the HMT provides a useful methodological tool for gathering and analyzing evidence, even where the HMT cannot be implemented quantitatively. PX6179, Carlton (Meta) Dep. Tr., at 212:6-213:17; *see also* PX15346, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 4.1.3 (2010) ("Even when the evidence necessary to perform the hypothetical monopolist test quantitatively is not available, the conceptual framework of the test provides a useful methodological tool for gathering and analyzing evidence pertinent to customer substitution and to market definition").

Meta Response: Disputed in part. Undisputed that the FTC's statement accurately quotes the 2010 Horizontal Merger Guidelines. Disputed that this statement creates a genuine dispute of material fact regarding whether Professor Carlton agreed that the materials cited support the proposition. He did not. He testified: "I think I generally agree that market definition should remain part of an antitrust analysis. However, I stress, again, it's very crude. And it's the place to begin an analysis, not end an analysis and that thinking that market definition, especially if there are multiple competing market definitions that might give different answers that that's a useful analytic tool would be a mistake." PX6179 at 212:7-213:1 (Carlton Dep. Tr.). Regarding a "qualitative" analysis, Professor Carlton testified: "[Y]ou have to recognize that when you do that, you're doing a very crude analysis. And reliance on market definition and market shares in that situation is not necessarily a reliable method to assist either the agencies or the courts to

determine, for example, if a merger is going to create market power, additional market power." *Id.* at 216:1-8. He also explained: "[I]n a specific application you'd have to say how you are defining quality-adjusted price. There's some places where it's easy to do. There are other places where it's much – very ambiguous how you would do it. And it's especially hard if people disagree – if consumers disagree about what's an increase in quality and what's a decrease in quality." *Id.* at 121:18-122:11 & errata.

956. Professor Carlton concedes that economists typically use qualitative evidence to implement the HMT and that market definition generally relies on theory and qualitative evidence. *See* PX6179, Carlton (Meta) Dep. Tr., at 213:3-214:7.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the testimony cited in this paragraph. The FTC asked Professor Carlton if it is typical to use qualitative analysis "to assess" – not to implement – "the hypothetical monopolist test." PX6179 at 213:8-12 (Carlton Dep. Tr.). Professor Carlton answered only: "Yes, in the way I've described it, but it's also true – I mean, obviously, the department and FTC can speak for themselves, that it's been my experience that it's rare that the only analytic tool they use is market definition." *Id.* at 213:13-17. At no point in this line of questioning did Professor Carlton endorse a so-called "qualitative" hypothetical monopolist test, as stated above in Meta's response to paragraph 955.

957. Professor Carlton concedes that he has relied on qualitative evidence to implement the HMT in other matters where he proffered expert testimony. PX6179, Carlton (Meta) Dep. Tr., at 215:5-216:15.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the testimony cited in this paragraph. The FTC asked Professor Carlton if he has ever "relied on qualitative evidence to offer opinions about whether the hypothetical monopolist test is satisfied," not whether qualitative analysis can "implement" the hypothetical monopolist test. PX6179 at 215:10-13 (Carlton Dep. Tr.). At no point in this line of questioning did Professor Carlton endorse a so-called "qualitative" hypothetical monopolist test, as stated above in Meta's response to paragraph 955.

958. Professor Carlton concedes that how consumers use different apps and functional characteristics of different apps may both be relevant to assessing demand substitution and market definition. PX6179, Carlton (Meta) Dep. Tr., at 221:13-18, 223:5-17.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the testimony cited in this paragraph. When the FTC asked, "Q. And in that situation where you don't have that type of [substitution] data available, you agree that how consumers use different apps is relevant to assessing demand substitution and market definition?," Professor Carlton testified: "A. It might be. It might be, but two points. First, in this case, we have information and Professor Hemphill has ignored it and it's information that doesn't support his view. And in order to define a market, you have to explain what is the price. Now, here, we've already talked about it's complicated. But as far as I can tell, since there's no pecuniary price, there's some, what he calls, this quality adjusted price, although he never defines it. So it's this ambiguous notion. But in order for a market definition to make sense, you have to explain how – the pricing. And let's just, to keep it simple, talk about ad load, just to

keep it simple, since that's one element of what he thinks is a quality dimension that matters, and it's the one he focuses on. Is the ad load the same for people in his use case that he's focusing on as the ad load for people who are watching video, which is not something he's interested in; and if not, why are they a separate market? So he doesn't address that at all." PX6179 at 221:13-222:19 (Carlton Dep. Tr.). Professor Carlton made the same clarifications in the additional testimony the FTC cites. *See id.* at 222:20-223:21 (same).

959. Professor Carlton concedes that people use Facebook and Instagram to communicate with friends and family. *See* PX6179, Carlton (Meta) Dep. Tr., at 225:15-228:21.

Meta Response: Disputed in part. Undisputed that Professor Carlton recognizes Facebook and Instagram are two of the many apps that consumers can use to communicate with friends and family. Disputed that this statement creates a genuine dispute of material fact, because it omits the full context of the testimony. Professor Carlton stated: "I would agree that people use Facebook to communicate with friends and receive communication from friends, but I want to emphasize that the word 'friends' is not so obvious that it really means what you and I would think it is." PX6179 at 226:2-10 (Carlton Dep. Tr.). Further, when the FTC asked, "Q. You agree that people also use Instagram to make connections with friends and family; correct?," Professor Carlton testified: "A. Well, it's a little more complicated with Instagram. My understanding of Instagram is you can be – you can follow or be a follower. And you can also be a reciprocal follow/follower. So it's a little different. But, yes, you can do that." *Id.* at 227:17-228:3.

960. Professor Carlton does not dispute that friends and family sharing has not declined in absolute terms and that any decline in friends and family sharing as a proportion of overall time spent may be explained by Meta deliberately promoting content unrelated to friends and family sharing. PX6179, Carlton (Meta) Dep. Tr., at 230:19-235:22.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed that it is possible that friends-and-family sharing may be declining as a proportion of overall time spent because consumers might be demanding more entertainment or other content. Disputed that the testimony the FTC cites – without explanation – creates a genuine dispute of material fact or supports the statement.

d) Professor Carlton's testimony regarding market power and dimensions of quality-adjusted price

961. Professor Carlton concedes that a firm can exercise market power by lowering the quality of its products or services. PX6179, Carlton (Meta) Dep. Tr., at 33:21-34:20.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed there are scenarios in which a firm might exercise market power by lowering quality. Disputed that this statement creates a genuine dispute of material fact, because it takes Professor Carlton's testimony out of context. When the FTC asked, "Q. You agree, for instance, that a firm can exercise market power by lowering quality; correct?," Professor Carlton testified: "A. Possible. But as I talk about in the report, the economic literature is pretty clear that where the quality is higher or lower, the competition depends." PX6179 at 33:21-34:5 (Carlton Dep. Tr.). He also testified that, under certain conditions, market power "could lead to higher, lower, or the same quality." *Id.* at 34:15-16. Professor Carlton added: "Could it lead to a lower level [of quality], yes. Could it lead to a higher level [of quality], yes." *Id.* at 34:17-20. He opined: "It is well known in the economics

literature that the quality of products in such an industry can increase, decrease, or remain the same as competition increases in a market." Ex. 2 at ¶ 126 (Carlton Rep.).

962. Professor Carlton concedes that whether a firm has market power is determined by its direct price elasticity of demand and that a firm facing less elastic demand has greater market power. PX6179, Carlton (Meta) Dep. Tr., at 54:20-56:6.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony. When the FTC asked, "Q. But whether a firm has market power is determined by its elasticity of demand, not by the cross elasticity of demand for the firm's products and other products; correct?," Professor Carlton answered: "A. That's correct. In a *simple model*, yes. All those concepts are related." PX6179 at 54:20-55:3 & errata (Carlton Dep. Tr.) (emphasis added).

963. Professor Carlton concedes that ad load, privacy, and innovation are variables through which a social media company could exercise market power over users. PX6179, Carlton (Meta) Dep. Tr., at 45:18-46:2.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony. When the FTC asked, "Q. So you agree that ad load, privacy, innovation are variables through which a social media company could exercise market power over users; correct?," Professor Carlton answered: "A. Anything is – anything could happen. I go through the report and I explain why ad load and privacy, you know, have long sections on why they explain those don't seem to be particularly important elements of competition." PX6179 at 45:18-46:7 & errata (Carlton Dep. Tr.). Regarding innovation, he testified: "Innovation I

do explain as being important and go through and have several tables on all the new features that have been introduced over time. And I also emphasize the copying of features among the various apps as indicators of competition." *Id.* at 46:8-14.

964. Professor Carlton concedes that the level of ad load that Meta sets on Facebook and Instagram has increased over the last decade and that the relative level of ad load affects the quality of the Facebook and Instagram apps for users. PX6179, Carlton (Meta) Dep. Tr., at 92:20-93:22.

Meta Response: Disputed in part. Undisputed that Professor Carlton stated his "general view" is that ad load has increased over the last 10 years. PX6179 at 93:21-22 (Carlton Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony. Professor Carlton did not "concede[]" that "ad load affects the quality of the Facebook and Instagram apps for users," as the FTC asserts. The FTC takes Professor Carlton's testimony out of context. He testified: "Yes, I believe ad load is something that could matter to consumers. The question is how much and the question is does it – do different ad loads induce substitution among the different apps. Also the question of whether the ad loads provide advertising dollars in revenues that enable the app to introduce new features into the app. So it would be important both for the user to – who may not want to see ads, maybe important to the user who does want to see ads, but, in any event, maybe important to both types of users to the extent it's supporting – creating revenue that's used to support the introduction of new features. So yes, I think it could matter." *Id.* at 93:3-17. The FTC also itself confirmed, as part of this discussion, that Professor Carlton has also opined advertising can generate benefits for users. *See id.* at 94:1-4 ("Yes, it can.").

965. Professor Carlton concedes that, for a user who experiences an increase in ad load as a net disutility, an increase in ad load constitutes an increase in the quality-adjusted price for that user. PX6179, Carlton (Meta) Dep. Tr., at 96:2-97:6.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed with the above hypothetical for such a hypothetical single user, but only holding "all else equal." PX6179 at 96:15-22 (Carlton Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of that testimony (which it provides without any quotation) is incomplete. Professor Carlton testified: "Yes, all else equal. But there could be other benefits from the advertising, so the other ad benefits would be first advertisers are benefitting, that's the other side of the market. Second, advertising as the FTC well knows, can make a market more competitive. And to the extent it makes the market more competitive, the product market more competitive, that can benefit lots of people, including the person who doesn't like an ad load." *Id.* at 96:18-97:6 & errata. He also testified: "[A]d loads provide advertising dollars in revenues that enable the app to introduce new features into the app. So it would be important both for the user to – who may not want to see ads, maybe important to the user who does want to see ads, but, in any event, maybe important to both types of users to the extent it's supporting – creating revenue that's used to support the introduction of new features. So yes, I think it could matter." *Id.* at 93:3-17. Further disputed because the FTC concedes it has no net measure of quality in the record. *See* Meta SMF ¶ 129.

966. Professor Carlton concedes that his expert report provides no evidence regarding the level of ad quality on Facebook and Instagram beyond that gathered in Tables 24 through 26.

PX6179, Carlton (Meta) Dep. Tr., at 103:14-104:6; *see also* PX9019, Carlton Report at ¶¶ 162-64, Tables 24-26 (summarizing Meta reports on ad quality).

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that "nothing comes to mind" beyond the three separate tables (and corresponding analysis) referenced in the FTC's statement, but he added there "might be something else in the report" regarding this issue. PX6179 at 103:20-104:6 (Carlton Dep. Tr.). Disputed that the statement in this paragraph – without explanation or discussion – creates a genuine dispute of material fact. As the report explains, Table 24, Table 25, and Table 26 show that "ad 'quality' from the user perspective has continually improved during the alleged period of monopolization," including because Meta encourages "advertisers to improve the quality of their ads" and Meta has improved systems to show "advertisements more relevant to users and thus less likely to decrease user utility from using Facebook or Instagram." Ex. 2 at ¶¶ 162, 164 (Carlton Rep.).

967. Professor Carlton concedes that users of Facebook and Instagram value privacy and that privacy is a component of Meta's product offerings affecting the quality of the apps for users. PX6179, Carlton (Meta) Dep. Tr., at 62:14-64:17; *see also id*. at 76:6-77:5 (agreeing "generally" that "how well Meta protects the privacy of users of Facebook and Instagram makes up part of the quality of the apps").

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited material. When the FTC asked, "Q. To be clear, are you denying that users of Facebook and Instagram actually care about privacy?" Professor Carlton answered: "A. I'm not denying that. I'm simply saying that based on

the observed behavior, differences in privacy don't seem to matter much in driving substitution of consumers from one app to another. And that, you know, I have a section in my report where I talk about various apps having different privacy. And it did not seem to matter." PX6179 at 62:14-63:1 (Carlton Dep. Tr.). Professor Carlton explained that there is a difference between consumers stating in response to a survey "I value my privacy" and "the relevant point from an economic point of view" whether "differences in privacy drive consumers to substitute two rivals, and I don't see any evidence of that, nor does Professor Hemphill provide quantitative support for such a statement." *Id.* at 63:7-18. Regarding privacy and service quality, Professor Carlton testified: "Professor Hemphill never, you know, articulates how he would measure [quality-adjusted price]." *Id.* at 64:2-17. Regarding how well Meta protects the privacy of its users, Professor Carlton explained that "it all depends" on different user preferences and receptivity to certain settings. *Id.* at 76:6-77:5. Further disputed because Professor Carlton opines, regarding an empirically observable phenomenon called the "privacy paradox," that "whatever people may say about the value they place on 'privacy,' their actual actions in the marketplace reflect that they may value other things more highly." Ex. 2 at ¶ 174 (Carlton Rep.).

968. Professor Carlton concedes that the features of Facebook and Instagram affect the quality-adjusted price of the apps. PX6179, Carlton (Meta) Dep. Tr., at 73:20-74:13.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed feature innovation on Facebook and Instagram is part of the quality of those services. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony. Professor Carlton stated, as part of the same testimony: "Yes.

But as we have talked about earlier, the word – and I'll put it in quotation marks – 'quality-adjusted price' is a little ambiguous. There are ways to construct price indices. For example, the census does that. They try and adjust the quality. That's not what Professor Hemphill is suggesting, or I haven't seen him suggest how he wants to do that." PX6179 at 74:1-8 (Carlton Dep. Tr.). Professor Carlton also testified about Professor Hemphill's analysis: "[W]hen he says 'quality-adjusted price,' I'd like him to define it. What, how – if he thinks it's a specific number, what is it. How would he construct it. He doesn't say." *Id.* at 75:1-5.

e) Professor Carlton's testimony regarding evidence of price discrimination

969. Professor Carlton concedes that [redacted]. PX6179, Carlton (Meta) Dep. Tr., at 246:20-247:22.

<u>Meta Response</u>: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony, which is taken out of context and is incomplete. Professor Carlton testified: "[redacted], but that is not the relevant question. The relevant question is how that varies holding [redacted]." PX6179 at 247:20-248:7 (Carlton Dep. Tr.) (emphasis added). He also testified: "But the point I'm making is that [redacted], which is the implication I took from his first report where he was suggesting that or I thought stating that. And [redacted]." *Id.* at 248:12-16. Professor Carlton also testified regarding [redacted] and Professor Hemphill's analysis: "The relevant experiment is to ask, all else equal, if I use friends more – what he calls his use case of friends, is that being used to show me a higher ad

load? And [redacted]." *Id.* at 245:12-246:1.

970. Professor Carlton does not dispute in his report that [redacted]. PX6179, Carlton (Meta) Dep. Tr., at 248:17-249:16.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony, which is taken out of context and is incomplete. When the FTC asked, "Q. You also do not contest Professor Hemphill's showing in his opening report that [redacted]; correct?," Professor Carlton answered: "A. [redacted]" PX6179 at 248:17-249:5 (Carlton Dep. Tr.). He continued: "[T]hat's not the right question, you know, to be examining. The right question for him to be examining is, all else equal, that means holding [redacted], do you have a higher ad load, systemically, [redacted]?" *Id.* at 250:12-22. Professor Carlton also testified regarding [redacted] and Professor Hemphill's analysis: "The relevant experiment is to ask, all else equal, if I use friends more – what he calls his use case of friends, is that being used to show me a higher ad load? And [redacted]." *Id.* at 245:12-246:1.

971. Professor Carlton concedes that Meta has a [redacted]. PX6179, Carlton (Meta) Dep. Tr., at 251:1-5.

Meta Response: Disputed in part. Undisputed that Professor Carlton stated that his "general understanding" is that [redacted]. PX6179 at 251:1-5 (Carlton Dep. Tr.). Professor Carlton added: [redacted] *Id*. at 251:6-12. Disputed that this statement creates a genuine dispute of material fact, including because there is no evidence that [redacted]. *See* Meta Resp. to Counterstatement ¶ 1504; *see also* Meta SMF ¶ 640.

f) Professor Carlton's testimony regarding the competitive effects of Meta's acquisitions of Instagram and WhatsApp

972. Professor Carlton concedes that output could increase even as the quality-adjusted prices on Facebook and Instagram are increasing. PX6179, Carlton (Meta) Dep. Tr., at 88:12-16; *see also id*. at 89:10-90:1.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that, if all else is held equal, then output could increase even if quality-adjusted prices are increasing (e.g., where pecuniary prices are falling). Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Carlton's deposition testimony omits necessary context to both the FTC's question and Professor Carlton's answer, which clarified: "That's true. But it would be – I mean, you can say anything you want, but without – and it might be true, but without any evidence, I don't see why one should believe it." PX6179 at 88:12-19 (Carlton Dep. Tr.). He also testified: "Therefore, there's absolutely no basis that I can tell for him, Professor Hemphill's claim, no quantitative basis. I understand at a theoretical level what he's saying, but there's no quantitative basis. On a theoretical level anything could be true."

Id. at 89:4-9. Regarding the FTC's question about whether population growth could explain an increase in output, Professor Carlton testified: "If you look at per user, the usage, that too has gone up over this decade, the period per user use. Per user use it's going up; that doesn't have to do with population growth, or very little." *Id.* at 89:10-90:1 & errata.

973. Professor Carlton concedes that there is survey evidence showing that user sentiment on Facebook and Instagram has declined since the acquisitions of Instagram and WhatsApp. PX6179, Carlton (Meta) Dep. Tr., at 314:4-8.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that he is aware of some surveys showing that some user sentiment has declined for certain metrics. Disputed that this statement creates a genuine dispute of material fact; there is no evidence that sentiment has only or uniformly declined, rather than sometimes improved. Further disputed that the FTC's paraphrasing of Professor Carlton's deposition testimony provides appropriate context to either the FTC's question or Professor Carlton's answer, which clarified: "Yes, but that's different than showing that output has gone down. Total output has gone up since 2014 or 2012, if you measure it." PX6179 at 314:4-11 (Carlton Dep. Tr.). Further disputed because Professor Carlton opined: "[T]he survey results do not provide measures of the quality of the apps. Survey responses about whether Facebook is 'good for the world' or 'cares about users' can be expected to change for many reasons unrelated to antitrust concerns." Ex. 2 at ¶ 169 (Carlton Rep.). For example, data showing declining sentiment toward "social media" generally – not just Meta – "demonstrate that consumers' views of Meta's corporate reputation may reflect secular shifts in consumer sentiment regarding the sector in which

Meta operates." *Id.* at ¶ 170. Professor Carlton further explained: "Prof. Hemphill puts forward no quantitative assessment of the evidence to support his interpretation of the Meta surveys as demonstrating a decline in quality and an increase in 'price.' If the surveys demonstrated that 'price' has increased over time, then according to Prof. Hemphill, we should observe a decrease in output, all else equal. That is, if quality-adjusted price goes up, usage should go down. But Prof. Hemphill's data shows output increasing over time, with Facebook MAUs and time spent on the app increasing even as Prof. Hemphill claims the surveys demonstrate quality-adjusted price is increasing." *Id.* at ¶ 171.

974. Professor Carlton concedes that there is evidence in the record that the ad load Meta sets for Facebook and Instagram is influenced by competitive conditions for users. PX6179, Carlton (Meta) Dep. Tr., at 334:20-335:4.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony, which the FTC mischaracterizes. When asked, "Q. Setting aside magnitude, we are agreed that there is some evidence in the record that the ad load Meta sets for Facebook and Instagram is influenced by competitive conditions for users; correct?," Professor Carlton testified: "[A.] Yes, but very little in the sense that you see very little substitution based on ad load, almost none. . . . You don't see ad load falling for Facebook when Snapchat came – comes in, which is a competitor supposedly – according to Professor Hemphill, an important competitor influence. I just don't see any evidence for what he's claiming. . . . Finally, there's a section in my report in which I say there's just no basis for Professor Hemphill to be talking about ad loads independent of what's going on . . . the advertising

side. Without understanding the incentives to set ad loads, which he seems to ignore on the advertising side, you can't understand how you're going to set ad loads in equilibrium." PX6179 at 334:20-336:2 & errata (Carlton Dep. Tr.). Further disputed because there is no evidence that Meta varies ad load based on whether a user is engaging in friends-and-family sharing. *See* Meta SMF ¶ 640; Meta Resp. to Counter SMF ¶ 1504.

975. Professor Carlton concedes that the anticompetitive effects of the Instagram and WhatsApp acquisitions should be assessed relative to a but-for world in which the acquisitions did not take place. *See* PX6179, Carlton (Meta) Dep. Tr., at 273:6-10.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed any claimed or supposed anticompetitive effects allegedly arising from the Instagram and WhatsApp acquisitions should be assessed relative to a but-for world in which the acquisitions did not take place. Disputed that this statement creates a genuine dispute of material fact, because it is not supported by the cited testimony. The FTC cites the wrong part of the transcript. In what the FTC cites, Professor Carlton explained: "So we have the benefit that there's this grand slam home run, and to assume that all things could have been even better if Facebook hadn't purchased Instagram seems to me like speculation that's not based on evidence that could be verified." PX6179 at 273:5-10 (Carlton Dep. Tr.).

976. Professor Carlton concedes that a monopolist's acquisition of a competitive threat can be a form of anticompetitive conduct under Section 2 of the Sherman Act. PX6179, Carlton (Meta) Dep. Tr., at 274:2-275:7.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed that, under certain defined circumstances, it is possible that a monopolist's acquisition of a

competitive threat can be a form of anticompetitive conduct (e.g., where the monopolist shuts down the acquired firm, thereby reducing output and increasing prices). Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of that testimony (which it provides without any quotation) is incomplete. Professor Carlton explained: "On the other hand, a harder case is let's suppose I told you that if that firm buys this other firm – if the big firm buys the little firm, it's going to cause the little firm to get all sorts of efficiencies that it could never get. And then as a result, the price is lower; and then if we didn't allow the merger, well, then I would say that looks like a pro-competitive merger." PX6179 at 274:19-275:4 (Carlton Dep. Tr.). Further disputed that Professor Carlton agreed that any conduct would violate a specific law like Section 2 of the Sherman Act; he testified, "I'm not a lawyer." *Id.* at 275:13-18.

977. Professor Carlton concedes that there is evidence indicating that Meta perceived Instagram as a competitive threat to Facebook's social networking services and that Meta's conduct concerning Facebook Camera reflected this competitive pressure. *See* PX6179, Carlton (Meta) Dep. Tr., at 281:10-285:1.

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed that Meta perceived Instagram along with many other firms as competitive threats. Disputed that the FTC's paraphrasing of nearly four pages of deposition testimony without providing a single quotation accurately reflects the testimony or creates a genuine dispute of material fact. In the passage the FTC cites, Professor Carlton testified: "[M]y recollection is there are probably lots of documents where Facebook is saying this is a serious threat to us. This Company A is, Company B is, Company C is, Company D is. I think there are a lot of such documents." PX6179 at 281:14-282:1 (Carlton Dep. Tr.). He also testified:

"There are a lot of documents that say a lot of things. A lot of documents that say, I'm worried about Instagram. I'm worried about, you know, Twitter. I'm worried about TikTok. I'm worried about this company. I'm worried about that company. . . . But the reason I say IG [Instagram] doesn't appear unique is because my general recollection is they're worried about – and name lots of companies in their documents that they're worried about." *Id.* at 282:18-283:13 & errata.

978. Professor Carlton was unable to name an app that posed a more significant competitive threat to Meta with respect to Facebook's social networking offering than Instagram did in 2012. PX6179, Carlton (Meta) Dep. Tr., at 299:7-22

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Carlton's testimony (which it provides without any quotation) omits necessary context. He testified: "Well, I'm not sure I can do so right now. My report talks about what the OFT [a European antitrust enforcer] stated were the closest competitors to Instagram, and that's in paragraph 287. And I also talk about why Instagram . . . wasn't interested in going in and therefore – head-to-head with Facebook and, also, Instagram had no monetization plan. So I would say, I can't tell you who among the list say in paragraph 287, I think is more likely. What I can tell you and what I discuss in this section of my report is that I don't think Instagram was a likely entrant in the – what Professor Hemphill is saying the PSNS market, which I interpreted to be a threat to Facebook's users when those users use what he calls friends and family." PX6179 at 299:12-300:7 (Carlton Dep. Tr.). Paragraph 287 of Professor Carlton's report identifies "apps such as Camera Awesome, Camera+, Flickr, Hipstamatic, Path, and Pixable" as "the closest competitors to Instagram" in the

OFT analysis. Ex. 2 at ¶ 287 (Carlton Rep.). In the very next paragraph, Professor Carlton opines that, "[i]f Instagram" was a threat "in 2012," then other threats to Meta should include "LinkedIn, Nextdoor, Strava, Twitter, Reddit, Pinterest, YouTube, TikTok, and Twitch." *Id.* at ¶ 288. Professor Carlton also opines that other services were competitive threats to Meta in 2012, e.g., online games. *See id.* at ¶ 59.

979. Professor Carlton concedes that there is evidence indicating that Meta perceived WhatsApp as a competitive threat to Facebook's social networking services. PX6179, Carlton (Meta) Dep. Tr., at 293:10-294:14.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Carlton's testimony (which it provides without any quotation) omits necessary context. He testified: "Q. To be clear, is it your position that there's no evidence in the record indicating what – Meta perceived of WhatsApp as a threat to Facebook's social networking service? A. No, my answer would be the same as I gave you earlier. My general recollection is that there are documents that would explain – that would say I'm worried about A, B, C, D, and WhatsApp may be one of those firms. But my only point is that if it says WhatsApp, it's going to say other firms, too, that there are documents that say other firms, too." PX6179 at 293:10-21 (Carlton Dep. Tr.). He also testified, "it is not my position that – that Facebook didn't worry about WhatsApp or raise the concern about WhatsApp. It raised the concern about a lot of things." *Id.* at 294:4-9. Professor Carlton testified that "Facebook is worried about lots of firms" and "characterizes lots of firms as a threat." *Id.* at 294:10-14.

980. Professor Carlton concedes that output can increase in a market even where a firm is exercising significant market power or engaging in anticompetitive conduct. PX6179, Carlton (Meta) Dep. Tr., at 318:14-319:11.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that output can increase in a market where a firm is exercising market power in certain hypothetical circumstances. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Carlton's testimony (which it provides without any quotation) omits necessary context. He testified: "The relevant question in, say, a case like this is whether it would have increased more in the but-for world, and that's the question I address." PX6179 at 318:17-20 (Carlton Dep. Tr.). The FTC has presented no evidence of what output would have been in a but-for world without the acquisitions. *See* Meta SMF ¶ 734.

981. Professor Carlton concedes that monopolists can generate consumer surplus and that his expert report did not compare consumer surplus today relative to a but-for world without the acquisitions. PX6179, Carlton (Meta) Dep. Tr., at 322:14-323:19.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that a monopolist can generate consumer surplus and that he did not calculate what consumer surplus would have been in a but-for world without the Meta acquisitions of Instagram and WhatsApp. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Carlton's testimony (which it provides without any quotation) omits necessary context. He testified: "And one of the reasons why we allow monopolists in our society is because they generate consumer surplus.

That's why we encourage innovation, and we encourage people to take risks and develop new products." PX6179 at 322:16-20 (Carlton Dep. Tr.).

982. Professor Carlton concedes that claims of benefits stemming from a merger should be assessed relative to what could be achieved in a but-for world without the acquisitions. PX6179, Carlton (Meta) Dep. Tr., at 323:20-324:6.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified in support of comparing an acquisition or merger's effects to the but-for world without the merger or acquisition to determine competitive effects. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Carlton's testimony (which it provides without any quotation) omits necessary context. He testified: "Yes, but as I've stated several times in my writings, you should not fall victim to accepting the argument that there's no need for mergers because you can achieve everything by contract." PX6179 at 324:2-6 (Carlton Dep. Tr.).

983. Professor Carlton concedes that, all else equal, society benefits more from a competitive market than a monopolized market. PX6179, Carlton (Meta) Dep. Tr., at 332:16-333:12.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that, "if I had my choice between monopoly and competition, all else equal, I'd prefer competition because it tends to expand output and benefit society." PX6179 at 333:9-12 (Carlton Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Carlton's testimony (which it provides without any quotation) omits necessary context. He testified: "I think your question is asking me to assume there's a market that's monopolized, and now you're asking me wouldn't it be better if the market weren't monopolized. And all else equal, if the market

weren't monopolized and that would lead to a lower price and more output, I'd be in favor of it." *Id.* at 333:2-8.

2. Professor List

984. Meta has proffered Professor John List's expert opinion for the purpose of "evaluat[ing] the FTC's proposed market definition and Professor Hemphill's related claims." PX9018, List Report at ¶ 13.

Meta Response: Undisputed that Professor List offered the quoted opinion and that the quotation encompasses part (albeit not all) of Professor List's assignment and the purposes for which Meta proffers Professor List as an expert witness. *See* PX9018 at ¶¶ 12-24 (List Rep.) (summarizing opinions).

985. Professor List does not offer an expert opinion on any other issue, including Meta's claimed efficiencies from the Instagram or WhatsApp acquisitions or the competitive effects of those acquisitions. PX6178, List (Meta) Dep. Tr., at 11:7-16. Professor List does not propose or "explicitly" analyze any other alternative markets. *Id.* at 16:4-18.

Meta Response: Disputed in part. Undisputed that Professor List testified that he did not evaluate claimed efficiencies from the Instagram or WhatsApp acquisitions. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor List's testimony omits necessary context. He explained that while his report takes on the FTC's market definition, his assignment was not to come up with a market definition that suits the FTC's needs. *See* PX6178 at 13:20-14:8, 16:4-8 (List Dep. Tr.). Further disputed because the claim that "Professor List does not offer an expert opinion on any other issue" is vague; Professor List's assignment, opinions, and the purposes for which Meta proffers Professor List as an expert witness are laid out in full in his report. *See* Ex. 3 at ¶¶ 12-24 (List Rep.) (summarizing opinions). Among

those opinions is a "de-merger" simulation that "test[s] empirically" the FTC's claim "that Meta's acquisition of Instagram raised ad load." *Id.* at ¶¶ 190-191.

986. Professor List has never published any academic papers on the proper application of the hypothetical monopolist test. PX6178, List (Meta) Dep. Tr., at 266:1-6. Professor List's previous work has never involved applying the hypothetical monopolist test to define a relevant antitrust market. *Id*. at 268:18-21.

Meta Response: Disputed. Disputed that the FTC characterizes Professor List's expertise correctly; it omits necessary context. For example, Professor List testified that his academic publications are "replete with work that looks at using the experimental method to explore how people make choices and what affects those choices and how to map those choices into welfare considerations or other impacts that we might care about" and that his experience as chief economist at Uber and Lyft included "several projects" exploring "what does the market look like," but given the nature of that work, it could not be published. PX6178 at 266:1-22 (List Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact or is material to the resolution of either party's motion.

987. Professor List offers three conclusions in his report: (1) "Professor Hemphill's evaluation of the use cases and key functions of online services is not relevant to evaluating economic substitution between apps"; (2) the results of his three empirical analyses of substitution "contradict the market definition proposed by the FTC and Prof[essor] Hemphill"; and (3) "there is no basis to Prof[essor] Hemphill's claim that analysis of current patterns of economic substitution is irrelevant due to the 'Cellophane Fallacy.'" PX9018, List Report at ¶¶ 15, 21, 24; PX6178, List (Meta) Dep. Tr., at 11:17-13:15.

Meta Response: Undisputed that Professor List offered the quoted opinions and that those quotations encompass some (albeit not all) of Professor List's conclusions in his report. *See* PX9018 at ¶¶ 12-24 (List Rep.) (summarizing opinions).

3. Professor Tucker

988. Meta has proffered Professor Catherine Tucker's expert opinion for the purpose of "describ[ing] Meta's advertising business model" and asserting certain claims about "how Meta's competition for the sale of ads" purportedly "relates to and affects Meta's competition to attract users." PX9015, Tucker Report at ¶ 9. Professor Tucker's report was also submitted in response to the FTC's reports of Professor Hemphill, Professor Aral, and Professor McCoy. PX9015, Tucker Report at ¶ 9.

Meta Response: Undisputed.

989. Aside from this litigation, Professor Tucker has served as a testifying expert for Meta eight times. PX6169, Tucker (Meta) Dep. Tr., at 15:6-8.

Meta Response: Undisputed but immaterial to the resolution of either party's motion.

990. Professor Tucker has been retained by Meta to submit reports to foreign regulators such as the Australian Competition Commission. PX6169, Tucker (Meta) Dep. Tr., at 15:9-12.

Meta Response: Undisputed but immaterial to the resolution of either party's motion.

991. Professor Tucker testified that it was "probably correct" that she had "billed thousands of hours to Meta over the course of [her] career for working on [Meta's] behalf in legal matters." PX6169, Tucker (Meta) Dep. Tr., at 15:13-17.

Meta Response: Undisputed but immaterial to the resolution of either party's motion.

992. Counting this litigation, Professor Tucker has served as an expert for a corporate defendant in 22 litigations over the last five years. PX6169, Tucker (Meta) Dep. Tr., at 16:13-16.

Meta Response: Undisputed but immaterial to the resolution of either party's motion.

993. Professor Tucker has received $160,000 in grants from the Computer & Communications Industry Association, which is a trade association that represents the interests of the computer and communications industry. PX6169, Tucker (Meta) Dep. Tr., at 19:2-17.

Meta Response: Undisputed but immaterial to the resolution of either party's motion.

994. Professor Tucker is not stating any expert opinions that:

a. PSN services is not a properly defined antitrust market. PX6169, Tucker (Meta) Dep. Tr., at 25:10-13.

Meta Response: Disputed in part. Undisputed that Professor Tucker testified that she did not analyze whether "PSN services" is a properly defined antitrust market. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) omits necessary context. She testified: "Q. It wasn't within the scope of your engagement by Meta to analyze whether PSN services is a properly defined antitrust market, correct? A. No. I was not asked to evaluate the – Dr. Hemphill's market definition relating to the PSNS market.

Instead, I was asked to, as I think I explain in my assignment, to consider the extent to which online advertising and the intense competition in digital advertising was a competitive constraint and whether or not Dr. Hemphill ignored that competitive constraint. Q. So your report contains no opinion stating that PSN services is not a properly defined relevant market, correct? A. No, I don't state that opinion. But it is my opinion that Dr. Hemphill ignores an important competitive constraint." PX6169 at 24:21-25:15 & errata (Tucker Dep. Tr.). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. Meta does or does not have monopoly power in any relevant antitrust market. *Id.* at 25:17-20.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) omits necessary context. She testified: "Q. . . . You didn't opine whether Meta does or doesn't have monopoly power in any relevant market, correct? A. So no, I didn't offer that opinion. I did offer the opinion that one of the major direct indicators of monopoly power that Dr. Hemphill cites to in his report, which he claims is the increase in ad load, is just a misunderstanding of how digital advertising works." PX6169 at 25:17-26:3 (Tucker Dep. Tr.).

c. Any "constraints" on Meta's exercise of market power make it impossible for Meta to exercise market power. *See id.* at 26:13-19, 27:4-8; *see also id.* at 64:13-22.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony is incomplete and misleading. Professor Tucker testified that she does "express the opinion that intense competition in advertising markets is an important competitive constraint on any exercise of monopoly power, which Dr. Hemphill ignores," and that "I don't know if I use the word 'impossible,' but I certainly offer the opinion that given the intensity in the competition for engagement, this is an important competitive constraint on, for example, ad load, which is one of Dr. Hemphill's direct indicators of monopoly power. So I think I do offer an opinion even if I don't use the word 'impossible.'" PX6169 at 26:8-12 & errata, 26:18-27:3 & errata (Tucker Dep. Tr.); *see also id.* at 27:7-13.

d. The presence of cross-platform network effects necessarily precludes a firm's possession or exercising of monopoly power. *See id.* at 69:22-70:20.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony. She testified: "[T]he question becomes how strong a competitive constraint" exists and that "as an economist, when one is thinking about the exercise of monopoly power, one has to think about competitive constraints. Often one thinks about this, you know, in a very straightforward product market, in terms of substitutes, and one can evaluate substitutes and perhaps find that this substitute does not act as a competitive constraint, but it's still the case that you have to evaluate the potential for substitutes." PX6169 at 70:5-20 & errata (Tucker Dep. Tr.).

e. In digital advertising today, there exists a cross-platform network effect related to the number of users on a platform. *Id.* at 53:1-54:4.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony. Professor Tucker testified that "you can't say a website for a large number of users has any real competitive advantage amongst advertisers." PX6169 at 54:2-4 (Tucker Dep. Tr.). She also testified: "I think that Dr. Hemphill is completely incorrect to say that that means he can ignore how competition in advertising constrains any potential exercise of monopoly power by Meta, that is just incorrect, because he misunderstands really where that competitive constraint is coming from, in that in this – if an advertiser can reach a user anywhere, you have to make sure that the attention that that user is giving your platform is both high quality in terms of its engagement, and also that the nature of advertising that that user is seeing and engaging with is also high quality, and that's what Dr. Hemphill misses." *Id.* at 54:18-55:8.

f. Meta is not able to price discriminate by setting different ad loads for different users. *Id.* at 111:15-112:1.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony and is incomplete. She testified: "I don't think that the term 'price discrimination' is a useful analogy for the practice of setting different ad loads, and I believe that the

practice of setting different ad loads is actually broad and widespread and found on a variety of websites, including very small ones." PX6169 at 111:8-14 & errata (Tucker Dep. Tr.); *see also id.* at 111:21-112:4 (stating that the "analogy to price discrimination" is not useful in this context).

995. Professor Tucker's analyses did not include:

a. Conducting any specific analyses of the cross-platform network effects between advertisers and users on Facebook and Instagram. *See* PX6169, Tucker (Meta) Dep. Tr., at 71:4-10.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony. She testified that she "do[es]n't provide some kind of global calibration exercise" regarding "the cross-platform network effects between advertisers and users on Facebook and Instagram," but "I do provide, I think, some quite nice empirical evidence. And, you know, I point you here, for example, to Exhibit [4] and Exhibit [3] of empirical data which shows that Meta has incentives to ensure the quality of its advertising." PX6169 at 71:4-15 (Tucker Dep. Tr.); *see also* Ex. 4 at pp. 90-91, Exs. 3 & 4 (Tucker Rep.).

b. Identification of specific analyses that Professor Hemphill should have undertaken in analyzing the relevant market. *See id.* at 73:3-9, 74:17-75:2.

Meta Response: Disputed in part. Undisputed that Professor Tucker did not provide "a step-by-step guide about how to make corrections" to Dr. Hemphill's report. PX6169 at 74:21-75:2 (Tucker Dep. Tr.); *see also id.* at 73:5-9

(Professor Tucker's report is not "intended to be a recipe book to correct Dr. Hemphill's errors with sort of step-by-step instructions"). Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony. In the same response, she also testified that her report explains "some of the important factors that Dr. Hemphill has missed in his assertion that he can just ignore ad quality and interpret ad load in his preferred manner," and sets forth "particular analytical steps" that Dr. Hemphill should have taken. *Id.* at 73:10-74:10.

c. Quantifying what Professor Tucker describes as improvements in ad quality made by Meta, or opining whether those improvements in ad quality outweighed increases in ad load. *See id.* at 85:5-19, 91:3-15.

Meta Response: Disputed in part. Undisputed that Professor Tucker testified that she did not perform an analysis to "quantify any improvement in the quality of the ads" based on certain information provided in her report, PX6169 at 85:5-19 (Tucker Dep. Tr.), or to provide a precise calibration relating to Meta's improvements in ad quality, *id.* at 91:3-15. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony. In the same discussion, Professor Tucker testified regarding evidence relating to improvement in ad quality. *See id.* at 91:16-92:22.

d. Engaging with Professor Hemphill's proffered evidence concerning advertising sentiment surveys. *Id.* at 93:13-21.

Meta Response: Undisputed that Professor Tucker testified that she did not engage with Professor Hemphill's discussion regarding advertising sentiment surveys because "as an economist, we tend to often focus more on actual data than surveys themselves." PX6169 at 93:17-19 & errata (Tucker Dep. Tr.).

e. Any demand elasticity calculations or "comments about elasticity of demand." *Id.* at 95:22-96:4, 107:19-108:1.

Meta Response: Undisputed that Professor Tucker testified that she is "not making any comments about elasticity of demand," but she "imagine[s] that different users of Facebook and Instagram value different types of content in different ways." PX6169 at 107:22-108:4 (Tucker Dep. Tr.).

f. Analysis of whether Meta's provision of different ad loads to different users affected the quality-adjusted price for those users or made them better or worse off. *Id.* at 116:9-20.

Meta Response: Disputed in part. Undisputed that Professor Tucker testified that she did not attempt a "quantification" or "calibration" of a relationship between different ad loads for users and a quality-adjusted price. PX6169 at 116:9-20 (Tucker Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony. Professor Tucker testified regarding evidence that customized ad load benefits users. *Id.* at 115:19-117:1; *see also* Ex. 4 at ¶¶ 54-57 (Tucker Rep.).

g. Analysis of the relationship between the amount of advertising on Facebook or Instagram and the effectiveness of advertising on Facebook or Instagram. *Id.* at 135:3-10.

Meta Response: Disputed in part. Undisputed that Professor Tucker testified that she "didn't do a study of the negative implications of ad clutter on the effectiveness of Facebook ads." PX6169 at 135:8-10 (Tucker Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony. Professor Tucker also testified there is not a "threshold" amount of advertising that could be considered "ad clutter" that could be analyzed as was suggested by the FTC at her deposition, or that empirical literature would support such an analysis. *Id.* at 134:2-135:2.

h. Analysis of how Meta adjusts ad load in response to competition for advertisers. *Id.* at 141:11-16.

Meta Response: Undisputed that Professor Tucker testified: "Q. In your report, you didn't analyze how Meta adjusts ad load in response to competition for advertisers, did you? . . . A. I don't know if I answered that precise question." PX6169 at 141:11-16 & errata (Tucker Dep. Tr.).

i. Analysis of whether Meta is charging supracompetitive prices to its users or advertisers. *Id.* at 29:1-31:11.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC's paraphrasing of Professor Tucker's testimony (which it provides without any quotation) misstates her testimony.

Professor Tucker testified that she did not "analyze explicitly whether there are supracompetitive prices in advertising." PX6169 at 29:22-30:2 & errata (Tucker Dep. Tr.). However, she also testified that, "given the conditions and economic structure I describe, I think it's very clear that my opinion is that [supracompetitive prices in advertising] is not the case, that's the role of intense competition." *Id.* at 30:2-5 & errata.

996. Professor Tucker agreed that Meta tries to set ad load at the level that will maximize Meta's long-term profits and, that when making decisions about its products, Meta's aim is to maximize its long-term profitability, including by considering the effects of product changes on both users and advertisers. PX6169, Tucker (Meta) Dep. Tr., at 56:14-57:3, 61:5-19.

Meta Response: Undisputed.

997. Professor Tucker testified that "every advertising-supported business, whether big or small, has incentives to improve the quality of its advertising product." PX6169, Tucker (Meta) Dep. Tr., at 71:16-72:1.

Meta Response: Undisputed.

998. In her report and deposition, Professor Tucker made numerous concessions concerning the monetization capabilities of Instagram, WhatsApp, and other firms. *See infra* CMF at ¶¶ 2107-08, 2430; *see generally infra* CMF at §§ V.C, V.H.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, does not state any facts, and cites scores of paragraphs from the FTC's Counterstatement without

explanation or elaboration. To the extent this statement incorporates the FTC's statements in paragraphs 2107-2108 and 2430 and Sections V.C and V.H, Meta incorporates its responses to those statements here.

4. Meta's Other Experts

999. Meta has proffered Professor Anindya Ghose's expert opinion for the purpose of rendering certain analyses concerning the *Brown Shoe* factors. *See* PX9016, Ghose Report at ¶ 29.

Meta Response: Disputed in part. Undisputed that Professor Ghose has offered expert opinions regarding his analyses of *Brown Shoe* factors. PX9016 at ¶¶ 29-30 (Ghose Rep.). Disputed to the extent the statement purports to be a complete statement of the opinions offered by Professor Ghose. Among other things, Professor Ghose has also offered opinions regarding Professor Hemphill's opinion that "Meta provides inferior levels of privacy to users as a consequence of its alleged market power." *Id.* at ¶ 31. Professor Ghose's assignment, opinions, and the purposes for which Meta proffers Professor Ghose as an expert witness are laid out in full in his report. *See id*. at ¶¶ 29-33 (summarizing opinions).

1000. Professor Ghose conceded he had not applied the *Brown Shoe* framework prior to this litigation. PX6173, Ghose (Meta) Dep. Tr., at 71:19-72:4.

Meta Response: Disputed. Professor Ghose testified he had not applied the *Brown Shoe* framework in a *litigation* context prior to this litigation. *See* PX6173 at 64:5-11 (Ghose Dep. Tr.).

1001. Professor Ghose is not an attorney and does not have a law degree. *See* PX6173, Ghose (Meta) Dep. Tr., at 8:19-9:1.

Meta Response: Undisputed.

1002. Professor Ghose agreed that he has not formed any legal opinions about whether or how the *Brown Shoe* factors should be applied by the Court in this case. PX6173, Ghose (Meta) Dep. Tr., at 69:10-15; *see also* PX9016, Ghose Report at ¶ 29 n.43 ("Q. In Footnote 43, you say you have 'not formed any legal opinions about whether or how the Brown Shoe factors should be applied by the Court in this case.' Is that correct? A. That's correct.").

Meta Response: Undisputed.

1003. Professor Ghose was unsure whether he reviewed any published legal opinions regarding how courts apply the *Brown Shoe* factors, did not rely on any cases in forming his opinions regarding the *Brown Shoe* factors, and did not review any legal treatises or textbooks discussing the *Brown Shoe* factors. *See* PX6173, Ghose (Meta) Dep. Tr., at 86:8-87:22 ("Q. Did you review any published legal opinions in order to determine how Courts use the Brown Shoe factors as practical indicia of a product market? A. I reviewed -- I don't even know what to call it -- but something like a case law. There's some -- yeah, honestly, I don't -- I don't remember the name of the document. But yes, I have reviewed, like, case laws. But again, the -- what I've done here is essentially taken the Brown Shoe framework; interpreted them, you know, in plain language; and then assessed whether or not the framework is consistent with the plaintiff's market definition."); 87:1-13 ("Q. Did you review any legal treatises to determine how Courts use the Brown Shoe factors as practical indicia of a product market? A. Again, as I said, I reviewed some case law documents that helped me understand what these factors are. But then beyond that, I took those factors and looked at the evidence; and I systematically evaluated based on the evidence here in this case, how and if those factors are met or not.

Q. Did you rely on those cases you mentioned in forming your opinions? A. No, I didn't have to rely on them."); 87-19-22 ("Q. Did you review any legal textbooks? A. No. I mean, all I've said is -- all I've done is I've skimmed, you know, the case law to see what it is and moved on.").

Meta Response: Disputed in part. Undisputed that Professor Ghose testified that he did not review legal textbooks or treatises or rely on any cases in forming his opinions, although he also testified that he did review case law to understand the *Brown Shoe* factors. *See* PX6173 at 87:1-6, 87:19-22 (Ghose Dep. Tr.). Disputed that the cited testimony indicates that Professor Ghose was unsure whether he reviewed any published legal opinions; he testified that he did review "case law" documents. *Id.* at 86:8-16, 87:4-6. Further disputed on the ground that this statement is not material to the resolution of either party's motion.

1004. Professor Ghose did not attempt define a relevant antitrust market in his report. PX6173, Ghose (Meta) Dep. Tr., at 44:7-12.

Meta Response: Undisputed.

1005. Three of Meta's experts make claims in their reports concerning proffered procompetitive benefits that accrued to Instagram and WhatsApp by virtue of their being acquired by Meta.

Meta Response: Disputed in part. Undisputed that Professors Tucker, Nieh, and Subrahmanian opined that the acquisitions improved Instagram and WhatsApp. Disputed that those are the only three Meta experts to offer such an opinion, e.g., Professor Carlton also opined that the acquisitions improved Instagram and WhatsApp. *See*, *e.g.*, Ex. 2 at

§ V.B ("Post-Merger Economic Evidence Demonstrates the Acquisitions Have Had Clear Benefits for Consumers").

a. Professor Tucker makes benefit claims concerning Instagram's advertising business and WhatsApp's monetization. *See* PX9015, Tucker Report at §§ VI (benefits to Instagram's advertising business); VII (benefits to WhatsApp's monetization); VIII (integrity and brand safety benefits to Instagram's advertising business).

Meta Response: Undisputed. Undisputed that Professor Tucker responds to Professor Aral's opinions in Sections VI and VII of her report and that she responds to Professor McCoy's opinion in Section VIII of her report. *See* PX9015 at §§ VI-VIII (Tucker Rep.). Professor Tucker's assignment, opinions, and the purposes for which Meta proffers Professor Tucker as an expert witness are laid out in full in her report. *See id.* at § I (summarizing opinions), § II.B (assignment).

b. Professor Nieh makes benefit claims concerning "Meta's infrastructure, engineering resources, and technical capabilities," including benefits from "the integration of Instagram and WhatsApp with Meta's infrastructure." PX9022, Nieh Report at ¶ 8; *see generally id.*

Meta Response: Undisputed. Undisputed that Professor Nieh responds to Mr. Bray's opinions "regarding the extent to which Meta's infrastructure, engineering resources, and technical capabilities have benefited Instagram and WhatsApp." PX9022 at ¶ 8 (Nieh Rep.). Professor Nieh's assignment, opinions,

and the purposes for which Meta proffers Professor Nieh are laid out in full in his report. *See id.* at § I.B (assignment), § I.E (summarizing opinions).

c. Professor Subrahmanian makes benefit claims concerning "Meta's 'integrity' systems," including benefits from "the integration of Instagram and WhatsApp with Meta's integrity systems." PX9020, Subrahmanian Report at ¶ 10; *see generally id.*

Meta Response: Undisputed. Undisputed that Professor Subrahmanian responds to Professor McCoy's opinions "regarding Meta's 'integrity systems'" and opines about "whether the integration of Instagram and WhatsApp with Meta's integrity systems helped Instagram and WhatsApp." PX9020 at ¶ 10 (Subrahmanian Rep.). Professor Subrahmanian's assignment, opinions, and the purposes for which Meta proffers Professor Subrahmanian are laid out in full in his report. *See id.* at § I.B (describing assignment), § I.E (summarizing opinions).

II. Meta Possesses Monopoly Power Over PSN Services in the United States

1006. Extensive direct and indirect evidence indicates that Meta has monopoly power with respect to the provision of personal social networking services in the United States. *Infra* CMF at § II.B-C; PX9000, Hemphill Report at §§ 3.2, 3.3; PX9007, Hemphill Rebuttal Report at §§ 2.1, 2.2.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and cites scores of paragraphs from expert reports and the FTC's Counterstatement without explanation or elaboration. To the extent the

statement incorporates the FTC's statements in Sections II.B-C, Meta incorporates its responses to those statements here.

A. PSN Services in the United States Are a Relevant Antitrust Market.

1007. PSN services are a type of online service for maintaining relationships and sharing with friends and family in a shared social space. *Infra* CMF at § II.A; PX9000, Hemphill Report at ¶ 189; *see also* PX9004, Lampe Report at ¶ 79.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its description of a PSN service is relevant to substitution. The FTC's use of "PSN service" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the cited paragraphs in Professors Hemphill's and Lampe's reports do not cite any evidence to support the existence of "PSN services" as a distinct "type of online service." The evidence refutes the assertion that a "PSN service" is a "type of online service," which the FTC claims describes only Facebook, Instagram, Snapchat, and MeWe. [redacted] There is not a single ordinary course document from any non-party describing Facebook, Instagram, Snapchat, and MeWe all as "personal social networking services." *See id.* at ¶ 476 (including FTC response). Moreover, when asked to identify "PSN services," non-parties offered descriptions that conflicted with the FTC's four-app market. For example, Pinterest stated that it considers Instagram (along with TikTok) as a "Celebrity/Influencer," rather than a "personal" social network. PX7034 at -378 (FTC-PINTEREST-00001366). MeWe's representative

testified that Instagram is not a "personal social network." Meta SMF ¶ 475 (quoting Ex. 126 at 310:8-18 (M. Weinstein (MeWe) Dep. Tr.)). And Mr. Andreou, Snapchat's then senior vice president of growth, testified that he understood the term "personal social networking services" to refer "social media services broadly." *Id.* at ¶ 474 (quoting Ex. 96 at 17:7-8, 148:3-21 (Andreou (Snap) Dep. Tr.)).

The assertion that there is a distinct category of apps that provide "PSN services" is further refuted because non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. All available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are a closer substitute for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See id.* at ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Analyzing substitution patterns during an outage of Meta's apps on October 4, 2021, Meta's expert economist, Professor Carlton, found that TikTok and YouTube experienced the greatest increase in minutes. *See id.* at ¶¶ 562-566. That is consistent with Professor List's pricing experiment, which found significant substitution from Facebook and Instagram to TikTok and YouTube. *See id.* at ¶¶ 537-547. Bolstering this substitution evidence, [redacted] YouTube, TikTok, and Twitter, among others [redacted] view Facebook and Instagram as [redacted] competitors. *E.g.*, *id.* at ¶¶ 189-196, 200-202 (YouTube), ¶¶ 254-256, 267-270 (TikTok), ¶¶ 316-319, 324-326 (Twitter), [redacted], ¶¶ 347-358 (Pinterest), [redacted], ¶¶ 397-398 (Reddit), ¶¶ 412-414 (LinkedIn). And Meta's documents and testimony also show that Meta views applications the FTC excludes from its PSNS

market as significant competitors to Facebook and Instagram. *E.g.*, *id*. at ¶¶ 181-188, 199 (YouTube), ¶¶ 244-253, 261-265 (TikTok), ¶¶ 311-315, 321-323 (Twitter), ¶¶ 439-447 (iMessage, Google Messages, and others), ¶¶ 343-346 (Pinterest), ¶¶ 365-368 (Nextdoor), ¶¶ 392-396 (Reddit), ¶¶ 409-411 (LinkedIn).

1008. Participants in the market for PSN services are those apps[3] that possess core functionality and use for personal social networking ("PSN apps")—that is, for maintaining relationships and sharing with friends and family in a shared space online (hereinafter "friends and family sharing"). *Infra* CMF at §§ II.A.3, II.A.4(a); PX9000, Hemphill Report at ¶ 189.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its description of a PSN service or PSN app is relevant to substitution. The FTC's use of "PSN service," "PSN apps," "core functionality," and "friends and family sharing" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. This statement is also conclusory and asserts improper legal conclusions regarding the validity of the alleged PSNS market. Further disputed because the cited paragraph in Professors Hemphill's report does not cite any evidence to support the existence of a "market for PSN services." On the contrary, the record refutes the existence of the FTC's alleged PSN services market consisting only of apps with a "core functionality and use" for friends and family sharing, which it alleges are only Facebook, Instagram, Snapchat, and MeWe. *See* Meta Resp. to Counter SMF ¶ 1007. For example, all available

[3] The use of the term "app" or "apps" refers to both the mobile and desktop versions of a particular service.

empirical evidence of substitution shows that non-PSN services like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See id.* To the extent this statement incorporates the FTC's statements in Sections II.A.3, II.A.4(a), Meta incorporates its responses to those statements here.

1009. Other types of apps are not suited to serving demand for PSN services and are not reasonable substitutes for PSN services or PSN apps. *Infra* CMF at § II.A.5; PX9000, Hemphill Report at § 3.2.2.4; *see also* PX9007, Hemphill Rebuttal Report at § 2.2.2.3.

Meta Response: Disputed. Disputed that the statement – which cites over 200 paragraphs in Professor Hemphill's reports without explanation or context – creates a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of "demand for PSN services" is relevant to substitution. The FTC's use of "PSN services" and "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The statement is conclusory and asserts improper legal conclusions regarding the validity of the alleged PSNS market. On the contrary, evidence demonstrates that numerous apps serve as substitutes for Facebook and Instagram, including apps that the FTC excludes from its alleged PSNS market, such as YouTube, TikTok, Twitter, and many others. *See* Meta Resp. to Counter SMF ¶ 1007. For example, all available empirical evidence of substitution shows that non-PSN services like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See id.*

1. Meta and other firms recognize that different types of apps serve different types of consumer demand.

1010. Meta recognizes that different types of apps serve different types of consumer demand, with apps having different "use cases" or performing different "jobs" for consumers. *See* PX9000, Hemphill Report at ¶ 192, 375-84; PX9007, Hemphill Rebuttal Report at ¶ 204; PX9004, Lampe Report at ¶ 62-73.

Meta Response: Disputed in part. Undisputed that Meta recognizes that users use applications for different reasons. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that its characterizations of an app's "use cases" or "jobs" is relevant to substitution. Further disputed on the ground that "different types of consumer demand" and "jobs" are vague and undefined. None of the materials cited in the subparagraphs discuss or define "consumer demand."

Further disputed because the evidence demonstrates that Meta recognizes that many alleged non-PSN apps offer the same use cases or jobs as Facebook and Instagram and compete for the same consumer demand. *See*, *e.g.*, Meta SMF ¶¶ 181-188, 199 (competition with YouTube), ¶¶ 244-253, 261-265 (competition with TikTok), ¶¶ 311-315, 321-323 (competition with Twitter), [redacted]. And many alleged non-PSN apps recognize [redacted]. *See id.* at ¶¶ 189-196, 200-202 (YouTube), [redacted], ¶¶ 316-319, 324-326 (Twitter), [redacted] (iMessage, [redacted]),

¶¶ 397-398 (Reddit), ¶¶ 412-414 (LinkedIn). Indeed, the FTC's definition of "PSN services" includes all activities on Facebook and Instagram (except Facebook Dating) – a total of over 250 different use cases or jobs – all of which can also be done on apps the FTC excludes from the PSNS market. *See id.* at ¶¶ 580-584.

The assertion that apps with different "uses" or "jobs" serve "different types of consumer demand" is further unsupported because all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See id.* at ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment).

Usage data confirms that Facebook and Instagram offer a wide variety of functions beyond sharing with friends and family. *See* Meta SMF ¶¶ 11-12 (Facebook usage data as of January 2023 showing that [redacted] of time on Facebook is associated with viewing content posted by friends), ¶¶ 56-57 (Instagram usage data as of February 2023 showing that at most [redacted] of time on Instagram is associated with viewing content posted by friends); *see generally id.* at ¶¶ 17-44 (listing Facebook features including Facebook Groups at paragraphs 28-29, Facebook Watch at paragraph 36, and Facebook Reels at paragraphs 43-44), ¶¶ 67-92 (listing Instagram features including Instagram Direct at paragraphs 79-81 and Instagram Reels at paragraphs 88-90). More than 60% of time on Facebook and Instagram is spent watching video. *See* Ex. 499 at 6 (Meta Q1 2024 Earnings Call).

The FTC's proffered expert, Professor Lampe, opines that uses of Facebook and Instagram are "extremely heterogeneous" and, in his opinion, offer uses other than

"personal social networking." Meta SMF ¶¶ 604-605 (quoting Ex. 281 at 165:12-166:4, 166:22-167:8 (Lampe Dep. Tr.)); *see id.* at ¶¶ 606-608 (collecting further testimony from Professor Lampe on those other uses). For example, he testified that, in his opinion, sending Direct Messages on Instagram Direct is not "personal social networking," *id.* at ¶ 607(d), and that that the motivation for watching video on Facebook and Instagram is "largely for entertainment purposes" rather than personal social networking. *See id.* at ¶ 607(a). Professor Lampe also opined that apps the FTC does not classify as PSN services can satisfy the same uses as Facebook and Instagram. *Id.* at ¶ 612. For example, Professor Lampe conceded that messaging apps can be used as an alternative to Facebook and Instagram to communicate and maintain relationships with close friends. *See id.* at ¶¶ 458-459. Likewise, the FTC's proffered expert, Professor Hemphill, acknowledged that users can use apps the FTC does not classify as PSN services to connect and share with friends and family, and can use Facebook and Instagram to engage in activities other than connecting with friends and family that are offered on other services, such as TikTok and YouTube. *See id.* at ¶¶ 627-628. For example, Professor Hemphill conceded "that to communicate with real world friends or real world family under particular circumstances messaging is an alternative to which they might turn." Ex. 283 at 109:20-110:1 (Hemphill Dep. Tr.). [redacted]

a. Mark Zuckerberg agreed that one of Facebook's "jobs to be done" is "connecting with friends." PX6127, Zuckerberg (Meta) Dep. Tr., at 13:9-13.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony that one (of many) ways that users can use Facebook is to connect with friends. Disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed because the statement is incomplete and misleading. Mr. Zuckerberg testified that Facebook's "jobs to be done" include "entertainment," referencing the "explosion in non-friend or follower content" on Facebook "as the algorithms have gotten a lot better at being able to recommend content to people that's interesting." PX6127 at 12:1-25 (Zuckerberg Dep. Tr.). Mr. Zuckerberg also testified that while "connecting with friends" and "entertainment" "might be the two kind of biggest categories," users "share and consume all different kinds of content" on Facebook. *Id.* at 13:1-8. Indeed, as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends. *See* Meta SMF ¶ 11 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)).

b. Current Head of Instagram Adam Mosseri has referred to Instagram's friend use case as one of the "two main jobs that people hire Instagram for." PX12374, Meta document: "[v1] Analytics Outline: MZ IG Deep Dive – 10/25" (Oct. 25, 2022), FTC-META-005125556, at -557 ("The two main jobs that people hire Instagram for are catching up with friends and being entertained. Our friend use case remains resilient . . . .").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that some users use Instagram to connect with friends and for entertainment. Disputed for the reasons stated above in Meta's response to

paragraph 1010. Further disputed because the statement is incomplete. The cited document states that "[redacted]" and that "[redacted]." PX12374 at -558 (FTC-META-005125556). Indeed, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *See* Meta SMF ¶ 56 (quoting Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

c. Meta acknowledged in an internal email that "people are hiring TikTok for very different jobs to Instagram and they are not directly competing in the core areas of focus for our business." PX12351, Meta email: [redacted] to A. Mosseri, et al. re: "TikTok Competitive User Research," (Jan. 4, 2019), FB_FTC_CID_02872739, at -739. Meta elaborated that "Instagram is hired for a broader and more social set of jobs" and "TikTok is not hired for sharing with friends and family." *Id.*

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed because the email does not reflect Meta's views of TikTok. It was authored by a low-level, former Facebook employee, [redacted], who was not deposed during fact discovery. When [redacted] wrote the email in January 2019, TikTok had launched in the United States barely six months prior. Furthermore, [redacted] observations were based solely on interviews with *twelve* teenage TikTok users in 2018 in Mexico City. *See* PX12351 at -739 (FB_FTC_CID_02872739). The email also states

"[w]e do compete with TikTok in terms of our user's time and attention," and suggests "watching the data and keeping track of what they launch." *Id.*

[redacted]

[redacted] The document cited also predates Meta's launch of Reels on Facebook (in 2021) and Instagram (in 2020), s*ee id.* at ¶¶ 43, 88, – which the FTC includes in its definition of "PSN services," *see id.* at ¶¶ 580-584. This statement is further refuted by evidence, including documents and testimony from Meta executives, that Meta views TikTok as a competitor. *See id.* at ¶¶ 244-253, 261-265.

d. Mr. Zuckerberg wrote to Mr. Systrom in 2014 that "the growth of Snapchat Stories means that Snapchat is now more of a competitor for Instagram and News Feed than it ever was for messaging . . . . Snapchat Stories serves the exact same use cases of sharing and consuming feeds of content that News Feed and Instagram deliver." PX1009, Meta email chain: M. Zuckerberg to K. Systrom, et al. re: "Snapchat Stories and ephemeral stories," (June 22, 2014), FB_FTC_02231566, at -567.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1010. Indeed, many apps excluded from the FTC's claimed PSNS market contain stories features, including WhatsApp, *see* Meta SMF ¶¶ 117-118, TikTok, ¶ 226, Signal; *see also* Ex. 1 at ¶ 51 (Ghose Rep.).

e. Mr. Zuckerberg agreed that "one of the use cases in which Google+ and the Facebook App competed in 2011 was the friends sharing use case." PX6127, Zuckerberg (Meta) Dep. Tr., at 19:16-21; *see also id.* at 17:17-20 ("Q. Is it fair to say that in June 2011 you perceived Google+ attempted to address a friends sharing use case? A. Among other things.").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed because the excerpted testimony is incomplete and misleading. Mr. Zuckerberg testified that "there was competition [with Google+] across a number of different use cases . . . But, you know, that's just been one competitor that we've had over time." PX6127 at 18:25-19:15 (Zuckerberg Dep. Tr.). Mr. Zuckerberg also testified that "a lot of, you know, what you're calling friends sharing has actually shifted to messaging apps, you know, like the ones that we build but also iMessage and Snapchat and things like that" and that "increasingly friend sharing or connecting with your friends happens across messaging apps and other mediums too." *Id.* at 18:4-7, 20:10-12. He also gave the example that "YouTube is a very fundamental part of the flow of finding and sharing content with friends." *Id.* at 21:10-11.

f. When planning its launch of Threads, Meta's standalone app created to compete with Twitter, Meta observed that [redacted] and stated its intention to [redacted] PX3024, Meta

document: "[A/C Priv] Project 92 Target Consumer & Creator Audiences" (*Jan. 5, 2023), FTC-META-012482241, at -242.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed because the email does not reflect "Meta's" views of Twitter – the FTC does not even identify the author of the document, which appears to be a meeting agenda (e.g., noting "[d]iscussion [t]opics for [t]oday" and "[d]iscussion [q]uestions[ ]"). PX3024 at -241 (FTC-META-012482241). Further disputed to the extent the statement suggests that Facebook and Instagram did not already compete with Twitter before launching Threads. Meta's documents and executives recognize that Twitter has long been a competitor of Facebook and Instagram. *See* Meta SMF ¶¶ 311-315, 321-323.

g. In October 2017, former head of the Facebook app Fidji Simo stated that Facebook, Instagram, and Snapchat have similar use cases as they "are all about sharing," distinguishing YouTube as "passive consumption." PX11972, Meta email chain: F. Simo to [redacted] re: "YouTube Cannibalize OBPS," (Oct. 13, 2017), FB_FTC_CID_05476838, at -839 ("IG and SC are all about sharing so they cannibalize the sharing use case [from Facebook].").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed because the statement is incomplete and misleading, as the excerpted portion is Ms. Simo explaining what other individuals might be thinking. *See* PX11972 at -839 (FB_FTC_CID_05476838)

("I think the way they think about it is that IG and SC are all about sharing[.]"). Ms. Simo did not say that Instagram, Snapchat, and YouTube have different "use cases" or do not compete. On the contrary, she stated: "not saying *at all* that YT doesn't cannibalize" time on Instagram. *Id.* (emphasis in original). And another Meta employee on the same email thread wrote, "One cannot logically hold the position that IG and Snapchat cannibalize OBPS [Original Broadcast Post Sessions] but YouTube does not." *Id.*

Further disputed because the FTC's position that "personal social networking" includes watching unconnected content on Facebook Watch and short form video on Reels, *see* Meta SMF ¶¶ 580-584, means that Facebook and Instagram and YouTube compete for engagement within the relevant market. The evidence shows that YouTube competes with alleged PSN apps, including in the provision of unconnected video content. *E.g.*, *id.* at ¶ 196 (YouTube testimony that Facebook Watch is a "direct offering that mimic[s] our services" in "direct competition with our services." (quoting Ex. 10 at 74:12-75:10 (Kim (Alphabet) Dep. Tr.))), ¶ 194 ([redacted] (quoting Ex. 14 at -900, -905 (MetaFTC-Klein-DX-51, GOOG-META-02536890))); Ex. 9 at 68:9-12 (Filner (Alphabet) Dep. Tr.) (testimony that YouTube competes with Facebook and Instagram in providing video content). Additionally, Meta documents and testimony recognize competition with YouTube. *See* Meta SMF ¶¶ 181-188, 199.

The cited document, drafted in 2017, also does not account for the launch of YouTube Shorts (in 2021), Facebook Reels (in 2021), or Instagram Reels (in

2020). *See id.* at ¶¶ 43, 88, 170. The evidence demonstrates that – seven years later – users spend [redacted], and Meta recognizes significant competition with YouTube. *See id.* at ¶¶ 13, 181-188, 199; Meta Resp. to Counter SMF ¶ 1010.

h. Former head of the Facebook app Fidji Simo recognized that although they both offer video functions, Facebook and YouTube "serve nearly disjoint use cases." PX11971, Meta email: F. Simo to [redacted] re: "Please print out 6 of these - thanks!" (Feb. 5, 2015), FB_FTC_CID_05415452, at -453.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1010 and subparagraph 1010(g). Further disputed because the statement is incomplete and misleading: Ms. Simo qualified that her statement was not a conclusion but an "assumption[ ] baked into the model." PX11971 at -453 (FB_FTC_CID_05415452).

1011. Other online service providers also acknowledge that different types of apps serve different types of consumer demand, with apps having different "use cases" or performing different "jobs" for consumers. *See infra* CMF at § II.A.5.

Meta Response: Disputed in part. Undisputed that other apps recognize that users use apps for many different reasons. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of other apps' views of "use cases" and "jobs" is relevant to substitution. Further disputed because "different types of consumer demand" is vague and undefined, and none of the materials cited in the subparagraphs

discuss it or support the assertion that apps that serve "different types of consumer demand" cannot be in the same relevant market as Facebook and Instagram. Further disputed for the reasons stated above in Meta's response to paragraph 1010.

a. Current TikTok Head of Operations Adam Presser testified in 2022 that "[o]ther platforms may provide users with similar types of functionalities but may be focused on core differentiated features . . . [Facebook and Instagram] may offer all, some of the similar functions but are not necessarily used for the same reasons." PX6097, Presser (TikTok) Dep. Tr., at 65:15-66:10.

Meta Response: Disputed in part. Undisputed that Mr. Presser provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1011. Further disputed because the cited testimony is incomplete, misleading, and does not support the statement in paragraph 1011. Mr. Presser testified that TikTok has the elements of a social network, including finding and following other users and sharing content with other users. *See* PX6097 at 27:13-29:21, 39:5-40:14 (Presser (TikTok) Dep. Tr.). [redacted]

b. Twitter Vice President Keith Coleman testified that Twitter evaluates "why people use a product or bring that product into their life" and that "I do think [connecting people] is Facebook's core job that it gets hired for." [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Coleman provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1011. Further disputed because the quoted testimony is incomplete, misleading, and does not support the statement in paragraph 1011. Mr. Coleman also testified that Facebook, Instagram, and Snapchat have "overlapping use cases with Twitter." PX6144 at 118:3-4 (K. Coleman (Twitter) Dep. Tr.). He explained that Twitter "probably [has] the most overlap with Instagram where there are . . . certain interests where . . . Instagram is a great way to follow those interests." *Id.* at 120:22-121:4; *see also id.* at 121:16-18 (testifying that Instagram is "increasingly a place where you can see interests and follow interests."), 37:11-38:1, 45:3-17 (testifying that Twitter explained in filings to U.S. regulators that it competed with an array of apps, including Facebook and Instagram, for users' time and attention). He also testified that creators can choose from multiple platforms when posting content, including Twitter, YouTube, TikTok, Instagram, and Facebook. *See id.* at 73:9-15.

c. Mr. Coleman of Twitter further explained that:

> [W]e didn't talk a lot about competing for attention because you can't do much with that . . . I mean, there's so many things that can grab your attention. So we try to serve a purpose . . . the purpose of the product is to see what's happening in the world and what people are doing. So when I think of like what competition is useful to me in developing the product, it's – it's competition or alternatives that serve the same purpose.

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1011 and subparagraph 1011(b).

d. Pinterest explained [redacted] that:

> [T]he defining purpose of a social network is to connect the user with other people . . . the primary value a social network delivers is creating a connection for communication among predetermined groups . . . features [in complementary social networks] may be similar but the information conveyed will be different based on the purpose for which a particular network is used.

PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -369, -377.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1011. The material cited does not support the statement in paragraph 1011; instead, it offers a high-level response to a question asking for an explanation of the purposes that social networks serve. Pinterest also stated in the document that: "While we compete with social networking platforms in the digital advertising space, and also compete with those services for the time and attention of users, we do not consider ourselves to be a social networking service per se." PX7034 at -369 (FTC-PINTEREST-00001366). Pinterest's head of user growth, Ms. Roberts, testified that "TikTok, Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of a social network, and that the quoted statement applied to all such applications. Ex. 45 at 427:21-428:1 (Roberts (Pinterest) Dep. Tr.). Moreover, Pinterest stated in the cited

document that it would not classify Instagram or Snapchat as a "personal" social network, but as a "Celebrity/Influencer" social network in the same category as TikTok. PX7034 at -378 (FTC-PINTEREST-00001366). Ms. Roberts testified that Pinterest agrees with that characterization in the U.S. today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

e. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted] provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1011. [redacted]

f. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that [redacted] provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1011. Further disputed because the quoted testimony is incomplete, misleading, and does not support the statement in paragraph 1011. Mr. Tucker testified that Tumblr broadly "compete[s] for users' time and attention." PX6142 at 140:9-10 (Tucker (Automattic) Dep. Tr.). [redacted]

2. There is a distinct consumer demand for friends and family sharing.

1012. The desire to maintain relationships with friends and family predates and exists outside the internet. PX9000, Hemphill Report at ¶ 201; *see also* PX9004, Lampe Report at ¶¶ 10, 33; PX6029, Zuckerberg (Meta) IH Tr., at 53:25-54:21 ("I think people really care about connecting with – with other people . . . I think it's just very important to people to be plugged in. I think a lot of people derive a lot of meaning in their lives from the people that we connect with and our relationships . . . ."); PX6001, Bosworth (Meta) IH Tr., at 45:7-12 ("I think Facebook is centered on the social use cases . . . that is a demand that humanity has. It's – it's part of who we are as a species, to connect and to be together.").

Meta Response: Undisputed.

1013. With the growth of the internet, online services emerged to facilitate relationship maintenance and sharing online with friends and family. *See* PX9000, Hemphill Report at ¶¶ 81-90, 202-03; PX9004, Lampe Report at ¶¶ 41, 45-53, 79-126; PX6001, Bosworth (Meta) IH Tr., at 46:16-19 ("I think we have this fundamental idea of connection, that these modern technologies, especially around the Internet, as these tools of connection.").

Meta Response: Undisputed.

1014. Specifically, online social networking services emerged in which people could maintain relationships and share with their friends and family within the app—that is, people could engage in friends and family sharing. *Infra* CMF at § II.A.3; *see* PX9000, Hemphill Report at ¶¶ 81-90, 202-03; PX9004, Lampe Report at ¶¶ 41, 45-53, 79-126.

Meta Response: Disputed in part. Undisputed that there are many apps that allow users to maintain relationships and share with friends and family. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the ability to share with friends and family is relevant to substitution. The FTC's use of "social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent the statement incorporates the FTC's statements in Section II.A.3, Meta incorporates its responses to those statements.

1015. While there are other ways to communicate with friends and family—like email, calls, and texting—a social networking service for friends and family is a distinct product offering that offers a distinct value proposition, as Meta itself has recognized and represented.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the distinctions it makes between ways to communicate with friends and family is relevant to substitution, and because they assert improper legal conclusions. The materials cited in the subparagraphs below do not support the assertion that apps that allow users to share with friends and family are "a distinct product offering that offers a distinct value proposition" or that Meta has "recognized [or] represented" accordingly. Indeed, the FTC's definition of "PSN services" includes all activities on Facebook and Instagram (except Facebook Dating) – a total of over 250 different use cases or jobs, including calling and texting – all of which can also be done on apps the FTC excludes from the PSNS market. *See* Meta SMF ¶¶ 580-584. The evidence demonstrates that consumers engage in friends and family sharing using messaging apps, among others. *See id.* at ¶¶ 430-432, 438-456. The FTC's use of "social networking service" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

The evidence also shows that direct messaging accounts for significant usage on alleged PSN applications. *See*, *e.g.*, *id.* at ¶ 440 (Mr. Mosseri – the head of Instagram – testifying that Instagram is "more of a messaging app than a broadcast-sharing app at this point." (quoting Ex. 143 at 206:2-4 (Mosseri Dep. Tr.))), ¶ 492-493 (undisputed that [redacted] of the time spent on Snapchat is on the "Chat" feature, which allows users to send one-to-one or group messages (citing Ex. 98 at -010 (MetaFTC-Klein-DX-390, SNAP – FTC – No. 191-0134 – 0000116009) and quoting Ex. 96 at 112:20-113:14 (Andreou (Snap) Dep. Tr.))), [redacted] (the FTC's proffered expert, Professor Lampe,

opining that [redacted] (quoting Ex. 290 at ¶ 182 (Lampe Rep.))). The evidence shows that users switch between other ways to communicate, such as messaging apps, and Instagram and Facebook to share with friends and family. *See id.* at ¶¶ 439-447 (Meta executives and documents discussing competition with messaging apps), [redacted]. Professor Lampe and Professor Hemphill also conceded that the messaging applications serve as an alternative to alleged PSN applications for connecting with friends and family. *See id.* at ¶¶ 457-460.

All available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See id.* at ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Analyzing substitution patterns during an outage of Meta's apps on October 4, 2021, Meta's expert economist, Professor Carlton, found that messaging apps experienced a greater increase in minutes than Snapchat, which the FTC asserts is a PSN app. *See id.* at ¶¶ 562-566. And, to the extent relevant, at least a quarter of respondents to a survey commissioned by the FTC identified as their "most important" reason for using WhatsApp, Facebook Messenger, and text messaging (all outside the FTC's PSNS market) "[t]o keep up with my friends' and family's lives." *Id.* at ¶ 651 (quoting Ex. 299 at ¶¶ 53, 91 & pp. 56-59, tbls. 16-18 (Malkiewicz Rep.)). The record also shows that users use apps the FTC does not classify as PSN apps to share with family and friends, such as TikTok. *See id.* at

¶¶ 216, 241, 243 (evidence of friends and family sharing on TikTok); *see also* Meta Resp. to Counter SMF [redacted].

a. Online relationship maintenance with friends and family via a social network has several benefits, including lowered transaction costs of sharing and relationship maintenance. PX9000, Hemphill Report at ¶¶ 202-03; *id.* at 203 n.358; PX9004, Lampe Report at ¶¶ 13 (discussing "low cost maintenance of broad personal relationship networks that are comprised of real life connections"); *id.* at 40-42 (discussing reduction in transaction costs); PX6022, Sandberg (Meta) IH Tr., at 46:6-16 ("I think the value [Facebook] is providing is helping you stay in touch with friends and family and helping you know what's going on with them in a very efficient way, and I think that has a lot of value"); *id.* at 44:2-24 (testifying that Facebook provides a valuable service "[t]o help people stay in touch with each other and see what's going on with their friends and family . . . with more people at a time," with email, by contrast, being "kind of a clunky way to share a video or a post or a picture").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1015.

b. Meta explained to the European Commission that Facebook (a social networking service for friends and family) and WhatsApp (a messaging service) were not substitutes. Meta stated that "a social networking service is not a substitute for a consumer communications service (or vice versa)." PX3002, Meta document:

"Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (*Aug. 20, 2014), FB_FTC_CID_00005242, at -243.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1015. Further disputed because the cited document is a response to questions from the European Commission in 2014. A decade later, there is extensive evidence that Facebook and Instagram compete with apps that offer messaging, such as iMessage, as stated above in Meta's response to paragraph 1015.

c. As Meta explained, users of "consumer communications services want to exchange urgent messages with a single recipient or a small group of their inner circle," while "users of social networks post pictures or links to their walls, comment on or 'like' other user's activities, follow their friends' feeds or streams, play games, hone their profiles, explore other users' networks (i.e., through visible 'friend lists'), friend or unfriend other users, engage in polls, etc." *Id.* at -243-44. Meta additionally explained that while social networks and other platforms may have similar functionality, "this functionality is generally used differently" and "does not constitute the core user experience." *Id.* at -244, -246.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1015 and subparagraph 1015(b).

1016. Meta recognizes that Facebook serves consumer demand for friends and family sharing.

Meta Response: Disputed in part. Undisputed that users can share content with friends and family on Facebook, among other things. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1010. Further disputed on the ground that "consumer demand" is vague and undefined and "friends and family sharing" is used inconsistently throughout the FTC's Counterstatement, as stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Mr. Zuckerberg wrote in a blog post that "Facebook is about real connections to actual friends, so the stories coming in are of interest to the people receiving them, since they are significant to the person creating them." PX0307 at -001, Mark Zuckerberg, *Calm Down. Breathe. We hear you.*, Facebook Blog (Sept. 5, 2006), https://web.archive.org/web/20061024024254/http://blog.facebook.com/blog.php?post=2208197130.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg wrote the quoted words in a blog post in 2006. Disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed because nearly two decades after the cited document was written, there is extensive evidence that Facebook offers a wide variety of functions beyond just sharing with friends and family, as stated above in Meta's response to paragraph 1010.

b. In connection with its initial public offering in 2012, Facebook described itself as follows: "People use Facebook to stay connected with their friends and family, to discover what is going on in the world around them, and to share and express

what matters to them to the people they care about." PX0292 at -008, Meta SEC Form S-1, dated Feb. 1, 2012.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1010 and subparagraph 1016(a).

c. A 2019 Facebook leadership meeting presentation described "connecting with friends/family and sharing moments of your life with them" as Facebook's "foundational use case" and "Friends and Family [as] our core use case and the one that has contributed most to our core social assets." PX3006, Meta presentation: "FB App Leadership Meeting" (Mar. 2019), FB_FTC_CID_05449564, at -571.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1010. Indeed, Facebook usage data as of January 2023 shows that [redacted] of time on Facebook is associated with viewing content posted by friends. *See* Meta SMF ¶ 11 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)).

d. A 2018 email containing talking points for Mr. Mosseri noted that "Facebook was built on the idea of connecting people with their friends and family." PX12333, Meta email chain: [redacted] to A. Mosseri re: "Prep docs for MSI briefings," (Jan. 8, 2018), FB_FTC_CID_02906755, at -756.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1010.

e. A 2021 presentation on the Facebook News Feed noted that "[redacted]" and recognized that users come to Facebook to [redacted] PX3008 at -039, Meta presentation: "Feed & Ecosystems XFN" (Oct. 4, 2021), FTC-META-006751948.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1010.

1017. Meta also recognizes that Instagram serves consumer demand for friends and family sharing.

Meta Response: Disputed in part. Undisputed that users can share content with friends and family on Instagram, among other things. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1010. Further disputed on the ground that "consumer demand" is vague and undefined and "friends and family sharing" is used inconsistently throughout the FTC's Counterstatement, as stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Instagram leadership has recognized that Instagram is "first and foremost about connecting with friends and family." PX3005, Meta document: "Checkout Press Narrative" (*Feb. 12, 2019), FB_FTC_CID_11310884, at -884.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed because the quotation is incomplete and misleading. The document contains press talking points for Instagram Shopping, a set of features that aims to provide a "*complete* shopping experience for people on Instagram." PX3005 at -884 (FB_FTC_CID_11310884) (emphasis in original). The document shows that Meta innovates its product with a target audience "[f]or those who want to shop," and that many users spend time on Instagram shopping: in February 2019, "[m]ore than 130 million people" clicked on Instagram "shopping posts" and "[m]ore than 80% of people follow[ed] a business." *Id.*

b. Current Head of Instagram Adam Mosseri agreed that friends and family content is "a core part" of Instagram. PX6078, Mosseri (Meta) Dep. Tr., at 149:15-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1010.

1018. Other firms have similarly recognized friends and family sharing as a distinct form of consumer demand.

Meta Response: Disputed in part. Undisputed that [redacted] recognize that some users use some apps to share content with friends and family, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that supposed "demand" for "friends and family sharing" is relevant to substitution. Further disputed

on the ground that "consumer demand" is vague and undefined and "friends and family sharing" is used inconsistently throughout the FTC's Counterstatement, as stated in Meta's Introduction to its Response to the FTC's Counterstatement. The cited materials in the subparagraphs below do not support the assertion that [redacted] Further disputed for the reasons stated above in Meta's response to paragraph 1010.

a. Former Google Vice President Bradley Horowitz explained that Google intended for one of Google+'s "core use cases" to be "connecting users with their friends and family." PX6148, Horowitz (Google) Dep. Tr., at 67:15-18, 92:3-11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1018. Further disputed because whether Google intended for users to connect with friends and family on Google+ does not support the assertion that "friends and family sharing" is recognized "as a distinct form of consumer demand."

b. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1018. Further disputed because whether [redacted]

[redacted] does not support the assertion that "friends and family sharing" is recognized "as a distinct form of consumer demand." Contemporaneous evidence indicates that Path perceived its closest competitors as applications that offer messaging. For example, in 2012, Dave Morin, Path's CEO, stated "Our competition isn't anyone else in the social networking world, it's SMS and email." Ex. 500 at 1 (TechCrunch, *Path's Competitors Aren't Facebook and Twitter, They're Email and SMS Says Dave Morin*, https://perma.cc/LJR7-4HAN?type=standard).

c. TikTok explained to the European Commission in 2020 that "from a user's point of view the primary aim of 'social networking services' is to allow users to connect with other users" and they are "mainly used by people to stay in touch and communicate" with connections. PX13581, TikTok document: "ByteDance Response to European Commission Response for Information – Case At.40628 – Facebook" (*June 12, 2020), TIK-00000001, at -005. While social networking services:

> contain features which overlap with features of other online services . . . they can be distinguished by their main purpose. Whereas 'social networking services' aim to enable people to build and maintain social networks or relationships, online content creation and sharing services aim to enable users to create, view and share content with other people and online communication services aim to enable users to communicate with one another.

Id. In the same document, TikTok identified Facebook, Instagram, and WeChat as "[p]ersonal social networking services" that operate worldwide. *Id.* at -011.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to

paragraphs 1010 and 1018. Further disputed because the cited document is from 2019, before Meta launched Reels on Instagram in August 2020 and before TikTok launched the Friends tab. *See* PX13581 at 288:17-289:2, 292:22-293:6 (Presser (TikTok) Dep. Tr.); Meta SMF ¶ 745; *see also* FTC Resp. to Meta SMF ¶ 271 (admitting that the document, which the FTC cited in response to Meta's Interrogatory No. 13, was created before August 2020). TikTok's view of the "primary aim" or "main use" of a service does not support the assertion that "friends and family sharing" is recognized "as a distinct form of consumer demand." The cited document, instead, offers a high-level response to a question from the European Commission asking how "personal" social networks can be distinguished. *See* PX13581 at -010 (TIK-00000001). [redacted] Moreover, TikTok described only two of the four apps the FTC claims are PSNS market participants as "personal social networking services," – omitting Snapchat and MeWe – and included QZone, which is not in the FTC's alleged PSNS market. *Id.* at -011. Further, while TikTok described how it "believe[d]" users use "social networking services," it qualified its answer, explaining that "[w]e have not conducted studies on this question nor are we aware of such studies." *Id.* at -005. TikTok also stated that "users of 'personal social networking services' multi-home and use a variety of such services." *Id.* at -018.

d. Pinterest explained to [redacted] that:

> [T]he defining purpose of a social network is to connect the user with other people . . . the primary value a social network delivers is creating a connection for communication among predetermined groups . . . the key focus of the social networking service is providing a platform for people to connect with predetermined groups of other people.

PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -369.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1018. Further disputed because Pinterest's view of the "purpose" or "value" of a service does not support the assertion that "friends and family sharing" is recognized "as a distinct form of consumer demand." Indeed, Pinterest's head of user growth, Julia Cochran Roberts, agreed that "TikTok, Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of a social network as used in the document and in reference to this specific quote. Ex. 45 at 427:21-428:1 (Roberts (Pinterest) Dep. Tr.). Thus, the document does not support the proposition that friends and family sharing is a distinct form of consumer demand (or one only served by alleged PSN apps). The cited document, instead, offers a high-level response to a question asking for an explanation of the features and functionalities of a social network service. *See* PX7034 at -369 (FTC-PINTEREST-00001366). Elsewhere in the same response, Pinterest also stated that there are "key points of competitive intersection" with Facebook "where Facebook's products are indeed a substitute for Pinterest's products." *Id.* at -374. Moreover, Pinterest stated in the same document that it

would not classify Instagram or Snapchat as a "personal" social network, but as a "Celebrity/Influencer" social network in the same category as TikTok. *Id.* at -378. Ms. Roberts testified that Pinterest agrees with that characterization in the U.S. today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

e. Pinterest further explained that:

> [S]ocial networks can be distinguished based on use cases and target user base. 'Personal' versus 'professional' is one axis of differentiation: the networks people build on Facebook tend to be oriented toward family, friends, and social acquaintances whereas the networks people build on LinkedIn are very much focused on professional contacts.

Id. at [redacted] (emphasis omitted).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1018 and subparagraph 1018(d).

f. Twitter Vice President Keith Coleman testified that "Facebook, Instagram, and Snap, they're all used . . . primarily to see what friends and family are doing. Twitter is mainly used to see what's happening in the world and what people think about it." [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1018. Further disputed because Twitter's view of the "primar[ ]y" or "main[ ]" use of a service does not support the assertion that "friends and family sharing" is recognized "as a distinct form of consumer demand." Indeed, empirical evidence shows that users switch between [redacted] and Facebook and Instagram. *See* Meta SMF ¶¶ 565-566 (Professor Carlton's

2021 outage analysis). And Twitter executives and documents show that Twitter views Facebook and Instagram as competitors for users' attention and time, including for interest-based content. *See id.* at ¶¶ 316-319, 324-326. Mr. Coleman also testified that Facebook, Instagram, and Snap have "overlapping use cases with Twitter." *Id.* at ¶ 325 (quoting Ex. 44 at 16:15-16, 117:11-118:8 (K. Coleman (Twitter) Dep. Tr.)). Mr. Coleman also testified that Twitter "probably [has] the most overlap with Instagram where there are . . . certain interests where . . . Instagram is a great way to follow those interests." PX6144 at 120:22-121:4 (K. Coleman (Twitter) Dep. Tr.). He also testified that Instagram is "increasingly a place where you can see interests and follow interests." *Id.* at 121:16-18. Mr. Coleman acknowledged that Twitter stated in filings with U.S. regulators that it competed with an array of apps, including Facebook and Instagram. *See id.* at 37:20-38:1, 45:3-17 (K. Coleman (Twitter) Dep. Tr.).

g. In June 2010, consulting firm Maslansky Luntz & Partners reported, in a report commissioned for Meta titled "The Language of Privacy," that "[f]or hundreds of millions of people today who want to connect with their friends and family, you are the first – and more importantly, only – choice." PX3511, Meta document: "The Language of Privacy" (June 15, 2010), FB_FTC_CID_06480526, at -529. Observing "the public reaction to your recent privacy changes," the consultant offered that "[t]hey distrust you because they feel they need you. People increasingly see you as a pseudo-monopoly, which means they feel they have less control than in a typical commercial relationship. As in any relationship, such a dynamic creates anxiety and distrust." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above Meta's in responses to paragraphs 1010 and 1018. Further disputed because a consulting firm's statements about why users used Facebook in 2010 does not support the assertion that "friends and family sharing" is recognized "as a distinct form of consumer demand." Over a decade since, there is extensive evidence that Facebook offers a wide variety of functions beyond just sharing with friends and family, as stated above in Meta's response to paragraph 1010.

1019. Demand for friends and family sharing is large both historically and today. *See* PX9000, Hemphill Report at ¶¶ 211-24; PX9007, Hemphill Rebuttal Report at ¶¶ 240-46.

Meta Response: Disputed in part. Undisputed that maintaining relationships with friends and family is a basic human need. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that supposed "[d]emand for friends and family sharing" is relevant to substitution. Further disputed on the ground that "demand for friends and family sharing" is used inconsistently throughout the FTC's Counterstatement, as stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the usage data cited in the subparagraphs below does not provide evidence of "[d]emand for friends and family sharing." Further disputed for the reasons stated above in Meta's response to paragraph 1010.

a. In 2015, 193 million users (on average) in the United States used Facebook each month, and 148 million users did so each day. PX9000, Hemphill Report at ¶ 213.

Meta Response: Undisputed.

b. In 2022, [redacted] users were active on Facebook each month and [redacted] users were active on Facebook each day. *Id.* at ¶ 214.

Meta Response: Undisputed.

c. In 2015, Instagram had 86 million active users (on average) each month and 57 million active users each day. *Id.* at ¶ 219.

Meta Response: Undisputed.

d. In 2022, [redacted] users were active each month on Instagram and [redacted] users were active on Instagram each day. *Id.* at ¶ 220.

Meta Response: Undisputed.

3. PSN apps emerged to serve the distinct demand for friends and family sharing.

1020. Specialized apps ("PSN apps") have emerged to serve the distinct demand for friends and family sharing. These apps have a core use of friends and family sharing and functionality to facilitate and foster friends and family sharing. PX9000, Hemphill Report at ¶ 189; *infra* CMF at §§ II.A.3, II.A.4(a)-(b).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that supposed "demand for friends and family sharing" is relevant to substitution. The FTC's use of "core use" and "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The statement is conclusory and asserts improper legal conclusions regarding the validity of the alleged PSN market. Further disputed on the ground that "demand for friends and family sharing" is used inconsistently throughout the FTC's Counterstatement, as stated in Meta's Introduction to

its Response to the FTC's Counterstatement. None of the materials cited in the subparagraphs discuss or define "distinct demand." The cited paragraph in Professor Hemphill's report does not cite any evidence to support the statement. The evidence refutes the assertion that "PSN apps" exist – which the FTC claims describes only Facebook, Instagram, Snapchat, and MeWe – or serve a distinct demand. *See* Meta Resp. to Counter SMF ¶ 1007. Further disputed for the reasons stated above in Meta's response to paragraph 1010. Further disputed that this statement creates a genuine dispute of material fact, as it cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The cited paragraph of Professor Hemphill's report cites no evidence. To the extent this statement incorporates the FTC's statements in Sections II.A.3 and II.A.4(a)-(b), Meta incorporates its responses to those statements here.

a) Original PSN apps include Friendster and Myspace.

1021. Before its demise, Friendster was a social network dedicated to maintaining relationships and sharing with friends and family. PX6029, Zuckerberg (Meta) IH Tr., at 80:13-84:7 (explaining that Friendster was a social network that helped people connect and was analogous to what Facebook did).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Friendster's supposed "dedicat[ion]" to certain types of sharing is relevant to substitution. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1010 and 1020. Further disputed that the statement is supported by the cited material. Mr. Zuckerberg did not testify that Friendster was a social network or that it was dedicated to maintaining relationships and sharing with friends and family.

He testified that "services like Friendster and Myspace were – were fairly popular and were things that people understood and were probably the best analogy that people had for understanding what [Facebook was] doing, although we were doing it in the context of a university." in 2004. PX6029 at 81:2-7 (Zuckerberg IH Tr.).

1022. Before its demise, Myspace was a social network dedicated to maintaining relationships and sharing with friends and family. [redacted]; PX2690, Meta presentation: "Social Network Service (SNS) Attitude & Usage Profiler For Facebook" (July 14, 2009), FB_FTC_CID_03882182, at -241 (describing a poll showing two of the top three reasons users joined Myspace were "[k]eeping in touch with friends" and "[k]eeping in touch with family").

Meta Response: Disputed in part. Undisputed that Myspace could be used to connect with friends and family, among other things. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Myspace's supposed "dedicat[ion] to" certain types of sharing is relevant to substitution. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1010 and 1020. Further disputed that the statement is supported by the cited material. The testimony from Mr. DeWolfe provided "yes" or "no" answers to questions on how users used Myspace. *See* PX6066 at 120:18-121:9 (DeWolfe (Myspace) Dep. Tr.). Mr. Dewolfe also agreed that he considered "YouTube to be one of Myspace's primary competitors," and that Myspace was competing with services that offered the ability to message, among other competitors. *See id.* at 188:7-17. And the document cited also states that LinkedIn and Twitter are social networks, and that two of the top three reasons users joined LinkedIn and Twitter

were "[k]eeping in touch with friends" and "[k]eeping in touch with family." PX2690 at -243, -245 (FB_FTC_CID_03882182). Further disputed that the document is a Meta presentation; it states it was prepared by Anderson Analytics. *See id.* at -182. Further disputed on the grounds that "dedicated" is vague and undefined.

1023. A 2018 Meta document identified Myspace and Friendster as "earlier social networks" that were surpassed by Facebook. PX1182, Meta document: "Possible End states for the Family of Apps" (Oct. 9, 2018), FB_FTC_CID_02444215, at -216.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that a Meta document using the term "earlier social networks" is relevant to substitution. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1010 and 1020. Further disputed that the material cited, which describes Myspace and Friendster as an "earlier social network[ ]," supports the proposition that PSN apps serve a "distinct demand for friends and family sharing."

b) Facebook emerged and became the largest PSN app in the United States by 2009.

1024. Facebook launched in 2004 as a social network dedicated to maintaining relationships and sharing with friends and family. PX6029, Zuckerberg (Meta) IH Tr., at 80:13-81:7, 84:24-85:3 (explaining that Facebook was a social network at the time of its launch, where users could connect via friend requests).

Meta Response: Disputed in part. Undisputed that Facebook launched in 2004. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Facebook's supposed "dedicat[ion]" to certain types

of sharing is relevant to substitution. Further disputed that when Facebook was founded, it was "dedicated to maintaining relationships and sharing with friends and family." Indeed, as the FTC acknowledges, Facebook was available only to college students until 2006; users could not share with family in 2004 unless they also happened to attend the same college. *See* Counter SMF ¶ 1559. Further disputed on the ground that the cited testimony does not support the assertion, because Mr. Zuckerberg did not testify that Facebook was "dedicated" to maintaining relationships and sharing with friends and family when Facebook launched. Further disputed for the reasons stated above in Meta's response to paragraph 1010.

1025. Facebook has a core use of friends and family sharing and functionality to facilitate and foster friends and family sharing. *Infra* CMF at §§ II.A.4.(a)(1), (6)-(8), II.A.4.(b).

Meta Response: Disputed in part. Undisputed that Facebook can be used to share content with friends and family and contains functionality to facilitate the sharing of content with friends and family, among other things. Disputed that this statement creates a genuine dispute of material fact, as it cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and because the FTC provides no evidence that the FTC's description of Facebook's "core use" is relevant to substitution. The FTC's use of "core use" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 1010. To the extent the statement incorporates the FTC's statements in Sections II.A.4.(a)(1), (6)-(8), II.A.4.(b), Meta incorporates its responses to those statements here.

1026. Facebook overtook Myspace (among unique users in the United States) in May 2009, and has been the largest friends and family social networking service since then. PX2746 at -003-06, Meta document: "Comscore Selected Social Networking Sites Monthly Unique Visitor (000) Trend" (Oct. 8, 2012), FB_FTC_CID_07731306; *see also* PX9000, Hemphill Report at ¶ 90.

Meta Response: Disputed in part. Undisputed that the first cited document discusses Facebook surpassing Myspace's monthly unique visitors. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its assertion Facebook is the "largest friends and family social network[ ]" is relevant to substitution. Disputed on the ground that "friends and family social networking service" is vague and undefined. Further disputed because the cited materials do not support the assertion that Facebook has been the "largest friends and family social networking service" since May 2009. The document includes in its discussion of "Social Networking Sites" LinkedIn, Twitter, Tumblr, and Pinterest. Further disputed for the reasons stated above in Meta's response to paragraph 1010.

1027. Meta executives have repeatedly characterized Facebook as having a core use of friends and family sharing.

Meta Response: Disputed in part. Undisputed that Meta executives have recognized that some users use Facebook for sharing with friends and family, among other uses. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that documents characterizing a "core use" are relevant to substitution. The FTC's use of "core use" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's

Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 1010.

a. Mr. Zuckerberg stated in 2006 that "Facebook is about real connections to actual friends . . ." PX0307 at -001, Mark Zuckerberg, *Calm Down. Breathe. We hear you.*, Facebook Blog (Sept. 5, 2006), https://web.archive.org/web/20061024024254/http://blog.facebook.com/blog.php?post=2208197130 ("Facebook is about real connections to actual friends, so the stories coming in are of interest to the people receiving them, since they are significant to the person creating them.").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg wrote the quoted words in a blog post in 2006. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1027.

b. In connection with its initial public offering in 2012, the registration statement Facebook submitted to the SEC stated that "People use Facebook to stay connected with their friends and family, to discover what is going on in the world around them, and to share and express what matters to them to the people they care about." PX0292 at -008, Meta SEC Form S-1, dated Feb. 1, 2012.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1027.

c. A 2013 Facebook advertising strategy plan described its social graph as "what makes Facebook valuable for users. PX2646, Meta document: "Recommended path for FBX and its interactions in H2 2013" (Sept. 2013),

FB_FTC_CID_02466649, at -667 ("Social graph . . . Who's friends with who? This is what makes Facebook valuable for users. So they can see what their friends are doing and share with them.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1027.

d. In June 2016, current head of Instagram Adam Mosseri (then Vice President of Product Management for Facebook's News Feed) wrote that "Facebook was built on the idea of connecting people with their friends and family." PX0048 at -002, Meta post: "Building a Better News Feed for You" (June 29, 2016), https://about.fb.com/news/2016/06/building-a-better-news-feed-for-you/.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1027.

e. Mr. Zuckerberg also stated in 2018 that Facebook was built "to help people stay connected and bring us closer together with the people that matter to us. That's why we've always put friends and family at the core of the experience." *See* PX12503 at -003, Adam Mosseri, "Bringing People Closer Together," Meta (Jan. 11, 2018), https://about.fb.com/news/2018/01/news-feed-fyi-bringing-people-closer-together.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1027. Further disputed because the excerpted statement is

incomplete. The cited document is a 2018 Facebook post; in it, Mr. Zuckerberg states that "[v]ideo and other public content have exploded on Facebook in the past couple of years." PX12503 at -003 (Meta, *Bringing People Closer Together*).

f. Mr. Zuckerberg publicly stated in 2018 that "building relationships" with friends and family is a "core need" that Facebook seeks to fulfill. PX0617 at -005, -018, Kara Swisher, *Zuckerberg: The Recode interview*, Vox (Oct. 8, 2018), https://www.vox.com/2018/7/18/17575156/mark-zuckerberg-interview-facebook-recode-kara-swisher.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language in 2018. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1027.

g. Similarly, current Chief Product Officer Chris Cox testified in 2020 that Facebook is "an app for connecting and sharing with the people that you care about." PX6006, Cox (Meta) IH Tr., at 54:11-54:12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1027. Further disputed because the excerpted testimony is incomplete: Mr. Cox testified that Facebook has "a lot" of "main uses" today, including a "marketplace for buying and selling things," "video service for discovering video and watching video," "dating service," "event service," "photo-sharing service," "job service," and "a lot more." PX6006 at 55:12-25 (Cox IH Tr.).

h. At Mr. Zuckerberg's deposition in May 2023, he agreed that "friends and family sharing will always be a core part of the Facebook experience," and that "it's certainly the case that connecting with friends in particular has been one of the important use cases since the beginning." PX6127, Zuckerberg (Meta) Dep. Tr., at 10:5-11:22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1027. Further disputed because the excerpted testimony is incomplete. Mr. Zuckerberg was asked whether it is "fair to describe today the Facebook application to provide the core experience of friends and family sharing?" PX6127 at 11:2-4 (Zuckerberg Dep. Tr.). Mr. Zuckerberg replied that the question was "phras[ed] in a way that is maybe a little more singular about what [Facebook is] doing," which was not "accurate because for many years [Facebook has] also done a lot of other things," such as "entertainment." *Id.* at 11:9-13. Mr. Zuckerberg further testified that while "connecting with friends in particular has been one of the important use cases since the beginning," Facebook has "add[ed] other use cases and those use cases may grow as a portion of what [Facebook is] doing." *Id.* at 11:14-22. Mr. Zuckerberg explained that, "increasingly what we found, you know, especially over the last five or six years, is that there's also just been an explosion in non-friend or follower content especially as the algorithms have gotten a lot better at being able to recommend content to people that's interesting and that's growing to be a larger and larger portion of the content on the system." *Id.* at 12:18-25. He also explained that the use case of connecting

with friends to which he was referring is the same use case offered by applications that offer messaging functionality. *See id.* at 13:14-23.

1028. Mr. Zuckerberg testified in 2023 that he agreed that one of Facebook's goals is to be "the best online service for friend sharing" and that Facebook is "one of the leading services" for a user who wants "to share with all of your friends at once." PX6127, Zuckerberg (Meta) Dep. Tr., at 181:12-21 ("Q. It's your goal to make Facebook the best online service for friend sharing; right? A. Among other things, yes. Q. In your view in the United States today, is Facebook the best online service for friend sharing? A. I think it is a – it's one of the leading services for sharing with friends in certain ways. So if you want to share with all of your friends at once, I think it's certainly one of the leading services for doing that.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the material cited creates a genuine dispute of material fact, including for the reasons stated above in Meta' responses to paragraph 1010 and subparagraph 1027(b). Further disputed because the excerpted testimony is incomplete. Mr. Zuckerberg testified: "Increasingly, though, I think most of the sharing that is happening with friends is moving to smaller formats, whether that's messaging or sub-groups which Facebook supports." PX6127 at 181:21-24 (Zuckerberg Dep. Tr.). He also testified that "Facebook and Instagram and TikTok and YouTube and all these services are kind of -- the social media element of them is probably a little more emphasized as sort of a way to discover content that you then engage with your friends around in messaging services, whether those are owned by Google or TikTok or us or iMessage or whatever." *Id.* at 182:5-11.

c) Instagram emerged as a compelling mobile-first PSN app, only to be acquired by Meta.

1029. Instagram has a core use of friends and family sharing and functionality to facilitate and foster friends and family sharing. *See infra* CMF at §§ II.A.4(a)(2), (6)-(8), II.A.4(b).

Meta Response: Disputed in part. Undisputed that Instagram can be used to share content with friends and family and contains functionality to facilitate the sharing of certain content with friends and family, among other things. Disputed that the statement creates a genuine dispute of material fact, as it cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and because the FTC provides no evidence that the FTC's description of Instagram's "core use" is relevant to substitution. The FTC's use of "core use" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 1010. To the extent the statement incorporates the FTC's statements in Sections II.A.4(a)(2), (6)-(8), II.A.4(b), Meta incorporates its responses to those statements here.

1030. Instagram launched as a photo-centric mobile social network dedicated to maintaining relationships and sharing with friends and family.

Meta Response: Disputed in part. Undisputed that Instagram launched as a photo-sharing app that allowed users to share photos with friends and family, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the materials cited in the subparagraphs below do not support the assertion that Instagram was "dedicated to maintaining relationships and sharing with friends and family." Further disputed because the phrase "dedicated to" is vague and undefined.

a. Instagram co-founder Kevin Systrom testified that "[w]e thought . . . we were a photo social network that let you post your photos to your friends . . . [s]o the idea behind Instagram was that not only could you take a photo and make it beautiful, you could share it with people"). PX6027, Systrom (Meta/Instagram) IH Tr., at 68:10-70:16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1030.

b. From its creation, Instagram users used the platform primarily to share their daily lives with their friends and family. *Id.* at 73:13-74:3 ("Q. Okay. So you kind of described what the mix of those accounts were, like the percentage of how many, like, personal accounts there were vers[us] the theme and animal-type accounts prior to April 2012. A. I can't give a specific breakdown, but what I can say is that the large majority were personal accounts. Q. And what did people generally use personal accounts to do on Instagram? A. People used personal accounts to share their daily lives. Q. Who were they sharing their daily lives with? A. I believe, primarily with their friends and family.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1030. Further disputed because the excerpted testimony is incomplete. Mr. Systrom testified that he did not recall the "specific breakdown" of the percentage of content from friends and family versus "interest-based account[s],"

but said that he thought "it was a healthy mix of friends and nonfriends." PX6027 at 76:1-10 (Systrom IH Tr.).

c. When Instagram was still in the planning stage prior to launching, Systrom wrote to fellow co-founder Mike Krieger, saying "our strength lies in building a vibrant community where capturing the world around you isn't just about using an app but instead it's about a discussion with your friends, family, and maybe even people you've never met." PX3426, Instagram email chain: K. Systrom to M. Krieger re: "meedeor" (Aug. 27, 2010), FB_FTC_CID_08711591, at -591.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1030.

d. Mr. Systrom described Instagram to a reporter in 2010 as designed "to allow you to experience moments in your friends' lives through pictures as they happen." PX3427, Instagram email chain: K. Systrom to [redacted] (Polaris Ventures) re: "intro: Anthony & instagram" (Sept. 20, 2010), FB_FTC_CID_08715300, at -300.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1030. Further disputed that the statement is incomplete. Mr. Systrom also wrote that Instagram sought to make the "world more connected through images – whether through friends or people across the world." PX3427 at -300 (FB_FTC_CID_08715300).

e. Instagram offered a social graph built on connections with a users' friends and family "immediately" upon its launch. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 14:8-12 ("Q. At what point would you say Instagram had a social graph? A. Immediately. Because people were able to follow their friends and others from the second we launched the app."); PX6027, Systrom (Meta/Instagram) IH Tr., at 73:21-74:3 (users used Instagram "to share their daily lives . . . primarily with their friends and family").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1030 and subparagraph 1030(b).

f. Sequoia Capital, an early investor in Instagram, concluded in 2012 that "Instagram is an emergent mobile social service, built around the spear tip of photos, and that it has the potential to build a separate social graph from those that exist today." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1030.

1031. Instagram's emergence threatened Meta, leading to Meta's acquisition of Instagram. *See infra* CMF at § III.A-B.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, as it cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). To the extent the statement

incorporates the FTC's statements in Sections III.A-B, Meta incorporates its responses to those statements here.

1032. Since Meta's acquisition, Instagram continues to have a core use of friends and family sharing and functionality to foster friends and family sharing. *See supra* CMF at ¶ 1017; *see also infra* CMF at §§ II.A.4(a)(2), (6)-(8), II.A.4(b).

Meta Response: Disputed in part. Undisputed that Instagram can be used to share content with friends and family and contains functionality to facilitate the sharing of certain content with friends and family, among other things. Disputed that this paragraph creates a genuine dispute of material fact because it cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h) and because the FTC provides no evidence that the FTC's description of Instagram's "core use" is relevant to substitution. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 1010. To the extent the statement incorporates the FTC's statements in paragraph 1017 and Sections II.A.4(a)(2), (6)-(8), II.A.4(b), Meta incorporates its responses to those statements here.

1033. Third parties have recognized that Instagram provides PSN services:

Meta Response: Disputed. Disputed that the statement and the subparagraphs below create a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1010. Further disputed because the FTC provides no evidence that [redacted]. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's

Introduction to its Response to the FTC's Counterstatement. Further disputed because none of the materials cited in the subparagraphs [redacted]. *See* Meta Resp. to Counter SMF ¶ 1007.

a. In a 2020 response to the European Commission, TikTok identified Facebook, Instagram, and WeChat as "Personal social networking services" that operated worldwide. PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (*June 12, 2020), TIK-00000001, at -011. TikTok further stated that "Instagram qualifies as a 'social networking service' because the majority of content in users' feed comes from friends or celebrities that they have followed . . ." *Id.* at -005-06 ("'social networking services' are online platforms which people use to build and maintain social networks or social relationships with friends and professional acquaintances. We believe that from a user's point of view the primary aim of 'social networking services' is to allow users to connect with other users . . . .").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1033. Further disputed because the cited document is from 2019, before Meta launched Reels on Instagram in August 2020 and before TikTok launched the Friends tab. *See* PX13581 at 288:17-289:2, 292:22-293:6 (Presser (TikTok) Dep. Tr.); Meta SMF ¶ 745; *see also* FTC Resp. to Meta SMF ¶ 271 (admitting that the document, which the FTC cited in response to Meta's

Interrogatory No. 13, was created before August 2020). As of April 24, 2024, Reels alone accounts for 50% of time spent on Instagram. *See* Ex. 499 at 4 (Meta Q1 2024 Earnings Call). Further disputed because the cited testimony is incomplete, misleading, and does not support the assertion that third parties have recognized that Instagram provides PSN services, as the FTC uses that term. The cited document offers a high-level response to a question from the European Commission asking how "personal" social networks can be distinguished. *See* PX13581 at -010 (TIK-00000001). In response, TikTok responded that distinctions can be drawn between apps that promote "interpersonal contact for private and entertainment purposes" and those that "are used for professional purposes," but "note[d] that there is an increasing overlap in the use cases offered." *Id.* Moreover, TikTok described only two of the four apps the FTC claims are PSNS market participants as "personal social networking services," – omitting Snapchat and MeWe – and included QZone, which is not in the FTC's alleged PSNS market. *Id.* at -011. Further, while TikTok described how it "believe[d]" users use "social networking services," it qualified its answer, explaining that "[w]e have not conducted studies on this question nor are we aware of such studies." *Id.* at -005. TikTok also stated that "users of 'personal social networking services' multi-home and use a variety of such services." *Id.* at -018. Further disputed because TikTok's characterization of Instagram as a "social networking service" in the document was limited to its description of Instagram Feed. *See id.* at -006. No ordinary course TikTok document describes Instagram as a "personal social networking service." *See* Meta SMF ¶ 476. [redacted]

[redacted]

b. Current TikTok Head of Operations Adam Presser testified in 2023 that Instagram currently offers personal social networking services worldwide, including within the United States. PX6097, Presser (TikTok) Dep. Tr., at 202:14-203:17 ("Q. In TikTok's view, does the Instagram app continue to offer 'personal social networking services' worldwide today as that term is used in ByteDance's response [to the European Commission]? . . . A. Yes."), 200:4-16 ("Q. In TikTok's view, at the present time, do both Facebook and Instagram continue to offer worldwide, except in China, social networking services that meet the definition of 'social networking services' detailed in ByteDance's response? A. Yes. Q. In TikTok's view, do both Facebook and Instagram continue to offer today within the United States social networking services that meet the definition of "social networking services" detailed in ByteDance's response to the European Commission[]? A. Yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony in reference to a specific definition of "personal social networking services" that was used in an exhibit and that is inconsistent with the FTC's usage of that phrase in this case. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1033 and subparagraph 1033(a).

Further disputed because the cited testimony is incomplete, misleading, and does not support the statement in paragraph 1033 [redacted].

c. Current TikTok President of Global Business Solutions Blake Chandlee testified that both Facebook and Instagram are "social platforms" because they "rely on relationships between friends and family" and users open Instagram to "check[] in to see what your friends and family are doing." PX6160, Chandlee (TikTok) Dep. Tr., at 17:7- 17:21, 21:3-16 ("Q. What did you mean by 'Facebook is a social platform'? A. I think the basic premise and the underlying business is geared around the social graph, which is, you know, individuals' connections with friends, family, businesses, brands, whatever it might be, and that is core to the value proposition that both Facebook and Instagram present to their users. And that is the definition of social platform. You know, we are -- we were an interest or a content graph platform versus social platform. So our content doesn't rely on relationships between friends and family, it relies on our interests. And so they're very different in their -- in their -- their utility to users.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1033. Further disputed because the quoted testimony is incomplete. When asked in a CNBC interview what he meant by "Facebook is a social platform," Mr. Chandlee said: "I think the basic premise and the underlying business is geared around the social graph, which is, you know, individuals' connections with friends, family, *businesses, brands, whatever it*

might be." PX6160 at 17:9-21 (Chandlee (TikTok) Dep. Tr.) (emphasis added). And the cited testimony – which describes Instagram as a "social platform" that "is geared around . . . individuals' connections with friends, family, businesses, brands, whatever it might be" – does not support the assertion that Instagram is a "PSN service." Further disputed because Mr. Chandlee also testified that Reels competes with TikTok and that it "has very similar characteristics" to TikTok. PX6160 at 67:8-69:12; 69:19-70:8 (Chandlee (TikTok) Dep. Tr.); Meta SMF ¶ 268 (quoting Ex. 36 at 68:16-21 (Chandlee (TikTok) Dep. Tr.)). [redacted]

d. Twitter Vice President Keith Coleman testified that "I recall very consistently hearing that products like Facebook, Instagram and Snap were used to see what friends and family were doing as their primary use case." [redacted] ("I don't have the -- I don't know the proportion. But we spend a lot of time talking to our customers to understand what they -- what they did in their lives and what products – what products filled those roles. And I recall very consistently hearing that products like Facebook, Instagram and Snap were used to see what friends and family were doing as their primary use case. And that was, let's say, in contrast to seeing news or what Twitter's main

use was, and is, of seeing what's happening in the world, which is more akin to news.”).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta’s responses to paragraphs 1010 and 1033. Further disputed because the cited testimony is incomplete and does not support the assertion that third parties have recognized that Instagram provides PSN services. The cited testimony that users used Instagram to share with friends and family does not support the assertion that Instagram is a “PSN service.” Mr. Coleman also testified that Twitter “probably [has] the most overlap with Instagram where there are . . . certain interests where . . . Instagram is a great way to follow those interests.” PX6144 at 120:21-121:5 (K. Coleman (Twitter) Dep. Tr.). He also testified that Instagram is “increasingly a place where you can see interests and follow interests.” *Id.* at 121:16-18. He also testified that creators can choose from multiple platforms when posting content, including Twitter, YouTube, TikTok, Instagram, Snapchat, and Pinterest. *See id.* at 73:9-15. Consistent with this, Twitter executives and documents show that Twitter views Instagram as a competitor for users, including for interest-based content. *See* Meta SMF ¶¶ 316-319, 324-326.

e. Former Pinterest Vice President Scott Coleman testified that, unlike Pinterest, “my view of what you’re trying to do on a social network is connect or share content with your friends. Like, I think that’s -- to me is like the right -- and, like, feature sets and all the products is basically built around that. And so if I think about -- yeah, if I think about Facebook, I think about Instagram, like, generally

that tends to be at the core of it." PX6108, Coleman (Pinterest) Dep. Tr., at 154:5-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1033. Further disputed because the cited testimony is incomplete and does not support the assertion that third parties have recognized that Instagram provides PSN services. Mr. Coleman testified that Pinterest's internal analysis from outages impacting Facebook, Instagram, and TikTok was that Pinterest competed with these companies "for time and attention." Meta SMF ¶ 354. Mr. Coleman also testified that Pinterest and Instagram have overlapping use cases, for example, beauty and shopping. *See id.* at ¶ 358 (quoting Ex. 50 at 94:22-95:4 (S. Coleman (Pinterest) Dep. Tr.)). Pinterest's documents and testimony indicate that Pinterest perceives Instagram as a key competitor, where users engage in many overlapping activities like seeking inspiration, viewing entertaining content, shopping, and much more, and that [redacted]. *See* Meta SMF ¶¶ 347-355. Pinterest has taken the position in regulatory filings that Instagram is *not* a personal social network – but that it, along with TikTok and Snapchat, is a "Celebrity/Influencer" network. PX7034 at -378 (FTC-PINTEREST-00001366). Another Pinterest witness, Ms. Roberts, testified that Pinterest agrees with that characterization in the U.S. today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.). Ms. Roberts also testified that Instagram is [redacted] *See* Meta SMF ¶ 347 (quoting Ex. 45 at 16:20-22,

55:4-20 (Roberts (Pinterest) Dep. Tr.)). As reflected in Pinterest's documents, "Instagram consistently shows up on [Pinterest's] radar as a competitor that contends on marketshare, timeshare & mindshare or a generally less Pinterest familiar market." Ex. 45 at 89:8-89:21 (Roberts (Pinterest) Dep. Tr.).

f. Current YouTube director (and former Facebook employee) Aaron Filner testified that Instagram facilitates connection with friends and family via a social graph, and that is Instagram's core function. PX6095, Filner (YouTube) Dep. Tr., at 269:16-270:1, 282:5-282:12.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1033. Further disputed because the cited testimony is incomplete and does not support the assertion [redacted]. On the contrary, Mr. Filner testified that he did not recall having heard the term "personal social networking service." PX6095 at 204:14-18 (Filner (YouTube) Dep. Tr.). YouTube documents and testimony also unambiguously indicate that YouTube does not recognize "PSN services" as the FTC has defined the term. YouTube's documents and testimony recognize that it offers a reasonable substitute to engagement on alleged PSN activities on Facebook and Instagram. *See* Meta SMF ¶¶ 189-196, 200-202.

g. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that . Disputed for the reasons stated above in Meta's responses to paragraphs 1010 and 1033. Further disputed because the cited testimony is incomplete and does not support the assertion

[redacted]

d) Other PSN apps have gone defunct.

1034. Other PSN apps have existed in the past, trying to serve demand for friends and family sharing. These apps had a core use of friends and family sharing and functionality to facilitate and foster friends and family sharing. But like Friendster and Myspace, they have gone defunct. PX9000, Hemphill Report at ¶¶ 330-70 (discussing Friendster, Myspace, Orkut, Path, and Google+); *see also infra* CMF at §§ II.A.4(a)(5).

Meta Response: Disputed in part. Undisputed that Friendster, Myspace, Orkut, Path, and Google+ are apps that existed and are defunct. Disputed that the statement creates a genuine dispute of material fact including because it is conclusory and asserts improper legal conclusions regarding the validity of the alleged PSN market and the market participants. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The evidence refutes the assertion that Myspace, [redacted] are "PSN apps." Further disputed for the reasons stated above in Meta's responses to paragraphs 1007 and 1010. *See* Meta Resp. to Counter SMF ¶ 1007. To the extent the statement incorporates the FTC's statements in Section II.A.4(a)(5), Meta incorporates its responses to those statements here.

(1) Google+

1035. Google+ launched as a social network dedicated to maintaining relationships and sharing with friends and family, but failed to gain traction and went defunct. PX6148, Horowitz (Google) Dep. Tr., at 30:13-21 (Google+ functionality and services "were the rudiments of social networking, setting up a profile, posting, reading a feed, searching across those

posts, et cetera"); *id.* at 44:21-45:8 ("Q. Did Google+ have many of the same features as Facebook? A. Yes. Q. What features? A. Profiles, posting, sharing . . . A feed of information, search across that information, those kinds of things. Ability to search for people I know on the service."); *id.* at 92:3-92:11 ("Q. Was Google+ intended to enable users to maintain personal relationships with their friends and family? A. That was certainly one of our primary use cases. Q. And was Google+ intended to be used by people to share experiences with their friends and family? A. Yes"); *id.* at 171:17-19 ("Q. Did Google shut down Google+ at some point? A. Yes.").

Meta Response: Disputed in part. Undisputed that Google+ is defunct. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1007 and 1010.

1036. Bradley Horowitz, an advisor and former Vice President of Product Management at Alphabet, testified that Google intended for one of Google+'s core use cases to be connecting users with their friends and family. PX6148, Horowitz (Google) Dep. Tr., at 15:8-15, 67:15-18, 92:3-11.

Meta Response: Undisputed. Undisputed that the witness provided the paraphrased testimony. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1007 and 1010.

1037. Google chose to launch Google+ despite already owning YouTube because, as Mr. Horowitz testified, YouTube was not a "social product in the sense that it creates a social graph" with a primary use case of connecting friends and family. PX6148, Horowitz (Google) Dep. Tr., at 139:19-142:8.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1007 and 1010. Further disputed because the testimony is incomplete. Mr. Horowitz testified regarding YouTube: "It is clearly social in that it's multiplayer. It is not a product that doesn't involve other people." PX6148 at 140:8-10 (Horowitz (Google) Dep. Tr.).

1038. Google+ did not live up to internal expectations, and Google eventually shut down Google+. PX6148, Horowitz (Google) Dep. Tr., at 117:11-119:12, 171:17-20.

Meta Response: Undisputed.

1039. Meta's leadership initially perceived Google+ as a threat.

Meta Response: Undisputed.

a. Former Meta COO Sheryl Sandberg, when asked in a 2020 investigational hearing about the reaction at Meta to Google+ when it first launched, testified that "I think we were really scared. They were a huge, huge competitor." PX6022, Sandberg (Meta) IH Tr., at 195:15-23.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. In a 2011 email, Ms. Sandberg wrote, regarding Google+, that "for the first time, we have real competition and consumers have real choice." PX2527, Meta email chain: S. Sandberg to C. Cox, et al. re: "HPM," (July 15, 2011), FB_FTC_CID_08964773, at -773.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including because the FTC has not provided full context for the

statement. The FTC asked Ms. Sandberg about this document during her investigational hearing, when she testified: "I understand I wrote it this way. I don't think you could have experienced Facebook at the time and not thought Myspace was competition. But I think this was a moment where – I guess it's three years after, Myspace had gone down, and so Google+ was the next big competition coming in." PX6022 at 198:17-23 (Sandberg IH Tr.); *see also id.* at 202:19-21 ("I don't believe I ever thought we've never had any other real competition."). Further disputed because Meta faces intense competition from firms outside the FTC's asserted market. *See*, *e.g.*, Meta SMF [redacted] (discussing competition with TikTok, [redacted]), ¶¶ 533-566 (Meta's experts' empirical substitution data).

c. Mr. Zuckerberg testified that "When Google+ came out, it was highly concerning." PX6127, Zuckerberg (Meta) Dep. Tr., at 15:21-16:4.

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

d. Meta implemented a "lockdown" in 2011 when Google+ launched. PX11284, Meta Workplace Post: D. Rose post to Partnerships and Platform Marketing (July 13, 2011), FB_FTC_CID_02518422, at -422 ("As I mentioned in our all-hands yesterday, the competition from Google+ is a great focusing opportunity for Facebook. Lockdown gives us a way to channel that focus. For the next 60 days, product / eng[ineering] will be focusing on our most urgent priorities in response to the competitive threat from Google+ . . . . Lockdown is about focusing on our most urgent priorities and putting everything else on hold."); PX6065, Rose (Meta) Dep. Tr., at 80:4-81:5 (describing the lockdown as "a heightened sense of

urgency"); PX6127, Zuckerberg (Meta) Dep. Tr., at 15:11-17:16 (confirming the 2011 lockdown took place and was about Google+).

Meta Response: Undisputed that the document contains the quoted language and the witnesses provided the paraphrased testimony.

1040. Meta later realized Google+ was not getting traction and its concerns dissipated. PX9000, Hemphill Report at ¶¶ 110-13.

Meta Response: Disputed in part. Undisputed that Google+ was ultimately shut down. Disputed that the statement creates a genuine dispute of material fact. *See* Meta Resps. to Counter SMF ¶¶ 1007, 1010. Disputed that the cited evidence supports the statement that Meta's "concerns dissipated" after Google+ failed to gain traction, as Meta documents and testimony demonstrate Meta's concern regarding numerous applications since. *See*, *e.g.*, Meta SMF ¶¶ 181-188, 199 (competition with YouTube), ¶¶ 244-253, 261-265 (competition with TikTok), ¶¶ 311-315, 321-323 (competition with Twitter), ¶¶ 448-456 (competition with iMessage, Google Messages, and others), [redacted]. The cited paragraphs in Professor Hemphill's report do not discuss Meta's assessment of competition with Google+.

(2) Path

1041. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statement creates a genuine dispute of material fact. *See* Meta Resps. to Counter SMF ¶¶ 1007, 1010.

1042. [redacted]

Meta Response: Undisputed that [redacted].

1043. Meta understood that Path competed with Meta to offer friends and family sharing.

Meta Response: Disputed in part. Undisputed that Path competed with Meta. Disputed that the statement creates a genuine dispute of material fact. *See* Meta Resps. to Counter SMF ¶¶ 1007, 1010.

a. Mr. Zuckerberg wrote in February 2012: "I'm getting a bit more worried about Path. Out of all the new social startups, they're the only one that goes right to the core of what we're trying to do around identity and friends sharing . . . if Path grows and isn't deeply wired into Facebook then that would be a big problem for us. (Instagram is probably next on the list since photos is so core, but their social dynamics are a bit different.)." PX15123, Meta Workplace Post: M. Zuckerberg post to [redacted] (Feb. 17, 2012), FB_FTC_CID_06547651, at -651.

Meta Response: Undisputed that the document contains the quoted language.

b. In his deposition, Mr. Zuckerberg agreed that "Path was focused on Close Friends sharing in February of 2012," that Path had created "an intimate space for sharing with [c]lose [f]riends," and that Facebook launched features to facilitate sharing with subsets of friends and family because "Facebook was competing with Path in Close Friends sharing." PX6127, Zuckerberg (Meta) Dep. Tr., at 27:3-5, 28:20-29:19, 30:5-9.

Meta Response: Undisputed that the witness provided the quoted testimony.

e) Smaller PSN apps exist today but do not dent Meta's dominance.

1044. Other smaller PSN apps exist today but do not dent Meta's dominance. These apps have a core use of friends and family sharing and functionality to facilitate and foster friends and family sharing. PX9000, Hemphill Report at ¶¶ 289-329, 608-61; *see also infra* CMF at §§ II.A.4.(a)-(b).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1020, and because the FTC provides no evidence that having a core use of friends and family sharing is relevant to substitution. The FTC's use of "PSN apps" and "core use" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The statement is conclusory and asserts improper legal conclusions regarding Meta's alleged "dominance" and the validity of the alleged PSNS market. The evidence refutes the assertion that Snapchat, MeWe, [redacted] are "PSN apps," as that is not a term that non-parties recognize or are familiar with. *See* Meta Resp. to Counter SMF ¶ 1007. Further disputed to the extent the statement suggests Snapchat, MeWe, [redacted] are only used for friends and family sharing, or that

these apps do not compete with non-PSN apps. *See id.* at [redacted]; Meta SMF ¶¶ 488-497 (Snapchat features and uses similar to non-PSN apps), ¶¶ 498-505 (Snapchat competition with apps outside FTC's PSNS market), ¶¶ 506-520 (Snapchat competition with non-PSN apps for activities in the FTC's PSNS market), ¶¶ 523-525 (MeWe features and uses similar to non-PSN apps), ¶¶ 526-532 (MeWe competition with apps outside FTC's PSNS market). To the extent the statement incorporates the FTC's statements in Sections II.A.4(a)(4)(a)-(b), Meta incorporates its responses to those statements here.

(1) Snap

1045. Since the launch of Stories, Snapchat has had a core use of friends and family sharing and functionality to facilitate and foster that use. *See infra* CMF at §§ II.A.4(a)(3), II.A.4(b).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, as it cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). To the extent the statement incorporates the FTC's statements in Sections II.A.4(a)(3), II.A.4(b), Meta incorporates its responses to those statements here. Further disputed because the FTC provides no evidence that having "Stories" and a supposed "core use of friends and family sharing" is relevant to substitution. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 1044.

1046. Snapchat launched in mid-2011 as a mobile-only app with "ephemeral" photo messaging functionality, built around a social graph mapping friend connections between users. [redacted] (Snapchat launched with a mobile

app only and only added a desktop version "within the last year"); [redacted] (ephemerality was a differentiator for Snapchat and "one of the prime reasons why people were coming to the service" in Snap's early days); [redacted] ("Q. Does Snapchat have a social graph? A. Yes. Q. Has Snapchat always had a social graph? A. Yes.").

Meta Response: Undisputed.

1047. Snapchat initially lacked a means for broadcast sharing to one's friend connections, but that changed in late 2013 with Snapchat's launch of its own version of broadcast sharing, which it called "Stories." "Stories" on Snapchat allow users to share images and video about their lives with all their Snapchat friends, with the posts disappearing after 24 hours. [redacted]

Meta Response: Disputed in part. Undisputed that Stories launched in late 2013 and that users can use Stories to share ephemeral messages. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1007 and 1044. Further disputed because the FTC provides no evidence that means for broadcast sharing is relevant to substitution. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest a user cannot also use Stories to share with a user or view Stories from a user with whom the user does not have a bidirectional friend connection – Snapchat Stories can include content from a public figure, creator, influencer, publisher, business, or other "unconnected" sources. *See* Meta SMF ¶¶ 489, 495. The Snap Stories tab is now divided into three sections: "Friends Stories" (Stories posted by users with whom they have a reciprocal following relationship); "Following" (Stories posted by

accounts a user follows, but who do not follow them back, such as public figures or influencers); and "Discover" content (Stories posed by public accounts, which Snap recommends to users through an algorithm"). *Id.* at ¶ 495.

a. Jacob Andreou, formerly Senior Vice President of Growth at Snap, testified that Snap developed Stories because "we heard from our community that they wanted a way to communicate to all their friends at once." [redacted] ("Q. Prior to Stories, was there any way for Snapchat users to communicate with all of their friends at once? . . . [A.] No.").

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

b. Mr. Andreou explained that friend stories generally are a form of one-to-many communication. [redacted]

<u>Meta Response</u>: Undisputed that the witness provided the paraphrased testimony.

c. Mr. Andreou further testified that "when it came to Stories and our creation of social media, again, the fact that it disappeared was the thing that made it a huge draw for people and brought people to the service." [redacted]

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

1048. Since the launch of Stories, Snapchat has provided a social networking service dedicated to maintaining relationships and sharing with friends and family. [redacted] ("Q. Does Snapchat see as one of its core values providing a fast way for people to communicate visually with their friends and family? A. One hundred percent. Q. Has that always been part of Snapchat's mission? A. Yeah, I'm smiling because if you, like, go to Internet archive and you pull the very first version

of the Snapchat website, I think it says, like, 'a fast way to communicate' or like something like this. It's been the -- from the very beginning this has been something that we've been focused on"); [redacted] ("We created Stories when we heard from our community that they wanted a way to communicate to all their friends at once . . . Stories are – were the first form of chronological social media."); [redacted] ("Stories . . . are certainly used as a broadcast format by like large groups of people"); [redacted] (testifying that, prior to Stories, Snapchat users could not share content to be viewed and reacted by all of their connections in a shared social space).

Meta Response: Disputed in part. Undisputed that users can use Snapchat to maintain relationships and share content with friends and family, among other things. Disputed that this statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Snapchat's supposed "dedicat[ion]" to certain types of sharing is relevant to substitution. On the contrary, all available empirical evidence of substitution shows that non-PSN services like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Indeed, many apps excluded from the FTC's claimed PSNS market contain Stories features, including WhatsApp, *see id.* at ¶¶ 117-118, TikTok, ¶ 226, Signal; *see also* Ex. 1 at ¶ 51 (Ghose Rep.).

Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Snapchat is not used for many things other than sharing with friends and family. The evidence indicates that users use Snapchat for many different reasons, including, among other things, sending direct message to their friends, taking

photos and videos, following content posted by public figures, and watching short form videos posted by strangers, as stated above in Meta's responses to paragraphs 1007 and 1047. *See also* Meta SMF ¶¶ 488-497. That content includes unconnected content. Snapchat Stories can include content from a public figure, creator, influencer, publisher, business, or other "unconnected" sources. *See id.* at ¶¶ 489, 495. The Snapchat Stories tab is now divided into three sections: "Friends Stories" (Stories posted by users with whom they have a reciprocal following relationship); "Following" (Stories posted by accounts a user follows, but who do not follow them back, such as public figures or influencers); and "Discover" content (Stories posed by public accounts, which Snap recommends to users through an algorithm"). *Id.* at ¶ 495.

Snapchat also has many features that are similar to features on apps the FTC excludes from its alleged PSNS market, such as Chat, Discover, and Spotlight (which shows video content that Snap recommends through an algorithm). *See id.* at ¶¶ 492-496. For example, more than 99 percent of content on Spotlight is created by people the user does not know. *See id.* at ¶ 496 (quoting Ex. 96 at 256:20-257:5, 48:13-49:1 (Andreau (Snap) Dep. Tr.)). [redacted] of the time spent on Snapchat is spent on the "Chat" feature, which allows users to send one-to-one and group messages. *See id.* at ¶ 493 (quoting Ex. 96 at 112:20-113:14 (Andreau (Snap) Dep. Tr.)). Professor Lampe, the FTC's proffered industry expert, opined that [redacted] Ex. 290 at ¶ 182 (Lampe Rep.). The FTC defines PSN services to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market – including viewing content from users a user does not personally know

and messaging on Snapchat. *See* Meta SMF ¶ 591; Meta Resp. to Counter SMF ¶ 1063 (collecting FTC assertions that all time on Snapchat is PSNS). Snap competes with alleged non-PSN apps for viewing content from users a user does not personally know and messaging. *See* Meta SMF ¶¶ 506-510 (messaging), ¶¶ 510-520 (friend and non-friend content).

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Snapchat and apps outside the FTC's alleged PSN market. Snapchat's documents and testimony confirm Snap recognizes that many alleged non-PSN applications compete with Snapchat, and that competition extends beyond what the FTC describes as "PSNS" or "maintaining relationships and sharing with friends and family." *See*, *e.g.*, *id.* at ¶¶ 507 (competition with iMessage, WhatsApp, SMS), ¶¶ 510-520 (competition with TikTok and YouTube).

Further disputed because the phrase "dedicated to" is vague and undefined. Further disputed for the reasons stated above in Meta's responses to paragraphs 1007 and 1044.

1049. Meta and third parties have recognized that, with the launch of Stories, Snapchat became a social networking service based on friends and family sharing.

Meta Response: Disputed in part. Undisputed that Meta and [redacted]. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the existence of a Stories feature is relevant to substitution. Further disputed because the record shows that users can use Snapchat – including Stories – for activities other than "maintaining relationships and

sharing with friends and family," such as viewing content posted by celebrities or public figures. *See* Meta Resp. to Counter SMF ¶ 1048. Further disputed that the statement creates a genuine dispute of material fact regarding competition between Snapchat and apps outside the FTC's alleged PSN market. *See id.* at ¶ 1048. Further disputed because none of the cited material supports the assertion [redacted]. Further disputed for the reasons stated above in Meta's responses to paragraphs 1007, 1044, and 1048.

a. In a 2014 email to Meta executives, Mr. Zuckerberg recognized the close competition that Stories offered to Instagram and Facebook News Feed: "[T]he growth of Snapchat Stories means that Snapchat is now more of a competitor for Instagram and News Feed than it ever was for messaging . . . . Snapchat Stories serves the exact same use cases of sharing and consuming feeds of content that News Feed and Instagram deliver." PX1009, Meta email chain: M. Zuckerberg to K. Systrom, et al. re: "Snapchat Stories and ephemeral stories," (June 22, 2014), FB_FTC_CID_02231566, at -566-67.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1049. Further disputed that the cited email supports the assertion, as Mr. Zuckerberg refers to the "use cases of sharing and consuming feeds of content" – he does not mention sharing with friends and family. PX1009 at -567 (FB_FTC_CID_02231566).

b. Keith Coleman, Vice President of Products at Twitter, testified: "Facebook, Instagram and Snap, they're all used -- my understanding from my time working on Twitter is they're all used to see -- primarily to see what friends and family are doing." [redacted] ("Q. Did Twitter want to compete with Facebook and Instagram? A. With respect to the consumer products, we saw those as products that serve a different main purpose. They have some overlapping use cases for sure, but they -- these companies often get grouped together because they're these like big social media companies. People kind of like group them together. And -- but the reality is people use them for different reasons. Facebook, Instagram and Snap, they're all used – my understanding from my time working on Twitter is they're all used to see -- primarily to see what friends and family are doing. Twitter is mainly used to see what's happening in the world and what people think about it. There is -- of these, I would say there is probably the most overlap with Instagram where there are -- there are cases -- like there are certain interests where -- where -- like Instagram is a great way to follow those interests, interests that particularly benefit from visuals. But generally speaking, the super strength of those products is seeing what your friends are doing, what your family's doing. And the strength of Twitter is seeing what's going on in the world. So that's how we talked about them.").

Meta Response: Disputed in part. Undisputed that Mr. Coleman provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1049. Further disputed because the excerpted testimony is incomplete,

as explained in Meta's responses to subparagraphs 1018(f) and 1108(b), addressing similar testimony from Mr. Coleman. Among other things, Mr. Coleman testified that Snapchat has "overlapping use cases with Twitter." PX6144 at 117:11-118:8 (K. Coleman (Twitter) Dep. Tr.).

c. Scott Coleman, former Head of International and Product Marketing at Pinterest, testified that Snapchat, Facebook, and Instagram are social networking platforms. [redacted] ("Q. And who are some examples of social networking platforms? A. What I consider social network, obviously Facebook; I think Instagram and Snapchat, to some degree. I consider those three to be the largest.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, in addition to describing applications as social networks that the FTC excludes from its alleged market. *See*, *e.g.*, PX6108 at 240:22-241:16, 239:8-13 (S. Coleman (Pinterest) Dep. Tr.) (describing WhatsApp as a social network). Disputed for the reasons stated above in Meta's response to paragraph 1049.

d. LinkedIn stated in a submission to the European Commission that Snapchat was not initially a social network, but "transformed itself" into one. [redacted] (identifying Snapchat as "[a]n online service that did not initially offer social networking features" but that "transform[ed] itself to provide a social networking experience").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1049. Further disputed because the excerpted language is incomplete and misleading. LinkedIn also describes "TikTok's rapid rise as a social networking platform," PX7049 at -538 (LI_FTC_0000522), and [redacted]. The document also discusses how and why LinkedIn views Facebook as a competitor. *Id.* at -528.

Further disputed because in a document LinkedIn submitted to the French Competition Authority two weeks later, which asked LinkedIn to distinguish between "professional social networks" and "a relevant network market which put forward interpersonal contacts," LinkedIn explained that [redacted] Ex. 75 at -771-772 (MetaFTC-Klein-DX-125, LI_METALIT_00001748).

(2) MeWe

1050. MeWe has a core use of friends and family sharing and functionality to facilitate and foster friends and family sharing. *See infra* CMF at §§ II.A.4(a)(4), II.A.4(b).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, as it cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). To the extent the statement incorporates the FTC's statements in Sections II.A.4(a)(4), II.A.4(b), Meta incorporates its responses to those statements here. Further disputed because the FTC provides no evidence that having a "core use of friends and family sharing" is relevant to substitution. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1044.

1051. MeWe is a social network dedicated to maintaining relationships and sharing with friends and family. [redacted] ("MeWe enables and is actually and primarily used by people to maintain personal relationships and share experiences with friends, family, and other personal connections in a shared social space").

Meta Response: Disputed in part. Undisputed that users can use MeWe to maintain relationships and share with friends and family, among other things. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1007 and 1044. Further disputed because the FTC provides no evidence that MeWe's supposed "dedicat[ion]" to certain types of sharing is relevant to substitution. The evidence shows that users use MeWe for activities other than "maintaining relationships and sharing with friends and family," and that MeWe has many features that are similar to features on apps the FTC excludes from

its alleged PSNS market. *See* Meta SMF ¶¶ 523-525. MeWe offers groups and small-group messaging, as well as – in MeWe's words – a "Twitter-like experience." *See* Meta SMF ¶ 525 (quoting Ex. 125 at -695 (MetaFTC-Klein-DX-301, MEWE034695)). [redacted] Further disputed that the statement creates a genuine dispute of material fact regarding competition between MeWe and apps outside the FTC's alleged PSNS market. The evidence demonstrates that MeWe recognizes that many alleged non-PSN apps compete with MeWe, including TikTok. *See id.* at ¶¶ 526-531.

1052. MeWe employs a "freemium" business model, where users can join MeWe for free and use its standard features but can also pay for extra features. [redacted]

Meta Response: Undisputed.

(3) Foreign-based PSN apps

1053. WeChat, KakaoStory, and LINE are foreign-based social networks dedicated to maintaining relationships and sharing with friends and family. *Infra* CMF at ¶¶ 1729-31. PX9000, Hemphill Report at ¶¶ 328-29. These apps technically operate in the United States but have minimal shares of the market for PSN services. PX9000, Hemphill Report at Exhibit C-25.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1007 and 1044. Further disputed

because the FTC provides no evidence that [redacted] supposed "dedicat[ion]" to certain types of sharing is relevant to substitution. On the contrary, the evidence shows that [redacted] For example, the FTC's proffered expert Professor Rim opined, [redacted]. *See* Ex. 315 at ¶ 108-109 (Rim Rebuttal Rep.).

4. *Brown Shoe* practical indicia delineate a market for PSN services.

1054. Various "practical indicia" delineate PSN services as a relevant antitrust product market, including that (i) PSN apps have "peculiar" characteristics and uses—namely, a core use of friends and family sharing and functionality to facilitate and foster friends and family sharing; (ii) there is "industry [and] public recognition" of friends and family sharing as a distinct form of consumer demand and of PSN apps serving that demand; (iii) PSN apps have unique production facilities; and (iv) insensitivity to price changes, distinct customers, and distinct prices. *Infra* CMF at § II.A.4.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its description of "practical indicia" are relevant to substitution. The statement is conclusory and asserts improper legal conclusions regarding a "relevant antitrust product market." The FTC's use of "PSN service," "PSN apps," and "core use" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section II.A.4,

Meta incorporates its responses to those statements here. *See also* Ex. 1 at § 3 (Ghose Rep.) (explaining that the FTC's proposed market is inconsistent with the *Brown Shoe* factors).

a) PSN apps have a "peculiar use" of friends and family sharing.

1055. PSN apps have a "peculiar" use in the form of a core use of friends and family sharing. *Infra* CMF at §§ II.A.4(a)(1)-(8).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its description of a "peculiar use" of a "core use" of "friends and family sharing" is relevant to substitution. The FTC's use of "PSN service," "PSN apps," and "core use" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections II.A.4(a)(1)-(8), Meta incorporates its responses to those statements here. *See also* Ex. 1 at ¶¶ 111-117 (Ghose Rep.) (explaining that the proposed PSN applications do not have peculiar characteristics or uses).

Additionally, evidence refutes the assertion that "PSN apps" – which the FTC claims describes only Facebook, Instagram, Snapchat, and MeWe – are a distinct type of service with a peculiar use. Each of those applications is used for many purposes other than sharing with friends and family. *See* Meta SMF ¶¶ 9-44, 55-90, 580-584 (different uses of Facebook and Instagram), ¶¶ 483-497 (Snapchat), ¶¶ 521-525 (MeWe). And sharing with friends and family is a small minority of usage on Facebook and Instagram. Professor Carlton calculated that as of January 2023, [redacted] of time spent on

Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *Id.* at ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Many applications that the FTC excludes from the "PSNS" market are also used for sharing content with friends and family. For example:

- TikTok: TikTok has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including a social graph, feed, and "social features." *Id.* at ¶¶ 208-243. Professor Hemphill acknowledged that TikTok has a social graph. *See id.* at ¶ 210 (quoting Ex. 283 at 46:16-47:10 (Hemphill Dep. Tr.)). [redacted] *See id.* at [redacted]. TikTok has released numerous "social features" to facilitate friends and family sharing; for example, users can follow their friends and family on TikTok; TikTok's "Friends tab" displays content exclusively from users' reciprocal followers; users can "like," comment on, and "tag" videos posted by their friends and family; and users can share videos with their friends and family through TikTok's messaging offering. *Id.* at ¶¶ 217-218, 224, 230-232, 237-239. [redacted]

[redacted] There is also evidence that TikTok users in fact use TikTok to share with family and friends. *See* Meta SMF ¶¶ 216, 241, 243. For example, a January 2020 Meta survey found that [redacted]. *Id.* at ¶ 216 (quoting Ex. 222 at -.001, -.047 (FTC-META-005944143)). [redacted]. *See id.* at ¶ 241 (citing [redacted] and Ex. 279 at ¶ 287 (Hemphill Rep.)). Professor Hemphill conceded that he does not know if there is more "friends'" content on Instagram Reels or TikTok's For You page. *See* Ex. 283 at 91:20-92:7 (Hemphill Dep. Tr.). And Professor Hemphill admitted that he did not recall talking to any users who use both TikTok and Instagram about how they use the apps. *See id.* at 43:18-44:18. *See also* Meta Resp. to Counter SMF ¶ 1195 (additional discussion regarding TikTok).

- Messaging Apps: Messaging apps have features that are similar to Instagram and Facebook and facilitate friends and family sharing, as the FTC uses the term, including a social graph, shared social space, and "social features." Counter SMF ¶ 1274 ("Mobile messaging apps are ways of communicating with friends and family"); *see* Meta Resp. to Counter SMF ¶ 1274. For example, all mobile phones contain a contact list. Professor Hemphill testified that iMessage's "network of connections" includes "nodes and connections and these are people that you know in the real world," and he "suppose[s] it could be a social graph of a kind." Meta SMF ¶ 431 (quoting Ex. 283 at 97:22-98:15 (Hemphill Dep. Tr.)). He also testified that posts in a group on iMessage have "aspects I think of a shared social space there." Ex. 283 at 99:2-3 (Hemphill Dep. Tr.). Users can send text, "photos, videos, attachments, documents, [and] links." Meta SMF ¶ 426 (quoting Ex. 82 at 65:6-14 (Shah (Apple) Dep. Tr.)). Messaging apps have added "likes," stickers, and other embellishments. *Id.* at ¶ 427. And users can engage in broadcast or group conversations. *See id.* at ¶¶ 111-112 (Messenger community chats), ¶¶ 116, 120, 125 (WhatsApp supports group chats with 1,024 members, and has broadcast lists and channels), ¶ 426 (Apple's Messages app supports "communicat[ions] with up to 32 other people in a single conversation"), ¶ 436 (Google Hangouts originally supported "message groups of up to 50 users" and expanded it to groups up "to 150 users"). There is also evidence that messaging app users in fact use

messaging to share with family and friends. For example, a witness from Apple testified that the "core use case" of iMessage was "to allow users to communicate with the people that are in their life that they know." *Id.* at ¶ 430 (quoting Ex. 82 at 13:22-14:2, 175:8-16 (Shah (Apple) Dep. Tr.)). And, to the extent relevant, at least a quarter of respondents to a survey commissioned by the FTC identified as their "most important" reason for using WhatsApp, Facebook Messenger, and text messaging (all outside the FTC's PSNS market) "[t]o keep up with my friends' and family's lives." *Id.* at ¶ 651 (quoting Ex. 299 at ¶¶ 53, 91 & pp. 56-59, tbls. 16-18 (Malkiewicz Rep.)). Professor Hemphill conceded "that to communicate with real world friends or real world family under particular circumstances messaging is an alternative to which they might turn." Ex. 283 at 109:20-110:1 (Hemphill Dep. Tr.). And Professor Lampe conceded that messaging can be used as an alternative to Facebook and Instagram to communicate and maintain relationships with close friends. *See* Meta SMF ¶¶ 458-459. *See also* Meta Resp. to Counter SMF ¶ 1276 (additional discussion regarding messaging apps).

- LinkedIn: LinkedIn has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, a social graph, feed, and social features. *See* Meta SMF ¶¶ 401-407. LinkedIn users can create profiles; find and connect with friends, family members, and coworkers; post content and photos; view content posted by other users in a feed; like and comment on

content other users have posted; and review other users' connections. *See id.* Professor Hemphill opined that "LinkedIn has a social graph that in certain respects resembles Facebook's social graph. Like Facebook's process for adding friends, LinkedIn allows a user to send 'connection requests' to other users, who can choose to accept or decline the request." Ex. 279 at ¶ 401 (Hemphill Rep.). Professor Lampe opined that "LinkedIn has many characteristics and features in common with sites one would consider PSNS" and that "colleagues are a part of a user's social network." Ex. 290 at ¶ 204 (Lampe Rep.). And the FTC does not dispute that "LinkedIn describes its 'core business' as a 'widely used social networking service.'" Meta SMF ¶ 400 (including FTC response) (citing Ex. 68 at -066 (MetaFTC-Klein-DX-214, LI_META_00000065)). There is also evidence that [redacted]. LinkedIn's representative, Mr. Pattabiraman, testified that "LinkedIn is . . . used for friends and family." Ex. 69 at 29:10-16 (Pattabiraman (LinkedIn) Dep. Tr.). He explained "we have always seen friends and family be a part of your experience on LinkedIn," which "has only increased with the . . . pandemic." Meta SMF ¶ 406 (quoting Ex. 69 at 77:19-78:1 (Pattabiraman (LinkedIn) Dep. Tr.)). Professor Lampe testified that he "ha[d] no basis to dispute" that "[redacted]." *Id.* at ¶ 401 (quoting Ex. 281 at 338:6-12 (Lampe Dep. Tr.)). As examples of personal sharing that is frequent on LinkedIn, Mr.

Pattabiraman testified, "[it] can be anything from you overcoming a big challenge in your life. It could be you running a marathon. . . . Sometimes there is also your viewpoints, your personal viewpoints on topics that are important to society. Could be politics, religion. Could be anything that is important to you as an individual that you would also like your friends, families, and coworkers to know." *Id.* at ¶ 406 (quoting Ex. 69 at 77:19-78:1, 78:3-22 (Pattabiraman (LinkedIn) Dep. Tr.)). Mr. Pattabiraman also testified, "On LinkedIn, we have professionals that connect with their friends. They could -- could be because they are sharing content on what's happening in the professional world. It could be because they are looking for jobs, and they need referrals. It could be because they need to message each other and stay in touch. These are all use cases that I'm aware of where we see friends and family connect on LinkedIn." Ex. 69 at 32:16-33:3 (Pattabiraman (LinkedIn) Dep. Tr.)). He also testified that "the norms are getting blurred," as it is "increasingly more common for [users] to share" personal content on LinkedIn. *See id.* at 79:5-13 (Pattabiraman (LinkedIn) Dep. Tr.). He stated that the line between personal and professional is so blurred [redacted] *See id.* at 270:9-272:6; *see also* Meta Resp. to Counter SMF ¶ 1130 (additional discussion regarding LinkedIn).

- Twitter: Twitter has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, a social graph, feed, and social features. *See* Meta SMF ¶¶ 279-282 (friends and family sharing), ¶¶ 283, 288 (feed posts), ¶¶ 289-291 (engaging with posts), ¶¶ 292-296 (follower network), ¶¶ 297-299 (profiles), ¶¶ 300-301 (messaging and calling). Professor Lampe testified that Twitter can be used for "personal social networking." *Id.* at ¶ 281 (quoting Ex. 281 at 340:4-8 (Lampe Dep. Tr.)). Twitter publicly describes itself as "a service for friends, family, and coworkers to communicate and stay connected through the exchange of quick, frequent messages." *Id.* at ¶ 306 (quoting Ex. 378 (MetaFTC-DX-469)). A Twitter representative explained "friends and family can either follow each other and stay connected in public through messages, or what we call tweets, on Twitter; or they can privately message – message each other through our private messaging feature, which we call Twitter DMs, or direct messages." *Id.* (quoting Ex. 40 at 12:8-9, 68:8-17 (Chen (Twitter) Dep. Tr.)). Twitter users can also like and comment on posts, like and reply to other users' comments, and engage in other types of social interactions with other users, including possibly friends and family members. *Id.* at ¶¶ 289-290, 306-307. There is also evidence that Twitter users in fact use Twitter to share with family and friends. Professor Lampe testified that Twitter is "an SNS," or a "social networking site." *Id.* at ¶ 280 (quoting Ex. 281 at 314:13 (Lampe Dep. Tr.) and Ex. 290 at ¶ 49 (Lampe Rep.)).

[redacted]. And a January 2020 survey showed that [redacted] *Id.* at ¶ 310 (quoting Ex. 222 at -.079 (FTC-META-005944143)). The same survey found that [redacted]. *See* Ex. 222 at -.060 (FTC-META-005944143). The document likewise noted that [redacted], *see id.*, [redacted] *Id.*; *see also* Meta Resp. to Counter SMF ¶ 1219 (additional discussion regarding Twitter).

- Pinterest: Pinterest has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, a social graph, feed, and social features. *See* Meta SMF ¶¶ 330-341 (describing Pinterest's features). Pinterest has a feed, personal profiles, short-form videos, long-form videos, groups for sharing interests, commerce, photo and video sharing, commenting, search functionality, notifications, and messaging functionality. *See id.* at ¶¶ 331, 339, 341. Users can follow other users, and the graph of individuals'

connections on Pinterest is traversable, meaning, users can see what accounts another user follows and what accounts follow them. *See id.* at ¶¶ 333-334. Professor Lampe opined that "Pinterest may check boxes that could classify it as [a social networking site]." *Id.* at ¶ 330 (quoting Ex. 290 at ¶ 212 (Lampe Rep.)). There is also evidence that Pinterest users in fact use Pinterest to share with family and friends. Pinterest's representative testified that Pinterest is used for friends and family sharing and that [redacted]. *See* Ex. 45 at 43:12-44:1 (Roberts (Pinterest) Dep. Tr.) (acknowledging that when Pinterest found that when users share content on Pinterest, they "tend to share content with people they know . . . (friends & family)"), 131:12-132:19 (agreeing that on Pinterest "messaging, sharing, and commenting definitely all have a social aspect to them" and that they are "social-oriented features"), 308:14-309:2 ([redacted]). To the extent relevant, even the documents the FTC cites indicate that [redacted] percent of respondents reported that they follow people they know on Pinterest. *See* PX12611 at -009 (FTC-PINTEREST-00000571). Pinterest's internal analysis in 2019 concluded that [redacted] percent of respondents indicated that Pinterest is used for "[f]ollowing friends and family members' interests." *See* Ex. 462

at -581 (MetaFTC-Klein-DX-17, PIN - FTC - 0000002507). Pinterest's executive agreed that seeing pins from people they follow is an "important part of the Pinterest experience" to some users, [redacted] *See* Ex. 45 at 118:5-120:14 (Roberts (Pinterest) Dep. Tr.); *see also* Meta Resp. to Counter SMF ¶ 1255 (additional discussion regarding Pinterest).

- YouTube: YouTube users use many of the same social features found on Facebook and Instagram, and YouTube facilitates friends and family sharing, as the FTC uses the term. For example, users can share videos that they expect to be of interest to friends and family members, find and connect with another user (by subscribing to their channel), like and comment on videos, like and reply to other users' comments, and engage in other types of social interactions with other users, including friends and family members. *See* Meta SMF ¶¶ 64-169, 175-180. The "creator-viewer relationship" is a social graph, and Meta and Google representatives have described its social graph. *See* PX6148 at 153:11-12 (Horowitz (Alphabet) Dep. Tr.) (testifying that when he was working on YouTube "YouTube certainly had a social graph."); Ex. 139 at 125:23-126:1 (Zuckerberg IH Tr.) (testifying that "YouTube has this basic structure which is that you have creators and you have a follow graph and people subscribe to it, which there is a network structure to it."). And it has "shared social space" as the FTC employs the term, i.e., a Feed where

users can see content posted by their connections. *See* Meta SMF ¶¶ 162-163. YouTube executives have acknowledged that YouTube is used to share with friends and family. *See id.* at ¶ 166 (YouTube testimony that users can view videos posted by friends and family and subscribe to their channels (citing Ex. 9 at 28:4-7 (Filner (Alphabet) Dep. Tr.) and Ex. 10 at 49:2-6 (Kim (Alphabet) Dep. Tr.))), ¶ 175 (YouTube testimony that users can upload videos of interest to their friends and family (citing Ex. 8 at 33:4-11 (D. Weinstein (Alphabet) Dep. Tr.))). Mr. Zuckerberg agreed that YouTube presently competes with Facebook in offering U.S. users the "use case of online sharing with friends." *Id.* at ¶ 182 (quoting Ex. 142 at 37:20-39:7 (Zuckerberg Dep. Tr.)). And to the extent relevant, even the documents the FTC relies on indicate that users use YouTube to connect with friends and family, among other reasons. *See*, *e.g.*, PX12982 at -032 (FTC-META-006826485) (Meta survey showing that [redacted]).

- Nextdoor: Nextdoor has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, [redacted], feed, and social features. *See* Meta SMF [redacted]. Nextdoor users can create profiles; [redacted]

[redacted]; post and view content posted by other users in a feed, including photos; like and comment on content; [redacted]. *See id.* [redacted]. *Id.* at [redacted]. There is also evidence that [redacted] *Id.* at [redacted]; *see also id.* at [redacted]

(1) Facebook—at its launch and since—has had a core use of friends and family sharing.

1056. Testimony and statements from Meta executives indicate that Facebook has a core use of friends and family sharing and has had that core use case since its launch.

Meta Response: Disputed in part. Undisputed that Facebook can be used to share with friends and family, and that users have been able to do so on Facebook since shortly after its launch. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that is characterizations of an app's "core use" is relevant to substitution. On the contrary, all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

Meta further disputes the statements in this paragraph and its subparagraphs to the extent they suggest that Facebook is not used for many things other than sharing with friends and family. Sharing with friends and family is a minority of usage on Facebook. As of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends. *See id.* at ¶ 11 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)). It also undisputed that Meta and [redacted]. *See*, *e.g.*, *id.* at ¶¶ 181-202 (competition with YouTube, including for entertaining video posted by individuals with no connection to the user), [redacted]

[redacted], ¶¶ 311-326 (competition with Twitter, including for consuming interest-based content), [redacted], ¶¶ 342-358 (competition with Pinterest, including for interest-based content), [redacted], ¶¶ 390-398 (competition with Reddit, including for interest-based content and groups), ¶¶ 408-414 (competition with LinkedIn, including for professional connections). Extensive evidence also shows that other applications the FTC excludes from its relevant market are also used to share with friends and family. *See*, *e.g.*, Meta Resp. to Counter SMF ¶ 1055.

a. In 2015, Mr. Zuckerberg stated that "[u]nderstanding what's happening with your friends and family is by far the most important content in our service." PX1903, Meta email chain: M. Zuckerberg to C. Cox et al. re: "Draft All Hands Q1 2015," (Feb. 2, 2015), FB_FTC_CID_06006285, at -286 ("First, our mission is to help people share and connect. Giving people the power and tools to do this is important for the world and central to our mission. Understanding what's happening with your friends and family is by far the most important content in our service. We can't build the service we want if we don't help people share the personal moments they care about.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1056.

b. Mr. Zuckerberg also explained in 2018 that "[w]e built Facebook to help people stay connected and bring us closer together with the people that matter to us. That's why we've always put friends and family at the core of the experience." PX3429, Meta email chain: M. Zuckerberg to [redacted] re: "Meaningful Interactions Briefing for NYT + Post," (Jan. 11, 2018), FTC-META-004023041, at -042.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1056.

c. Mr. Zuckerberg testified in 2020 that "the use cases that we've focused on the most over time are around helping you connect with – with your friends and family." PX6029, Zuckerberg (Meta) IH Tr., at 184:12-17 ("I mean, the – the use cases that we've focused on the most over time are around helping you connect with – with your friends and family, right. So rather than primarily being around interests, it's that, and it's communities, as we – as we talked about before.").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1056.

d. Mr. Zuckerberg testified in 2023 that "[s]haring [with] friends and family is definitely an important part of the [Facebook] experience" and "it's certainly the case that connecting with friends in particular has been one of the important use cases since the beginning." PX6127, Zuckerberg (Meta) Dep. Tr., at 10:5-11:22.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1056. Further disputed because the excerpt is incomplete and misleading. Mr. Zuckerberg explained that, "increasingly what we found, you know, especially over the last five or six years, is that there's also just been an explosion in non-friend or follower content especially as the algorithms have gotten a lot better at being able to recommend content to people that's interesting and that's growing to be a larger and larger portion of the content on the system." PX6127 at 12:18-25 (Zuckerberg Dep. Tr.). He also explained that the use case of connecting with friends to which he was referring is the same use case offered by applications that offer messaging functionality. *See id.* at 13:14-23.

e. Ms. Sandberg testified in 2020 that Facebook is "a place where you go to see what your friends are doing and share with them what you're doing" and "I think the value it is providing is helping you stay in touch with friends and family and helping you know what's going on with them in a very efficient way." PX6022, Sandberg (Meta) IH Tr., at 43:22-46:16.

Meta Response: Disputed in part. Undisputed that Ms. Sandberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1056. Further disputed because the quotation lacks context and is incomplete. When asked a similar question later in the deposition, Ms. Sandberg clarified her answer, testifying in full: "Q. What is the value that people get out of using Facebook [ ]? A. I think you get a value from sharing, and you get a value from consuming. You get a value when you post something, because you

feel like you can share with people and share your lives. And you get a value from consuming something. You know, when you watch a video, whether you watch it on [Facebook] or on YouTube or anywhere, you hopefully enjoy that or you learn something. You know, you think it's a good use of your time, which is why you do it." PX6022 at 181:10-20 (Sandberg Dep. Tr.).

f. Current Meta Chief Operating Officer Javier Olivan testified in 2020 that "for the most part, people use [Facebook] to communicate with the people they know in their real life, friends, family." PX6017, Olivan (Meta) IH Tr., at 55:19-56:3 ("I think that for the most part, people use it to try to communicate with the people they know in their real life, friends, family. People tend to use their real identity on the site, and people tend to connect with people they also know in the real world, or at least, you know, it's the identity of the person I want to – or celebrity or whatever I want to connect with."); PX6076, Olivan (Meta) Dep. Tr., at 63:8-28:10 ("Q. In June 2022 you became chief operating officer at Meta; is that right? A. Yes.").

Meta Response: Disputed in part. Undisputed that Mr. Olivan provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1056. Further disputed on the basis that the quoted language is incomplete. Mr. Olivan clarified that "[t]he Facebook consumer offering has lots and lots and lots of functionality, which also is useful to communicate with people that you might not know in real life." PX6017 at 56:21-57:22 (Olivan IH Tr.).

g. Current Meta Vice President Tom Alison stated in an interview in 2022 that "Facebook is still at its core about friends and family." PX0310 at -004, Steven

Levy, *Meta Rethinks he Philosophy of the Facebook Feed*, WIRED (Oct. 6, 2022), https://www.wired.com/story/meta-rethinks-facebook-news-feed.; PX6069, Alison (Meta) Dep. Tr., at 18:15-17.

Meta Response: Disputed in part. Undisputed that the first document cited contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1056.

h. Current Vice President of Engineering (and corporate representative) Lars Backstrom, testified in 2023 about "the things that cause people to come back to the app, and certainly interacting with one's friends is one of the strong use cases for Facebook." PX6093, Backstrom (Meta) Dep. Tr., at 13:15-17, 76:1-5.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1056.

1057. Ordinary course Meta documents indicate that friends and family sharing is a core use of Facebook.

Meta Response: Disputed in part. Undisputed that Facebook can be used to share with friends and family. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that a supposed "core use" is relevant to substitution. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 1056.

a. Meta acknowledged as early as 2008 that "[o]ne of the fundamental ingredients to Facebook's success is that users come to share with other users. As the most successful early mover in the social networking space, now with the largest user network, Facebook has a natural advantage as the largest and hence most value network for many new users choosing a social network . . . . Users come primarily to share information and keep up with friends." PX3189, Meta document: "Facebook Secret Sauce" (Nov. 11, 2008), FB_FTC_CID_03173643, at -644.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1056 and 1057.

b. In 2012, Facebook's first annual report as a public company noted that its "top priority is to build useful and engaging products that enable you to . . . connect and share with your friends." PX0242 at -009 (Meta SEC Form 10-K, dated Feb. 1, 2012) ("Our top priority is to build useful and engaging products that enable you to: Connect and Share with Your Friends").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1056 and 1057. Further disputed because the excerpted quotation is incomplete and misleading. The quoted text reads in full: "Our top priority is to build useful and engaging products that enable you to: *Connect and Share with Your Friends . . . Discover and Learn . . Express Yourself* . . . [and] *Stay Connected Everywhere*." *See* PX0242 at -009-010 (Meta 2012 Form 10-K) (emphasis in original).

c. A March 2019 Facebook presentation outlined a strategy to "[p]rotect the foundational use case [for Facebook] of connecting with friends/family and sharing moments of your life with them" and that "Family and Friends is our core use case and the one that has contributed most to our core social assets." PX3006, Meta presentation: "FB App Leadership Meeting" (Mar. 2019), FB_FTC_CID_05449564, at -571.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1056 and 1057.

d. An April 2019 internal Facebook presentation stated that "Family and Friends is our core use case and the one that has contributed most to our core social assets." PX15381 at -100-01, Meta presentation: "FB App Strategy" (Apr. 22, 2019), FB_FTC_CID_11240781 (describing [redacted]). The presentation further explained that Facebook's:

> [redacted] we can uniquely build new services that rely heavily on identity and social graph. Many companies have reach, frequency, and some even have brand. But no company can build the social experiences we can build.

PX15381 at -099, Meta presentation: "FB App Strategy" (Apr. 22, 2019), FB_FTC_CID_11240781.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1056 and 1057.

e. In a 2021 presentation, Meta indicated that Facebook's [redacted] PX3008 at -039, Meta presentation: "Feed & Ecosystems XFN" (Oct. 4, 2021), FTC-META-006751948 ([redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1056 and 1057.

1058. Third parties also routinely recognize that Facebook's use case is primarily to connect with friends and family.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that third parties' purported recognition of Facebook's "use case" is relevant to substitution, and for the reasons stated above in Meta's responses to paragraphs 1055 and 1056. Further disputed that this statement is supported by the materials cited in the paragraph's subparagraphs. No evidence from third parties does or could "recognize" that "Facebook's use case is primarily to connect with friends and

family," because the empirical evidence indicates that is not how Facebook is primarily used. On the contrary, the evidence indicates that users use Facebook for many reasons other than sharing with friends and family and that as of January 2023, viewing content from friends accounts for [redacted] of time spent on Facebook. *See* Meta Resp. to Counter SMF ¶ 1056. [redacted] For example, YouTube believes it competes with Meta apps for video viewing, *see* Meta SMF ¶¶ 189-196, 200-202; [redacted], *see id.* at [redacted]; Twitter believes it competes with Meta for consuming updates, *see id.* at ¶¶ 324-326, 449; Apple believes it competes with Meta apps for messaging, *see id.* at ¶ 452; [redacted], *see id.* at [redacted]; Pinterest believes it competes with Meta apps for visual discovery, and inspiration, *see id.* at ¶¶ 347-358; and Reddit believes it competes with Meta apps for interest-based content and communities, *see id.* at ¶¶ 397-398.

a. Blake Chandlee, current President of Global Business Solutions at TikTok and a former Meta executive, PX6160 Chandlee (TikTok) Dep. Tr., at 8:9-12, 10:17-12:11, testified in 2023 that:

> the basic premise and the underlying business [of Facebook] is geared around . . . individuals' connections with friends, family, businesses, brands, whatever it might be, and that is core to the value proposition that both Facebook and Instagram present to their users . . . our content doesn't rely on relationships between friends and family, it relies on our interests.

PX6160, Chandlee (TikTok) Dep. Tr., at 17:7-21.

Meta Response: Disputed in part. Undisputed that Mr. Chandlee provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1058. Further disputed because the cited material does not support the statement in paragraph 1058, lacks context, and is incomplete. The cited testimony does not indicate that users use Facebook primarily to connect with friends or family, as it does not indicate that Facebook is more commonly used to connect with friends than "businesses, brands, whatever it might be," or any other use. PX6160 at 17:7-21 (Chandlee (TikTok) Dep. Tr.). Extensive evidence indicates that TikTok understands that Facebook is used for many things other than sharing with friends and family and that TikTok and Facebook are [redacted] competitors. For example, TikTok's former chief operating officer testified that [redacted]. *See* Meta SMF ¶ 268. Mr. Chandlee agreed that "Reels" was a competitive response by Facebook to TikTok, and that it "has very similar characteristics" to TikTok. *Id.* at ¶ 268 (quoting Ex. 36 at 68:16-21 (Chandlee (TikTok) Dep. Tr.)). [redacted], *see id.* at ¶ 270 [redacted]. *See id.* at ¶¶ 254-256, 267-271.

b. Adam Presser, Chief of Staff at TikTok and TikTok's corporate representative, testified in 2023 that Facebook currently offers social networking services "that essentially keeps those users on the app to connect with their friends and

community, which represents a core differentiated feature." PX6097, Presser (TikTok) Dep. Tr., at 15:8-14, 18:12-18, 282:15-283:1; *see also id.* at 200:4-16 ("Q. In TikTok's view, at the present time, do both Facebook and Instagram continue to offer worldwide, except in China, social networking services that meet the definition of 'social networking services' detailed in ByteDance's response? A. Yes. Q. In TikTok's view, do both Facebook and Instagram continue to offer today within the United States social networking services that meet the definition of 'social networking services' detailed in ByteDance's response to the European Commission's question? A. Yes.").

Meta Response: Disputed in part. Undisputed that Mr. Presser provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1058 and subparagraph 1058(a). Further disputed because the cited material does not support the statement in paragraph 1058, lacks context, and is incomplete. The statement does not indicate that users use Facebook to primarily connect with friends or family, or that TikTok (incorrectly) perceives it that way. In fact, Mr. Presser testified that he is not aware of TikTok having any data "on what percent of the time that users spend on Facebook and Instagram is spent viewing content posted by people they know in real life" or what percent of time they spend viewing content for entertainment. PX6097 at 300:13-301:11 (Presser (TikTok) Dep. Tr.). And in its most recent regulatory submissions, TikTok has reiterated that Meta is in the company's "competitive set" in which it faces "fierce competition" and "competes vigorously." Ex. 367 at 1 (MetaFTC-Klein-DX-116, *TikTok's Response to the ACCC*). In the cited excerpt of testimony, Mr. Presser

was asked to identify a differentiated feature on Facebook, not to identify the propensity of use of any such feature. *See* PX6097 at 282:15-283:1 (Presser (TikTok) Dep. Tr.). The evidence also clearly indicates that TikTok shares the same features as Facebook. *See* Meta SMF ¶¶ 209-210 (the FTC's proffered experts conceding that TikTok has a social graph and that it is used for social networking), ¶¶ 216, 241, 243 (discussing the use of TikTok to interact with friends and family, and noting among other things, [redacted], and that [redacted]).

c. Keith Coleman, Vice President of Products at Twitter and Twitter's corporate representative, testified in 2023 that Facebook's "main use case" is "seeing what your friends and family are doing." [redacted] ("Facebook does have products that try to help people stay up to date on news. My impression is that it's a small use case for the product relative to its main use case, seeing what your friends and families are doing. But it does have some features related to that.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1058. Further disputed because the quoted language does not support the statement in paragraph 1058, lacks context, and is incomplete, as it does not establish that Twitter (incorrectly) perceives that seeing what your friends and family are doing accounts for more time on Facebook than all other uses.

Twitter's documents and testimony consistently recognize that Facebook is used for many things other than sharing with friends and family, including interest-based sharing and staying up to date with the news and hobbies, and that Twitter and Facebook are significant competitors. *See* Meta SMF ¶¶ 324-326.

d. Former LinkedIn CEO Jeff Weiner explained in 2015 that "Facebook [is] a social network largely connecting friends and family . . ." PX0298 at -002, *The Sit-Down: Jeff Weiner, CEO, LinkedIn*, Sports Bus. J. (May 18, 2015), https://www.sportsbusinessjournal.com/Journal/Issues/2015/05 /18/People-and-Pop-Culture/Sit-Down.aspx.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1058. Further disputed because the cited language does not support the statement in paragraph 1058 that LinkedIn (incorrectly) believes that Facebook is primarily used for connecting with friends and family. As LinkedIn stated to regulators five years after this news article, [redacted] *See* Meta SMF ¶ 413 (quoting Ex. 75 at -771-772 (MetaFTC-Klein-DX-125, LI_METALIT_ 00001748)). LinkedIn's representative testified that Facebook is used for an array of reasons other than sharing with friends and family, including searching for

jobs. *See id.* at ¶¶ 413-414. Further disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B).

e. Reddit explained to the European Commission in 2020 that:

> Facebook obligates its users to identify themselves and share personal information ostensibly so that they can connect users with their friends and people that they know (although it also uses that information to power its advertising service as described below). A typical use case is that a new Facebook user will upload their contacts (from an address book or other service) and be connected with their friends if they are already on Facebook.

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1058. Further disputed because the quoted language does not support the statement in paragraph 1058 that Reddit (incorrectly) believes that Facebook is primarily used for connecting with friends and family. Reddit's documents and testimony indicate that it recognizes that Facebook is used for many uses other than sharing with friends and family, including engaging with groups, interest-based content, and entertainment, and that it perceives Facebook as a significant competitor. *See* Meta SMF ¶¶ 389, 397-398.

f. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted] provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1058. Further disputed because the quoted language does not support the statement in paragraph 1058 that [redacted]. *See* Meta SMF [redacted]. [redacted] *See id.* at [redacted]

g. Aaron Filner, Senior Director of Product Management at YouTube and a former product manager at Meta, testified that the core functions of Facebook and Instagram are to connect users with friends and family. PX6095, Filner (YouTube) Dep. Tr., at 14:11-13, 210:3-12, 282:5-12 ("Q. Is -- would you agree that Instagram's and Facebook's core functions are to connect users with friends and family? [A.] I would.").

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1058. Further disputed because the quoted language does not support the statement in paragraph 1058 that YouTube (incorrectly) believes that Facebook is primarily used for connecting with friends and family. The statement

also lacks context. Video accounts for more than 60% of time on both Facebook and Instagram today. *See* Ex. 499 at 6 (Meta Q1 2024 Earnings Call). YouTube's documents and testimony indicate that it recognizes that Facebook is used for many uses other than sharing with friends and family, including viewing entertaining video content. *See* Meta SMF ¶¶ 189-197, 200-202. YouTube recognizes that it competes with alleged PSN apps, including in the provision of video content. *See*, *e.g.*, *id.*; *see also id.* at ¶ 196 (YouTube testimony that Facebook Watch is a "direct offering that mimic[s] our services" in "direct competition with our services." (quoting Ex. 10 at 74:12-75:10 (Kim (Alphabet) Dep. Tr.))), ¶ 194 ([redacted] (quoting Ex. 14 at -900 (MetaFTC-Klein-DX-51, GOOG-META-02536890))); Ex. 9 at 68:9-12 (Filner (Alphabet) Dep. Tr.) (testimony that YouTube competes with Facebook and Instagram in providing video content).

h. Scott Coleman, formerly Head of International and Product Marketing at Pinterest, testified that "[w]e generally considered Facebook to be a separate type of service to Pinterest, where people were there to connect with, you know, friends and family or view content." PX6108, Coleman (Pinterest) Dep. Tr., at 23:22-24:19, 66:6-10.

Meta Response: Disputed in part. Undisputed that Mr. Coleman provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1058. Further disputed because the cited testimony does not support the statement in paragraph 1058 that Pinterest (incorrectly) believes that Facebook

is primarily used for connecting with friends and family. The statement also lacks context and is misleading. Mr. Coleman stated that he viewed Facebook as a place "where there were people to connect with . . . *or view content*." PX6108 at 66:6-10 (S. Coleman (Pinterest) Dep. Tr.) (emphasis added). Pinterest's documents and testimony indicate that Pinterest perceives Facebook as a key competitor where users engage in many activities like seeking inspiration, viewing entertaining content, shopping, and much more. *See* Meta SMF ¶¶ 347-355. Pinterest's representative testified that [redacted] *See id.* at ¶ 347 (quoting Ex. 45 at 16:20-22, 55:4-20 (Roberts (Pinterest) Dep. Tr.)). Pinterest's ordinary course documents observed that [redacted] *See id.* at ¶ 351. And its internal analysis observed [redacted] *See id.* (quoting Ex. 52 at -769-766 (PIN – FTC – 0000085734)).

1059. Meta's economic expert Professor Carlton does not dispute that Facebook has a friends and family sharing use case. PX6179, Carlton (Meta) Dep. Tr., at 226:2-227:10 ("Q. So then we are in agreement that there is, in fact, a friends and family sharing use case on Facebook; is that right? A. I would agree that people use Facebook to communicate with friends and receive communication from friends . . . Q. And, likewise, people use Facebook to make connections with friends and family, meaning to create a network of their friends and family on the app; correct? A. They can, yes.").

Meta Response: Undisputed.

(2) Instagram—at its launch and since—has had a core use of friends and family sharing.

1060. Testimony and statement from Instagram's founder and Meta executives indicate that Instagram has a core use of friends and family sharing and has had that core use case since its launch.

Meta Response: Disputed in part. Undisputed that Instagram can be used to share with friends and family, and that users have been able to do so since shortly after its launch. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that its characterizations of an app's "core use" is relevant to substitution. On the contrary, all available empirical evidence of substitution shows that non-PSN services like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta Resp. to Counter SMF ¶ 1056. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

Meta further disputes the statements in this paragraph and its subparagraphs to the extent they suggest that Instagram is not used for many things other than sharing with friends and family. Sharing with friends and family is a small minority of usage on Instagram. As of February 2023, [redacted] of time spent on Instagram is associated with viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *See* Meta SMF ¶ 11 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). As of June 2023, Reels accounted for [redacted] of time spent on Instagram. *See id.* at ¶ 15 (citing Ex. 3 at p. 13, tbl. II-1 (List Rep.)).

When users are consuming Instagram Reels, [redacted] of time spent and [redacted] of total impressions come from the users' reciprocal connections. *See id.* at ¶ 60 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). As of April 24, 2024, Reels alone accounts for 50% of time spent on Instagram. *See* Ex. 499 at 4 (Meta Q1 2024 Earnings Call). Meta and [redacted]. *See*, *e.g.*, Meta SMF ¶¶ 181-202 (competition with YouTube, including for entertaining video posted by individuals with no connection to the user), [redacted], ¶¶ 311-326 (competition with Twitter, including for consuming interest-based content), [redacted], ¶¶ 342-358 (competition with Pinterest, including for interest-based content). The evidence also shows that other applications the FTC excludes from its relevant market are also used to share with friends and family. *See* Meta Resp. to Counter SMF ¶ 1055.

a. Mr. Systrom testified that sharing photos with family and friends was a core use case of Instagram from its creation. PX6134, Systrom (Meta/Instagram) Dep. Tr., at 383:16-19 ("Q. Okay. Sharing photos with family and friends, that was a core use case of Instagram from the beginning, wasn't it? A. It was."); *see also infra* CMF at § III.B.1.(a).

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1060.

b. Mr. Mosseri testified that one of the "primary reasons" people use Instagram is to "connect with friends" and that "friends and family content is still a core part of the Instagram application." PX6078, Mosseri (Meta) Dep. Tr., at 130:2-5, 149:15-18.

Meta Response: Disputed in part. Undisputed that Mr. Mosseri provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1060. Further disputed because the quoted testimony is incomplete and misleading. Mr. Mosseri testified that the primary reason people say they use Instagram is to be entertained, *see* PX6078 at 130:2-5 (Mosseri Dep. Tr.), and that the type of connecting with friends that he was discussing occurs predominantly through messaging on Instagram. *See id.* at 150:2-18..

c. Mr. Mosseri also testified that one of the "main jobs that people hire Instagram for" is "for catching up with friends." PX6078, Mosseri (Meta) Dep. Tr., at 169:25-170:12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1060. Further disputed because the quoted testimony is incomplete. Mr. Mosseri testified that there were other "main jobs" Instagram was hired for, including "being entertained." PX6078 at 169:15-170:12 (Mosseri Dep. Tr.).

d. Current head of Meta's online sales, operations, and partnerships (and former COO of Instagram) Justin Osofsky similarly testified that one of the important "jobs that Instagram aims to be hired for" is "be a place where you can connect with friends and family"). PX6077, Osofsky (Meta) Dep. Tr., at 52:20-53:20.

Meta Response: Disputed in part. Undisputed that Mr. Osofsky provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1060. Further disputed because the quoted testimony is incomplete. Mr. Osofsky explained, "[d]ifferent people come to Instagram for different things. Some people come to connect with friends and family. Some people come to be entertained. Some people come for shopping and to find products they want to buy. So I think different people use it in different ways." PX6077 at 52:13-17 (Osofsky Dep. Tr.).

1061. Ordinary course Meta documents indicate that Instagram has a core use of friends and family sharing.

Meta Response: Disputed in part. Undisputed that Instagram can be used to share with friends and family. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that a supposed "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1060. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. In February 2018, a Meta employee explained to colleagues that "Instagram's mission is to strengthen relationships through shared experiences. Relationships with friends and family are at our mission's core." PX15382, Meta email chain: [redacted] to M. Krieger, et al. re: "[Discovery Planning] Top-Level Metric Feedback," (Feb. 21, 2018), FB_FTC_CID_02608516, at -518 ("Instagram's mission is to strengthen relationships through shared experiences. Relationships

with friends and family are at our mission's core, but we know a key way people build and strengthen relationships is also through their interests — our interests inspire us, motivate us, and foster a sense of belonging and shared community.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1060 and 1061. Further disputed because the cited excerpt is incomplete and missing context. The statement was made in an email discussing the importance of interest-based sharing on Instagram and the creation of a new Discovery org devoted to interest-based sharing. *See* PX15382 at -518 (FB_FTC_CID_02608516).

b. A 2019 presentation stated that "[p]eople come to Instagram first and foremost to connect with friends and family. These connections are core to the experience." PX3003, Meta presentation: "Content on Instagram" (*Sept. 9, 2019), FB_FTC_CID_00056469, at -471.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1060 and 1061. Further disputed because the FTC omits context from the above quotation that shows users' shifting use patterns: "But as Instagram and other social media platforms have grown, we've seen a cultural shift in the way that people** express themselves. . . . Because of this, Instagram has allowed people to get closer than ever before to ALL the people and things that they're interested in, not just friends and family but also interests like public

figures, creators, and . . . businesses." PX3003 at -471 (FB_FTC_CID_00056469) (emphasis in original).

c. A March 2019 press narrative for the launch of Instagram's shopping feature states that "IG is first and foremost about connecting with friends and family." PX3005, Meta document: "Checkout Press Narrative" (*Feb. 12, 2019), FB_FTC_CID_11310884, at -884.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1060 and 1061. Further disputed because the cited excerpt is incomplete and missing context. The document contains press talking points for Instagram Shopping, a set of features that aims to provide a "*complete* shopping experience for people on Instagram." PX3005 at -884 (FB_FTC_CID_11310884) (emphasis in original). The document shows that Meta innovates its product with a target audience of "those who want to shop," and that many users spend time on Instagram shopping: in February 2019, "[m]ore than 130 million people" clicked on Instagram "shopping posts" and "[m]ore than 80% of people follow[ed] a business." *Id.*

d. In a 2022 set of answers to internally frequently asked questions regarding modifications to Instagram, Meta states that "[redacted]." PX12389, Meta document: "IG22 Sprint: Rallying around the vision" (Apr. 1, 2022), FTC-META-007320319, at -320.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1060 and 1061. Further disputed because the cited excerpt is incomplete, missing context, and misleading. The document emphasizes Instagram's focus on other use cases, including design changes to compete with TikTok and YouTube. For example, the document states, "[redacted]" PX12389 at -319 (FTC-META-007320319) (emphasis in original).

1062. Meta launched ranked feed on Instagram in 2016 to promote friends and family content on Instagram. *See* PX15558 at -009, Meta's Supp. Objs. & Resp. to FTC's Interrog. No. 6 (Sept. 22, 2022) ("Among the many relevant efforts were Meta's introduction of algorithmic feed ranking, which uses machine learning to order content based on what users find most relevant, and thus promised to prioritize friend content over interest-based content."), *see also* PX6015, Krieger (Meta/Instagram) IH Tr., at 190:2-192:12 (testifying that Instagram's "impetus" for launching its ranked feed in 2016 was to promote content from friends over content from influencers, interest accounts, and celebrities).

Meta Response: Disputed in part. Undisputed that Meta's introduction of ranked feed had the effect of displaying content posted by a user's reciprocal follows higher on Feed than other forms of content for some users. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the reasons Meta purportedly launched ranked feed on Instagram in 2016 is relevant to substitution,

and for the reasons stated above in Meta's response to paragraph 1060. Further disputed because the cited materials do not support the statement that ranked feed was promoted for the sole purpose of promoting friends and family content. Mr. Krieger, one of Instagram's co-founders, testified that the impetus for launching feed ranking was an analysis that Instagram's feed was "feeling more and more dominated by what we called top accounts." *See* PX6015 at 190:21-191:2 (Krieger IH Tr.).

(3) Since the launch of Stories, Snapchat has had a core use of friends and family sharing.

1063. Snapchat's former Senior Vice President Jacob Andreou testified that one of the "core components" of Snapchat is its "version of social media with Stories" which competes with Instagram and Facebook. [redacted] ("So like I mentioned, we have kind of three core components of the service. We have the communication product, we have our version of social media with Stories, and then we have a short-form video platform called Spotlight. Each of these things either do one or more of those three key components. For example, SMS and iMessage competes with our communication product. YouTube competes with some of our content offerings. TikTok competes with the short-form video platform. Instagram competes with all three of those. They compete as a messaging service, they compete as a social media product, and they compete as a short-form video platform with Reels. Discord is really more purely a messaging service. Facebook, again, is the other one that competes with all three of those pillars.").

Meta Response: Disputed in part. Undisputed that Mr. Andreou provided the paraphrased testimony, and that Stories on Snapchat competes with Facebook and Instagram, among other apps. Disputed that the statement creates a genuine dispute of

material fact, including because the FTC provides no evidence that a supposed core component of Stories is relevant to substitution. On the contrary, all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Indeed, many apps excluded from the FTC's claimed PSNS market contain stories features, including WhatsApp, *see id.* at ¶¶ 117-118, TikTok, ¶ 226, Signal; *see also* Ex. 1 at ¶ 51 (Ghose Rep.). Further disputed because the statement in the paragraph is missing context and misleading. Snapchat's documents and testimony confirm that both friends Stories and non-friends Stories on Snapchat also compete with TikTok and YouTube, in addition to other applications. *See id.* at ¶¶ 512-520. Additionally, the FTC has asserted that all time spent on Snapchat is personal social networking. *See* Ex. 291 at 27-30, FTC's Resp. to Meta's Interrog. Nos. 13-14 (FTC's Suppl. Objs. & Resps. to Meta's Second Set of Interrogs. (Jan. 24, 2023)); Ex. 461, FTC's Resp. to Meta's Interrog. No. 23 (FTC's Suppl. Objs. & Resps. to Meta's Third Set of Interrogs. (June 7, 2023)). Extensive evidence, including the testimony cited in this paragraph, indicates that Snapchat competes with alleged non-PSNS providers, which is incompatible with the FTC's market definition. *See* Meta SMF ¶¶ 498-520. The evidence also shows that other applications the FTC excludes from its relevant market are also used to share with friends and family. *See* Meta Resp. to Counter SMF ¶ 1055.

1064. Snapchat developed Stories because "we heard from our community that they wanted a way to communicate to all of their friends at once." [redacted]

[redacted] ("Q. Prior to Stories, was there any way for Snapchat users to communicate with all of their friends at once? A. No.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that a purported reason Snapchat developed Stories in 2013 is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1063. Further disputed on the ground that the statement lacks context in so far as it suggests that Stories on Snapchat are used only to communicate with all of a user's friends as once. As stated in the document cited by the FTC in subparagraphs 1065(a)-(d), private stories that users use to send stories to a small audience are increasingly prevalent. *See* PX14959 at -815 (SNAP – FTC – No. 191-0134 – 0000114801). According to that document, the median audience size for such stories is approximately [redacted], or approximately [redacted] of the Snapchat user's total friends. *See id.* And users use Stories to share with a user or view Stories from a user with whom the user does not have a bidirectional friend connection. *See* Meta Resp. to Counter SMF ¶ 1047.

1065. Ordinary course Snap documents indicate that Snapchat has a core use of friends and family sharing.

Meta Response: Disputed in part. Undisputed that some users use Snapchat to share with their friends and family, including through the Stories feature on Snapchat and the Chat feature. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Snapchat's purported "core use" is relevant to substitution and for the reasons stated

above in Meta's response to paragraph 1063. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

Further disputed to the extent the statements in this paragraph and its subparagraphs suggest Snapchat is not used for many things other than sharing with friends and family. The evidence indicates that users use Snapchat for many different reasons, including, among other things, sending direct messages to their friends, taking photos and videos, following content posted by public figures, and watching short-form videos posted by strangers. *See* Meta SMF ¶¶ 488-497. That content includes unconnected content. Snapchat stories can include content from a public figure, creator, influencer, publisher, business, or other "unconnected" sources. *See id.* at ¶¶ 489, 495. Snapchat Spotlight content is "99-plus percent" created by "people who you don't have a friend connection with." Ex. 96 at 256:20-257:5, 48:13-49:1 (Andreou (Snap) Dep. Tr.). [redacted] of the time spent on Snapchat is on the "Chat" feature, which allows users to send one-to-one or group messages. *See* Meta SMF ¶¶ 492-493. Professor Lampe, the FTC's proffered industry expert, opined that [redacted] Ex. 290 at ¶ 182 (Lampe Rep.).

a. An internal Snapchat presentation explains that "[f]rom the beginning, the Snap Stories product was designed for friends" and that "Snap Stories was built on top of the communication graph and designed to split Social from Media—which is why Stories today are still about friends." [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1065.

b. This presentation also stated that "Stories can focus on building Relationship Value among friends and encouraging self-expression," [redacted], and that "[w]e build equity in our friendships by: 1. Expressing our authentic selves through Story posts that invite friends to experience our lives with us [and] 2. Connecting with people through Story views and replies by learning and relating to each other." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1065.

c. Snapchat similarly concluded that users "primarily use Friend Stories to build relationships with two types of people: (1) Our closest friends . . . and (2) new people we're considering getting closer to." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1065.

d. Snapchat also contrasted itself with TikTok when explaining that "[t]he point of Friend Stories is about building relationship value, not necessarily entertainment value. We can build relationships with friends by expressing ourselves authentically and investing in each other through Stories." [redacted]

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1065. Further disputed that this statement is supported by the cited material. Although the quoted material appears on the slide, there is no reference to TikTok on the slide, and the quotation is not contrasting Snapchat with TikTok. In fact, the cited document includes earlier discussion of TikTok that directly undermines the FTC's market definition. It states, [redacted] PX14959 at -806 (SNAP – FTC – No. 191-0134 – 0000114801). [redacted] *See id.* Other evidence indicates that Snapchat considers TikTok to be a competitor. *See*, *e.g.*, Meta SMF ¶¶ 498-505, 510-520. The cited excerpt also does not support the statement in paragraph 1065 because it does not discuss the prevalence of a particular use of Snapchat.

e. In a 2019 internal description of answers to frequently asked questions, Snapchat recognized its core value proposition as "being the place to connect to close groups of friends." [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1065. Further disputed because the slide is not accurately characterized. The slide containing the cited text does not mention frequently asked questions and instead discusses "Official and Popular Accounts," which are not friend stories. The quoted language also does not support the statement in paragraph 1065 because the excerpt does not discuss the prevalence of any particular use of Snapchat. As a product that offers messaging, Snapchat, just like any other product that offers messaging, can be used to connect with close groups of friends.

1066. Evidence from Meta indicates that Snapchat, since the launch of Stories, has a core use of friends and family sharing.

Meta Response: Disputed in part. Undisputed that Meta recognizes that some users use Snapchat to share with their friends and family, including through Stories. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence a purported "core use" is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1055. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Additionally, to the extent there is a use case for sharing with friends and family, the evidence shows that it could be satisfied by messaging on Snapchat, which predated the

launch of Stories, as well as by any other application that offers messaging, including iMessage. *See*, *e.g.*, Meta SMF [redacted], ¶¶ 507-509 (discussing competition relating to messaging on Snapchat). Further disputed that the cited materials support any characterization of Snapchat's current use, because none of the cited materials are from the last decade.

a. Mr. Zuckerberg expressed concern about the competitive threat Snapchat was to Meta, writing to Systrom in 2014 that "the growth of Snapchat Stories means that Snapchat is now more of a competitor for Instagram and News Feed than it ever was for messaging . . . . Snapchat Stories serves the exact same use cases of sharing and consuming feeds of content that News Feed and Instagram deliver." PX1009, Meta email chain: M. Zuckerberg to K. Systrom, et al. re: "Snapchat Stories and ephemeral stories" (June 24, 2014), FB_FTC_02231566, at -567.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1066. Further disputed that the cited email supports the assertion, as Mr. Zuckerberg refers to the "use cases of sharing and consuming feeds of content" – he does not mention sharing with friends and family. PX1009 at -567 (FB_FTC_CID_02231566).

b. Mr. Systrom likewise viewed Snapchat Stories as "an existential threat" to Instagram, and developing a similar feature was "life or death for the company." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 70:23-73:25.

Meta Response: Disputed in part. Undisputed that Mr. Systrom testified that he remembered "Instagram Stories wanting to build a competitor to Snapchat at

the time" and that he felt that it posed "an existential threat both for Instagram and for Facebook at large." PX6133 at 70:23-73:25 (Systrom Dep. Tr.). Also undisputed that Mr. Systrom testified that when he says "existential" he means "life or death for the company . . . [i]f we did not fund them, there would be extreme consequences, either legally, liability[ ]wise, or competitively." *See id.* at 73:10-16. Disputed for the reasons stated above in Meta's response to paragraph 1066.

(4) MeWe has a core use of friends and family sharing.

1067. MeWe is a personal social network which enables and is actually and primarily used by people to maintain personal relationships and share experiences with friends, family, and other personal connections in a shared social space. [redacted]

Meta Response: Disputed in part. Undisputed that MeWe can be used by users to maintain personal relationships and share experiences with friends, family, and other personal connections, and that Mr. Weinstein's declaration contains the paraphrased language. *See* PX8006 at -944 (FTC-PROD-00018944). Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of how MeWe is primarily used is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1055. Further disputed because the FTC does not cite any empirical evidence to indicate how MeWe is actually and primarily used in support of this statement. MeWe offers many features, including groups and small-group messaging, as well as – in MeWe's words – a "Twitter-like experience" (according to Mr. Weinstein). *See* Meta SMF [redacted]

[redacted]. Further disputed that a "Personal social network" is a distinct type of service for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The undisputed evidence shows that MeWe does not recognize the existence of a market for personal social networking services, as the FTC has defined it, as Mr. Weinstein testified that Instagram "is not a personal social network." *See id.* at ¶ 526 (and FTC's response not disputing that Mr. Weinstein does not view Instagram as a "personal social network").

1068. The core use case of MeWe is enabling people to maintain personal relationships and share experiences with friends, family, and other personal connections in a shared social space. [redacted]

Meta Response: Disputed in part. Undisputed that MeWe can be used by users to maintain personal relationships and share experiences with friends, family, and other personal connections. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of MeWe's "core use case" is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1067. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. MeWe is also used by users for reasons other than sharing with friends and family, and its ordinary course documents and testimony recognize

competition with firms outside of the alleged personal social networking services market. *See* Meta SMF ¶¶ 521-532.

(5) Now-defunct PSN apps have had a core use of friends and family sharing.

1069. Friendster was a social network dedicated to maintaining relationships and sharing with friends and family. PX6029, Zuckerberg (Meta) IH Tr., at 80:13-84:7 (explaining that Friendster was a social network that helped people connect and was analogous to what Facebook did).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its description of what Friendster was "dedicated to" is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1055. Further disputed because the statement is not supported by the material cited as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In the cited testimony, Mr. Zuckerberg did not state that Friendster was a social network or that it was dedicated to maintaining relationships and sharing with friends with family. He testified that "services like Friendster and Myspace were – were fairly popular and were things that people understood and were probably the best analogy that people had for understanding what [Facebook was] doing" in 2004 when Facebook launched. PX6029 at 80:13-81:7 (Zuckerberg IH Tr.).

1070. Myspace was a social network dedicated to maintaining relationships and sharing with friends and family. PX2640 at -017, Meta presentation: "Brand Positioning Study" (Mar. 2008), FB_FTC_CID_02440836 ("Facebook relative to others: Grouped closest to MySpace, away from Google and YouTube"); PX2689 at -022, Meta presentation: "Facebook Brand Messaging Outline" (Dec. 20, 2007), FB_FTC_CID_03780317

(describing Myspace's "Core Product" as "offer[ing] users a community where they can share photos, journals and interests with a growing network of mutual friends"); *see also* PX2690, Meta presentation: "Social Network Service (SNS) Attitude & Usage Profiler For Facebook" (July 14, 2009), FB_FTC_CID_03882182, at -241 (describing a poll showing two of the top three reasons users joined Myspace were "[k]eeping in touch with friends" and "[k]eeping in touch with family").

Meta Response: Disputed in part. Undisputed that Myspace could be used to connect with friends and family, among other things. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Myspace's supposed "dedicat[ion] to" to certain types of sharing is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1055. Further disputed because the cited material does not support the statement that Myspace was "dedicated" to users' sharing with friends and family. Further disputed on the grounds that "dedicated" is vague and undefined. Further disputed that the document reflected at PX2690 is a Meta presentation; it states it was prepared by Anderson Analytics. *See* PX2690 at -182 (FB_FTC_CID_03882183).

1071. Facebook competed with Myspace for the use case of connecting with real-world friends and family. [redacted]

Meta Response: Disputed in part. Undisputed that Facebook competed with Myspace, and that connecting with real-world friends and family is something that users could do on both services. Disputed that the statement creates a genuine dispute of material fact, including to the extent the statement suggests that Facebook and Myspace competed for only one particular use case, or that Myspace's competition was consistent with the

FTC's alleged market definition. Mr. DeWolfe also agreed that he considered "YouTube to be one of Myspace's primary competitors," and that Myspace was competing with services that offered the ability to message, among other competitors. *See* PX6066 at 188:7-14 (DeWolfe (Myspace) Dep. Tr.).

1072. An important use case of Myspace was to "plan with your friends and . . . connect with friends of friends." [redacted]

Meta Response: Disputed in part. Undisputed that some users used Myspace to plan and connect with friends. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of "an important use case of Myspace" is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1055. Further disputed because the cited testimony is incomplete and lacks context. Mr. DeWolfe testified that he could not quantify the relative importance of use cases on Myspace, including with respect to what was driving usage or what users most enjoyed. *See* PX6066 at 43:11-45:16 (DeWolfe (Myspace) Dep. Tr.).

1073. Google+ was a personal social network with a use case of connecting users with their friends and family. PX9000, Hemphill Report at ¶¶ 358-370; *see also* PX6148, Horowitz (Google) Dep. Tr., at 67:15-67:18; *id.* at 92:3-92:11 ("Q. Was Google+ intended to enable users to maintain personal relationships with their friends and family? A. That was certainly one of our primary use cases. Q. And was Google+ intended to be used by people to share experiences with their friends and family? A. Yes.").

Meta Response: Disputed in part. Undisputed that one use case offered on Google+ was connecting users with their friends and family. Disputed that the statements in this

paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of one use case offered by Google+ is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1055. Further disputed because the cited materials do not provide evidence to show that Google+ or any other entity was a "personal social network" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Mr. Zuckerberg agreed that "one of the use cases in which Google+ and the Facebook App competed in 2011 was the friends sharing use case." PX6127, Zuckerberg (Meta) Dep. Tr., at 19:16-21 ("Q. When you say there was competition across a number of different use cases, it's fair to say that one of the use cases in which Google+ and the Facebook App competed in 2011 was the friends sharing use case; right? A. Sure. You can certainly say that."); *id.* at 17:17-20 ("Q. Is it fair to say that in June 2011 you perceived Google+ attempted to address a friends sharing use case? A. Among other things.").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1073.

b. Professor Lampe analyzed the designs and user motivations of Google+ and concluded that "Google+'s core purpose was to provide its users with a Personal Social Network Site in which its users could share and receive personal updates from friends and family." PX9004, Lampe Report at ¶ 152; *see generally id.* at ¶¶ 143-52.

Meta Response: Disputed in part. Undisputed that Professor Lampe purported to analyze the design of Google+ and offered the quoted opinion. Disputed because the FTC provides no evidence that Professor Lampe's characterization of Google+'s designs and user motivations is relevant to substitution. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 160:8-17, 163:4-10 (Lampe Dep. Tr.)). Professor Lampe did not base his characterizations of applications on the time spent fulfilling any motivation. *See id.* at ¶ 608. He testified that he does not have any opinion regarding the *Brown Shoe* factors. *See id.* at ¶ 614. And his categorization of applications is entirely inconsistent with the *Brown Shoe* factors, *see* Ex. 1 at § 3 (Ghose Rep.), and all empirical substitution evidence, *see*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data).

1074. [redacted]; *see also* PX9004, Lampe Report at ¶¶ 153-160 (discussing Path).

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of what [redacted] was "[redacted]" for is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1055. Further disputed because the

cited materials do not provide evidence to show that [redacted] or any other entity was a "personal social network" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed that the statement creates a genuine dispute of material fact relating to [redacted]. Contemporaneous evidence indicates that [redacted]. For example, in 2012, Dave Morin, Path's chief executive officer, stated "Our competition isn't anyone else in the social networking world, it's SMS and email." *See* Ex. 500 at 1 (TechCrunch, *Path's Competitors Aren't Facebook And Twitter, They're Email and SMS Says Dave Morin*, https://perma.cc/LJR7-4HAN?type=standard). Professor Lampe testified that "messaging applications [are] commonly used for the purpose of maintaining personal relationships and sharing experiences with friends, family, and other personal connections at least with respect to close friends and family." *See* Meta SMF ¶ 612 (Ex. 281 at 41:3-42:8 (Lampe Dep. Tr.)).

(6) Survey evidence shows that PSN apps have a core use of friends and family sharing.

1075. Ordinary course survey results demonstrate that PSN apps have a core use of friends and family sharing. *Infra* CMF at ¶¶ 1075(a)-(j), 1076-77; *see also* PX9006, Malkiewicz Report at § VI; PX9012, Malkiewicz Rebuttal Report at § IV(F).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that its characterizations of an app's "core use" is relevant to substitution and for the reasons stated above in Meta's responses to paragraphs 1055, 1056, 1060, 1065, and 1068. As stated in those paragraphs, [redacted]

[redacted]; friends and family sharing accounts for a small minority of usage on Facebook and Instagram; all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat; [redacted]. *See* Meta Resps. to Counter SMF [redacted]. Further disputed that the cited materials support the statement as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). On the contrary, the surveys the FTC cites in the subparagraphs below indicate that Facebook and Instagram are used for many reasons other than sharing with friends and family, and that applications the FTC excludes from its market definition are used by users to share with friends and family. To the extent the paragraph incorporates the FTC's statements in paragraphs 1076-1077, Meta incorporates its responses to those statements here. Further disputed that citing entire sections of Mr. Malkiewicz's reports without any explanation creates a genuine dispute of material fact, including because he admitted that his survey – even if it were valid and reliable, which it was not – does not measure economic substitution, *see* Meta SMF ¶ 652 (quoting Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)). His survey was also inconsistent with the FTC's market definition for the reasons stated below in Meta's responses to paragraphs 1076 and 1077. *See also* Meta SMF ¶¶ 645-652 (addressing Mr. Malkiewicz's report).

a. User research conducted by Meta in 2017 to "understand which activities people feel are best done on Facebook, Twitter, Instagram, Snapchat, WhatsApp, and

YouTube, and the reasons why" found that "Facebook was seen as the best app to keep up with family/friends who are far away," and "Instagram was seen as the best app for seeing interesting photos/videos shared by friends." PX3431, Meta Workplace Post: [redacted] post to Research Insights (bcc: M. Zuckerberg) (May 30, 2017), FTC-META-004676091, at -091.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1075. Further disputed because the quoted language does not support the statement in paragraph 1075 and is incomplete. The cited language merely indicates that one application was selected as best for doing an activity relative to six apps, when survey respondents were forced to pick one such app, which does not indicate how or why users were using the application in 2017 or today. *See* PX3431 at -091 (FTC-META-004676091).

b. A 2017 Meta presentation discussing qualitative research findings about Snapchat concluded that the "Snap audience is largely limited to close friends and family members of similar age, while for many users the typical Story audience also includes acquaintances," and "[c]lose friends, family members of similar age, and acquaintances are the main sources of Stories users view, but some also view Stories created by celebrities and strangers." PX2588 at -017, -033, Meta presentation: "Snapchat Global Research: Quantitative Research Findings" (Aug. 2017), FB_FTC_CID_00054072.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to

paragraph 1075. Further disputed because the quoted language does not support the statement in paragraph 1075 and is incomplete. The document also shows that "[a] small share of users account for most of the content creation," PX2588 at -005 (FB_FTC_CID_00054072), that "[c]ontent creation is still driven primarily by Snaps, rather than Stories," *id.* at -011, users "still send Snaps largely for fun," *id.* at -012, "Snaps are still largely sent to fewer than 10 people," *id.* at -014, "around half of users in US . . . say their stories are typically viewed by fewer than 20 people," *id.* at -015, that "[m]emories is the only well-known and widely-used Snapchat feature in the US," *id.* at -046, that more teens in the United States were aware of "Group Chat," "Memories," and "VideoChat" on Snapchat than Stories, *see id.* at -048, and that they used those features more than Stories, *see id.* at -049. Friends Stories is just one feature on Snapchat. *See* Meta SMF ¶¶ 490-497 (discussing various features on Snapchat). Stories accounts for only [redacted] of time spent on Snapchat, and Friends Stories is only a portion of that time. *See* Ex. 98 at -010 (MetaFTC-Klein-DX-390, SNAP – FTC – No. 191-0134 – 0000116009).

c. A 2018 survey conducted by Meta, analyzing [redacted] found that for U.S. respondents, [redacted] PX12992 at -044, Meta presentation: [redacted] (Aug. 21, 2018), FTC-META-003599293 (also observing [redacted]

[redacted]; *see also* PX12991 at -007, -031, Meta presentation: [redacted] (Aug. 9, 2018), FB_FTC_CID_06737762 (finding [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1075. Further disputed because the quoted language does not support the statement in paragraph 1075 and is incomplete. The cited excerpt of the document [redacted]. *See* Meta SMF ¶ 15. [redacted]. *See id.* at ¶ 56. The document is inconsistent with the FTC's claims about the significance of friends and family sharing on Facebook and Instagram. [redacted] PX12992 at -044 (FTC-META-003599295). [redacted]

[redacted] *See id.* [redacted] *See id.* [redacted] [redacted] *See id.* at -068.

d. In summarizing a 2018 survey of Facebook and Instagram users, an internal Meta report concluded that "**Facebook's core value** proposition is **robustly anchored on 'keeping up with friends and family.'**" PX12993, Meta document: "Facebook user goals and intent survey: a comparison of dual and single app user status" (Sept. 10, 2018), FTC-META-011231195, at -195.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1075. Further disputed because the quoted language does not support the statement in paragraph 1075 and is incomplete. The document concludes that "*Instagram's core value* proposition is centered around *passive consumption behaviors*: 'to pass time' and 'to be entertained.'" PX12993 at -202 (FTC-META-011231195) (emphasis in original). The document indicates that users' intent for using the application varies by session and "the intent of a given session has no impact on satisfaction with Facebook." *See id.* at -195. The survey also shows that, even in 2018, only 51-52% of Facebook user respondents said the main reason they opened Facebook at that particular moment was to browse (as compared to a range of other activities like "[t]o watch a video" or "[t]o buy or

sell") and only 47-52 percent of that subset of Facebook users stated that they wanted to browse for updates from friends or family. *See id.* at -196-197.

e. A survey conducted in 2019 by Meta found that the most commonly selected [redacted] PX3400 at -010-18, Meta presentation: [redacted], FTC-META-012244891 (also finding the [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1075. Further disputed because the quoted language does not support the statement in paragraph 1075 and is incomplete. The statement is incomplete and mischaracterizes the main use cases identified in the survey. The results of the survey are inconsistent with the FTC's market definition. [redacted] *See* PX3400 at -013 (FTC-META-012244891). [redacted]

[redacted] *See id.* [redacted]

[redacted] *See id.* at -015. [redacted]

[redacted] *See id.* at -017. [redacted]

[redacted] *See id.* at -010.

f. A 2019 Morning Consult survey conducted for TikTok found that "Facebook, Instagram, [and] Snapchat users are most likely to follow friends and family," with a majority of respondents selecting "[f]riends, family, and personal acquaintances" as the "type[] of account" they "follow most" on each of the three platforms. PX13608, TikTok presentation: "Tik Tok Polling Presentation" (Dec. 12, 2019), TIK-00006530, at -533, -537. The survey also found that "[t]o stay connected to friends and family" was selected as the "primary reason [for] us[ing] the . . . platform" by a majority of respondents for Facebook (69%) and Snapchat (51%), and a plurality of respondents for Instagram (38%). *Id.* at -536.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1075, and on the ground that the statement is not supported by admissible evidence, *see* Fed. R. Civ. P. 56(c)(1)(B). Further disputed because the quoted language does not support the statement in paragraph 1075 and is incomplete. [redacted]

g. TikTok's former Director of UX Research Eric Morrison testified that during his time at TikTok, he "constantly" saw in surveys and other forms of user research, the distinction that "Instagram and Facebook . . . would be apps that people would

primarily use to connect with people that they already know, in some way or another, versus TikTok was a little bit more random than that and not necessarily serving that need to connect to people that you already know." PX6162, Morrison (TikTok) Dep. Tr., at 12:9-16, 192:7-193:9.

Meta Response: Disputed in part. Undisputed that [redacted] provided the paraphrased testimony with respect to other [redacted] Disputed for the reasons stated above in Meta's response to paragraph 1075.

h. In 2011, a study of Facebook users reported that users believed that "[t]he main reason for recommending Facebook is to keep in touch with friends and family." PX2592, Meta presentation: "Platform Users Study" (Aug. 24, 2011), FB_FTC_CID_00397746, at -752.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1075. Further disputed that the statement accurately describes the cited material. The survey in question was of Platform users, not Facebook users generally. *See* PX2592 at -749 (FB_FTC_CID_00397746).

i. In an analysis of Facebook performed in 2020, Meta found that [redacted]. PX3187, Meta document: "Facebook

VS Pagebook: Understanding global trends in feed composition" (undated), FTC-META-012192431, at -431, -435.

Meta Response: Disputed in part. Undisputed that the cited document stated that [redacted] Disputed for the reasons stated above in Meta's response to paragraph 1075. Further disputed because the description of the document is incomplete and misleading. The document defined [redacted]. PX3187 at -431 (FTC-META-012192431). The document also shows that [redacted] *Id.* at -435. This subparagraph does not support the statement in paragraph 1075, including because the document does not reflect the results of a survey, and because more recent reliable evidence indicates the current percentage of content on Feed that comes from friends. Specifically, Professor Carlton explained that as of January 2023, [redacted] of Feed impressions and [redacted] of time spent on the Feed were from posts from friends (original or reshared). *See* Meta SMF ¶ 11 (citing Ex. 2 at p. 68, tbl. 10 (Carlton Rep.)). Additionally, as of June 2023, the proportion of time spent on Feed overall now only accounts for [redacted] of time spent on Facebook. *See* Meta SMF ¶ 15 (citing Ex. 3 at p. 13, tbl. II-1 (List Rep.)); Ex. 2 at p. 68, tbl. 10 & n.114 (Carlton Rep.).

j. A 2022 Meta study examining [redacted]

[redacted]

PX3573 at -002, -004, -018, Meta presentation: "[redacted]" (June 2022), FTC-META-006817852; *see also id.* at -005 (recommending [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the document includes the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1075. Further disputed because the description of the document is incomplete and misleading. The study involved [redacted] PX3573 at -004 (FTC-META-006817852). [redacted] *Id.* at -005. [redacted] *Id.* [redacted] *Id.* at -009. [redacted] *Id.* at -012. [redacted]

[redacted] *Id.* at -013. [redacted]

[redacted] *Id.* at -017.

1076. FTC expert Michal Malkiewicz conducted a survey and submitted a report in this matter, where he explained that "[w]hen asked about their most important reason for using these services, users selected 'to keep up with [their] friends' and family's lives in one place' more than any other reason for Facebook, Instagram, Snapchat, and MeWe. In contrast, 'to keep up with [their] friends' and family's lives in one place' was not the most commonly selected most important reason for any of the other services included in the survey." PX9006, Malkiewicz Report at ¶ 11; *see also supra* CMF at § I.B.4(c).

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact, including because he admitted that his survey – even if it were valid and reliable, which it was not – does not measure economic substitution. *See* Meta SMF ¶ 652. Mr. Malkiewicz reported that he "never set out to measure economic substitution" with his survey, did "not calculate the amount of time spent for each use" by respondents, or "review any datasets" showing how users actually spend their time on Meta's or other apps. *See* Meta SMF ¶ 652 (citing Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)) & Ex. 301 at 85:10-20, 93:16-19 (Malkiewicz Dep. Tr.)); *see also* Ex. 301 at 84:10-14 (Malkiewicz Dep. Tr.) (admitting that his survey did not determine the amount of time spent "keeping up with friends and family" on any Internet service), 85:22-86:12, 87:7-12 (did not ask survey users about the frequency of the use cases reported). Mr. Malkiewicz's survey suffered

from material methodological flaws that are designed to bias results that favor the FTC's market definition, including a matching game. *See generally* Ex. 468 (Simonson Rep.).

Additionally, by focusing on the purported "most important reason" for using a particular service, Mr. Malkiewicz's entire question ignores the heterogeneous considerations that may guide consumers' choice when selecting a service. *See generally id.* As the FTC's own proffered industry expert has opined, uses of Facebook and Instagram are "extremely heterogeneous," *see* Meta SMF ¶ 604 (quoting Ex. 281 at 165:12-166:4 (Lampe Dep. Tr.)), and just because something is purportedly "important" does not mean that it is a good indicator why users open the application on a given day and what they choose to spend time on the application doing. *See* Ex. 281 at 73:15-74:8 (Lampe Dep. Tr.) (explaining that "spending time with my mother is an important thing to do, but I don't spend as much time doing that as I might do something else."). To the extent this statement incorporates the FTC's statements in Section I.B.4(c), Meta incorporates its responses to those statements here. Further disputed for the reasons stated below in Meta's response to paragraph 1077.

1077. Mr. Malkiewicz also concluded that "the results of [his] survey are consistent with those conducted by Meta and other third parties in the case, affirming that users are more likely to use Facebook, Instagram, and Snapchat for sharing information and keeping up with their friends and family than for any other reason, in contrast to the other services surveyed." PX9006, Malkiewicz Report at ¶ 11.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the proffered opinion is relevant to

substitution and for the reasons stated above in Meta's responses to paragraphs 1075 and 1076. Empirical evidence shows that friends and family sharing is a small minority of usage on Facebook and Instagram. Professor Carlton calculated that as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *See* Meta SMF ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). The FTC's own proffered industry expert, Professor Lampe, disagreed with the conclusion set forth in the statement. Professor Lampe opined that [redacted] *Id.* at ¶ 508 (citing Ex. 290 at ¶ 182 (Lampe Rep.)). Professor Lampe also testified that his understanding is that the motivation for watching video on Facebook and Instagram is "largely for entertainment purposes" rather than personal social networking. *Id.* at ¶ 607(a) (citing Ex. 281 at 238:2-239:4 (Lampe Dep. Tr.)). More than 60% of time on Facebook and Instagram is spent watching video. *See* Ex. 499 at 6 (Meta Q1 2024 Earnings Call), and thus, according to Professor Lampe's rationale, users are more likely to use Facebook and Instagram for entertainment purposes than for any other reason.

Mr. Malkiewicz's opinion is inconsistent with the FTC's market definition in many other ways, including for the reasons stated above in Meta's responses to paragraphs 1075 and 1076. Additionally, Mr. Malkiewicz's survey found that more than 63% of respondents who reported using Instagram did not select "[t]o keep up with [their] friends' and family's lives in one place" as their "most important reason[ ]" for

using Instagram. Meta SMF ¶ 646 (citing Ex. 299 at p. 36, tbl. 6 (Malkiewicz Rep.)). Those respondents instead selected "[t]o enjoy entertainment content," "[t]o follow or interact with public figures," "[t]o obtain and/or share news and information about [their] interests," "[t]o communicate privately with [their] contacts," and other options as their "most important" reasons for using Instagram. *Id.* at ¶ 646. Mr. Malkiewicz's survey likewise found that nearly 66% of respondents who reported using Snapchat did not report "[t]o keep up with my friends' and family's lives in one place" as their "most important reason[ ]" for using Snapchat. *Id.* at ¶ 649 (citing Ex. 299 at p. 38, tbl. 7 (Malkiewicz Rep.)).

At least a quarter of respondents who reported using WhatsApp, Facebook Messenger, or text messaging – which Mr. Malkiewicz defined to include iMessage and Android Messaging – identified "[t]o keep up with my friends' and family's lives" as their "most important" reason for using those services. *Id.* at ¶ 651 (citing Ex. 299 at ¶¶ 53, 91 & pp. 56-59, tbls. 16-18 (Malkiewicz Rep.)). Mr. Malkiewicz and Professor Hemphill offer no explanation as to why those services should be excluded from the relevant market, but MeWe should be included even though they all had a higher fraction of users who listed "keep up with my friends' and family's lives in one place" as the most important reason for using the application than does MeWe. Ex. 2 at ¶ 47 (Carlton Rep.). Additionally, Mr. Malkiewicz's survey concluded that at least some users stated that "keep[ing] up with my friends' and family's lives in one place" was the most important reason they used TikTok, YouTube, LinkedIn, Twitter, Pinterest, Reddit, and Nextdoor. *See generally* PX9006 (Malkiewicz Rep).

(7) Data analysis shows that PSN apps have a core use of friends and family sharing.

1078. Data analysis shows that PSN apps have a core use of friends and family sharing and are distinct from non-PSN apps in how they are used. *Infra* CMF at ¶¶ 1079-81.

Meta Response: Disputed. Disputed because the statement cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. Further disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that an application's purported "core use" is relevant to substitution. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this statement incorporates the FTC's statements in paragraphs 1079-1081, Meta incorporates its responses to those statements here.

1079. In contrast to non-PSN apps, PSN apps have a substantial set of users with friends or reciprocal follows, underscoring that engagement with friend connections is a core part of use of the apps. PX9000, Hemphill Report at ¶¶ 387-389, Exs. 20 & 21.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the number of friend connections users have is relevant to substitution. Further disputed because the statement is not supported by the materials cited, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). First, Professor Hemphill did not demonstrate that PSN apps have higher levels of reciprocal follows than non-PSN applications. Among other reasons that the cited material does not competently support the statement, the average user of a messaging application has more friends saved in their contacts than some

alleged PSN applications. Even a decade ago, news surveys showed that users had an average of more than 150 mobile phone contacts. *See* Ex. 501 at 1 (HuffPost, *Be My Friend: The Staggering Number of Young People's Cell Phone Contacts*, https://perma.cc/N27C-X8KX). That is comparable to levels of reciprocal contacts Professor Hemphill estimated for [redacted] and [redacted], and materially higher than the number of reciprocal connections on alleged PSN application Path, which initially capped the number of reciprocal connections at 50. *See* PX9000 at ¶ 146 (Hemphill Rep.). Second, [redacted], *see* Meta SMF [redacted], substantially higher than the average number of reciprocal connections on Instagram and Snapchat in 2022. Third, Professor Hemphill did not evaluate the alleged number of reciprocal connections on alleged PSN platform, MeWe, or other applications with significant numbers of reciprocal connections, including an application that the FTC concedes is a social network, LinkedIn.

1080. [redacted], PSN apps (Facebook and Instagram) have sizable portions of users who are actively engaged as producers of content, [redacted]. PX9000, Hemphill Report, [redacted].

<u>Meta Response</u>: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the portion of users who are actively engaged as producers of content is relevant to substitution. Further disputed because the statement is not supported by the materials cited, as required by

Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Specifically, Professor Hemphill claims that posting participation rates (the average percentage of users who post in a given month) for apps are: Facebook ([redacted]), Instagram ([redacted]), [redacted]. *See* PX9000 at Ex. 22 (Hemphill Rep.). But he does not set forth posting rates for 50 percent of the alleged PSN apps (Snapchat and MeWe), and he does not consider participation rates of messaging applications. *See id.* He also does not explain why the posting participation rate for [redacted] is too low to be considered as similar to Facebook to Instagram. *See* Ex. 2 at ¶ 88 (Carlton Rep.).

1081. [redacted], PSN apps (Facebook and Instagram) had spikes in activity during friends and family-oriented holidays. PX9000, Hemphill Report at [redacted]; PX9007, Hemphill Rebuttal Report at ¶¶ 324-331.

<u>Meta Response</u>: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that purported spikes in activity near certain days is relevant to substitution. Further disputed because the statement is not supported by the materials cited, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. In 2018, Meta devised a metric called "meaningful social interactions" (or "MSI") to "capture the concept of active engagement with friend and family (and group) content" on Facebook. PX3433, Meta document: "Facebook App 2022 Goals Summary" (Feb. 9, 2022), FTC-META-004682666 at -674. MSI is a "weighted average of . . . different actions [including] like[s], comments, reshares, each of which is given a weight and the weight can depend on context . . . [f]or example,

whether it's on a friend's post or a page." PX6008, Cunningham (Meta) IH Tr., at 278:3-279:6.

Meta Response: Disputed in part. Undisputed that Meta devised a metric called "meaningful social interactions" in 2018. Disputed for the reasons stated above in Meta's response to paragraph 1081. Further disputed that the statement is supported by the cited materials because it is incomplete. Mr. Cunningham testified that metric reflected the "weighted average of a couple of dozen different actions, which is going to include, like comments, reshares, each of which is given a weight and the weight can also depend on context." PX6008 at 278:3-279:6 (Cunningham IH Tr.).

b. There were significant peaks in MSI activity data from 2017 to 2020 (that Meta provided) in time periods that tightly coincide with seven holidays ordinarily associated with spending time with friends and family: New Year's Day, Valentine's Day, Easter, Mother's Day, Father's Day, Halloween, and Christmas. PX9000, Hemphill Report at ¶ 263 & Ex. 18.

Meta Response: Disputed in part. Undisputed that Professor Hemphill opined that MSI metrics that excluded messaging increased on New Year's Day, Valentine's Day, Easter, Mother's Day, Father's Day, Halloween, and Christmas between 2017 to 2020. Disputed for the reasons stated above in Meta's response to paragraph 1081. The statement also does not support the statement in paragraph 1081 above because Professor Hemphill only analyzed Facebook, he did not analyze 75 percent of the alleged market participants in the PSN markets. *See* Ex. 2 at ¶ 89 (Carlton Rep.). Additionally, Professor Carlton demonstrated

that there are spikes in use on [redacted] on these holidays and explained that "[i]f Facebook and Instagram are to be included in the same market on the basis of spikes in usage on Prof. Hemphill's holidays, then messaging apps should be included as well." *Id.* at ¶ 91.

c. These peaks are evidence supporting the conclusion that Facebook serves the core use of friends and family sharing. *Id*. at ¶¶ 263-64 & Ex. 18.

Meta Response: Disputed in part. Undisputed that Facebook is used to share with friends and family among other things. Disputed for the reasons stated above in Meta's response to paragraph 1081. Further disputed because, as Professor Carlton explained, Professor Hemphill never relates the purported spikes in time spent on Facebook on these days to any claim that ad loads on Facebook are higher on these days. If, according to Professor Hemphill, Meta has monopoly power over PSNS users and exploits such power in setting ad load, and those are days that particularly emphasize friends and family sharing, then one would expect ad loads to increase on those days. *See* Ex. 2 at ¶ 89 (Carlton Rep.). As Professor Carlton explained, ad load does not increase on those on those days, and, if anything, ad loads tend to be lower on these holidays. *See id.* at ¶ 90.

d. By contrast, [redacted]. PX9000, Hemphill Report at ¶¶ [redacted].

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1081. Further disputed because the cited paragraphs in

Professor Hemphill's report do not show [redacted]. For example, according to Professor Hemphill time spent declined on Facebook and [redacted] but increased on Instagram surrounding Easter. *See* PX9000 at ¶ 552 & Ex. 30 (Hemphill Rep.). Such minor differences in usage on these days does not indicate that meaningful different usage of the applications overall. Additionally, as stated above in Meta's response to paragraph 1081, the information does not reflect any meaningful information about competitive constraints posed by these applications. *See* Ex. 2 at ¶ 92 (Carlton Rep.).

(8) PSN apps' core use of friends and family sharing creates a norm that makes personal connection and sharing readily acceptable.

1082. Meta and other online services recognize that apps have different "norms" of use, which impacts how people are willing to use the app.

Meta Response: Disputed in part. Undisputed that norms – by definition – can influence how some users are willing to use various applications or specific features on applications. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that purported norms of use are relevant to substitution. Further disputed because the statement is not supported by the materials cited, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), as extensive evidence indicates that the norms of use related to activities on PSN applications are similar to norms of use related to similar activities on non-PSN applications, and Meta faces competition from alleged non-PSN applications. *See*, *e.g.*, Meta Resps. to Counter SMF ¶¶ 1055-1056, 1060. Further disputed because the FTC conceded that it did not engage in any feature-by-feature analysis to assess whether norms of use of features on alleged PSN applications were

similar to norms of use of features on alleged non-PSN applications such as viewing unconnected content on Reels as compared to viewing unconnected videos on TikTok as it explained that "individual feature substitution is not relevant to the FTC's contentions." *See* Meta SMF ¶¶ 586-601. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See id.* at ¶ 613 (quoting Ex. 218 at 160:8-17, 163:4-10 (Lampe Dep. Tr.)). Moreover, Professor Lampe conceded that motivations for using most features on Facebook and Instagram are similar to motivations for using those same features on alleged non-PSN applications. *See id.* at ¶¶ 606-609, 612. And Professor Hemphill indicated that similar features are used for similar reasons across platforms. *See id.* at ¶ 283; *see also id.* at ¶ 628 ("[a] user can watch short-form videos on Reels for entertainment purposes, much as they do on TikTok or YouTube").

a. Mr. Zuckerberg has recognized how user norms affect use; during a 2021 earnings call, he stated "the kind of discussions that you might have in a feed on Twitter or Pinterest are different from what you would do in Facebook or Instagram, even given a relatively similar format. So I think, to some degree, even if a creator chooses to reshare their content across the number, you'll have different discussions with your friends across the different services based on who's there." PX0545 at -016-17, Meta Platforms, Inc. (FB) Fourth Quarter 2021 Results Conference Call (Feb. 2, 2022), https://s21.q4cdn.com/399680738/files/doc_financials/ 2021/q4/Meta-Q4-2021-Earnings-Call-Transcript.pdf; PX9010, Lampe Rebuttal Report at ¶ 49.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1082.

b. Mr. Zuckerberg also testified that "the culture of the apps and which features get emphasized can lead to . . . different use cases. So, I mean, for example, LinkedIn has a feed, and it has a bidirectional contact model, and it has a lot of the -- these same basic features that a lot of other social apps have, but it clearly has a more professional tone." PX6029, Zuckerberg (Meta) IH Tr., at 181:23-182:5. Mr. Zuckerberg further testified that LinkedIn "has a much more professional feeling, kind of a work enterprise tone[,] than Facebook." PX6029, Zuckerberg (Meta) IH Tr., at 182:22-24.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1082. Further disputed because extensive evidence shows that a substantial number of users on LinkedIn share personal information on the application. In fact, LinkedIn's representative testified that "we have always seen friends and family to be a part of your experience on LinkedIn," which "has only increased with the . . . pandemic." Meta SMF ¶ 406 (quoting Ex. 69 at 77:19-78:1 (Pattabiraman (LinkedIn) Dep. Tr.)). LinkedIn's representative testified that people share a wide range of personal updates on LinkedIn, including, for example, "a personal update about . . . anything from you overcoming a big challenge in your life. It could be you running a marathon. . . . Sometimes there is also your viewpoints, your personal viewpoints on topics that are important to

society. Could be politics, religion. Could be anything that is important to you as an individual that you would also like your friends, families, and coworkers to know." *See id.* (quoting Ex. 69 at 78:3-22 (Pattabiraman (LinkedIn) Dep. Tr.)).

c. Meta documents also recognize that a norm of anonymity makes some apps ill-suited for sharing with friends and family. PX3434, Meta email chain: [redacted] to T. Alison, et al. re: "CPSI Monthly Update – June 2021" (July 7, 2021), FTC-META-010019410, at -410 ([redacted]); *see also* PX9000, Hemphill Report at ¶ 484.

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1082. Further disputed because the cited material does not support the statement in this subparagraph or paragraph 1082. Instead, the cited document observed that Meta has [redacted]. PX3434 at -410 (FTC-META-010019410). Further disputed because the FTC has taken the position that the existence of anonymous accounts is not an impediment to using an app for friends and family sharing, as the FTC defines the term. *See id.* The FTC's proffered industry expert notes approximately half of Instagram users are pseudonymous. *See* Ex. 290 at ¶ 163 n.356 (Lampe Rep.) (quoting PX6078 at 190:8-191:14 (Mosseri Dep. Tr.)). As Mr. Mosseri – the head of Instagram – testified: "[W]e allow

people to use pseudonyms . . . . [I]n general, if you want to use a different name or a nickname or no name and just a handle, we are perfectly comfortable with that. . . . [M]aybe half of people or maybe a little bit more will use their first and last name there." PX6078 at 190:17-191:11 (Mosseri Dep. Tr.).

d. LinkedIn has noted the impact of norms on social media platforms.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1082. Further disputed because the statement is not supported by the materials cited, as stated in Meta's responses to the subparagraphs below.

i. A LinkedIn employee addressed the findings from a focus group by explaining that "[m]embers draw a bright line between their personal and professional networks – and much prefer separate destinations for them. We often hear this in the US and other markets as well. . . . They talked specifically about certain 'rules' they follow, only adding professional contacts on LinkedIn, and following a strict code to keep friends separate on Facebook. These norms and values are well established." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1082 and subparagraph 1082(d). Further disputed that the statement creates a genuine dispute of material fact

relating to LinkedIn's current understanding of norms on applications. The subparagraph describes interviews in 2016 of a small number of LinkedIn users outside of the United States and specifically notes that "[t]he cultural expectations that govern networking differ from the US, which, in general, tends to be more open in style." PX14898 at -257 (LI_METALIT_00038256). Four years later, LinkedIn represented, [redacted] Meta SMF ¶ 413 (quoting Ex. 75 at -771-772 (MetaFTC-Klein-DX-125, LI_METALIT_00001748)). In 2023, LinkedIn's representative testified that "the norms are getting blurred," as it is "increasingly more common . . . to share" personal content on LinkedIn. Ex. 69 at 79:5-15 (Pattabiraman (LinkedIn) Dep. Tr.). LinkedIn's representative testified that it would be [redacted] *See id.* at 270:20-272:6.

ii. A presentation summarizing market research on LinkedIn similarly explained that the "professional purpose of the platform creates norms and expectation about the responsibilities and conduct of both LinkedIn and its

members." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1082. Further disputed that the cited material supports the statement because the document in question analyzed whether users of LinkedIn trust the platform, not how or why users used the app, or what content they are willing to share. *See* PX7055 at -447 (LI_FTC_0000439).

1083. Professor Lampe, an expert in technology-mediated communications, similarly explains how online spaces are just as shaped by social norms as offline spaces are, and users of technology platforms are similarly influenced by the norms for how people collectively use the platform to communicate with one another. PX9004, Lampe Report at ¶¶ 54, 71.

Meta Response: Disputed in part. Undisputed that Professor Lampe opined that norms can influence interactions between individuals. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC and Professor Lampe provide no evidence that purported norms of use are relevant to substitution and for the reasons stated above in Meta's response to paragraph 1082. Professor Lampe conceded that he is not qualified to offer any opinion on whether two corporations are actually competitors and does not offer any opinion on the scope of competition. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 163:4-10 (Lampe Dep. Tr.)). Professor Lampe also testified that he does not have any opinion regarding the *Brown Shoe* factors, *see id.* at ¶ 614 (quoting Ex. 281 at 273:5-8 (Lampe Dep. Tr.)),

and that he did not base his characterizations of applications on the time spent fulfilling any motivation, *see id*. at ¶ 608; *see also* Meta Resps. to Counter SMF ¶¶ 898, 898(a)-(f) (discussing other flaws with Professor Lampe's opinion).

a. Recognizing that norms shape users' intentions, a platform may not be seen as an appropriate place to post, even when it is technically possible. PX9004, Lampe Report at ¶¶ 68-73.

Meta Response: Undisputed.

b. Norms for the appropriate use of a social media site can be a major factor in how people decided which platform to use; this entails considering both who a user is communicating with, and also what it is they are communicating. PX9004, Lampe Report at ¶ 72.

Meta Response: Disputed in part. Undisputed that a norm can be a factor some users consider in deciding where to post a particular piece of content. Disputed for the reasons stated above in Meta's responses to paragraphs 1082 and 1083. Further disputed that the cited paragraph of Professor Lampe's report reliably evaluates the norms of use on social media websites today as it exclusively relies on academic articles that are between 8-13 years old.

1084. Given that PSN apps have a core use of friends and family sharing, *supra* CMF at §§ II.A.4(a)(1)-(7), ¶¶ 1082-83, people consider it normal and readily acceptable to share personal information in the "shared social space" within a PSN app—unlike in non-PSN apps.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC

provides no evidence that whether people consider it readily acceptable to share personal information in a "shared social space" is relevant to substitution. On the contrary, all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment); Meta Resps. to Counter SMF ¶¶ 1056, 1060. Further disputed because the evidence also shows that other applications the FTC excludes from its relevant market are also used to share with friends and family. *See id*. at ¶ 1055. The FTC's use of and "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

Further disputed because statement is not supported by the materials cited in the subparagraphs below, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The cited materials in the subparagraphs below do not support the claim that all users consider it normal or "readily acceptable" to share or not to share personal information on any app as opposed to any other app. To the extent this paragraph incorporates the FTC's statements in Sections II.A.4(a)(1)-(7) and paragraphs 1082-1083, Meta incorporates its responses to those statements here.

a. In 2015, Mark Zuckerberg wrote that "[w]e can't build the service we want if we don't help people share the personal moments they care about." PX1903, Meta

email: M. Zuckerberg to C. Cox et al. re: "Draft All Hands Q1 2015," (Feb. 2, 2015), FB_FTC_CID_06006285, at -286.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1084.

b. Dan Levy testified that "as there were more different types of posts to show to people in their News Feed, the News Feed team would need to make decisions on what was most relevant to show to users." As "a classic example, if my brother has a baby or major life event, that would obviously be a really important thing to show to a user relative to perhaps a post that a local shop may also be showing." PX6016, Levy (Meta) IH Tr., at 396:3-11.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1084.

c. Kevin Systrom testified that sharing photos on Facebook in 2012 was "about sharing your thoughts, about sharing links and your thoughts about those links, about sharing photos. Those photos were . . . more about significant events in your life, so whether that was a wedding or a big vacation . . . ." PX6027, Systrom (Meta/Instagram) IH Tr., at 161:8-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1084.

d. In 2020, an internal analysis by Meta found: "[redacted]." PX12982 at -023, Meta presentation: "Instagram Decline US A&U: Wave 1" (July 2020), FTC-META-006826485.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1084. Further disputed because the quoted language lacks context, is incomplete, and misleading. The cited slide reports the results of surveys about what each app was most used for relative to other applications. *See* PX12982 at -023 (FTC-META-006826485). The slide in question stated that [redacted]. *Id.* To the extent the document is relevant, it directly undermines the FTC's statement and market definition. The document states that [redacted] *Id.* at -033. The document states further that [redacted] *id.*, [redacted] *Id.* at -032.

e. Google+ users used Google+'s stream to broadcast personal updates to and receive broadcasted personal updates from their friends and family. PX6148, Horowitz (Google) Dep. Tr., at 92:3-93:14.

Meta Response: Disputed in part. Undisputed that Google+ users used Google+ for this reason among others. Disputed for the reasons stated above in Meta's response to paragraph 1084.

f. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1084.

g. Discord corporate representative Julia Tang testified that Facebook "was very much surrounding a person's personal network, like their known friends or family, and it is about that person's life and that person's perspective." PX6123, Tang (Discord) Dep. Tr., at 148:13-18; *see also id.* at 149:6-9 (testifying she "would say something similar for Instagram").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1084.

h. [redacted]

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1084. Further disputed that the cited material supports the proposition in paragraph 1084 that "people consider it normal and readily acceptable to share personal information in the 'shared social space' within a PSN app—unlike in non-PSN apps." The document in question concerned

There is no genuine dispute that

[redacted]. *See* Meta SMF ¶ 241 (citing [redacted]). By comparison, Professor Hemphill calculated that [redacted], and the average number of friends per U.S. monthly active user on Snapchat was [redacted]. *See id.* (citing Ex. 279 at ¶¶ 287, 310 (Hemphill Rep.)).

There is also no genuine dispute that TikTok users do share with their friends and family. For example, a January 2020 survey conducted by Meta, described in an April 2020 slide deck, found that [redacted] *Id*. at ¶ 243 (quoting Ex. 222 at -.047 (FTC-META-005944143)). [redacted] Ex. 222 at -.047 (FTC-META-005944143). Professor Lampe testified that he had no "[redacted]." Meta SMF ¶ 243 (quoting Ex. 281 at 363:1-364:16 (Lampe Dep. Tr.)). And Professor Hemphill testified that "it would be consistent with his opinions" that [redacted] *See id.* at ¶ 216 (quoting Ex. 283 at 92:16-21 (Hemphill Dep. Tr.)). To the extent they are relevant, even the surveys the FTC relies on state that a substantial number of users indicated that their most important or most

frequent reason for using TikTok is sharing with friends and family. *See*, *e.g.*, PX12982 at -025-026 (FTC-META-006826485) (cited at Counter SMF ¶ 1084 (d)) (showing that [redacted] stated that they use TikTok most frequently to share or view content from friends or family). The surveys the FTC relies on also state that the vast majority of teens use TikTok to share with friends and family, among other reasons. *See id*. at -032-033 (stating that [redacted]); *see also* PX3573 at -017 (FTC-META-006817852) (cited at Counter SMF ¶ 1075(j)) (survey indicating that [redacted]).

i. [redacted]

<u>Meta Response</u>: Disputed in part. Undisputed that Mr. Pattabiraman provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1084. Further disputed that the cited material supports the proposition in paragraph 1084 that "people consider it normal and readily acceptable to share

personal information in the 'shared social space' within a PSN app – unlike in non-PSN apps." The cited excerpt was in relation to a document from 2019, and Mr. Pattabiraman explained at length that it is normal and readily acceptable to share personal information on LinkedIn today. *See* Meta Resps. to Counter SMF ¶¶ 1082(d), 1130, 1141; Meta SMF ¶ 406.

j. Non-PSN apps do not have norms for sharing personal information in a "shared social space" among a network of friends and family. *See, e.g.*, *infra* CMF at §§ II.A.5(a)-(c).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1084. Further disputed because the FTC provides no evidence that whether norms for sharing personal information is relevant to substitution. To the extent this statement incorporates the FTC's statements in Sections III.A-B, Meta incorporates its responses to those statements here. There is robust evidence that there are norms for sharing personal information in a shared social space among a network of friends and family on services the FTC excludes from its alleged PSNS market. *See*, *e.g.*, Meta Resp. to Counter SMF ¶ 1055.

1085. PSN apps have other distinct norms related to their use for friends and family sharing, which makes them different from non-PSN apps.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that purported distinct norms related to use for friends and family sharing are relevant to substitution. Further disputed for the reasons stated above in

Meta's responses to paragraphs 1055, 1056, 1060, 1065, and 1068, including because the evidence indicates that alleged PSN apps are used for reasons other than sharing with friends and family, and that services the FTC excludes from its market definition are used for sharing with friends and family. *See* Meta Resps. to Counter SMF ¶¶ 1055, 1056, 1060, 1065, 1068. Further disputed on the grounds that the materials cited in the subparagraphs do not support the statement in this paragraph.

a. PSN apps have a real-life identity requirement or norm, which supports their use for friends and family sharing; interest-based networks lack such a norm, which logically follows for the pursuit of interest-based content but makes them less suitable for friends and family sharing. PX9000, Hemphill Report at ¶ 236, 301, 438-40.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1085, and because the cited paragraphs of Professor Hemphill's report do not establish that alleged PSN apps have a real-life identify requirement relative to other applications that the FTC excludes from its market definition. Only half of Instagram users use their real name on their handle. *See* Ex. 143 at 190:25-191:14 (Mosseri Dep. Tr.). Professor Hemphill does not quantify the proportion of users on Snapchat that use their name. A representative of Snapchat testified that Snapchat "users that change their user names to all sorts of wacky things." *See* PX6119 at 189:19-191:2 (Andreou (Snap) Dep. Tr.). And the FTC's proffered industry expert conceded that profiles on Snapchat provide less discoverability than profiles on TikTok or alleged interest-based services like Twitter. *See* Ex. 281 at 315:3-316:16 (Lampe Dep. Tr.) (conceding that Snap

profiles provide less discoverability than Twitter and TikTok profiles). Further, the evidence shows that alleged interest-based platforms are used for sharing with friends and family. *See*, *e.g.*, Meta Resp. to Counter SMF ¶ 1055 (discussion of many applications' use for sharing with friends and family); *id.* at ¶ 1219 (further discussion relating to Twitter).

b. PSN apps have a norm around the maintenance of personal relationships with people the user knows in real life and users motivated to fulfill that need will look to platforms with the features and norms that support that use. PX9004, Lampe Report at ¶¶ 13-14; PX9010, Lampe Rebuttal Report at ¶¶ 3, 74.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1085, and because the cited paragraphs of Professor Lampe's report cite no evidence in support of these conclusions, and because Professor Lampe conceded that he is not qualified to offer any opinion on whether two corporations are actually competitors and does not offer any opinion on the scope of competition. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 163:4-10 (Lampe Dep. Tr.)). Professor Lampe also testified that he does not have any opinion regarding the *Brown Shoe* factors, *see id.* at ¶ 614 (quoting Ex. 281 at 273:5-8 (Lampe Dep. Tr.)), and that he did not base his characterizations of applications on the time spent fulfilling any motivation, *see id*. at ¶ 608. Professor Lampe also opines that uses of Facebook and Instagram are "extremely heterogeneous," *see id*. at ¶ 604, that users use Facebook and Instagram for many different reasons, *id.* at ¶¶ 606-607, and that users can satisfy the same motivations for use of Facebook

and Instagram on applications the FTC excludes from its market definition, *see id.* at ¶ 612.

c. The norms of LinkedIn, Nextdoor, Twitter, Reddit, Pinterest, YouTube, and TikTok are not for users to engage in friends and family sharing. PX9004, Lampe Report at ¶¶ 16-23.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1085, and because the cited paragraphs of Professor Lampe's report cite no evidence in support of these conclusions. Further disputed because the evidence shows that applications identified in the statement are used for sharing with friends and family. *See* Meta Resps. to Counter SMF ¶ 1055 (explaining that these services are used to share with friends and family), ¶¶ 1130, 1137 (LinkedIn), [redacted], ¶¶ 1173, 1180 (YouTube), ¶¶ 1195, 1203 (TikTok), ¶¶ 1219, 1225 (Twitter), ¶¶ 1255, 1262 (Pinterest).

d. The norms around who a user reaches out to via mobile messaging differs from the norms around who a user reaches out to via a PSN. PX6175, Lampe (FTC) Dep. Tr., at 31:14-22.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1085, and because the cited excerpt of Professor Lampe's testimony cites no evidence in support of this conclusory assertion. Extensive evidence shows that the norms for communicating over messaging and alleged PSN applications overlap significantly. *See* Meta SMF ¶¶ 420-460 (discussing competition between messaging applications and alleged PSN applications and the shift of friend sharing on Facebook and Instagram toward more direct

messaging). Professors Lampe and Hemphill also conceded that messaging applications serve as an alternative to alleged PSN applications for connecting with friends and family. *See id.* at ¶¶ 457-460. In fact, when asked if "messaging applications are also a substitute communication channel for communicating with close friends," Professor Lampe testified, "[m]essaging along with other apps can be used for maintaining relationships with close friends, yes." *Id.* at ¶ 459.

e. Where users are contacting a group via mobile messaging, "the norm is not necessarily to make the group too large and to keep things in relatively small groups within messaging." PX6175, Lampe (FTC) Dep. Tr., at 34:16-35:7.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1085, and because the cited excerpt of Professor Lampe's testimony cites no evidence in support of this conclusory assertion. Users engage in broadcast or group conversations of large sizes on messaging apps. *See* Meta SMF ¶ 111 (Messenger community chats), ¶¶ 116, 120, 125 (WhatsApp supports group chats with 1,024 members, and has broadcast lists and channels), ¶ 426 (Apple's Messages app supports "communicat[ions] with up to 32 other people in a single conversation"), ¶ 436 (Google Hangouts originally supported "message groups of up to 50 users" and expanded it to groups up "to 150 users").

1086. Moreover, the norms of a social media app are "very difficult to change" as "it's the norms at the time [a] site[] [is] established that are often the most predictive of how it's going to be seen as being used because those high-level norms of this is a platform for this purpose are fairly persistent." PX6175, Lampe (FTC) Dep. Tr., at 79:18-80:8, 321:12-322:12.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the purported ability to change norms is relevant to substitution. Further disputed because the cited excerpt of Professor Lampe's testimony cites no evidence in support of this conclusory assertion, which is also rebutted by extensive evidence. For example, LinkedIn observed [redacted] Meta SMF ¶ 413 (quoting Ex. 75 at -771-772 (MetaFTC-Klein-DX-125, LI_METALIT_00001748)). Thus, LinkedIn's representative testified that "the norms are getting blurred," as it is "increasingly more common to share" personal content on LinkedIn. *See* Ex. 69 at 79:5-15 (Pattabiraman (LinkedIn) Dep. Tr.). LinkedIn's representative testified that it would [redacted] *See id.* at 270:20-272:6. Extensive evidence further demonstrates that norms of usage on Facebook and Instagram have changed over time. *See* Meta SMF ¶¶ 2-95. For example, even in the last year, entertainment content, such as watching long- and short-form video from public or unconnected sources, has surged in popularity. As of June 2023, Reels accounted for [redacted] of time spent on Instagram. *See id.* at ¶ 15 (citing Ex. 3 at p. 13, tbl. II-1 (List Rep.)). When users are consuming Instagram Reels, [redacted] of time spent and [redacted] of total impressions come from the users' reciprocal connections. *See id.* at ¶ 60 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). As of April 24, 2024, Reels alone accounts for 50 percent of time spent on Instagram. *See* Ex. 499 at 4 (Meta Q1 2024 Earnings Call). And the FTC's assertion

that Snap is a PSN app is based on its claim that Snapchat transformed into an app used for messaging into an alleged market participant by launching Stories. *See* Counter SMF ¶¶ 1045, 1047-1048.

b) PSN apps have "peculiar characteristics" that facilitate and foster friends and family sharing.

1087. PSN apps also have "peculiar characteristics" in the form of features and functionality that facilitate and foster friends and family sharing. In particular, PSN apps have a social graph built with friends and family connections with tools for users to build such connections, and a shared social space within which users share content and interact with friends and family, thereby engaging in "broadcast" rather than private communication. *Infra* CMF at §§ II.A.4(b)(1)-(3); PX9000, Hemphill Report at ¶ 25; PX9004, Lampe Report at ¶¶ 80-99.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the FTC provides no evidence that purported peculiar characteristics in the form of features and functionality that facilitate and foster friends and family sharing is relevant to substitution, and the cited paragraph of Professor Hemphill's report cites no specific evidence. Similarly, the cited paragraphs of Professor Lampe's report do not cite any evidence about the purported characteristics of the four applications the FTC alleges provide PSNS and does not provide any evidence to support the assertion that the characteristics on those applications are different than alleged non-PSN applications. To the extent this paragraph incorporates the FTC's statements in Sections II.A.4(b)(1)-(3), Meta incorporates its responses to those statements here. As Meta's responses to those statements indicate, extensive evidence shows that many applications that the FTC contends do not provide PSNS share these characteristics, and

thus, they are not peculiar to alleged PSN applications. *See also* Ex. 1 at § 3(b)(1) (Ghose Rep.) (explaining that the proposed PSN applications do not have peculiar characteristics or uses). The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

(1) PSN apps have a social graph centered on connecting users to friends and family.

1088. A social graph is the set of connections that users make among each other within a social network. PX9000, Hemphill Report at ¶ 227; PX9004, Lampe Report at ¶ 85.

Meta Response: Disputed in part. Undisputed that a "social graph" can be defined as a "set of connections that users make among each other." Disputed because the materials cited in this paragraph and its subparagraphs do not support the implication that there is a commonly understood definition of "social network" or "social graph."

a. Mr. Zuckerberg described Facebook's strategy to "map out all the connections between people and things and get them into our system" where the end result would be a social graph. PX1502, Meta email chain: M. Zuckerberg to M. Schroepfer, et al. re: "Monday's Small Group" (Nov. 7, 2009), FB_FTC_CID_06011928, at -928.

Meta Response: Undisputed that the document contains the quoted language.

b. Similarly, an internal Snap memo states that "[s]ocial networks are a unique type of online community, because they rely on knowing which users are connected to one another via" a social graph (which is the foundation of any social networking platform). [redacted]

Meta Response: Undisputed that the document contains the quoted language.

1089. Social graphs differ in the identity of the individuals on the graph and their collective character. PX9000, Hemphill Report at ¶ 229; PX9004, Lampe Report at ¶ 85 & n.120.

Meta Response: Disputed in part. Undisputed that every user's social graph is different. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the character of a social graph is relevant to substitution. Further disputed on the ground that "collective character" is vague and undefined.

a. Facebook explained to the European Commission in 2014 that social networking apps "enable communication with a broad 'social graph' encompassing contacts from a wide variety of social settings – from university to family to colleagues." PX3002, "Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (Aug. 6, 2014), FB_FTC_CID_00005242, at -246.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1089.

b. Current TikTok President of Global Business Solutions Blake Chandlee testified that Facebook and Instagram maintain a social graph which relies on "relationships between friends and family" whereas TikTok's graph is a "content graph" which "relies on our interests." PX6160, Chandlee (TikTok) Dep. Tr., at 17:9-21 (Facebook's "underlying business is geared around the social graph, which is, you know, individuals' connections with friends, family businesses,

brands, whatever it might be, and that is core to the value proposition that both Facebook and Instagram present to their users. And that is the definition of social platform. You know, we are – we were an interest or a content graph platform versus social platform. So our content doesn't rely on relationships between friends and family, it relies on our interests. And so they're very different in their – in their – their utility to users.").

Meta Response: Disputed in part. Undisputed that Mr. Chandlee provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1089. Further disputed because the quoted language is incomplete. When asked what he meant in a CNBC interview by "Facebook is a social platform," Mr. Chandlee said: "I think the basic premise and the underlying business is geared around the social graph, which is, you know, individuals' connections with friends, family, *businesses, brands, whatever it might be* . . . ." PX6160 at 17:9-21 (Chandlee (TikTok) Dep. Tr.) (emphasis added). Further disputed to the extent the statement suggests that TikTok does not have a robust social graph today. TikTok has a robust social graph. *See* Meta Resp. to Counter SMF ¶ 1090 (discussing FTC's experts' concessions of same); *see also id.* at ¶ 1055 (same).

1090. PSN apps have social graphs centered on friends and family connections. PX9000, Hemphill Report at ¶ 229; PX9004, Lampe Report at ¶ 85 & n.120.

Meta Response: Disputed in part. Undisputed that users on Facebook, Instagram, Snapchat, and MeWe can have social graphs, and that a user's social graph on Facebook, Instagram, MeWe, and Snapchat can include their family and friends. Disputed that the

statement creates a genuine dispute of material fact, including because the FTC provides no evidence that that the existence of social graphs purportedly centered on friends and family connections is relevant to substitution. Further disputed because the cited materials do not support the statements in this paragraph and its subparagraphs as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Neither the cited paragraphs of the reports from Professor Hemphill and Professor Lampe nor the statements in the subparagraphs below state that the social graphs of alleged PSN applications are "centered" on friends and family. The cited materials do not reference a social graph on Snapchat related to family. The FTC's use of "PSN apps" and "core use" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the term "centered" is vague and undefined. Further disputed to the extent this statement suggests that applications the FTC excludes from its market definition do not have a social graph of friends and family or one "centered" on friends and family. Extensive evidence demonstrates that numerous applications that the FTC excludes from its alleged PSNS market have "social graphs" that include connections with friends. For example:

- <u>iMessage (and other Messaging Apps)</u>: Professor Hemphill conceded that iMessage has a "social graph," and users use it to engage with multiple friends and family in a "shared social space" through group messaging. *See* Meta SMF ¶¶ 431-432 (quoting Ex. 283 at 97:22-98:15, 98:16-99:3 (Hemphill Dep. Tr.)). Connections on the graph includes friends and family, the applications offer additional features that facilitate sharing with friends and family, and the

applications are centered on the use of sharing with friends and family. *See* Meta Resp. to Counter SMF ¶ 1055.

- TikTok: Professor Lampe conceded that TikTok is a social network and possesses a "social graph" in which users interact in a "shared social space" and that TikTok can be used for "personal social networking." Meta SMF ¶ 209 (citing PX9004 at ¶¶ 46, 85, 109, 226 (Lampe Rep.)). Professor Hemphill likewise conceded that TikTok has a "social graph," that "one to many communications can be sent and received over that social graph," and that TikTok is a "shared social space within which content delivery and interactions occur." *See id.* at ¶ 210 (quoting Ex. 283 at 46:16-47:10, 47:11-18 (Hemphill Dep. Tr.)). Many users have a more extensive social graph on TikTok than alleged PSN applications. *See id.* at ¶¶ 240-243 (discussing how TikTok connections include friends). [redacted] *See id.* at ¶ 241 (citing [redacted]). By comparison, Professor Hemphill calculated that [redacted], and the average number of friends per U.S. monthly active user on Snapchat was [redacted]. *See id.* (citing Ex. 279 at ¶¶ 287, 310 (Hemphill Rep.)). Extensive evidence demonstrates that TikTok possesses additional features that facilitate sharing with friends and family, and it is commonly used for that purpose. *See* Meta Resp. to Counter SMF ¶ 1055.
- Twitter: The FTC's proffered industry expert, Professor Lampe, concedes that Twitter is a social networking site that possesses a social graph, and shared social

space. *See* Meta SMF ¶ 280 (citing Ex. 90 at ¶¶ 49, 242-249 (Lampe Rep.)). Professor Lampe testified that personal social networking is "a possible use of Twitter," *id.* at ¶ 281 (quoting Ex. 281 at 340:4-8 (Lampe Dep. Tr.)), and he has no opinion that quantifies how many people use Twitter for personal social networking. *See* Ex. 281 at 340:9-14 (Lampe Dep. Tr.). Connections on the social graph on Twitter include friends. *See* Meta SMF ¶¶ 292-296, 308-309. Twitter possesses additional features that facilitate sharing with friends and family, and it is commonly used for that purpose. *See* Meta Resp. to Counter SMF ¶ 1055.

- LinkedIn: The FTC concedes that LinkedIn "has a social graph," Counter SMF ¶ 1139, has "tools to build your network connections," *id.* at ¶ 1140, and a "shared social space," *id.* at ¶ 1141. LinkedIn encourages users to employ these tools to connect with their friends and family, and networks include friends. *See* Meta SMF ¶¶ 401-407; *see also* Ex. 69 at 270:9-272:6 (Pattabiraman (LinkedIn) Dep. Tr.) (noting that the line between personal sharing and professional sharing is blurred and there is so much personal sharing that it would [redacted]). LinkedIn possesses additional features that facilitate sharing with friends and family, and it is commonly used for that purpose. *See* Meta Resp. to Counter SMF ¶ 1055.
- Nextdoor: The FTC concedes that Nextdoor "has a social graph," Counter SMF ¶ 1139, [redacted]

[redacted]. Connections on Nextdoor include friends, the application possesses additional features that facilitate sharing with friends and family, [redacted]. *See* Meta Resp. to Counter SMF [redacted].

- Pinterest: Pinterest has a "social graph" and a "shared social space" as the FTC has defined the terms. *See* Meta SMF ¶¶ 330-341; *see id.* at ¶ 330 (Professor Lampe conceding "Pinterest may check boxes that could classify it as [a social networking site]." (quoting Ex. 290 at ¶ 212 (Lampe Rep.))) Connections on Pinterest include friends. *See id.* at ¶¶ 330-340 (Pinterest connections include friends). Pinterest possesses additional features that facilitate sharing with friends and family, and it is used for that purpose. *See* Meta Resp. to Counter SMF ¶ 1055.
- YouTube: YouTube also has a "social graph" and a "shared social space" as the FTC has defined the terms. For example, users can subscribe to other users' channels. *See* Meta SMF ¶ 166. And testimony from both Meta and Google show that YouTube indeed has a social graph. *See* PX6148 at 153:11-12 (Horowitz (Alphabet) Dep. Tr.) (testifying that when he was working on YouTube "YouTube certainly had a social graph."); Ex. 139 at 125:23-126:1 (Zuckerberg IH Tr.) (testifying that "YouTube has this basic structure which is that you have creators and you have a follow graph and people subscribe to it, which there is a network structure to it"). It is also clear that YouTube has a "shared social space" as the FTC employs the term, i.e., a Feed where users can see content posted by their connections. *See* Meta SMF ¶¶ 162-163. YouTube

possesses additional features that facilitate sharing with friends and family, and it is used for that purpose. *See* Meta Resp. to Counter SMF ¶ 1055.

- Strava: [redacted]. *See* Meta SMF [redacted] *See id.* at [redacted].

a. Facebook has a friends and family social graph.

Meta Response: Disputed in part. Undisputed that users on Facebook can have social graphs that include their friends and family. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further disputed that this subparagraph creates a genuine dispute of material fact to the extent they suggest that social graphs on Facebook are limited to friends and family, or necessarily include friends or family, which is not supported by the cited materials.

i. Meta has described Facebook as a social network with "one-to-many sharing bounded by a friend graph." PX10655 at -007, Meta presentation: "Market Strategy Monthly Updates for CPS Leadership" (June 19, 2018), FB_FTC_CID_04243731.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1090 and below in Meta's response to subparagraph 1090(b). Further disputed that the statement was on behalf of Meta, and because the description misstates the document. The document states: "Feed-based social networks – one-to-many sharing bounded by a friend graph, delivered via a feed format (*e.g.* FB, LinkedIn)." *See* PX10655 at -007 (FB_FTC_CID_04243731). When

asked about the document, Mr. Patel, vice president of product strategy, explained that the description was not describing the Facebook app as a whole, as the Facebook application offers "other components, products and features." PX6051 at 45:5-47:8 (Patel Dep. Tr.). As reflected in another version of the document the FTC asked Mr. Patel about, the description of Facebook is not "MECE" (mutually exclusive collectively exhaustive), and thus "[redacted]," because, for example, "[redacted]." Ex. 471 at -581 (PX10657, FB_FTC_CID_04275580).

ii. Meta has stated that its social graph "is what makes Facebook valuable for users." PX2646, Meta document: "Recommended path for FBX and its interactions in H2 2013" (*Sept. 9, 2013), FB_FTC_CID_02466652, at -667.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1090 and below in Meta's response to subparagraph 1090(b). Further disputed that the statement was on behalf of Meta, and because this document reinforces the point that applications the FTC alleges do not provide PSNS have "social graphs" as it lists other applications with "social graphs" including "Pinterest, Tumblr, Twitter,"

and "Apple" with "iMessage." PX2646 at -667 (FB_FTC_CID_02466652).

iii. Meta has internally [redacted] PX3007, Meta document: "Facebook Reels recommended target audience" (*Jan. 12, 2022), FTC-META-006257624, at -629 ([redacted]).

Meta Response: Disputed in part. Undisputed that the document uses the word "superpower." Disputed for the reasons stated above in Meta's response to paragraph 1090 and below in Meta's response to subparagraph 1090(b). Further disputed that the statement was on behalf of Meta, and because the statement is incomplete, and because the implication the FTC attempts to draw from it is refuted by overwhelming evidence. The quoted excerpt is discussing ways Facebook [redacted]. PX3007 at -629 (FTC-META-006257624). The record unambiguously indicates [redacted]. *See* Meta SMF ¶ 11 (showing that [redacted] of impressions on Facebook Reels are from users' friends). [redacted]

[redacted]; Meta Resp. to Counter SMF ¶ 1050 (discussing TikTok's use to share with friends and family).

iv. Current TikTok Head of Operations Adam Presser testified that Facebook has a social graph, which "gives users the opportunity to participate in social networking services . . ." PX6097, Presser (TikTok) Dep. Tr., at 282:7-283:1 ("Q. From TikTok's point of view, does the Facebook app offer a core differentiated feature that differentiates the Facebook [app] from TikTok? A. Yes. I think, similarly, the Facebook app has users' social graph and gives users the opportunity to participate in social networking services that essentially keeps those users on the app to connect with their friends and community, which represents a core differentiated feature.").

Meta Response: Disputed in part. Undisputed that Mr. Presser stated that Facebook has a social graph. Disputed for the reasons stated above in Meta's response to paragraph 1090 and below in Meta's response to subparagraph 1090(b). Further disputed that Mr. Presser stated that the social graph gives users the opportunity to participate in social networking services, as evidenced by the parenthetical citation. Meta further incorporates its response to the same quotation the FTC cited in subparagraph 1058(b).

v. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1090 and below in Meta's response to subparagraph 1090(b). Further disputed on the ground that the statement is missing context and is thus incomplete. [redacted]

b. Instagram has a friends and family social graph.

Meta Response: Disputed in part. Undisputed that users on Instagram can have social graphs that include their friends and family. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further disputed that this subparagraph creates a genuine dispute of material fact to the extent it suggests that social graphs on Instagram are limited to friends and family, or necessarily include friends or family, which is not supported by the cited materials.

i. Instagram offered a social graph built on connections with a users' friends and family "immediately" upon its launch. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 14:8-12 ("Q. At what point would you say Instagram had a social graph? A. Immediately. Because people were able to follow their friends and others from the second we launched the app."); PX6027, Systrom (Meta/Instagram) IH Tr., at 73:21-74:3 (users used Instagram to share their daily lives "primarily with their friends and family").

Meta Response: Disputed in part. Undisputed that Instagram allowed users to have a social graph to connect with their friends and family. Disputed for the reasons stated above in Meta's responses to paragraph 1090 and subparagraph 1090(b).

ii. Meta has described Instagram as a social network with "one-to-many sharing bounded by a friend graph." PX10655 at -007, Meta presentation: "Market Strategy Monthly Updates for CPS Leadership" (June 19, 2018), FB_FTC_CID_04243731.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1090 and subparagraph 1090(b). Further disputed that the statement was on behalf of Meta, and because the description misstates the document. The document states: "Story-based social networks – one-to-many sharing bounded by a social graph, delivered via a stories format (e.g. Instagram, Snapchat)." *See* PX10655 at -007 (FB_FTC_CID_04243731). When asked about this statement in

the document, Mr. Patel, vice president of Product Strategy, explained that it is not characterizing Instagram as a whole "because obviously, a lot of the content on Instagram is not bounded by a friend graph." PX6051 at 45:5-47:8 (Patel Dep. Tr.). As reflected in another version of the document the FTC asked Mr. Patel about, the description of Instagram and other applications is not "MECE" (mutually exclusive collectively exhaustive), and thus [redacted] because, for example, [redacted] *See* Ex. 471 at -581 (PX10657, FB_FTC_CID_04275580).

iii. Current TikTok Head of Operations Adam Presser testified that Instagram has a social graph which represents a "core differentiated feature." PX6097, Presser (TikTok) Dep. Tr, at 282:7-283:1 ("Q. From TikTok's point of view, does Instagram offer a core differentiated feature? . . . [A.] Yes. Presumably, Instagram's social graph or the social network that users have on Instagram of their friends and community represents a differentiated feature.").

Meta Response: Disputed in part. Undisputed that Mr. Presser testified that Instagram has a social graph. Disputed for the reasons stated above in Meta's responses to paragraph 1090 and subparagraph 1090(b). Further disputed that the subparagraph accurately reflects what Mr. Presser stated.

As the parenthetical citation reflects, Mr. Presser stated that "Instagram's social graph or social network that users have on Instagram of their friends and community represents a differentiated feature," not a "core differentiated feature." PX6097 at 282:7-283:1 (Presser (TikTok) Dep. Tr.). The evidence clearly indicates that TikTok shares the same differentiated feature of Instagram. *See* Meta SMF ¶¶ 209-210 (FTC's proffered experts conceding that TikTok has social graph that is used for social networking), [redacted]; Meta Resp. to Counter SMF ¶ 1050 (discussing TikTok's use to share with friends and family).

c. Snapchat has a friends and family social graph. PX6119, Andreou (Snap) Dep. Tr., at 181:15-182:11 (testifying that Snapchat has a social graph, has always had a social graph, and defined a social graph as "a collection of edges and nodes where the nodes represent individuals and the edges represent some sort of connection between those individuals, most often a friend link, but also in the case of some products, a combination or different types of friend links").

Meta Response: Disputed in part. Undisputed that users on Snapchat can have social graphs that include their friends (or hypothetically) their family. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further disputed to the extent the statement suggests that social graphs on Snapchat are limited to friends and family, or necessarily include friends or family, which is not supported by the cited materials. Further disputed that this subparagraph

supports the statement in paragraph 1090 that Snapchat has a social graph that is "centered" on friends and family; the cited excerpt does not discuss family at all.

d. MeWe has a friends and family social graph. [redacted] (MeWe has "a social graph that maps the connections between users and their friends, family, and other personal connections").

Meta Response: Disputed in part. Undisputed that users on MeWe can have social graphs that could include their friends or family. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further disputed to the extent the statement suggests that social graphs on MeWe are limited to friends and family, or necessarily include friends or family, which is not supported by the cited materials. As stated above, further disputed that this subparagraph supports the statement in paragraph 1090 that MeWe has a social graph that is "centered" on friends and family.

e. Now defunct PSN apps have had friends and family social graphs.

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 1090 and in the subparagraphs below.

i. Friendster had a friends and family social graph. PX2614, Meta email chain: [redacted] to A. Vora, et al. re: "Friendster supports FB platform" (Oct. 3, 2008), FB_FTC_CID_01833667, at -669 (forwarding a PRNewswire alert noting that Friendster enabled users "to connect with friends, family, school, social graph, activities, and interests").

Meta Response: Disputed in part. Undisputed that users on Friendster could have social graphs that could include their friends or family. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further disputed to the extent the statement suggests that social graphs on Friendster were limited to friends and family, or necessarily included friends or family, which is not supported by the document. Further disputed that this subparagraph supports the statement in paragraph 1090 that Friendster had a social graph that is "centered" on friends and family. Further disputed because the FTC misquotes the document – the document says "social groups," not "social graph." PX2614 at -669 (FB_FTC_CID_01833667).

ii. Myspace had a friends and family social graph. [redacted]

Meta Response: Disputed in part. Undisputed that users on Myspace could have social graphs that could include their friends or family. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further disputed to the extent the statement suggests that social graphs on Myspace were limited to friends and family, or necessarily included friends or family, which is not supported by the document. Further disputed that this subparagraph supports the statement in paragraph 1090 that Myspace had a social graph that is "centered" on friends and family; the cited excerpt [redacted].

iii. Google+ had a friends and family social graph. PX6148, Horowitz (Google) Dep. Tr., at 66:10-66:16 ("Q. Was building a social graph one of Google+'s primary aims? A. Yes. Q. And was building a social graph of people that users knew also one of Google+'s primary aims? A. Yes.").

Meta Response: Disputed in part. Undisputed that users on Google+ could have social graphs that could include their friends or family. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further disputed to the extent the statement suggests that social graphs on Google+ were limited to friends and family, or necessarily included friends or family, which is not supported by the cited document. Further disputed that this subparagraph supports the statement in paragraph 1090 that Google+ had a social graph that is "centered" on friends and family; the cited excerpt does not reference friends or family at all.

iv. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1090. Further

disputed to the extent the statement suggests that social graphs on [redacted] were limited to friends and family, or necessarily included friends or family, which is not supported by the cited document. Further disputed that this subparagraph supports the statement in paragraph 1090 that [redacted] had a social graph that is "centered" on friends and family.

(2) PSN apps have tools to foster building network connections with friends and family.

1091. PSN apps additionally have tools that encourage and enable users to build their network connections with friends and family. PX9000, Hemphill Report at ¶ 231; PX9004, Lampe Report at ¶¶ 85-90.

Meta Response: Disputed in part. Undisputed that Facebook, Instagram, Snapchat, and MeWe have tools that enable users to build their network of connections with friends or family, among other connections. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that alleged PSN applications' alleged possession of tools that allow users to build their network of connections with friends and family is relevant to substitution. On the contrary, all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Further disputed that the statement creates a genuine dispute of material fact to the extent it suggests that applications the FTC excludes from its market definition do not have tools that encourage and enable users to build their network connections with friends and family. The record indicates that many applications the FTC excludes from its market definition have tools

that encourage and enable users to build their network connections with friends and family. *See* Meta Resps. to Counter SMF ¶¶ 1055, 1090 (detailing extensive evidence of such tools on applications the FTC excludes from its market that encourage and enable users to build their network connections with friends and family); *see also id.* at [redacted], [redacted] (additional details regarding [redacted] tools), [redacted] (additional details regarding [redacted] tools), ¶¶ 1173, 1183 (additional details regarding YouTube tools), ¶¶ 1195, 1209 (additional details regarding TikTok tools), ¶¶ 1219, 1229 (additional details regarding Twitter tools), ¶¶ 1255, 1267 (additional details regarding Pinterest tools). The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1092. Facebook has tools to enable and encourage users to build network connections with friends and family.

Meta Response: Disputed in part. Undisputed that Facebook has tools that enable users to build their network of connections with friends or family, among other connections. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1091.

a. Facebook uses a tool called "People You May Know," which recommends potential friends to users (based on friends in common) to broaden their personal networks. PX6069, Alison (Meta) Dep. Tr, at 156:2-13 ("Q. What is the people you may know feature on Facebook? A. People you may know is a feature that suggests friends to you based on people we think you may know and want to be friends with on Facebook. Q. Is people you may know an important feature for

users to find and connect with real life friends on Facebook? A. Yes, I believe people you may know is an important feature for people to connect with their friends on Facebook.”).

Meta Response: Undisputed that Facebook recommends accounts to users, including people they may know in real life and professional accounts they may be interested in.

b. Facebook encourages users to provide their real identity when they sign up for the app, making it easier for a user seeking additional connections to find their real-life friends and family. PX6069, Alison (Meta) Dep. Tr., at 196:21-197:2 (“Q. For ordinary personal Facebook accounts, users use – are required to use their real identities; correct? A. Yes. We don’t strongly verify their driver’s license or anything, but we do try to enforce what we call a real name policy.”).

Meta Response: Disputed in part. Undisputed that Facebook encourages users to provide their real identity when they sign up for the app. Disputed for the reasons stated above in Meta’s response to paragraph 1091, and because Mr. Alison also explained that Facebook allows users to use a “pseudonym,” PX6069 at 203:25-204:1-13 (Alison Dep. Tr.), and has various features to be able to post in groups anonymously. *See id.* at 54:19-55:6.

c. Facebook enables and has encouraged its users to import their contacts from their smartphone’s address book. PX3182, Meta email chain: [redacted] to Growth Leads, Growth-PM, and GCS Engineering re: “Growth Infra HPM 11.18.2016,” (Nov. 21, 2016), FB_FTC_CID_02387838, at -839 (“Continuous phone book upload provides ongoing access to a user’s contacts on their phone. Contacts

improve our ability to make relevant friend recommendations, expand phone and email coverage thru inference, and target ads based on Custom Audiences. Currently, a user can provide us with permission to access this data during registration, through a few hard-to-reach organic entry points or quick promotion campaigns.”).

Meta Response: Undisputed.

1093. Instagram has tools to enable and encourage users to build network connections with friends and family.

Meta Response: Disputed in part. Undisputed that Instagram has tools that enable users to build their network of connections with friends or family, among other connections. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 1091.

a. Instagram users can search by name or username to find individual profiles, or they can import their contacts from their device’s address book or an existing Facebook account to find friends. PX6027, Systrom (Meta/Instagram) IH Tr., at 89:12-90:14.

Meta Response: Disputed in part. Undisputed that users can search by name or username to find individual profiles, or they can import their contacts from their device’s address book or an existing Facebook account to find friends. Disputed for the reasons stated above in Meta’s response to paragraph 1091. Additionally, Meta notes that about half of Instagram users do not use their real name on their handle. *See* Ex. 143 at 190:25-191:14 (Mosseri Dep. Tr.).

b. Like Facebook, Instagram suggests accounts to users that it believes the user will be interested in. PX6078, Mosseri (Meta) Dep. Tr., at 257:14-258:25.

Meta Response: Undisputed that Instagram suggests accounts that users might be interested in following, including the people they do not know in real life based on a user's interests.

c. Instagram's social graph has always been traversable; this facilitates the formation of additional connections as users can more readily identify people that they know and want to connect with. PX6015, Krieger (Meta/Instagram) IH Tr., at 48:7-19.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1091, and because the cited testimony does not support the statement in this subparagraph that Instagram's social graph has been or is traversable. Rather, it discusses ways users could find other users on the application, and does not include traversability (i.e., the display of other users' connections).

1094. Snapchat has tools to enable and encourage users to build network connections with friends and family.

Meta Response: Disputed in part. Undisputed that Snapchat has tools that enable users to build their network of connections with friends or family, among other connections. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1091.

a. Snapchat recommends individuals to a user that Snapchat believes the user may know. PX6119, Andreou (Snap) Dep. Tr., at 183:3-187:16 (Snapchat "suggests

people that you may want to add" through "a combination of like mutual friends, mutual address books, people who just joined the service."). Snapchat does this through a feature called Quick Add. *Id.*

Meta Response: Undisputed.

b. Snapchat also encourages users to use their real name, and many do so. PX6119, Andreou (Snap) Dep. Tr., at 189:19-191:2; PX9000, Hemphill Report at ¶ 301.

Meta Response: Disputed in part. Undisputed that Snapchat's website help center explains that users can add a display name, and that Mr. Andreou testified that "a lot" of users use their real name along with "users that change their user names to all sorts of wacky things." PX6119 at 189:19-191:2 (Andreou (Snap) Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 1091. Further disputed on the basis that "many" is vague. *See also* Ex. 281 at 315:3-316:15 (Lampe Dep. Tr.) (conceding that Snap profiles provide less discoverability than Twitter and TikTok profiles).

1095. MeWe has tools to build network connections with friends and family. PX8006, Declaration of Mark Weinstein (MeWe) (Apr. 24, 2023), at ¶ 11 (MeWe has "features that allow users to find and connect with other users, to make it easier for each user to build and expand their set of personal connections.").

Meta Response: Disputed in part. Undisputed that MeWe has tools that enable users to build their network of connections with friends or family, among other connections. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1091.

1096. Now defunct PSN apps had tools to build network connections with friends and family.

Meta Response: Disputed in part. Undisputed that now-defunct apps had tools that enabled users to build their network of connections with friends or family, among other connections. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1091. Further disputed because the tools described in the subparagraphs below are less extensive than the tools for "build[ing] network connections with friends and family" possessed by applications that the FTC excludes from its PSN app market. *See* Meta Resp. to Counter SMF ¶ 1090 (describing comparable features for alleged non-PSN apps). For example, the only tool identified for Friendster below is a profile.

a. Friendster had tools to build network connections with friends and family. PX2775 at -058, Meta presentation: "Friendster" (*Oct. 15, 2007), FB_FTC_CID_08654629 (stating that "Friendster includes most of FB's core [social networking service] functionality," such as highly customizable profiles).

Meta Response: Disputed in part. Undisputed that Friendster had tools for connecting with friends and family. Disputed for the reasons stated above in Meta's responses to paragraphs 1091 and 1096.

b. Myspace had tools to build network connections with friends and family. PX6066, DeWolfe (Myspace) Dep. Tr., at 152:1-153:14 (Myspace offered features to compete with Facebook and encouraged users to use their real identity to "make it easier to find their friends and others that they wanted to find.").

Meta Response: Disputed in part. Undisputed that Myspace had tools for connecting with friends and family. Disputed for the reasons stated above in Meta's responses to paragraphs 1091 and 1096.

c. Google+ had tools to build network connections with friends and family. PX6148, Horowitz (Google) Dep. Tr., at 29:9-30:12 (Google attempted to add social features as "part of Google+'s mission was to help users find and connect to others across the entirety of Google's services.").

Meta Response: Disputed in part. Undisputed that Google+ had tools for connecting with friends and family. Disputed for the reasons stated above in Meta's responses to paragraphs 1091 and 1096.

d. [redacted]

Meta Response: Disputed in part. [redacted] Disputed for the reasons stated above in Meta's responses to paragraphs 1091 and 1096.

(3) PSN apps deliver engagement with friends and family in a shared social space.

1097. A core value proposition of PSN services is the ability to maintain relationships and share communally, keeping up with and sharing with friends and family together. *Supra* CMF at § II.A.2; PX9000, Hemphill Report at ¶ 233; PX9004, Lampe Report at ¶¶ 91-93; PX6022, Sandberg (Meta) IH Tr., at 45:2-45:7 (Facebook allows people to stay

connected with friends and family through the "News Feed" where users can see all of the posts in one place.).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that alleged PSN applications' purported value proposition of relationship maintenance with friends and family is relevant to substitution. Further disputed because the cited paragraph in Professor Hemphill's report does not discuss alleged PSN applications, core value propositions, or cite any evidence, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The cited paragraphs in Professor Lampe's report, and the cited excerpt of testimony from Ms. Sandberg, do not opine about core value propositions of alleged PSN apps, or cite any evidence relating to a core value proposition. To the extent the FTC incorporates its statements in Section II.A.2, Meta incorporates its responses to those statements here. Extensive evidence indicates that Facebook and Instagram offer users many services, that connecting with friends and family is a small portion of use today, and that Facebook and Instagram face vigorous competition from applications the FTC excludes from its alleged market. *See*, *e.g.*, Meta SMF ¶¶ 533-566 (all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app), ¶¶ 189-196, 200-202 (competition with YouTube), ¶¶ 254-256, 267-270 (competition with TikTok), ¶¶ 316-319, 324-326 (competition with Twitter), [redacted], ¶¶ 342-358 (competition with Pinterest), [redacted], ¶¶ 390-398 (competition with Reddit), [redacted]. The FTC's use of "PSN app" is further

disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1098. Accordingly, PSN apps have shared social spaces that deliver friends and family content to each user and allow each user to share and discuss content with friends and family. *Infra* CMF at ¶¶ 1099-1104.

Meta Response: Disputed in part. Undisputed that applications the FTC alleges are PSN applications have what could be described as a "shared social space" that could contain content posted by a user's friend – along with other content – and which allow users to share and discuss content with friends and family (although many users do not). Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that PSN applications' alleged possession of such a shared social space is relevant to substitution. Further disputed to the extent the statement suggests that applications the FTC excludes from its market definition do not also offer shared social spaces meeting these criteria. For the reasons stated above in Meta's responses to paragraph 1055 and 1090, many applications the FTC excludes from its "PSNS" market definition possess shared social spaces, including TikTok, YouTube, Twitter, [redacted], LinkedIn, Pinterest, and [redacted]. *See* Meta Resp. to Counter SMF [redacted]. To the extent this paragraph incorporates the FTC's statements in paragraphs 1099-1104, Meta incorporates its responses to those statements here. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1099. Facebook provides a shared social space that delivers and allows people to share personal content with friends and family.

Meta Response: Disputed in part. Undisputed that Facebook has what could be described as a "shared social space" that can deliver and allow people to share personal content with friends and family. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1098. Further disputed under Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h) to the extent this statement refers to anything beyond Feed on Facebook as a "shared social space." because the material cited in the subparagraphs below only relates to Feed.

a. Current Vice President of Engineering, Lars Backstrom testified that the feed on Facebook allows a form of broadcast sharing between a user and their connections. PX6093, Backstrom (Meta) Dep. Tr., at 5:23-25, 32:2-7.

Meta Response: Undisputed that the witness provided the paraphrased testimony.

b. Mr. Zuckerberg explained in 2013 that "One of the most important services we build is News Feed. It brings all of the things your friends are doing and sharing and puts them right in front of you." PX1620, Meta email chain: M. Zuckerberg to C. Cox re: "Litestand script" (Mar. 4, 2013), FB_FTC_CID_06000355, at -356.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the quoted language omits context from the same email. Mr. Zuckerberg went on to explain that News Feed was undergoing "[a]nother big shift" from "almost entirely content from your friends" to "more than 25% of all stories [being] from pages and public figures that people follow." PX1620 at -356 (FB_FTC_CID_06000355).

c. Mr. Mosseri wrote in 2016 that "Facebook was built on the idea of connecting people with their friends and family. That is still the driving principle of News Feed today. Our top priority is keeping you connected to the people, places and things you want to be connected to – starting with the people you are friends with on Facebook." PX0048 at -002, Adam Mosseri, *Building a Better News Feed for You,* Facebook (June 29, 2016), https://about.fb.com/news/2016/06/building-a-better-news-feed-for-you/.

Meta Response: Undisputed that the document contains the quoted language.

1100. Instagram provides a shared social space that delivers and allows people to share personal content with friends and family. PX6027, Systrom (Meta/Instagram) IH Tr., at 52:15-25 (Instagram instituted a feed to enable users to "within a handful of second[s], [to] be able to browse all the new photos that your friends have shared in one place.").

Meta Response: Disputed in part. Undisputed that Instagram has what could be described as a "shared social space" that can deliver and allow people to share personal content with friends and family. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1098. Further disputed under Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h) to the extent this statement refers to anything beyond Feed on Instagram as a "shared social space," because the material cited only relates to Feed.

1101. Snapchat (since the launch of Stories) provides a shared social space that delivers and allows people to share personal content with friends and family. PX6119, Andreou

(Snap) Dep. Tr., at 196:11-198:5 (Snapchat developed Stories because "we heard from our community that they wanted a way to communicate to all of their friends at once.").

Meta Response: Disputed in part. Undisputed that Snapchat has what could be described as a "shared social space" that can deliver and allow people to share personal content with friends and family. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1098. Further disputed to the extent the statement suggests that group messaging on [redacted] (and all other applications that offer messaging) does not qualify as a "shared social space," as Professor Hemphill conceded group messaging is a shared social space. *See* Meta SMF [redacted].

1102. MeWe provides a shared social space that delivers and allows people to share personal content with friends and family. PX8006, Declaration of Mark Weinstein (MeWe) (Apr. 24, 2023) at ¶¶ 5, 11 (MeWe has features that "users regularly employ to interact in a shared social space," including a newsfeed for contacts and close friends.).

Meta Response: Disputed in part. Undisputed that MeWe has what could be described as a "shared social space" that can deliver and allow people to share personal content with friends and family. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1098.

1103. Now-defunct PSN apps had shared social spaces for friends and family sharing.

Meta Response: Disputed in part. Undisputed that applications the FTC alleges are now-defunct PSN applications had what could be described as a "shared social space" that could deliver and allow people to share personal content with friends and family. Disputed that the statements in this paragraph and its subparagraphs create a genuine

dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1098. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Friendster maintained a "bulletin board," which appeared on a user's profile page and gave them the ability to display a message to users who visited their page; and testimonials, which users could write for or about other users, and would then appear on the testimonial recipient's profile page. PX9000, Hemphill Report at ¶ 336. Friendster's bulletin board and testimonials constituted a form of one-to-many broadcasting. *Id.* at ¶ 337. The bulletin board feature shared some similarities with the modern stories feature on many social media services, and the testimonials feature is somewhat akin to writing on someone's Facebook wall. *Id.*

<u>Meta Response</u>: Disputed in part for the reasons stated above in Meta's responses to paragraphs 1098 and 1103.

b. Myspace provided users the ability to broadcast to their social network. PX6066, DeWolfe (Myspace) Dep. Tr., at 142:17-143:1. Myspace also added a content stream of activity from each user's connections. PX9004, Lampe Report at ¶ 123.

<u>Meta Response</u>: Disputed in part for the reasons stated above in Meta's responses to paragraphs 1098 and 1103.

c. Google+ provided a feed (or "stream") of posts that was delivered to users who used the feed to broadcast and receive personal updates to or from their friends and family. PX6148, Horowitz (Google) Dep. Tr., at 92:12-93:14.

Meta Response: Disputed in part for the reasons stated above in Meta's responses to paragraphs 1098 and 1103.

d. [redacted]

Meta Response: Disputed in part for the reasons stated above in Meta's responses to paragraphs 1098 and 1103.

1104. Foreign-based PSN apps, though small in the U.S., have friends and family social graphs, tools to foster building network connections, and deliver engagement in a shared social space, although the manner in which "profiles, connection tools, and activity streams are designed and utilized may be malleable, to a degree, across different international populations and geolocational norms." PX9004, Lampe Report at ¶ 100. *See generally infra* CMF at §§ III.C.1.(c) (discussing WeChat, LINE, and Kakao pivots into PSNS); PX9004, Lampe Report at ¶¶ 100-104; PX9000, Hemphill Report at ¶ 968.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that alleged PSN applications' alleged possession of the characteristics described is relevant to substitution. Further disputed because the statement does not identify what alleged "[f]oreign-based PSN apps" it is referring to or which specific features it claims apply to each of those apps. To the extent the it incorporates the FTC's statements in Section III.C.1.(c), Meta incorporates its responses to those statements here. The FTC's use of

"PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c) There is "industry [and] public recognition" of PSN services.

1105. There is "industry [and] public recognition" of both friends and family sharing as a distinct form of consumer demand and product offering, and of the fact that PSN apps serve that demand. *Infra* CMF at ¶¶ 1106-1118.

Meta Response: Disputed. Disputed that this statement and the materials cited in the cross-referenced statements create a genuine dispute of material fact, including because the FTC provides no evidence that the purported "industry [and] public recognition" it describes is relevant to substitution. Further disputed that the statement creates a genuine dispute of material fact relating to recognition of its alleged market because the statement cites no evidence as required by Federal Rule of Civil Procedure 56(c) and Local Rule 7(h). To the extent the FTC incorporates the materials cited in paragraphs 1106-1118 below, Meta incorporates its responses to those paragraphs.

Further disputed because the FTC has defined its market as limited to four active services while including every activity on those four services in the alleged market (other than Facebook Dating). *See* Meta SMF ¶¶ 578-585, 620-626; Ex. 291 at 27-30, FTC's Resp. to Meta's Interrog. Nos. 13-14 (FTC's Suppl. Objs. & Resps. to Meta's Second Set of Interrogs. (Jan. 24, 2023)) (all activities on Snapchat are personal social networking); Ex. 461, FTC's Resp. to Meta's Interrog. No. 23 (FTC's Suppl. Objs. & Resps. to Meta's Third Set of Interrogs. (June 7, 2023)) (confirming FTC's position on Snapchat). Out of millions of documents and testimony of dozens of party and nonparty witnesses, there is no recognition of a "PSNS" market limited to the four active services the FTC identifies, *see*, *e.g.*, Meta SMF ¶¶ 463-477, and no recognition that competition for all of the

activities on Facebook and Instagram does not include competitors other than Snapchat and MeWe. Nor is there any recognition that Snapchat and MeWe pose more significant competitive restraints on Facebook and Instagram for what the FTC includes as PSNS on Facebook and Instagram than applications that the FTC excludes from its market definition. On the contrary, there is widespread recognition that competition includes competitors outside the PSNS market, and that Facebook and Instagram's competition with alleged non-PSNS providers is more significant than competition with Snapchat and MeWe. Indeed, there is extensive evidence of competition and recognition of such competition between Facebook and Instagram and services like YouTube (Meta SMF ¶¶ 181-203), TikTok (*id.* at ¶¶ 244-271), Twitter (*id.* at ¶¶ 311-326), [redacted] (*id.* at [redacted]), iMessage and Google Messages (*id.* at ¶¶ 420-460), Pinterest (*id.* at ¶¶ 343-358), [redacted] (*id.* at [redacted]), Reddit (*id.* at ¶¶ 380-382), and many more (*id.* at [redacted]). And Snapchat's documents and testimony make clear that it faces vigorous competition from applications the FTC excludes from the market. *See id.* at ¶¶ 498-520; *see also* Ex. 1 at § 3(a) (Ghose Rep.) (explaining that the proposed PSNS market does not have industry or public recognition). The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

(1) Recognition of a distinct consumer demand and product offering.

1106. As indicated above, Meta and other firms recognize a distinct demand for friends and family sharing. *Supra* CMF at § II.A.2.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that purported recognition

of a distinct demand for friends and family sharing is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1105. Further disputed because this statement does not cite any evidence in support of the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). To the extent the FTC incorporates its statements in Section II.A.2, Meta incorporates its responses to those statements here.

1107. Additionally, Meta recognizes social networking for friends and family as a distinct type of product offering. *Supra* CMF at §§ II.A.2, II.A.3.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that purported recognition of social networking for friends and family as a distinct type of product offering is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1105. Further disputed because this statement does not cite any evidence in support of the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). To the extent the FTC incorporates its statements in Sections II.A.2 and II.A.3, Meta incorporates its responses to those statements here.

1108. Online platforms distinguish between personal social networking offerings and other social media or online product offerings. *See* PX9010, Lampe Rebuttal Report ¶ 26.

Meta Response: Disputed. Disputed that the statements and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that purported distinguishing between personal social networking offerings and other offerings is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1105. Further disputed because this statement does not cite any evidence in

support of the assertion in this paragraph and its subparagraphs, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The cited materials in Professor Lampe's report and the subparagraphs below do not distinguish between alleged personal social networking offerings and other offerings as a distinct market of product offerings; at most, they describe points of differentiation between one aspect of one of the services or some subset of the services the FTC includes in its relevant market and a service that the FTC excludes from its alleged market. Further disputed on the ground that "personal social networking offerings" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. In a 2018, email circulating responses to a Q&A, former Twitter founder and then-CEO Jack Dorsey characterized Facebook as a "personal social network," in contrast to Twitter. PX7070, Twitter email: J. Dorsey to Twitter re: "EPDR questions #oneteam," (Aug. 3, 2018), TWTR-META00147364, at -371 ("Besides facilitating public conversation, do you think we should serve personal social network (conversation among acquaintances) as well? Yes, but we have to pick one to optimize for. There's already a service out there that does personal network well, so let's focus on our strength of interest network.")

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1108. Further disputed because the quoted language does not support the statement in this subparagraph. As evidenced by the quotation in the parenthetical, the email in question does not describe Facebook as a personal

social network; it states that one thing Facebook does well is facilitate conversations among acquaintances, and concludes that Twitter should continue to serve that same use case as well. *See* PX7070 at -371 (TWTR-META00147364).

b. Keith Coleman, Vice President of Products at Twitter, testified that "Facebook, Instagram and Snap, they're all used . . . primarily to see what friends and family are doing. Twitter is mainly used to see what's happening in the world and what people think about it." PX6144, Coleman (Twitter) Dep. Tr., at 16:15-16, 120:14-21.

Meta Response: Disputed in part. Undisputed that Mr. Coleman provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1108. Further disputed because the cited excerpt lacks context and is misleading, as Mr. Coleman also testified that "shar[ing] with their friends and family" was a "value proposition" of Twitter. PX6144 at 40:9-41:2 (K. Coleman (Twitter) Dep. Tr.), 116:18-117:6 (answering "what features on Twitter would help users stay up to date with their friends" with "[y]ou could use the features – like you could post Tweets and read Tweets and reply. And those could be – like if you were following all – if you were following a group of friends, you would see whatever they were saying or talking about."), [redacted] ("There's obviously like – there are some people who

follow their friends on Twitter."). He also testified that sharing with friends and family over group messaging – which Twitter offers – has become increasingly popular. *See id.* at 99:1-101:7 ("Group messaging has also become popular in this time frame too . . . like Twitter has DMs where you can do a certain amount of group messaging. Instagram has a feature like that. Facebook has a feature like that. So there's a variety of options for group messaging."). [redacted]

Further disputed that this statement creates a genuine dispute of material fact regarding whether Facebook, Instagram, and Twitter share a common use of "see[ing] what's happening in the world." The evidence indicates extensive competition between Twitter and Facebook and Instagram for this purpose. *See* Meta SMF ¶¶ 311-326. Additionally, Mr. Coleman testified that both Facebook and Instagram are used for this purpose. *See* PX6144 at 45:11-47:4 (K. Coleman (Twitter) Dep. Tr.) (agreeing Facebook competed with Twitter and "was trying to build products similar to Twitter"), 121:16-122:5 ("I think [Instagram has] evolved to be increasingly a place where you can see interests and you can follow interests. . . . [I]t has definitely expanded over time to be a place where you can follow interests."); PX6145 at 533:11-20 (K. Coleman (Twitter) Dep. Tr.) (agreeing "Twitter and Instagram both offer competing services for th[e] use case" of "staying up to date with celebrities"), 542:11-544:14 ("fair statement" that "Facebook . . . [was a] competitor[ ] to some degree with Twitter for the use case of staying up to date on news"), 544:16-546:7 (same for "current events"),

546:9-547:15 (same for "pop culture"), 547:18-549:2 (same for "staying up to date with celebrities" and including Instagram), 551:3-13 (agreeing that "Twitter currently competes with Instagram with respect to the use case of staying up to date with celebrities and pop culture"), 554:7-555:8 (same for "influencers and experts" and agreeing that Instagram is the "best in serving that need" other than Twitter).

c. Mr. Coleman testified that who users:

> are staying connected with is probably very different based on the platform. You know, again, I expect that people on Twitter are staying connected with others who share an interest. And on Snap, Instagram and Facebook, I assume that the bulk of who they are staying connected with is people they know in real life, like their friends and family.

PX6144, Coleman (Twitter) Dep. Tr., at 163:5-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1108 and subparagraph 1108(b).

d. In 2020, TikTok stated to the European Commission that "'social networking services' can be differentiated depending on their intended use and user base"—for example, distinguishing "personal social networking services" like Facebook and Instagram from "professional social networking services" like LinkedIn. PX13581, TikTok document: "ByteDance Response to European Commission Request for Information – Case At.40628 – Facebook" (*June 12, 2020), TIK-00000001, at -010-11.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to

paragraph 1108. Further disputed because the characterization of the document is incomplete and misleading. The cited document, instead, offers a high-level response to a question from the European Commission, in which the European Commission had already labeled Facebook a social network and asked how "personal" social networks can be distinguished from "professional ones." PX13581 at -010 (TIK-00000001). The document does not indicate that TikTok distinguishes services on this basis in the ordinary course of business. In response, TikTok responded that distinctions can be drawn between apps that promote "interpersonal contact for private and entertainment purposes" and those that "are used for professional purposes," but "note[d] that there is an increasing overlap in the use cases offered." *Id.* Moreover, TikTok described only two of the four apps the FTC claims are PSNS market participants as "personal social networking services" – omitting Snap and MeWe – and included QZone, which is not in the FTC's alleged PSNS market. *Id.* at -011. Further, while TikTok described how it "believe[d]" users use "social networking services," it qualified its answer, explaining that "[w]e have not conducted studies on this question nor are we aware of such studies." *Id.* at -005. TikTok also stated that "users of 'personal social networking services' multi-home and use a variety of such services." *Id.* at -018.

Further disputed for the reasons stated above in Meta's response to paragraph 1108 and disputed that the cited material creates a genuine dispute of material fact relating to the scope of competition between Meta's services and TikTok's services. Extensive evidence indicates that TikTok perceives Instagram

and Facebook as [redacted] competitors. *See* Meta SMF ¶¶ 244-271. Moreover, the FTC has conceded that TikTok can be used for "personal social networking." *See id.* at ¶¶ 209-210.

e. In 2020, TikTok explained to the European Commission in its view that TikTok does not qualify as "social networking services" because "[t]he predominant form of user interaction within those services [TikTok and Vigo Video] is not network-driven," but instead "to entertain users through allowing them to view, create, and share short videos directly from their smartphones." *Id.* at -008.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1108 and subparagraph 1108(d).

f. Vanessa "V" Pappas, former COO at TikTok, distinguished TikTok's offering from personal social networking in deposition testimony: "[W]hen you open the app [TikTok], you're experiencing content without having to have uploaded your contacts, to have a set of followers, which is very distinct to a social network where content is discovered because of that network of your family, your friends, and who you follow." PX6135, Pappas (Tiktok) Dep. Tr., at 14:10-15:2.

Meta Response: Disputed in part. Undisputed that V Pappas provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1108. Further disputed that the cited material supports the statement. V Pappas was not distinguishing TikTok from "personal social networking" or "personal social network services" – that terminology, which has no recognition in the industry, was not referenced in her deposition. *See* PX6135 at 14:10-15:2

(Pappas (TikTok) Dep. Tr.). Further disputed that this subparagraph creates a genuine dispute of material fact relating to the use of TikTok for sharing with friends and family. Extensive evidence shows that TikTok facilitates sharing with friends and family and that it is commonly used for that purpose. *See* Meta Resp. to Counter SMF ¶ 1195; Meta SMF ¶¶ 208-243. To the extent relevant, even the surveys the FTC relies on show that a significant portion of users use TikTok for friends and family sharing. *See* Meta Resp. to Counter SMF ¶ 1202. Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and TikTok. *See* Meta SMF ¶¶ 244-270 (discussing extensive evidence of competition between Facebook and Instagram and TikTok), ¶¶ 533-566 (discussing substantial empirical evidence that users switch between Facebook and Instagram and an array of apps the FTC does not consider PSN services, including YouTube and TikTok).

g. Blake Chandlee, President of Global Business Solutions at TikTok, likewise distinguished TikTok's offering from that of Facebook and Instagram: "I think the basic premise and the underlying business [of Facebook] is geared around the social graph . . . and that is core to the value proposition that both Facebook and Instagram present to their users. And that is the definition of social platform. You know, we [TikTok] are . . . an interest or a content graph platform versus social platform. So our content doesn't rely on relationships between friends and family, it relies on our interests. And so they're very different in their . . . utility to users." PX6160, Chandlee (TikTok) Dep. Tr., at 17:7-21.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1108 and subparagraph 1108(f). Further disputed – including for the reasons stated in that paragraph and subparagraph – that the statement creates a genuine dispute of material fact relating to whether TikTok understands that Facebook and Instagram are used for many things other than sharing with friends and family and that TikTok and Facebook are [redacted] competitors. For example, [redacted]. *See* Meta SMF ¶ 268 (quoting Ex. 25 at 37:16-38:5 (Pappas (TikTok) Dep. Tr.)). Mr. Chandlee agreed that the "Reels" was a competitive response by Facebook to TikTok, and that it "has very similar characteristics" to TikTok. *See id.* (quoting Ex. 36 at 68:16-21 (Chandlee (TikTok) Dep. Tr.). [redacted], *see id.* at [redacted]. *See id.* at ¶¶ 254-256, 267-271. Further disputed that the cited quotation is incomplete and misleading. After the words "geared around the social graph," the transcript reads, "which is you know, which is, you know, individuals' connections with friends, family, *businesses, brands, whatever it might be.*" PX6160 at 17:9-13 (Chandlee (TikTok) Dep. Tr.) (emphasis added).

h. Pinterest explained [redacted] that:

> [T]he defining purpose of a social network is to connect the user with other people[;] . . . the primary value a social

> network delivers is creating a connection for communication among predetermined groups[; and] . . . the key focus of the social networking service is providing a platform for people to connect with predetermined groups of other people.

PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -369.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1108. Far from supporting the FTC's four firm market definition of personal social network services, the cited document directly undermines it and demonstrates a lack of industry recognition. Ms. Roberts testified that "TikTok, Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of social networks as it was being used in this quote. Ex. 45 at 427:21-427:22 (Roberts (Pinterest) Dep. Tr.). Additionally, Pinterest stated in the same document that it would *not* classify Instagram or Snapchat as a "personal" social network, but as a "Celebrity/Influencer" social network in the same category as TikTok. PX7034 at -378 (FTC-PINTEREST-00001366). Ms. Roberts testified that Pinterest agrees with that characterization in the United States today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

i. Pinterest explained [redacted] in 2020 that "social networks can be distinguished based on use cases and target user base. 'Personal' versus 'professional' is one axis of differentiation." *Id.* at -376.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1108 and subparagraph 1108(h). Further disputed on the ground that

the subparagraph omits context and is therefore misleading. Pinterest did not propose the segmentation described; [redacted]

j. A 2018 document from Pinterest summarizing survey research reported that "Snapchat, Facebook, and Instagram are the top social apps for following people you know," while "Pinterest, Twitter, and Medium skew more towards people you do not know." PX12611, Pinterest document: "What We Know About... >>>Following<<<" (June 2018), FTC-PINTEREST-00000571, at PX12611-008.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1108. Further disputed because the description of the document is incomplete and misleading. Rather than demonstrate a view that Facebook, Instagram, and Snapchat belong in a distinct market, the slide in question reinforces Pinterest's view of the three services as competitors with heavily overlapping user perception. In fact, in the cited slide, [redacted]% of respondents indicated that they follow people they know on Pinterest, falling close on the spectrum to Instagram. *See* PX12611 at -009 (FTC-PINTEREST-00000571).

The document also notes: "When it comes to sharing content, Pinners tend to share with people they know well (friends & family)." *Id.* at -010.

k. A 2022 draft Form S-1 from Reddit distinguished its offering from personal social networking: "Because Reddit is built on shared interests, passions, and trust, people can share some of their most personal stories and find a safe place to ask and answer questions and be authentic while maintaining their privacy. Reddit is not a social network built on friends and followers and does not require that users disclose their real identity . . . ." PX13221, Reddit document: "Business" (*July 1, 2022), REDDIT_20cv3590-DDC_00000001, at -002.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1108. Further disputed that the document distinguished its offering from "personal social networking" or "personal social network services" – that terminology, which has no recognition in the industry, is not referenced at all in the document. In fact, the only references to any services that the FTC alleges are personal social networking services undermine that distinction and demonstrate that Reddit competes with Facebook and Instagram. In particular, the document states, "we face significant competition across many areas of our business. People may choose to spend their time using other products when looking to fulfill the needs Reddit provides, such as being entertained, seeking information, diving into current events, exploring passions and hobbies, or peer-to-peer commerce." PX13221 at -033 (REDDIT_20cv3590-DDC_00000001). As examples of competitors "[f]or entertainment," the document lists, "Facebook,

YouTube, Snap, TikTok, Roblox, Twitch, and Instagram." *Id.* For "Passions and Hobbies – Facebook Groups, Discord, Twitter, and Pinterest." *Id.* And for "Peer-to-peer Commerce – Facebook Marketplace, Nextdoor, Craigslist, Poshmark, Etsy, and eBay." *Id.* The FTC's use of "personal social networking" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

l. A 2022 document from Discord states: "We are not a social network. We are a communications service for communities. Most people who come to Discord come for something specific – to start a group or community or to join an existing community." PX13874, Discord document: "Discord 2022 Strategy" (undated), DISCORD0000312, at -314.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1108. There is no dispute that [redacted]. *See* Meta SMF [redacted].

m. Daniel Walsh, Global Head of Sales Operations at Spotify, testified that "Spotify's goals are really to connect creators with fans, not to connect friends and family." PX6111, Walsh (Spotify) Dep. Tr., at 130:22-131:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response in paragraph 1108.

n. On the Apple App Store, Path described itself as a "personal social network" and "personal social networking." PX7053, Apple excel file: "Historical App

Descriptions" (undated), APL-FTCMETA_00042482 at Rows 4602-4624 (Row 4602: "Path is the personal social network where you can share life with close friends and family."); *id.* at Rows 4638-4675 (Row 4638: "Path is simple, personal social networking. Designed with the people you love, your closest friends and family, in mind.").

Meta Response: Disputed in part. Undisputed that Path described itself that way on the Apple App Store. Disputed for the reasons stated above in Meta's response to paragraph 1108.

1109. The academic study of technology-mediated communications recognizes and differentiates between "social media," "social networking," and "personal social networking" as distinct categories of online services, reflecting differing designs, motivations, and norms. *See generally* PX9004, Lampe Report at §§ II.B, III.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the academic study of technology-mediated communications is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1105. Further disputed because this statement is not supported by the materials cited in the paragraph's subparagraphs, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The cited materials in Professor Lampe's report provide no support for the academic discipline of technology-mediated communications or any other academic discipline that recognizes and differentiates between "social media," "social networking," and "personal social networking" as distinct categories of online services, reflecting differing designs, motivations, and norms. On the contrary, Professor Lampe

testified he has never used the term "personal social networking service" in his published papers, nor he is aware of any other academic work that uses that term. *See* Ex. 281 at 281:10-21 (Lampe Dep. Tr.). When asked if he had "seen any document at all" that "put Facebook, Instagram, MeWe, and Snap into a distinct category than other social media companies," Professor Lampe testified that he had not. *Id.* at 284:3-11.

Further disputed that Professor Lampe provided any reliable methodology or even purported to be applying the academic study of technology-mediated communications. In his own academic work, Professor Lampe has stated, "we found that Facebook use is not uniform across users, and that conceptualizing the site as a collection of features allows for a more granular understanding of why users are using [the] site, uncovering patterns that would otherwise be obscured when SNS use is measured as a single item." Ex. 425 at 2328 (MetaFTC-DX-1151, Tennyson, *Computers in Human Behavior*); *see also* Meta SMF ¶ 604. Nevertheless, Professor Lampe testified that in this case he did not look at motivations for using specific features of applications. *See* Ex. 281 at 248:2-12 (Lampe Dep. Tr.). Professor Lampe likewise conceded Facebook and Instagram are used for purposes other personal social networking, in his opinion, *see* Meta SMF ¶¶ 606-607, and that he offered no opinion regarding the amount of time spent on different uses on Facebook and Instagram or other platforms fulfilling different motivations. *See id.* at ¶ 609. He conceded that other applications can fulfill many overlapping uses of Facebook and Instagram, *see id.* at ¶ 612, and conceded that other applications can be used for personal social networking, *see id.* at ¶ 209 (Professor Lampe agreeing it is "definitely possible" to use TikTok for "personal social networking" (quoting Ex. 281 at 334:2-11 (Lampe Dep. Tr.))), ¶ 281 (Professor Lampe agreeing personal social

networking is "a possible use of Twitter" (quoting Ex. 281 at 340:4-8 (Lampe Dep. Tr.))). Professor Lampe conceded that he is not qualified to offer any opinion on whether two corporations are actually competitors, and does not offer any opinion on the scope of competition, *see id.* at ¶ 613, or any opinion regarding the *Brown Shoe* factors, *see id.* at ¶ 614 (proposing what he termed "a more appropriate way to ascertain whether personal relationship maintenance is a core purpose of a social network service" (quoting Ex. 282 at ¶ 3 (Lampe Rebuttal Rep.))); *see also* Ex. 1 at § 3 (Ghose Rep.) (explaining that Professor Lampe's opinion is inconsistent with those factors). Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. "Social media" is a broad category of online services encompassing technology-mediated channels enabling the production and consumption of user-generated content and direct interaction between users. *Id.* at ¶¶ 45-46.

Meta Response: Disputed. Disputed for the reasons stated in above in Meta's response to paragraph 1109. The cited evidence does not support the proposition that there is a commonly understood definition of "social media"; the evidence indicates that the term is employed in many inconsistent ways. *See* Meta SMF ¶¶ 478-482; Ex. 1 at ¶¶ 35-109 (Ghose Rep.).

b. "Social networking" refers to a narrower category of online services in which users maintain a personal profile, articulate a social network by connecting with other users, and engage with a stream of activity. *Id.* at ¶¶ 48-53.

Meta Response: Disputed. Disputed for the reasons stated in above in Meta's response to paragraph 1109. The cited evidence does not support that the proposition that there is a commonly understood definition of "social

networking," and the evidence unambiguously indicates that the term is employed in many inconsistent ways. *See* Meta SMF ¶¶ 478-482; Ex. 1 at ¶¶ 35-109 (Ghose Rep.).

c. "Personal social networking" refers to a still narrower category of online services in which users engage in "social networking" specifically to build and maintain personal relationships; to do so, personal social networking afford identifiable profiles imparting real identities, mutual friending between users, and traversable social graphs enabling connections among existing social ties. *Id.* at ¶¶ 79-81, 85, 88; PX9010, Lampe Rebuttal Report at ¶¶ 68-70.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1105 and 1109. The FTC's use of "personal social networking" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1110. Foreign competition authorities have recognized and differentiated between different types of online platforms, and recognized a product offering of social networking for friends and family.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because allegations or findings in different geographic markets than the geographic market the FTC has alleged in this case, under different laws, have no bearing on whether the FTC can meet its burden of proving that Meta possesses market power in a cognizable market that it has advanced in the United States. Further disputed that the materials cited below support the statement under Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. In 2019, Germany's Bundeskartellamt concluded that Facebook is "the dominant" firm in the "national social network market for private users." PX9007, Hemphill Rebuttal Report at ¶ 521(a).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1110. Further disputed because the cited opinion is inconsistent with the FTC's market definition in this case, further demonstrating that there is no industry recognition for the FTC's purported market. In that document, Germany's Bundeskartellamt stated, "Instagram is not a social network which could be considered a potential substitute for Facebook.com" and that Snapchat similarly "cannot be considered a social network." Ex. 502 at ¶¶ 295, 334 (Decision Under Section 32(1) German Competition Act (GWB), Bundeskartellamt (Federal Cartel Office), Germany). It did not mention MeWe.

b. In 2021, the Israeli Competition Authority announced its intention to impose a NIS 6 million sanction after the results of an investigation found that Meta (Facebook and Instagram) failed to report two transactions while being "a monopolist in the market of social networks for private users in Israel." PX0678 at -001, *The Director General for Competition is considering to impose monetary sanctions on Facebook a for a violation of the Economic Competition Law by consummating transactions in Israel without the Director Genera's consent*, Israel Competition Authority (Nov. 5, 2011), https://www.gov.il/en/pages/facebookhearing. In January 2024, the Israeli Competition Authority reached a settlement agreement with Meta where Meta agreed to pay NIS 25 million and report any future transactions for the following

six years. PX0679 at -001-02, *Consent Decree per Section 50B of the Economic Competition Law, 1988*, (Jan. 8, 2024).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1110. Further disputed because the cited proceeding settled without any determination of a relevant market.

c. In 2022, the European Commission issued a Statement of Objections asserting that Meta is "dominant in the market for personal social networks" in Europe. PX9007, Hemphill Rebuttal Report ¶ 521(d).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1110. Further disputed because the cited statement was an allegation, not a determination – brought after the FTC advanced this lawsuit using the terminology "personal social network" – and Professor Hemphill does not identify what applications were allegedly described as personal social networks.

d. In 2022, Turkey found Meta has a "dominant position" in the market for "personal social networking services." PX9007, Hemphill Rebuttal at ¶ 521(g).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1110. Further disputed because Professor Hemphill does not identify which services Turkey considered to be "personal social networking services" in its finding *after* the FTC brought this lawsuit using that terminology.

1111. Meta internally circulated documents identify PSN apps as personal social networks and distinguishing between personal social networking offerings and other social media or online product offerings.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the statement is not supported by the materials cited in this paragraph's subparagraphs, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed that the cited materials identify any of the four alleged providers of personal social networking – Facebook, Instagram, Snapchat, or MeWe – as "personal social networks," and none of them distinguishes personal social networking offerings as a category of offerings that are distinct from other categories of offerings. Further disputed that the cited materials describe any application in the last decade. Further disputed for the reasons stated above in Meta's response to paragraph 1105. The FTC's use of "PSN apps," "personal social networks," and "personal social networking offerings" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. A 2008 document shared among Meta employees on the "Facebook Application Ecosystem" states: "Because Facebook applications are primarily focused on social networking behaviors in the personal domain, there is a lot of room for innovation as applications built on top of social graphs target more professional users, meet goals other than personal social networking, and explore other business models . . . . Facebook remains a largely social environment, rather than a professional one, where the primary activity is personal social networking." PX3515, Meta presentation: "The Facebook Application Ecosystem" (Mar. 2008), FB_FTC_CID_04548210, at -271.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to

paragraph 1111. Further disputed that the statement creates a genuine dispute of material fact about the nature of how Facebook is used in 2024. The evidence indicates that users use Facebook for many reasons, *see*, *e.g.*, Meta SMF ¶¶ 20-44, 70-92, 114-125, and that viewing content posted by friends or family accounts for [redacted] of time on the application, *see id.* at ¶ 11.

b. News articles circulated internally by Meta employees identify PSN apps as personal social networks. *See, e.g.,* PX3516, Meta document: "Facebook Daily News – Thursday Afternoon" (Nov. 1, 2012), FB_FTC_CID_00930338, at -382 (circulating a 2012 article from The Next Web that states "Path, the personal social network, has come to the iPad."); PX3517, Meta email: [redacted] to D. Ebersman, et al. re: "Business/Finance Press Review – 2/28/12 (a/c priv)," FB_FTC_CID_01546627, at -634 (circulating a 2012 Wall Street Journal article in which Bradley Horowitz describes Google+ as "personal' social-networking.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1111. The news articles do not identify "PSN apps as personal social networks," the first describes a defunct application, Path, as *the* personal social network, and the second describes Google+ as adding a "personal" "social-networking layer" on top of Google's other applications. *See* PX3517 at -634 (FB_FTC_CID_01546627). The FTC's use of "PSN apps" and "personal social networks" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. In a 2013 email with an update on Path to other Meta employees, Justin Osofsky attaches a screenshot describing Path "as a personal social network designed to

help you be closer with family and friends." PX3519, Meta email chain: J. Osofsky to [redacted] and M. Bickert re: "Path," (Apr. 20, 2013), FB_FTC_CID_04526165, at -168.

Meta Response: Disputed in part. Undisputed that the email contains a screenshot of a description – presumably authored by Path – containing the quoted text. Disputed for the reasons stated above in Meta's response to paragraph 1111.

d. A 2012 Meta document with notes from a focus group on "Perceptions of Facebook" refers to "Things we didn't hear . . . Twitter as a threat – perceived as less of a personal social network tool, and more of a means to . . . [c]onsume news (specifically about celebrities)." PX3518, Meta document: "Perceptions of Facebook Focus Group Notes – Salt Lake City" (Sept. 18, 2012), FB_FTC_CID_08103211, at -214.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1111.

e. In 2020, Fidji Simo received an excerpt of an advance copy of Steven Levy's history of Facebook, which explained that:

> [i]n 2008, Twitter's growth and influence were exploding. Like Facebook, it was a social product built around a stream of user-provided content. But it was distinguished from the [Facebook] News Feed in a number of ways. The order of the posts, called tweets, was strictly reverse-chronological. It didn't rely on one's personal social network, in that the tweets users saw were those of people they chose to "follow." There was no "friending" ritual; you needed no permission to follow someone. And it operated in real time.

PX3521, Meta document: excerpt from Steven Levy, "Facebook: The Inside Story" (2020), FB_FTC_CID_12176575, at -835.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1111. Further disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B).

(2) Recognition of PSN apps as serving demand for friends and family sharing.

1112. Meta recognizes that Facebook is a social network for friends and family.

Meta Response: Disputed in part. Undisputed that Facebook allows users to connect with their social network, and that the network can include friends and family. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that purported recognition that Facebook is a social network for friends and family is relevant to substitution. Further disputed to the extent this statement suggests that there is industry recognition of this terminology as uniquely applying to the four alleged PSN applications, as many applications the FTC excludes from its "PSNS" market are also described as social networks for friends and family. *See* Meta Resp. to Counter SMF ¶ 1113. Further disputed that all services Facebook provides are social networking with friends and family. The evidence indicates that users use Facebook for many reasons unrelated to interacting with a social network that includes friends and family, *see*, *e.g.*, Meta SMF ¶¶ 20-44, 70-92, 114-125, and that viewing content posted by friends or family accounts for [redacted] of time on the application, *see id.* at ¶ 11 (citing Ex. 2 at ¶ 69 & 68, tbl. 10 (Carlton Rep.)). None of the materials cited in the

subparagraphs below indicate otherwise. Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. In 2006, after Facebook first introduced its News Feed, Mark Zuckerberg wrote in a blog post that "Facebook is about real connections to actual friends, so the stories coming in are of interest to the people receiving them, since they are significant to the person creating them." PX0307 at -001, Mark Zuckerberg, *Calm Down. Breathe. We hear you.*, Facebook Blog (Sept. 5, 2006), https://web.archive.org/web/20061024024254/http://blog.facebook.com/blog.php?post=2208197130.

Meta Response: Disputed in part. Undisputed that the document (from 2006) contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1112.

b. In a 2007 interview with TIME, Mr. Zuckerberg emphasized that "[p]eople communicate most naturally and effectively with their friends and the people around them. What we figured is that if we could model what those connections were, [we could] provide that information to a set of applications through which people want to share information, photos or videos or events." PX0308 at -001, Laura Locke, *The Future of Facebook*, Time (July 17, 2007), https://content.time.com/time/business/article/0,8599,1644040,00.html.

Meta Response: Disputed in part. Undisputed that the document (from 2007) contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1112.

c. Mr. Zuckerberg has also explained that "[w]e built Facebook to help people stay connected and bring us closer together with the people that matter to us. That's why we've always put friends and family at the core of the experience. Research shows that strengthening our relationships improves our well-being and happiness." PX12503, Adam Mosseri, *Bringing People Closer Together*, Meta (Jan. 11, 2018), https://about.fb.com/news/2018/01/news-feed-fyi-bringing-people-closer-together.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1112. Further disputed because the excerpted statement lacks context and is therefore misleading. The document reinforces that sharing with friends and family had declined as a proportion of time spent on Facebook in 2018. In it, Mr. Zuckerberg states that "[v]ideo and other public content have exploded on Facebook in the past couple of years." PX12503 at -003 (Meta, *Bringing People Closer Together*).

d. Mr. Zuckerberg testified that "the use cases that we've focused on the most over time [on Facebook] are around helping you connect with . . . your friends and family." PX6029, Zuckerberg (Meta) IH Tr., at 184:12-17 ("I mean, the – the use cases that we've focused on the most over time are around helping you connect with – with your friends and family, right. So rather than primarily being around interests, it's that, and it's communities, as we – as we talked about before").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to

paragraph 1112. Further disputed because the characterization of the testimony is incomplete and missing context. The complete testimony reinforces that Facebook is used for many things other than sharing with friends and family. Mr. Zuckerberg's cited testimony refers to multiple areas of focus on Facebook over time. Immediately after the excerpted testimony, Mr. Zuckerberg explained that different social mechanics are simply "different ways to compete" in a "market" with "all these different companies." PX6029 at 185:15-22 (Zuckerberg IH Tr.).

e. Sherly Sandberg, Meta's former COO, similarly testified that staying connected with friends and family "is the majority of what people do" on Facebook. PX6022, Sandberg (Meta) IH Tr., at 44:10-44:14 ("Q. So would you say staying connected with friends and family is a core part of Facebook Blue service? A. I think it's the majority of what people do. Yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1112. Further disputed that the cited testimony creates a genuine dispute of material fact over what people spending the "majority" of their time doing. The empirical evidence indicates that viewing content posted by friends or family accounts for [redacted] of time on the application. *See* Meta SMF ¶ 11 (citing Ex. 2 at ¶ 69 & 68, tbl. 10 (Carlton Rep.)).

f. Ms. Sandberg also testified that Facebook helps users stay in touch with friends and family (and know what is going on with them) in an efficient way. *Id.* at 46:6-20 ("Q. So what is the greater value that Facebook Blue is providing to people, beyond just diverting attention online? A. . . . I think the value it is

providing is helping you stay in touch with friends and family and helping you know what's going on with them in a very efficient way, and I think that has a lot of value. Q. So Facebook would allow people to maintain meaningful connections with Facebook – with friends and family? A. I believe so.").

Meta Response: Disputed in part. Undisputed that Ms. Sandberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1112. Further disputed on the basis that the quoted language is incomplete and thus misleading. When asked what value people get out of using Facebook, Ms. Sandberg testified: "I think you get a value from sharing, and you get a value from consuming. You get a value when you post something, because you feel like you can share with people and share your lives. And you get a value from consuming something. You know, when you watch a video, whether you watch it on [Facebook] or on YouTube or anywhere, you hopefully enjoy that or you learn something. You know, you think it's a good use of your time, which is why you do it." PX6022 at 181:12-20 (Sandberg IH Tr.).

g. Ms. Sandberg also testified that the value that Facebook provides to users is that "it helps you share with more people at a time and also create more communities." *Id.* at 44:18-22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1112. Further disputed that on the basis that the quoted language is incomplete and thus misleading for the reasons stated above in Meta's response to subparagraph 1112(f).

h. Tom Alison testified that "one of the reasons that people appreciate using Facebook is to be able to find out what their friends are doing and be able to interact with them as well as other people that they're connected to or care about. And so we do try to facilitate interactions with others from that . . . ." PX6069, Alison (Meta) Dep. Tr., at 68:8-14.

Meta Response: Disputed in part. Undisputed that Mr. Alison provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1112. Further disputed because the quoted excerpt is incomplete and missing context. In his deposition, Mr. Alison discussed that Facebook is used for many reasons other than sharing with friends and family. For example, Mr. Alison testified, "[redacted]." PX6069 at 82:11-18 (Alison Dep. Tr.). He also discussed the significant competition that Meta faces from applications the FTC excludes from its market, including from companies like TikTok. *See* Meta SMF ¶¶ 251-252.

i. A Meta strategy analysis concluded that "[o]ne of the fundamental ingredients to Facebook's success is that users come to share with other users[;] . . . [u]sers come primarily to share information and keep up with friends." PX3189, Meta document: "Facebook Secret Sauce" (Nov. 11, 2008), FB_FTC_CID_03173642, at -644.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1112.

j. In connection with its initial public offering in 2012, Facebook described itself as follows: "People use Facebook to stay connected with their friends and family, to discover what is going on in the world around them, and to share and express what matters to them to the people they care about." PX0292 at -008, Meta SEC Form S-1, dated Feb. 1, 2012.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1112.

k. A 2018 email containing talking points for then-head of News Feed Adam Mosseri noted that "Facebook was built on the idea of connecting people with their friends and family." PX12333, Meta email: [redacted] to A. Mosseri, et al. re: "Prep doc for MSI briefings," (Jan. 8, 2018), FB_FTC_CID_02906755, at -756.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1112.

l. A 2019 Facebook App Leadership Meeting presentation described "connecting with friends and family and sharing moments of your life with them" as Facebook's "foundational use case" and "[f]riends and [f]amily [as] our core use case and the one that has contributed most to our core social assets." PX3006,

Meta presentation: "FB App Leadership Meeting" (Mar. 2019), FB_FTC_CID_05449564, at -571.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1112.

1113. Other firms recognize that Facebook is a social network for friends and family.

Meta Response: Disputed in part. Undisputed that Facebook allows users to connect with their social network, and that the network can include friends and family. Also undisputed that [redacted]. Disputed to the extent this statement suggests that there is industry recognition of this terminology as uniquely applying to the four alleged PSN applications, as many applications the FTC excludes from its "PSNS" market are also described as social networks for friends and family. *See*, *e.g.*, Meta SMF ¶¶ 209, 280 (Professor Lampe describing TikTok and Twitter as "Social Networking Site[s]"); Ex. 290 at ¶¶ 186-87, 204, 212 (Professor Lampe describing [redacted] as "social network[s]" or Social Networking Site[s]"); Meta Resp. to Counter SMF ¶ 1176 (YouTube describing itself as a social network); Meta SMF ¶ 413 (LinkedIn describing YouTube as a social network); Meta Resp. to Counter SMF [redacted]; Meta Resp. to Counter SMF ¶ 1055 (discussing use of those services for sharing with friends and family). Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1112

including because the FTC provides no evidence that other firms' purported recognition that Facebook is a social network for friends and family is relevant to substitution.

a. In 2020, TikTok stated to the European Commission that it viewed Facebook as offering "social networking services," defined as online services enabling users "to connect with other users in order to network and to share their interests, including through features enabling users to create and share their profile, share their interests, express opinions and communicate with each other." PX13581, TikTok document: "ByteDance Response to European Commission Request for Information – Case At.40628 – Facebook" (*June 12, 2020), TIK-00000001, at -005; *see id.* at -006 (listing Facebook as one of the "main websites/apps that can be described as a social networking service").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1113.

b. In 2020, Pinterest stated [redacted] that "the networks people build on Facebook tend to be oriented toward family, friends, and social acquaintances." PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -376.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1113. Further disputed that the characterization of the document is incomplete and lacks context. Pinterest's representative agreed that "TikTok,

Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of social networks as used in the document. Ex. 45 at 427:21-428:1 (Roberts (Pinterest) Dep. Tr.).

c. Jonathan Chen, former Vice President for Corporate Development and Strategy at Twitter, distinguished Twitter's offering from Facebook in his deposition testimony: "I would say Twitter was more of a public conversation. And Facebook, while you could do things in public, it was – it was more focused around friends and family at the time [as of November 2013]." PX6114, Chen (Twitter) Dep. Tr., at 22:22-23:3.

Meta Response: Disputed in part. Undisputed that Mr. Chen provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1113. Further disputed because the quoted excerpt lacks context and is incomplete. Mr. Chen "agree[d]" that "wanting to stay up with friends . . . was a motivator for signing up for Twitter," and added: "You know, for . . . people to know what's going on with the people they care about and the things they care about. Right? That's essentially what – what the Twitter platform offers." PX6114 at 108:2-14 (Chen (Twitter) Dep.).

d. Julia Tang, former Vice President of Consumer Business GTM at Discord, distinguished Discord's offering from Facebook in her deposition testimony:

> I would say that Facebook as a platform overall and Discord were quite different in that Facebook -- I did not consider Facebook as a place where people were sharing the same interests necessarily. It was very much surrounding a person's personal network, like their known friends or family, and it is about that person's life and that person's perspective, as opposed to collectively we are all there [on Discord] talking about this hobby, passion, interest of ours.

PX6123, Tang (Discord) Dep. Tr., at 148:7-21.

Meta Response: Disputed in part. Undisputed that [redacted] provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1113. [redacted] *See* Meta SMF [redacted].

e. Dennis Crowley, CEO of Foursquare, testified that Facebook was primarily used "[f]or creating a social graph of all of your friends and being able to keep up with the posts that that social graph was creating – the content that they were creating." PX6068, Crowley (Foursquare) Dep. Tr., at 105:16-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony with reference to the 2009-2014 timeframe. *See* PX6068 at 104:8-10 (Crowley (Foursquare) Dep.). Disputed for the reasons stated above in Meta's response to paragraph 1113.

1114. Before and after its acquisition, Instagram's founders and Meta itself have recognized Instagram as a social network for friends and family.

Meta Response: Disputed in part. Undisputed that Instagram allows users to connect with a network of connections, and that the network can include friends and family. Also undisputed that Instagram can be characterized as social network. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1112 including because the FTC provides no evidence that [redacted] is relevant to substitution, and to the extent this statement suggests that there is industry recognition of this terminology as uniquely applying to the four alleged PSN

applications, as many applications the FTC excludes from its "PSNS" market are also described as social networks for friends and family. *See*, *e.g.*, Meta SMF ¶ 209, 280 (Professor Lampe describing TikTok and Twitter as "Social Networking Site[s]"); Ex. 290 at ¶¶ 186-87, 204, 212 (Professor Lampe describing [redacted] as "social network[s]" or Social Networking Site[s]"); Meta Resp. to Counter SMF ¶ 1176 (YouTube describing itself as a social network); Meta SMF ¶ 413 (LinkedIn describing YouTube as a social network); Meta Resp. to Counter SMF [redacted]; Meta Resp. to Counter SMF ¶ 1055 (discussing use of those services for sharing with friends and family).

Further disputed that the statement creates a genuine dispute of material fact to the extent it suggests that all services Instagram provides are social networking with friends and family. The evidence indicates that users use Instagram for many reasons unrelated to interacting with a social network that includes friends and family, *see*, *e.g.*, Meta SMF ¶¶ 55-90, and that viewing content from friends or family accounts for [redacted] of time on Instagram, *see id.* at ¶ 56 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). None of the materials cited in the subparagraphs below indicate otherwise.

a. In 2010, before Instagram launched, Mr. Systrom explained to a technology industry journalist that the central role of sharing in a social network to the Instagram experience, writing "almost all the top apps in the app store in Photo are not sharing apps . . . What's different about us [Instagram] is the community . . . People may come for the filters, but they'll stay for the community of their friends and fans." PX2757, Instagram email chain: K. Systrom to [redacted]

(VentureBeat) re: "intro: Anthony & Instagram," (Oct. 5, 2010), FB_FTC_CID_08714792, at -793.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1114. Further disputed that Mr. Systrom described the "central role of sharing in a social network to the Instagram experience."

b. Mr. Systrom testified that Instagram's founders intended Instagram "to be the best place to share your photos on the go with friends." PX6027, Systrom (Meta/Instagram) IH Tr., at 202:3-9.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1114.

c. Mr. Systrom testified that "the idea behind Instagram was that not only could you take a photo and make it beautiful, you could share it with people. And sharing into a vacuum is not nearly as satisfying as sharing into a network and then knowing that people appreciate that you shared." *Id.* at 70:9-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1114.

d. Mr. Systrom testified that, from its launch, Instagram "was certainly used to share more than just pretty photos," but specifically "to share photos about things in your life" with friends and family. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 14:13-15:6.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1114. Further disputed because the excerpted testimony is incomplete. Mr. Systrom testified that he did not recall the "specific breakdown" of the percentage of content from friends and family versus "interest-based account[s]," but said that he thought "it was a healthy mix of friends and nonfriends." Ex. 284 at 76:1-10 (Systrom IH Tr.).

e. Mr. Krieger testified that, prior to the acquisition, Instagram had become "a primary way in which [people who used Instagram heavily] kept up with their friends and family potentially, and that is also a use case that Facebook has." PX6015, Krieger (Meta/Instagram) IH Tr., at 95:14-20.

Meta Response: Disputed in part. Undisputed that that Mr. Kreiger provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1114. Further disputed that Mr. Kreiger was describing Instagram pre-acquisition, as the question asked him for his view "after working at Facebook after the acquisition." *See* PX6015 at 95:11-20 (Krieger IH Tr.).

f. After acquiring Instagram, Meta continued to promote Instagram as an app "first and foremost about connecting with friends and family." PX3005, Meta document: "Checkout Press Narrative" (Feb. 12, 2019), FB_FTC_CID_11310884, at -884.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1114. Further disputed because the description of the document is

missing context. Rather than support the statement that Instagram can be uniformly described as a social network for friends and family, the document contains press talking points for Instagram Shopping, a set of features that aims to provide a "*complete* shopping experience for people on Instagram." PX3005 at -884 (FB_FTC_CID_11310884) (emphasis in original). The document shows that Meta innovates its product with a target audience "[f]or those who want to shop," and that many users spend time on Instagram shopping: in February 2019, "[m]ore than 130 million people" clicked on Instagram "shopping posts" and "[m]ore than 80% of people follow[ed] a business." *Id.*

g. In a 2017 email, Fidji Simo explained that Meta's leadership perceived "that IG [Instagram] and SC [Snapchat] are all about sharing so they cannibalize the sharing use case" at the core of Facebook's offering. PX11972, Meta email chain: F. Simo to [redacted] re: "YouTube Cannibalize OBPS," (Oct. 13, 2017), FB_FTC_CID_05476838, at -839.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1114.

h. A 2018 Meta email stated that "Instagram's mission is to strengthen relationships through shared experiences," and that "[r]elationships with friends and family are at our mission's core . . . ." PX15382, Meta email chain: [redacted] to M. Krieger, et al. re: "Top-Level Metric Feedback," (Feb. 15, 2018), FB_FTC_CID_02608516, at -518.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1114.

i. Speaker notes for a 2019 Meta slide deck stated that "[p]eople come to Instagram first and foremost to connect with friends and family. These connections are core to the experience." PX3003, Meta presentation: "Content on Instagram" (*Sept. 9, 2019), FB_FTC_CID_00056469, at -471.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1114 and subparagraph 1061(b).

j. A 2022 Meta document summarizing internal studies on Instagram usage and engagement reported that [redacted] and that [redacted] PX3435, Meta document: "[v1] Analytics Outline: MZ IG Deep Dive – 10/25" (*Oct. 10, 2022), FTC-META-005122238, at -239.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1114. Further disputed because the characterization of the document is incomplete and missing context. The document emphasizes that the [redacted] being referenced in the statement is predominantly text messaging through Instagram Direct. It states, [redacted] and [redacted]

[redacted] PX3435 at -239-240 (FTC-META-005122238).

k. Adam Mosseri, Head of Instagram since 2018, agreed in his deposition testimony that friends and family content is a core part of Instagram and stated that, still today, "[p]eople connect with friends and family" across Instagram surfaces. PX6078, Mosseri (Meta) Dep. Tr., at 149:14-18 ("[Q.] So friends -- you would agree that friends-and-family content is still a core part of the Instagram application. Is that right? A. Yes."); *id*. at 150:12-18 ("[Q.] But you would agree that Stories is one way to connect with friends and family, or it can be one way to connect with friends and family? A. People connect with friends and family in Stories, they do so in Feed [redacted], and in DMs [redacted]."). **<u>Meta Response</u>: Disputed in part.** Undisputed that Mr. Mosseri provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1114, and on the ground that the quotation is not accurately characterized and missing context. In the excerpted section, Mr. Mosseri did not state that people connect with friends and family "across Instagram surfaces"; he identified several specific surfaces that users can connect with friends, and did not identify Reels. As of April 24, 2024, Reels alone accounts for 50 percent of time spent on Instagram. *See* Ex. 499 at 4 (Meta Q1 2024 Earnings Call). Mr. Mosseri also noted that the type of connecting with friends that he was discussing occurs [redacted] on Instagram. *See* PX6078 at 150:2-11 (Mosseri Dep. Tr.). Mr. Mosseri testified that [redacted]

[redacted] *Id.* at 145:3-6. Mr. Mosseri further testified that Instagram is "more of a messaging app than a broadcast-sharing app at this point." *Id*. at 206:2-4. And Mr. Mosseri also testified that [redacted] *Id.* at 203:15-18.

l. Justin Osofsky, currently Meta's Head of Online Sales, Operations, and Partnerships and formerly Instagram's COO, testified that "[o]ne reason people use Instagram is to share content with friends and family." PX6077, Osofsky (Meta) Dep. Tr., at 18:7-19:1, 148:13-14.

Meta Response: Disputed in part. Undisputed that Mr. Osofsky provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1114, and on the ground that the quotation is not accurately characterized and missing context. Mr. Osofsky explained, "[d]ifferent people come to Instagram for different things. Some people come to connect with friends and family. Some people come to be entertained. Some people come for shopping and to find products they want to buy. So I think different people use it in different ways." PX6077 at 52:13-17 (Osofsky Dep. Tr.).

1115. Other firms recognize Instagram as a social network for friends and family.

Meta Response: Disputed in part. Undisputed that Instagram allows users to connect with a network of connections, and that the network can include friends and family. Also undisputed that [redacted]. Disputed

that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1114. Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. In 2020, TikTok stated to the European Commission that it viewed Instagram as offering "social networking services," defined as online services enabling users "to connect with other users in order to network and to share their interests, including through features enabling users to create and share their profile, share their interests, express opinions and communicate with each other." PX13581, TikTok document: "ByteDance Response to European Commission Request for Information – Case At.40628 – Facebook" (*June 12, 2020), TIK-00000001, at -005; *see id.* at -006 (listing Instagram as one of the "main websites/apps that can be described as a social networking service").

Meta Response: Disputed. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1115. Further disputed that the excerpt supports the statement in paragraph 1115 because it does not mention friends or family.

b. Keith Coleman, Vice President of Products at Twitter, testified that Instagram's "superstar strength that I suspect still is probably what locks people there the most is this ability to see what your friends and family are doing." PX6144, Coleman (Twitter) Dep. Tr., at 121:13-22.

Meta Response: Disputed in part. Undisputed that Mr. Coleman provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1115. Further disputed on the ground that the statement is incomplete.

Mr. Coleman testified that Instagram "has definitely expanded over time to be a place where you can follow interests." PX6144 at 121:13-122:5 (K. Coleman (Twitter) Dep. Tr.).

c. Julia Roberts, Head of Growth at Pinterest, distinguished Pinterest from Instagram by noting that Pinterest users "are not regularly posting content about their own lives" and do not expect to "see content from people you follow." PX6083, Roberts (Pinterest) Dep. Tr., at 417:22-418:13.

Meta Response: Disputed in part. Undisputed that Ms. Roberts provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1115. Further disputed because the quotation is lacking context. Ms. Roberts testified that – as reflected in Pinterest's documents – "Instagram consistently shows up on [Pinterest's] radar as a competitor that contends on marketshare, timeshare & mindshare or a generally less Pinterest familiar market," PX6082 at 89:8-89:21 (Roberts (Pinterest) Dep. Tr.), that [redacted], *see id.* at 86:15-87:18, that Pinterest can be successful in its competition against Meta, *see id.* at 75:13-77:22, [redacted] *see id.* at 16:20-22, 55:4-20, and if Pinterest were to bucket Instagram into a category of social network, it would bucket it as a "Celebrity/Influencer" social network in the same category as TikTok, and not as "personal" social network, PX7034 at -378 (FTC-PINTEREST-00001366); Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

1116. Meta uses surveys to monitor how well Meta is serving users' demand for friends and family sharing; answers consistently show that users perceive Facebook and Instagram as serving this demand. *See supra* CMF at § II.A.4.a.6.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section II.A.4(a)(6), Meta incorporates its responses to those statements here.

1117. Snapchat and others recognize Snapchat as a social network for friends and family.

Meta Response: Disputed in part. Undisputed that Snapchat allows users to connect with their network of connections, and that the network can include friends and family. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the purported recognition would be relevant to substitution. Further disputed to the extent this statement suggests that there is industry recognition of this terminology as uniquely applying to the four alleged PSN applications, as many applications the FTC excludes from its "PSNS" market are also described as social networks for friends and family. *See* Meta Resp. to Counter SMF ¶ 1113. Further disputed that the statement creates a genuine dispute of material fact to the extent it suggests that all services Snapchat provides are social networking with friends and family, or that there is industry recognition for the FTC's purported market. Snapchat recognizes that it faces vigorous competition from services that the FTC excludes from its alleged PSN market. *See* Meta SMF ¶¶ 483-520.

The evidence indicates that users use Snapchat for many different reasons, including, among other things, sending direct messages to their friends, taking photos and videos, following content posted by public figures, and watching short form videos posted by strangers. *See id.* at ¶¶ 488-497. For example, Snapchat Spotlight content is "99-plus percent" created by "people who you don't have a friend connection with." Ex. 96 at 256:20-257:5, 48:13-49:1 (Andreou (Snap) Dep. Tr.). [redacted] of the time spent on Snapchat is on the "Chat" feature, which allows users to send one-to-one or group messages. *See* Meta SMF ¶¶ 492-493. And Professor Lampe opined that [redacted] Ex. 290 at ¶ 182 (Lampe Rep.).

a. Jacob Andreou, Senior Vice President of Growth at Snap, testified that Snap users connect with real-world friends and family, share personal experiences, and receive personal updates on Snapchat. *See* PX6119, Andreou (Snap) Dep. Tr., at 281:10-283:15.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1117.

i. Mr. Andreou testified that Snap aims to be "an amazing place for your closest friends" and "as a complement to real life," and that "the natural intersection of those two ideas is to be focused on like real friends." PX6119, Andreou (Snap) Dep. Tr., at 239:18-22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1117 and subparagraph 1117(a).

ii. Mr. Andreou testified that "people sending Snaps back and forth to their friends represents the dominant use case for people sending and receiving Snaps." PX6119, Andreou (Snap) Dep. Tr., at 179:8-13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1117 and subparagraph 1117(a).

iii. Mr. Andreou testified that Snap has "spent a lot of time trying to work on building a platform that is like a complement to real life. And so it's our intention that you hopefully, like, know many of the people that you interact with on the service in real life." PX6119, Andreou (Snap) Dep. Tr., at 98:19-99:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1117 and subparagraph 1117(a).

b. A 2020 Snap slide deck reported that "Snapchat is preferred for conversation with close friends," while users rely on Facebook for "updates from friends and family" and on Instagram "for day-to-day updates." PX7009, Snap presentation: "App-o-sphere" (*July 18, 2020), SNAP – FTC 191-0134 – 0000004488, at -507.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to

paragraph 1117. Further disputed on the basis that the characterization of the document is incomplete and misleading. In fact, the document emphasizes significant uses of Snapchat, Facebook, and Instagram that are not related to sharing with friends or family. For example, the document concludes, "Facebook, Instagram, and YouTube help users pass the time," PX7009 at -499 (SNAP – FTC 191-0134 – 0000004488), "Snapchat and YouTube are the go-to apps for users in search of fun and entertainment," *id.* at -494, and the topline conclusion about Instagram is that it is "for influencers," *see id.* at -492.

c. A 2020 Snap slide deck stated that "[f]rom the beginning, the Snap Stories product was design for friends" and reported survey results showing that the most common reason users view Snap Stories is to "[s]ee what my friends are up to." PX14959, Snap presentation: "The Point of Friend Stories" (Dec. 17, 2020), SNAP – FTC – No. 191-0134 - 0000114801, at -803.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1117. Further disputed on the basis that the characterization of the document is incomplete and misleading. The slide indicates that many users surveyed indicated that they use Snapchat Stories for reasons other than connecting with their friends. *See* PX14959 at -803 (SNAP – FTC – No. 191-0134 - 0000114801). The slide also contrasts Snapchat Stories, with Instagram Stories, which it says "drift[ed] toward hobbies, interests, and news," and indicates that more survey respondents stated that they view stories on Instagram

to be "entertained by some funny/interesting" than to "[s]ee what my friends are up to." *Id.*

d. In June 2014, Mr. Zuckerberg emailed a group of Meta executives "to make sure you're all tracking the success of Snapchat Stories," stating that the surface's growth "means that Snapchat is now more of a competitor for Instagram and [Facebook] News Feed than it ever was for messaging," given that "Snapchat Stories serves the exact same use cases of sharing and consuming feeds of content that News Feed and Instagram deliver." PX1009, Meta email chain: M. Zuckerberg to K. Systrom, et al. re: "Snapchat Stories and ephemeral stories," (June 22, 2014), FB_FTC_CID_02231566, at 566-67.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1117.

e. In 2020, LinkedIn stated to the European Commission that Snapchat's offerings had developed to qualify as social networking: "An online service that did not initially offer social networking features may also transform itself to provide a social networking experience, as Snapchat and others have done." PX7049, LinkedIn document: "Facebook – Marketplace – RFI 2 to Social Media Platforms" (Apr. 30, 2020), LI_FTC_0000522, at -531.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1117.

f. Keith Coleman, Vice President of Products at Twitter, testified that users on Snapchat are "mostly staying up to date with what your friends are doing." PX6144, Coleman (Twitter) Dep. Tr., at 160:2-3.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1117.

1118. Meta and others recognize small and defunct apps—e.g., MeWe, Google+, Path—as being social networks for friends and family.

Meta Response: Disputed in part. Undisputed that that the founders of MeWe [redacted] described their services as social networks that could be used to share with friends and family, among other things, and that a former Google+ employee said the Google+ had a social graph and users could interact on the service with friends. Disputed that the cited material supports the statement, or that the paragraph creates a genuine dispute of material fact, including because the FTC provides no evidence that such alleged recognition is relevant to substitution. Additionally, this paragraph cites no evidence in support of its characterization of Meta's understanding of MeWe or Path, as required under Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and the only Meta document it cites does not describe Google+ as a social network or discuss friends and family. Further disputed for the reasons stated above in Meta's response to paragraph 1113 and in Meta's responses to the subparagraphs below.

a. Mark Weinstein, founder of MeWe, described MeWe as "a personal social network competing directly with Facebook." PX8006, Declaration of Mark Weinstein (MeWe) (Apr. 24, 2023), at ¶ 1.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1118.

b. Mr. Weinstein stated that "only MeWe and Snapchat remain as 'personal social networking' competitors to Facebook." *Id.* at ¶ *3.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1118.

c. Mr. Weinstein described MeWe as "a fully-featured social network with fun, easy-to-use features for connecting with friends, family, and common interest groups." *Id.* at ¶ 5.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1118.

d. Mr. Weinstein testified that MeWe is a "a one-stop shop for personal social networking." PX6110, Weinstein (MeWe) Dep. Tr., at 365:17-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1118.

e. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1118.

f. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1118.

g. [redacted]

Meta Response: Disputed in part. [redacted] Disputed for the reasons stated above in Meta's response to paragraph 1118. Further disputed as creating a genuine dispute of material fact. Contemporaneous evidence indicates that Mr. Morin perceived Path's closest competitors as applications that offer messaging. *See* Ex. 500 (TechCrunch, *Path's Competitors Aren't Facebook and Twitter, They're Email and SMS Says Dave Morin*,

https://perma.cc/LJR7-4HAN?type=standard) (Path chief executive officer stating, "Our competition isn't anyone else in the social networking world, it's SMS and email").

h. On the Apple App Store, Path described itself as a "personal social network" and "personal social networking." PX7053, Apple excel file: "Historical App Descriptions" (undated), APL-FTCMETA_00042482 at Rows 4602-4624 (Row 4602: "Path is the personal social network where you can share life with close friends and family."); *id.* at Rows 4638-4675 (Row 4638: "Path is simple, personal social networking. Designed with the people you love, your closest friends and family, in mind.").

Meta Response: Disputed in part. Undisputed that Path described itself that way. Disputed for the reasons stated above in Meta's response to paragraph 1118.

i. Bradley Horowitz, former Vice President of Product Management at Alphabet, testified that Google+ was launched with an "aspiration to build a nuanced social graph" where a core use case would be connecting users with their friends and family. PX6148, Horowitz (Google) Dep. Tr., at 67:6-18.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1118.

j. Mr. Horowitz testified that Google+ was intended to "be much more lean-in" than, for example, YouTube, offering a service "where most of our users would actually be sharing photos and talking to their friends and connecting with their

family and, you know, those kinds of activities and not just a lean-back experience." *Id.* at 150:11-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1118.

k. In July 2011, after the launch of Google+, Ms. Sandberg wrote to a large group of Meta executives and employees stating that "for the first time, we have real competition and consumers have real choice." PX2527, Meta email: S. Sandberg to Bizleads re: "HPM," (July 15, 2011), FB_FTC_CID_08964773, at -773.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including because the FTC has not provided full context for the statement. The FTC asked Ms. Sandberg about this document during her investigational hearing, when she testified: "I understand I wrote it this way. I don't think you could have experienced Facebook at the time and not thought Myspace was competition. But I think this was a moment where – I guess it's three years after, Myspace had gone down, and so Google+ was the next big competition coming in." PX6022 at 198:17-23 (Sandberg IH Tr.); *see also id.* at 202:19-21 ("I don't believe I ever thought we've never had any other real competition."). Further disputed because Meta faces intense competition from multiple firms outside the FTC's asserted market. *See* Meta SMF [redacted] (discussing competition with TikTok, [redacted]), ¶¶ 533-566 (Meta's

experts' empirical substitution data). Further disputed for the reasons stated above in Meta's response to paragraph 1118.

d) PSN apps have "unique production facilities" that foster and enable friends and family sharing.

1119. PSN apps also have "unique production facilities" in that the provision of PSN services requires the presence of a network of users producing friends and family content to share with their connections. PX9007, Hemphill Rebuttal Report at ¶ 314.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC proffers no evidence that any alleged unique production facilities are relevant to substitution. Further disputed because Professor Hemphill cites no evidence to support his assertion that applications the FTC excludes from its market definition do not similarly share a network of friends and family, and extensive evidence contradicts it. Users' social graph on applications that offer messaging and other alleged non-PSN apps often contain more connections than the average users' connections on alleged PSN apps and defunct PSN apps.

For example, even a decade ago, news surveys showed that users had an average of more than 150 mobile phone contacts. *See* Ex. 501 at 2 (HuffPost, *Be My Friend: The Staggering Number of Young People's Cell Phone Contacts*, https://perma.cc/N27C-X8KX). That is comparable to levels of reciprocal contacts Professor Hemphill estimated for [redacted] and [redacted], and materially higher than the number of reciprocal connections on [redacted]. *See* PX9000 at ¶ 146 (Hemphill Rep.).

[redacted]

[redacted]

Instagram [redacted] in 2022. *See* Meta SMF [redacted]. Moreover, Professor Hemphill conceded that he did not know whether the percentage of friends' content on Instagram Reels was higher than TikTok's For You Page. *See id.* at ¶ 283.

Users on LinkedIn also have extensive social graphs. *See* Counter SMF ¶ 1139, (FTC conceding that LinkedIn "has a social graph"). The line between personal and professional is so blurred that, LinkedIn's representative testified, it would [redacted] Ex. 69 at 270:6-18, 271:21-272:6 (Pattabiraman (LinkedIn) Dep. Tr.); *see also* Ex. 1 at § III(C) (Ghose Rep.) (explaining that the proposed PSN applications do not have unique production facilities).

1120. Meta recognizes the dynamic that PSN services must have a critical mass of users' friends and family to gain traction with people.

<u>Meta Response</u>: Disputed. Disputed on the ground that the cited material does not support the statement. The FTC contends that everything users do on Facebook and Instagram other than Facebook Dating is personal social networking, including watching unconnected video. *See* Meta SMF ¶¶ 578-585, 620-626. Video accounts for more than 60% of time on both Facebook and Instagram today. Ex. 499 at 6 (Meta Q1 2024 Earnings Call). Additionally, empirical evidence shows that users spend a small amount of time viewing content posted by friends on Facebook and Instagram; [redacted] of time on Facebook and [redacted] of time on Instagram. *See* Meta SMF ¶¶ 11, 56. The FTC cites no evidence that providers of those features require a critical mass of user's

friends and family to gain traction with people. Further disputed on the basis that "critical mass" and "gain traction with people" is vague and undefined, and the assertion is inconsistent with the FTC's assertions that applications such as Instagram provided PSNS at the time of launch. *See*, *e.g.*, Counter SMF ¶ 1060. Further disputed based on the use of "PSN Services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. A 2008 Meta document described how "[u]ser growth precedes user engagement. It is not until all your friends are on the network that you can really enjoy the benefits with associated greater engagement." PX3436, Meta document: "Facebook's Secret Sauce" (Nov. 10, 2008), FB_FTC_CID_03249637, at -638.

Meta Response: Disputed in part. Undisputed that the quoted language appears in the document from 2008. Disputed for the reasons stated above in Meta's response to paragraph 1120.

b. In a 2011 email with research findings sent to Meta executives, Meta found "[t]here is little need to visit Google+ multiple times a day (now) because there is rarely anything new to see" because "[p]eople who are big fans of G+ are having a hard time convincing their friends to participate . . . ." PX2042, Meta email chain: [redacted] to M. Zuckerberg, et al. re: "Google+ Qualitative Findings," (Dec. 14, 2011), FB_FTC_CID_01529491, at -491.

Meta Response: Disputed in part. Undisputed that the quoted language appears in the document from 2011. Disputed for the reasons stated above in Meta's response to paragraph 1120, and on the ground that the document did not represent the findings of "Meta."

c. A 2012 Meta document prepared for potential investors noted "your friends are all here" as one of Facebook's competitive moats against Google+. PX3184, Meta document: "Top Investor Questions" (Apr. 26, 2012), FB_FTC_CID_06067350, at -351.

Meta Response: Disputed in part. Undisputed that the document, from 2012, contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1120.

1121. Third parties similarly recognize the dynamic that PSN services depend on the presence and engagement people building connections and interacting with their friends and family.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the cited material does not support the statement and for the reasons stated above in Meta's response to paragraph 1120.

a. A 2020 Snap document noted: "[a]nyone looking to bootstrap a new social networking service faces a chicken-and-egg problem. New services must attract users to populate its social graph, but social networks are not very useful without an existing social graph of sufficient density." PX14977, Snap document: "Voldemort Overview" (Dec. 5, 2020), SNAP – FTC – No. 191-0134 – 0000008770, at -770.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1120.

b. LinkedIn described "users who interact on the platform thus creating a reason for other users to interact on the platform with them" as a main input of a social network. PX14687, LinkedIn document: "Market definition and competitive assessment in relation to social networking services" (July 10, 2019), LI_FTC_0000065, at -094-95.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement and quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1120. Further disputed that this statement creates a genuine dispute of material fact because the cited quotation is describing what LinkedIn refers to as "social networking services"; the document states [redacted]. The document also explains "service that initially would not seem to offer social networking functionality may also transform itself to provide a social networking experience. All it takes is an online service that keeps users engaged by offering an experience they enjoy." *See id.* at -095.

c. In a submission to the European Commission, LinkedIn wrote that "not knowing others on the social network . . . can limit the quality of user experience (e.g., not having people you know on a social network would prevent you from sending messages to your connections or seeing their stories on your newsfeed)." PX14687, LinkedIn document: "Market definition and competitive assessment in relation to social networking services" (July 10, 2019), LI_FTC_0000065, at -094

(describing the above as a "barrier to switching" to a new social networking service).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1120 and subparagraph 1121(b).

d. In a submission [redacted], Pinterest wrote:

> If the point of a social network is to connect the user with other people and facilitate the user's communication with the network of people the user selects, then the network has no value if no one else uses it. The more people who use the network, the better the network will be at connecting a user with all of the people the user wants to connect with on a given social network. It's not convenient (or possibly even feasible) to start using a new social network unless others do too. . . . [A]ttracting a critical mass of users is essential to delivering a viable social network, as there is no reason for users to start using a social network if there is no one there with whom they can connect."

PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -384.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1120. Further disputed that this statement creates a genuine dispute of material fact because the cited quotation is not describing alleged personal social networks; it is describing what Pinterest refers to as social networks. Consistent with the text of the document, Pinterest's corporate representative agreed that "TikTok, Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of a social network as used in the document. Ex. 45 at 427:20-428:1 (Roberts (Pinterest) Dep. Tr.). Moreover, Pinterest stated in the

same document that it would not classify Instagram or Snapchat as a "personal" social network, but as a "Celebrity/Influencer" social network in the same category as TikTok. PX7034 at -378 (FTC-PINTEREST-00001366). Pinterest's corporate representative testified that Pinterest agrees with that characterization in the U.S. today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

e. In a submission [redacted], Pinterest wrote:

> [O]ne of the most important factors influencing user's choice of a social networking service is the presence of robust communities of people and content the user wants to engage with, whether that consist of friends and family, or creators and influencers who are sharing their content on those platforms. Because of that, we believe that users are most likely to use Facebook as a social network over other networks because it has the largest audience, and is most likely to have their friends and family on the network.

PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -383.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1120 and subparagraph 1121(d).

f. Bradley Horowitz, former Vice President of Product Management at Alphabet, testified regarding an email chain about Emerald Sea—the project which later became Google+—that "what Vic is stressing is until we have a social graph of consequence we can't expect success, and that we need to keep focused on connecting people to people; in other words, building that social graph." PX6148, Horowitz (Google) Dep. Tr., at 64:18-19, 65:20-66:16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1120.

g. Former Alphabet executive Michael Cassidy wrote in 2011 that "[t]he hardest part of launching a social networking site is getting off the ground. There's a huge 'chicken or the egg' problem at the beginning. (No one wants to contribute social content because there's no one there to see it. And there's no one there to see it because no one is contributing social content, etc.)." PX7056, Google email chain: M. Cassidy to N. Arora, et al. re: "follow up from Twitter OF deal discussion and explanation of implicit social graph," (Apr. 4, 2011), GOOG-META-00582471, at -472; *see also* PX7071, Google email chain between V. Gundotra & J. Hubert, et al. re: "Time sensitive: 'Social search' blog post for approval," (Feb. 3-4, 2011), GOOG-META-00581701, at -701, -703-04 (describing Mr. Cassidy as a "senior person" who was designated to "lead[] pre-briefings with press" regarding Google's "social search" project).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1120.

h. Mr. Horowitz testified that "[i]f I want to share something, that is not a single-player phenomenon. It involves having the recipients -- the intended recipients of that sharing gesture present on the service. So, by definition, because sharing is social, it involves either the presence of those people or soliciting the presence of those people to receive it." PX6148, Horowitz (Google) Dep. Tr., at 56:7-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1120 and 1121.

e) Lack of sensitivity to price changes, distinct customers, and distinct prices.

1122. The provision of PSN services is also marked by a lack of sensitivity to price changes, distinct customers, and distinct prices. *Infra* CMF at ¶¶ 1123-24.

Meta Response: Disputed. This statement cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1123-1124, Meta incorporates its responses to those statements here. Further disputed for the reasons stated below in Meta's responses to paragraphs 1504, 1506, 1521, 1525, and 1528(b)(i)-(ii) (related to demand elasticity or supposed "price discrimination"). *See also* Meta SMF ¶ 640. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1123. Users of Facebook and Instagram display a lack of sensitivity to price changes.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below.

a. Users' response to the Cambridge Analytica scandal and other evidence indicates inelastic demand for Facebook and Instagram. *Infra* CMF at § II.C.4; PX9000, Hemphill Report at § 3.3.4.

Meta Response: Disputed. Disputed because this statement cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. Further disputed for the reasons stated below in Meta's responses to paragraphs 1507 and 1512 (related to Cambridge Analytica). To the extent this statement incorporates the FTC's statements in Section II.C.4, Meta incorporates its responses to those statements here.

b. Users' behavior during and following the October 2021 Meta outage further demonstrates users' inelastic demand for Facebook and Instagram. *Supra* CMF at § II.A.8.d; PX9007, Hemphill Rebuttal Report at § 2.2.3.1.5.

Meta Response: Disputed. Disputed because this statement is a conclusory assertion that does not explain why the outage or what data from the outage supports this statement regarding "inelastic demand." [redacted] *See* Meta SMF [redacted]. Further disputed that there is "inelastic demand" for Facebook and Instagram, including for the reasons stated below in Meta's responses to paragraphs 1504, 1506, 1521, 1525, and 1528(b)(i)-(ii) (related to demand elasticity or supposed "price discrimination"). *See also* Meta SMF ¶ 640. To the extent this statement incorporates the FTC's statements in Section II.A.8(d), Meta incorporates its responses to those statements here.

c. Meta has increased ad load over time on Facebook and Instagram. *Infra* CMF at § II.C.3.a; PX9000, Hemphill Report at § 3.2.3.3.

Meta Response: Disputed in part. Undisputed that Meta has increased ad load on Facebook and Instagram, which started with showing zero ads. Disputed because this statement is vague and conclusory, including because it does not clarify the time period at issue. There have been times where Meta has lowered ad load; Professor Hemphill calculated that [redacted]. *See* PX9000 at ¶ 719 & Ex. 54 ("Instagram Feed Ad Load"). Further disputed for the reasons stated below in Meta's responses to paragraphs 1466, 1468, 1492, and 1493 (and accompanying subparagraphs). To the extent this statement incorporates the FTC's statements in Section II.C.3(a), Meta incorporates its responses to those statements here.

d. Meta has reduced quality on Facebook and Instagram on other product quality dimensions over time. *Infra* CMF at § II.C.3.b & § II.C.3.c; PX9000, Hemphill Report at § 3.3.3.

Meta Response: Disputed. Disputed because this statement cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. Further disputed for the reasons stated below in Meta's responses to paragraphs 1432, 1474, 1501, and 1542. The FTC's principal expert admitted that there is no measure of net quality in the record and that Meta has improved the quality of its services by innovating new features. *See* Meta SMF ¶¶ 127, 129. To the extent the statement incorporates the FTC's statements in Sections II.C.3(b) and II.C.3(c), Meta incorporates its responses to those statements here.

1124. Meta also price discriminates in its provision of PSN services by charging a higher-quality adjusted price to users with more inelastic demand. PX9000, Hemphill Report at § 3.2.3; PX9007, Hemphill Rebuttal Report at ¶¶ 104-21, 340-52.

Meta Response: Disputed. This statement and its subparagraph cite no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore do not create a genuine dispute of material fact. They instead cite dozens of pages from Professor Hemphill's reports without explanation. Further disputed for the reasons stated below in Meta's responses to paragraphs 1474, 1504, 1506, 1521, 1525, and 1528(b)(i)-(ii) (related to demand elasticity, quality-adjusted price, or supposed "price discrimination"). The FTC presents no evidence of relevant price discrimination – that is, there is no evidence that Meta set a higher ad load for users with higher demand for friends and family sharing, , *see* Meta Resp. to Counter SMF ¶ 1504 – and has no measure of overall quality-adjusted price, *see* Meta SMF ¶ 129.

a. Meta does this by setting a higher ad load for users with more inelastic demand. *Infra* CMF at § II.C.4(b)(1).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1124. To the extent the statement incorporates the FTC's statements in Section II.C.4(b)(1), Meta incorporates its responses to those statements here.

b. Meta also does this by underinvesting in its provision of friends and family sharing. *Infra* CMF at § II.C.4(b)(2).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1124, and below in Meta's response to paragraph 1501. To

the extent the statement incorporates the FTC's statements in Section II.C.4(b)(2), Meta incorporates its responses to those statements here.

5. Other types of online services ("non-PSN apps") are not reasonable substitutes for PSN services.

1125. Other types of apps exist in which users can generate and share content. These other types of apps and online services ("non-PSN apps"), however, are not reasonable substitutes for PSN services because they lack a core use of friends and family sharing and the distinct functionality of PSN apps that facilitates and fosters friends and family sharing. *See infra* CMF at ¶¶ 1126-1296; PX9000, Hemphill Report at ¶¶ 371-589 (discussing how the core use, functionality, and empirical evidence about usage of non-PSN apps differ from PSN apps); PX9004, Lampe Report at ¶¶ 183-272 (discussing how the designs, motivations, and norms of non-PSN apps differ from PSN apps).

Meta Response: Disputed. Disputed that the statement – which cites hundreds of paragraphs in Professor Hemphill's and Professor Lampe's reports and provides only a conclusory opinion in parentheticals – creates a genuine dispute of material fact. The FTC proffers no evidence to support the assertion that "other apps" are not reasonable substitutes for Facebook and Instagram. The FTC defines "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market. *See* Meta SMF ¶¶ 580-584. For example, posting about a new job or workout, viewing entertainment- or interest-based content, and sending messages are PSNS when done on Facebook and Instagram. *See id.* [redacted] LinkedIn, [redacted], YouTube, TikTok, Twitter, Reddit, Pinterest, [redacted] *See* Counter SMF §§ II.A.5(a)-(d); *see also* Meta SMF ¶¶ 161-180 (YouTube features), ¶¶ 208-243 (TikTok features), ¶¶ 279-310 (Twitter

features), ¶¶ 330-341 (Pinterest features), [redacted], ¶¶ 383-389 (Reddit features), ¶¶ 401-407 (LinkedIn features), [redacted].

The assertion that there is a distinct category of apps that provide "PSN services" is refuted because all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Bolstering this substitution evidence, non-parties the FTC excludes from its PSNS market – YouTube, TikTok, and Twitter, [redacted] – all view Facebook and Instagram as [redacted] competitors. *See*, *e.g.*, *id.* at ¶¶ 189-196, 200-202 (YouTube), ¶¶ 254-256, 267-270 (TikTok), ¶¶ 316-319, 324-326 (Twitter), [redacted]. And Meta's documents and testimony also show that Meta views applications the FTC excludes from its PSNS market as significant competitors to Facebook and Instagram. *See*, *e.g.*, *id*. at ¶¶ 181-188, 199 (YouTube), ¶¶ 244-253, 263-265 (TikTok), ¶¶ 311-315, 321-323 (Twitter), ¶¶ 439-447 (iMessage, Google Messages, and others), ¶¶ 343-346 (Pinterest), ¶¶ 365-368 (Nextdoor), ¶¶ 392-396 (Reddit), ¶¶ 409-411 (LinkedIn).

Further disputed because [redacted]. *See id.* at ¶¶ 161-180 (YouTube features), ¶¶ 208-243 (TikTok features), ¶¶ 279-310 (Twitter features), ¶¶ 330-341 (Pinterest features), [redacted], ¶¶ 383-389 (Reddit features), ¶¶ 401-407 (LinkedIn features), [redacted]. And the

record establishes [redacted]. *See*, *e.g.*, *id.* at ¶¶ 166, 175, 182 (YouTube), [redacted], [redacted], ¶¶ 272, 276, 294-296, 300, 306-310 (Twitter), ¶¶ 333, 335, 340 (Pinterest), [redacted], ¶¶ 401, 404-407 (LinkedIn); Meta Resp. to Counter SMF [redacted]. Moreover, time spent on Facebook and Instagram is largely not associated with friends and family sharing. Professor Carlton calculated that as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *See* Meta SMF ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Further disputed because the statement is conclusory and asserts an improper legal conclusion that the only "reasonable substitutes" for "PSN apps" are those with "core functionality and use for serving demand for friends and family sharing." The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed on the ground that "core functionality" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this statement incorporates the FTC's statements in paragraphs 1126-1193, Meta incorporates its responses to those statements here.

1126. Without a core use of friends and family sharing, non-PSN apps lack the norms and set of friend connections that are important to people being willing to use an app to meet

demand for friends and family sharing. *See supra* CMF at §§ II.A.4(a)(8), II.A.4(d); PX9000, Hemphill Report at ¶¶ 375-384; PX9004, Lampe Report at ¶¶ 62-73, 183-86.

Meta Response: Disputed. Disputed that the statement – which cites dozens of paragraphs in Professor Hemphill's and Professor Lampe's reports with no explanation – creates a genuine dispute of material fact. The FTC provides no evidence that "norms" and "demand for friends and family sharing" is relevant to substitution. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this statement incorporates the FTC's statements in Sections II.A.4(a)(8) and II.A.4(d), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 1125.

1127. Without functionality that fosters and facilitates friends and family sharing, individual consumers would find it difficult to engage in friends and family sharing on non-PSN apps and non-PSN apps are not well-positioned to generate material overall usage of their services for relationship maintenance with friends and family and communal sharing of personal information. *See supra* CMF at §§ II.A.4(b), II.A.4(a)(8), II.A.4(d); PX9000, Hemphill Report at ¶¶ 25, 27, 385-86; PX9004, Lampe Report at ¶¶ 55-73, 183-86, 263-66; PX6029, Zuckerberg (Meta) IH Tr., at 181:22-182:5 (describing how "the culture of the apps and which features get emphasized can lead to . . . different use cases").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that "functionality that fosters and facilitates friends and family sharing" is relevant to substitution. Further disputed because "material overall usage of their services for relationship maintenance

with friends and family and communal sharing of personal information" is vague and undefined. To the extent the statement incorporates the FTC's statements in Sections II.A.4(b), II.A.4(a)(8), and II.A.4(d), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 1125.

a) Specialized social networking apps are not reasonable substitutes for PSN services.

1128. Specialized social networking apps are focused on specialized content and users, and they are not reasonable substitutes for PSN services because they lack core functionality and use for serving demand for friends and family sharing. *See infra* CMF at ¶¶ 1129-70; PX9000, Hemphill Report at ¶¶ 396-398 (discussing how specialized social networking apps' "functionality and use are focused on the sharing of specialized content with a distinct set of users"); *see also id.* at § 3.2.2.4.2.; PX6051, Patel (Meta) Dep. Tr., at 71:2-20 ("Q. The last column is titled, 'Specialized Social,' includes the logos for, among others, LinkedIn and Nextdoor. And the primary purpose for specialized social applications reads, 'Curating community experience for different segments of users'; is that right? . . . A. That's how I believe [redacted] is characterizing it on this slide, in the context of this study. Q. And key characteristics of specialized social applications is that they are based on common interest and feature natural audience, filtering by platform, correct? A. Yes. Common interest, similar to some of the other columns and apps, as well as common cure of the natural audience filtering by platform piece, but I do see the common interest one.").

<u>Meta Response</u>: Disputed. Disputed that the statement creates a genuine dispute of material fact because the FTC proffers no evidence to support the assertion that apps that provide specialized social networking are not reasonable substitutes for Facebook and

Instagram. The citations to Professor Hemphill's report and Mr. Patel's deposition do not establish that apps outside of the FTC's proffered market are not "reasonable substitutes" for the apps within that market. The FTC defines "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including posting about a new job, garage sale, or workout. *See* Meta SMF ¶¶ 580-584. [redacted] LinkedIn, [redacted]. *See* Counter SMF [redacted]; Meta SMF [redacted], ¶¶ 401-407 (LinkedIn features), [redacted]. The assertion that there is a distinct category of apps that provide "PSN services" is refuted because all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are a closer substitute for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment).

Further disputed because apps the FTC excludes from its PSNS market as "specialized social network" – LinkedIn, [redacted], and [redacted] – [redacted]. *See*, *e.g.*, *id.* at ¶¶ 412-414 (LinkedIn), [redacted]. And Meta's documents and testimony also show that Meta views these applications as significant competitors to Facebook and Instagram. *See*, *e.g.*, *id*. at ¶¶ 409-411 (LinkedIn), ¶¶ 365-368 (Nextdoor).

Further disputed because apps that the FTC characterizes as "specialized social networks" [redacted]. *See id.* at [redacted], ¶¶ 401-407 (LinkedIn features), [redacted]. And the record establishes that users share with friends and family on apps that

are not included in the FTC's proposed market. *See*, *e.g.*, *id.* at ¶¶ 401, 404-407 (LinkedIn); Meta Resp. to Counter SMF ¶ 1055 (evidence that TikTok, messaging apps, LinkedIn, Twitter, Pinterest, YouTube, and Nextdoor are all used to share with friends and family). Moreover, time spent on Facebook and Instagram is largely *not* associated with friends and family sharing. Professor Carlton calculated that as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). Meta SMF ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Further disputed because the statement is conclusory and asserts an improper legal conclusion that the only "reasonable substitutes" for "PSN services" are those with "core functionality and use for serving demand for friends and family sharing." Further disputed on the ground that "core functionality" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this statement incorporates the FTC's statements in paragraphs 1129-1170, Meta incorporates its responses to those statements here.

(1) LinkedIn lacks core functionality and use for friends and family sharing.

1129. Launched in 2003, LinkedIn is "the world's largest professional network," whose mission is to "connect the world's professionals to make them more productive and successful."

PX14865 at -001, *About LinkedIn*, LinkedIn, https://about.linkedin.com/ (last visited May 20, 2024).

Meta Response: Undisputed.

1130. Professor Hemphill concluded that "LinkedIn is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 413; *see also id.* at ¶¶ 376-377, 380, 382, 400-13.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. The cited paragraphs in Professor Hemphill's report do not show that "LinkedIn is not a reasonable substitute for users seeking PSN services." The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC defines "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including posting about a new job and sending a message congratulating someone on a professional achievement. *See* Meta SMF ¶¶ 580-584. LinkedIn competes with [redacted]. *See id.* at ¶ 409-414 (collecting testimony and documents reflecting this competition).

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and LinkedIn. Evidence from Meta and LinkedIn show that both consider LinkedIn to compete with Facebook and Instagram. *See id.* For example, Mr. Pattabiraman, a senior director of product at LinkedIn, testified that [redacted]

[redacted] Ex. 69 at 51:20-52:2 (Pattabiraman (LinkedIn) Dep. Tr.). A 2016 internal LinkedIn document compared various features of LinkedIn and Facebook in a slide titled "Benchmarking – Competitor Overview." Ex. 72 at -307 (LI_FTC_0006295). A 2019 internal LinkedIn document [redacted] Ex. 73 at -622 (LI_METALIT_00003618). [redacted], *see* Meta SMF ¶¶ 185, 410, and, the former head of the Facebook app, Ms. Simo, testified that LinkedIn was one of Facebook's competitors, explaining that "work colleagues are fundamentally social connections and they're your community and, therefore, we were tracking LinkedIn closely." *Id.* at ¶ 409 (quoting Ex. 150 at 221:14-222:4 & errata (Simo Dep. Tr.)).

Further, LinkedIn has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, a social graph, a feed, and other social features. *See id.* at ¶¶ 401-407; *see also* FTC Counter SMF ¶ 1137 (stating that "users can connect with friends and family on LinkedIn"). LinkedIn users can create profiles; find and connect with friends, family members, and coworkers; post content and photos; view content posted by other users in a feed; like and comment on content other users have posted; and review other users' connections. *See* Meta SMF ¶¶ 401-407. Professor Hemphill opined that "LinkedIn has a social graph that in certain respects resembles Facebook's social graph. Like Facebook's process for adding friends, LinkedIn allows a user to send 'connection requests' to other users, who can choose to accept or decline the request." *Id.* at ¶ 401

(quoting Ex. 279 at ¶ 401 (Hemphill Rep.)). Professor Lampe, opined that "LinkedIn has many characteristics and features in common with sites one would consider PSNS" and that "colleagues are a part of a user's social network." Ex. 290 at ¶ 204 (Lampe Rep.). And the FTC does not dispute that "LinkedIn describes its 'core business' as a 'widely used social networking service.'" Meta SMF ¶ 400 (including FTC response) (citing Ex. 68 at -066 (MetaFTC-Klein-DX-214, LI_METALIT_00000065)).

The record also shows that LinkedIn users in fact use LinkedIn to share with family and friends. LinkedIn's representative testified: "we have always seen friends and family be a part of your experience on LinkedIn," which "has only increased with the . . . pandemic." *Id.* at ¶ 406 (quoting Ex. 69 at 77:19-78:1 (Pattabiraman (LinkedIn) Dep. Tr.)). Professor Lampe testified that he "ha[d] no basis to dispute" that "[redacted]." *Id.* at ¶ 401 (quoting Ex. 281 at 338:6-12 (Lampe Dep. Tr.)). Mr. Pattabiraman explained that "LinkedIn is . . . used for friends and family" and that "Facebook is . . . – [in] the same space as LinkedIn. It helps connect people, including friends and family." Ex. 69 at 29:10-16 (Pattabiraman (LinkedIn) Dep. Tr.). He also testified that "the norms are getting blurred," as it is "increasingly more common for [users] to share" personal content on LinkedIn. *See id.* at 79:5-13. He stated that the line between personal and professional is so blurred [redacted] *See id.* at 270:6-272:6.

As examples of personal sharing that is frequent on LinkedIn, Mr. Pattabiraman testified, "[it] can be anything from you overcoming a big challenge in your life. It could

be you running a marathon. . . . Sometimes there is also your viewpoints, your personal viewpoints on topics that are important to society. Could be politics, religion. Could be anything that is important to you as an individual that you would also like your friends, families, and coworkers to know." Meta SMF ¶ 406 (quoting Ex. 69 at 77:19-78:1, 78:3-22 (Pattabiraman (LinkedIn) Dep. Tr.)). Mr. Pattabiraman also testified, "On LinkedIn, we have professionals that connect with their friends. They could – could be because they are sharing content on what's happening in the professional world. It could be because they need to message each other and stay in touch. These are all use cases that I'm aware of where we see friends and family connect on LinkedIn." Ex. 69 at 32:16-33:3 (Pattabiraman (LinkedIn) Dep. Tr.).

1131. Professor Lampe opined that LinkedIn's design, motivations, and norms confirmed that its core purpose was not personal social networking and that it was not a PSN service. *See* PX9004, Lampe Report at ¶ 204; *see also id.* at § V(B).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the paraphrased opinion. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization of LinkedIn's "design" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (quoting Ex. 218 at 160:8-17, 163:4-10 (Lampe Dep. Tr.)).

(a) LinkedIn has a core use of professional social networking, not friends and family sharing.

1132. LinkedIn recognizes it has a core use of professional social networking rather than friends and family sharing.

Meta Response: Disputed in part. Undisputed that LinkedIn recognizes that it is used to share content with professional contacts, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that LinkedIn's supposed view of itself is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. LinkedIn's description in Apple's App Store, as of March 2023, begins with "Welcome professionals! LinkedIn is the social network for job seekers, professionals, and businesses. Build your network, find business contacts, connect with recruiters, and use your professional profile as an online resume." PX7053, Apple spreadsheet, (undated), APL-FTCMETA_00042482, tab "Historical App Descriptions" at row 2644; *see also* PX14903, *LinkedIn: Network & Job Finder*, Apple App Store Preview, https://apps.apple.com/us/app/linkedin-network-job-finder/id288429040 (last visited May 20, 2024) (displaying a screenshot of LinkedIn's App Store page); PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 141:22-142:8, 143:9-18 (testifying that the quoted language was an accurate description of LinkedIn and how users generally use LinkedIn).

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language and the witness provided the paraphrased testimony. Disputed

for the reasons stated above in Meta's responses to paragraphs 1130 and 1132. Further disputed because the quoted language from PX7053 is incomplete. The document also states that LinkedIn provides both "Business Networking" and "Social Networking," and that users can: "*Find friends*, classmates, and colleagues to add to your network," and "[s]ee updates on their activity and reach out on the app to stay in touch." PX7053 at "Historical App Descriptions" tab, row 2644 (APL-FTCMETA_00042482) (emphasis added).

Further disputed because the paraphrased language from Mr. Pattabiraman's testimony is incomplete. The FTC showed Mr. Pattabiraman the same incomplete excerpt of quoted language from PX7053 and asked, "[a]re these some of the primary uses of LinkedIn," to which Mr. Pattabiraman answered, "[t]hese are ways in which people use LinkedIn. There are other value propositions that LinkedIn offers as well." PX6112 at 143:21-144:5 (Pattabiraman (LinkedIn) Dep. Tr.). As stated above in Meta's response to paragraph 1130, among other things, he testified that "we have always seen friends and family to be a part of your experience on LinkedIn" and "LinkedIn is . . . used for friends and family," *id.* at 29:10-16, 77:19-78:1, and so much so [redacted] *Id.* at 270:6-272:6.

b. In a 2019 submission to the European Commission, LinkedIn wrote "LinkedIn's social networking services focus on professionals and promoting professional connections." PX14687, LinkedIn document: "Case AT.40628 – Facebook /

Market definition and competitive assessment in relation to social networking services," (July 10, 2019), LI_FTC_0000065, at -066.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1132. Further disputed because the quotation is incomplete and misleading. The document states: "LinkedIn users tend to use Facebook both as a substitute and complement to LinkedIn." PX14687 at -082 (LI_METALIT_00000065). [redacted] Moreover, regardless of whether they are thought of as primarily personal or professional, social networks offer users the same basic functionality, including user profiles, newsfeeds, timelines, and lists of connections." *Id.* at -086.

c. Kumaresh Pattabiraman, LinkedIn's Senior Director of Product Management and corporate representative, testified that "LinkedIn is in the space of connecting professionals, and more broadly, people that are pursuing economic opportunity." PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 24:18-21, 32:4-7.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to

paragraphs 1130 and 1132. Further disputed because the quotation is incomplete and misleading, as stated above in Meta's response to subparagraph 1132(a).

d. LinkedIn CEO Ryan Rolansky, in a 2022 memo to Microsoft's Board of Directors, wrote that "as the world's leading professional community, LinkedIn helps professionals around the world work together to access career opportunity, share professional knowledge, and grow businesses." PX14894, LinkedIn document: "LinkedIn Business Strategy Memo 2022" (Apr. 11, 2022), LI_METALIT_00011295, at -295; *see also* PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 145:5-146:9 (testifying the quoted language is an accurate statement of LinkedIn's strategy as of April 2022).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1132. Further disputed because the cited testimony is incomplete. When asked if the quoted document was [redacted] PX6112 at 146:3-17 (Pattabiraman (LinkedIn) Dep. Tr.). As stated above in Meta' responses to paragraph 1130 and subparagraphs 1132(a) and 1132(c), Mr. Pattabiraman testified that another use on LinkedIn was sharing between friends and family.

e. In a 2023 interview, LinkedIn CEO Ryan Rolansky stated "[w]e don't view ourselves as a social network. We are a platform that exists to create economic opportunity." PX14867 at -014, Harry McCracken, *LinkedIn Turns 20: An Oral*

History of an Unlikely Champion, Fast Co. (Mar. 7, 2023), https://www.fastcompany.com/90849652/linkedin-20-oral-history-unlikely-champ.

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1132. The document quotes another LinkedIn employee as stating that LinkedIn made profiles "public and allow[ed] to be found via search engines" because "[n]ormal people were aware that friends, family, and potential dates would be googling them." PX1487 at -005 (Fast Company, *LinkedIn turns 20: An oral history of an unlikely champion*).

f. Former LinkedIn CEO Jeff Weiner wrote in 2012 that LinkedIn's "core value propositions for members in the areas of **professional identity** (e.g. the LinkedIn Profile, Search, and Contacts); **professional insights** (e.g. the Home Page, Slideshare, LinkedIn Today, Groups and Influencers), and ensuring we work wherever our members work -- **everywhere** (e.g. mobile and API development)." PX0622 at -002, Jeff Weiner, *The Future of LinkedIn and the Economic Graph*, LinkedIn Pulse (Dec. 10, 2012), https://www.linkedin.com/pulse/20121210053039-22330283-the-future-of-linkedin-and-the-economic-graph/.

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1132.

1133. Meta recognizes LinkedIn has a core use of professional social networking, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's supposed recognition of LinkedIn's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Mark Zuckerberg testified that "the culture of the apps and which features get emphasized can lead to . . . different use cases. So, I mean, for example, LinkedIn has a feed, and it has a bidirectional contact model, and it has a lot of the -- these same basic features that a lot of other social apps have, but it clearly has a more professional tone." PX6029, Zuckerberg (Meta) IH Tr., at 181:23-182:5. Mr. Zuckerberg further testified that LinkedIn "has a much more professional feeling, kind of a work enterprise tone[,] than Facebook." *Id.* at 182:22-24.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1133. Further disputed because the quoted testimony is incomplete. Immediately after the first quoted portion of testimony, Mr. Zuckerberg stated, "you know, [LinkedIn] has a different feel to it, but it is actually somewhat overlapping and competitive with the other services. And people certainly find jobs through Facebook. We actually have a whole service

around people finding jobs." PX6029 at 182:8-12 (Zuckerberg IH Tr.). As to the second quotation, Mr. Zuckerberg's full quotation states: "So in some ways, you would clearly think that, like, LinkedIn, you know, has a much more professional feeling, kind of work enterprise tone than Facebook, so it would emphasize a set of things, even though a lot of mechanics underneath were similar, and the networks, I think, are actually still somewhat competitive in that way." *Id.* at 182:21-183:2. Mr. Zuckerberg also testified that "to the extent that a lot of people's – a lot of people have friends from work, there's going to be some overlap" between Facebook and LinkedIn. Ex. 142 at 42:3-5 (Zuckerberg Dep. Tr.). Mr. Zuckerberg also testified: "[T]he way I think about this is this is all just part of one overall space, and there aren't completely different silos where, you know, one app is in one completely different zone than another. There's . . . emphases where LinkedIn clearly emphasizes more professional content, but there's also some overlap in connection between the use cases." *Id.* at 42:18-25.

b. Instagram co-founder Kevin Systrom testified that he did not consider LinkedIn as a competitor to Instagram prior to Instagram's acquisition by Meta "for obvious reasons. They're a social network focused on professional development." PX6027, Systrom (Meta/Instagram) IH Tr., at 158:9-15.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1133.

c. Instagram co-founder Mike Krieger similarly testified that, prior to Instagram's acquisition by Meta, he did not think of LinkedIn as competition to Instagram

because "[t]heir use case seemed mostly around professional connections." PX6015, Krieger (Meta/Instagram) IH Tr., at 89:15-23.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1133.

d. Keval Patel, Director of Product Strategy at Meta, testified that LinkedIn "generally in a market like the U.S. is used for professional connections." PX6051, Patel (Meta) Dep. Tr., at 14:22-15:3, 224:17-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1133. Further disputed because the quoted testimony is incomplete and misleading. Immediately preceding the quoted testimony, Mr. Patel testified that Facebook competes with LinkedIn. *See* PX6051 at 224:10-23 (Patel Dep. Tr.) ("Q. Do you believe that Facebook competes with LinkedIn and Next Door? A. Yes. Q. Can you describe the nature of the competition between the Facebook family of apps and LinkedIn and Next Door? A. Sure. To give you a couple of examples, in the case of LinkedIn, which generally in a market like U.S. is used for professional connections. In other countries, there are other products that are used for a similar kind of use case. We've seen through research, WhatsApp being used for that, the Facebook app being used for job hunting, job searches, so on and so forth.").

e. Tom Cunningham, a former data scientist and research scientist at Meta, when asked about "[w]hat distinguished LinkedIn from Facebook," testified in response that

> I think the -- a number of things. One the set of features specifically for -- related to jobs and job finding. Another is the -- the qualitative differences of users who use LinkedIn relative to Facebook. And third is the -- the actual uses which people use the features of LinkedIn for versus the use of similar features on Facebook."

PX6008, Cunningham (Meta) IH Tr., at 22:3-8, 102:3-12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, except that the second sentence in the block quote should read "One is the." Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1133.

1134. Other parties recognize LinkedIn has a core use of professional networking, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that other parties' supposed recognition of LinkedIn's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Chris DeWolfe, the former CEO of Myspace, testified that Myspace did not "consider LinkedIn to be a rival that Myspace users might turn to, to connect with friends and family" and that LinkedIn is "used for professional connections primarily." PX6066, DeWolfe (Myspace) Dep. Tr., at 145:3-146:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134.

b. MeWe founder and former CEO Mark Weinstein testified that LinkedIn is not a personal social network, because "LinkedIn is a professional business site where people put their professional -- almost that you call them bios, LinkedIn calls them profiles, for the world to see. It's absolutely zero relationship to personal social networking." PX6110, Weinstein (MeWe) Dep. Tr., at 308:21-309:11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134.

c. Scott Coleman, a former product marketing executive at Pinterest, testified that he considers LinkedIn "to be a professional network that does some social connection," and that LinkedIn is "more colleagues and professionals" than friends, which is "why [he] wouldn't put it in the social network category." PX6108, Coleman (Pinterest) Dep. Tr., at 21:2-28:14, 238:8-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134.

d. In a 2019 submission [redacted], Pinterest wrote that "LinkedIn is appropriately described as a professional social networking service because its primary aim is to connect people based on existing or potential professional relationships, and its feature set is designed to do so." PX7034,

Pinterest document: [redacted], FTC-PINTEREST-00001366, at -378.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134. Further disputed because the cited document does not support the statement in paragraph 1134; instead, it offers a high-level response to a question asking for an explanation of the purposes that social networks serve. *See* PX7034 at -369 (FTC-PINTEREST-00001366). Pinterest's representative agreed that "TikTok, Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of a social network used in the document. Ex. 45 at 427:21-428:1 (Roberts (Pinterest) Dep. Tr.). Moreover, Pinterest stated in the cited document that it would not classify Instagram or Snapchat as a "personal" social network, but as a "Celebrity/Influencer" social network in the same category as TikTok. PX7034 at -378 (FTC-PINTEREST-00001366). Pinterest's representative testified that Pinterest agrees with that characterization in the U.S. today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

e. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134.

f. In a 2011 valuation report on LinkedIn, Morgan Stanley observed "LinkedIn's usefulness as a professional networking site / business utility in addition to being a job search engine," and that its "professional focus differentiates it from the other major social networks." PX3432, Meta document: "Morgan Stanley: LinkedIn Corp" (June 28, 2011), FB_FTC_CID_03111679 at -693 (circulating a report by Morgan Stanley).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134. Further disputed because the cited document is 13 years old. Over a decade later, there is extensive evidence that Facebook and Instagram compete with LinkedIn, as stated above in Meta's response to paragraph 1130.

g. TikTok explained to the European Commission in 2020 that "from a user's point of view the primary aim of 'social networking services' is to allow users to connect with other users" and they are "mainly used by people to stay in touch

and communicate" with connections. PX13581, TikTok document: "ByteDance Response to European Commission Request for Information"), (*June 19, 2020), TIK-00000001, at -005. TikTok further explained that "'social networking services' can be differentiated depending on their intended use and user base. A distinction can therefore be drawn between "social networking services" promoting interpersonal contact for private and entertainment purposes (i.e., Facebook) and services which are used for professional purposes (i.e., LinkedIn)." *Id.* at -010; *see also id.* at -011 (identifying LinkedIn as the main "Professional social networking service[]" operating worldwide, and as one of three of the main "Professional social networking services" operating in the European Economic Area).

Meta Response: Disputed. Disputed because the quotation from the cited document is incomplete and misleading. The full sentence of the quotation in the first sentence is: "We believe that 'social networking services' are mainly used by people to stay in touch and communicate with friends *and/or professional acquaintances* and share personal/business news and/or their interests with such friends and/or professional acquaintances." PX13581 at -005 (TIK-00000001) (emphasis added). The full sentence of the quotation in the second sentence is: "That said, we note that there is an increasing overlap in the use cases offered by 'social networking services'; services initially targeting non-professional use have extended their appeal such that they also target professional development and career opportunities. For example, Facebook has made it possible for businesses to create job postings and for job seekers to apply for those opportunities directly

on its 'social networking service.'" *Id.* at -010. Moreover, TikTok described only two of the four apps the FTC claims are PSNS market participants as "personal social networking services," – omitting Snapchat and MeWe – and included QZone, which is not in the FTC's alleged PSNS market. *Id.* at -011. Further, while TikTok described how it "believe[d]" users use "social networking services," it qualified its answer, explaining that "[w]e have not conducted studies on this question nor are we aware of such studies." *Id.* at -005. TikTok also stated that "users of 'personal social networking services' multi-home and use a variety of such services." *Id.* at -018. Further disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134.

h. TikTok's corporate representative, Adam Presser, testified that he agreed that "[i]n TikTok's view," "the Facebook application currently available to users within the United States [is] a social networking service that promotes interpersonal contact for private and entertainment purposes," whereas "the LinkedIn product currently available to users within the United States [is] a social networking service that is used for professional purposes." PX6097, Presser (TikTok) Dep. Tr., at 202:4-13.

Meta Response: Disputed. Disputed because the quotation of Mr. Presser's testimony is incomplete and misleading, as a result of the FTC's insertion of "whereas" between the two quoted portions. Mr. Presser did not purport to contrast or compare Facebook and LinkedIn; he simply answered "yes" to two questions posed by the FTC. *See* PX6097 at 202:4-13 (Presser (TikTok) Dep. Tr.) ("Q. In TikTok's view, is the Facebook application currently available to users

within the United States a social networking service that promotes interpersonal contact for private and entertainment purposes? A. Yes. Q. In TikTok's view, is the LinkedIn product currently available to users within the United States a social networking service that is used for professional purposes? A. Yes."). Further disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1134.

1135. Consumer surveys further demonstrate users' recognition of LinkedIn's core use of professional networking, not friends and family sharing.

Meta Response: Disputed in part. Undisputed that some survey respondents indicated they use LinkedIn for professional networking, but other respondents indicated they use LinkedIn for friends and family sharing. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

Further disputed because the survey evidence in the record – to the extent it is relevant – shows that substantial numbers of people use LinkedIn to share with their friends and family. [redacted] – a survey the FTC relies on – [redacted]. PX3442 at -465, -484 (FTC-META-004003463); *see also* Ex. 261 at -647-648

(FB_FTC_CID_00054637) ([redacted]). Another survey the FTC relies on concluded that [redacted]. *See* PX3400 at -015 (FTC-META-012244891).

a. A 2019 survey conducted by Meta found that [redacted]. PX3400 at -015, Meta document: [redacted] (May 14, 2021), FTC-META-012244891.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1135. Further disputed because the summary is incomplete. The document indicates that [redacted]. PX3400 at -015 (FTC-META-012244891).

b. A 2019 survey conducted by Audience Project found that 84% of U.S. respondents use LinkedIn "[t]o strengthen [their] professional network," with only 15% indicating they use LinkedIn "[t]o keep contact with friends and family." PX0623 at -076, *Insights 2019: App & Social Media Usage*, AudienceProject

(2019), https://audienceproject.com/wp-content/uploads/audienceproject_study_apps_social_media.pdf (last visited May 24, 2024).

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1135.

c. FTC Expert Michal Malkiewicz's survey found that 71.8% of respondents who used LinkedIn selected "[t]o make or maintain professional connections" as their most important reason for using LinkedIn, compared to only 4.6% of respondents who selected "[t]o keep up with my friends' and family's lives in one place." PX9006, Malkiewicz Report at ¶ 83, Table 11.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz's report contains the results described. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1135. Disputed that the statement, or Mr. Malkiewicz's survey, creates a genuine dispute of material fact, as Mr. Malkiewicz's survey, by his own admission, "never set out to measure economic substitution." *See* Meta SMF ¶ 652 (quoting Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)). Further disputed because the survey only asked about the "most important" reason for using an app; it has no bearing on other reasons people use an app. *See* PX9006 at -122-137 (Malkiewicz Rep.).

1136. There is not a norm of friends and family sharing on LinkedIn, and norms are instead focused on sharing professional information.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the "norms" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Disputed on the ground that "norms" is vague and undefined.

a. LinkedIn's description (as of March 2023) of its app on Apple's App Store states "[b]uild your network, find business contacts, connect with recruiters, and use your professional profile as an online resume." PX7053, Apple spreadsheet, (undated), APL-FTCMETA_00042482, tab "Historical App Descriptions" at row 2644; *see also* PX14903, *LinkedIn: Network & Job Finder*, App Store Preview, https://apps.apple.com/us/app/linkedin-network-job-finder/id288429040 (last visited May 20, 2024) (displaying a screenshot of LinkedIn's App Store page). LinkedIn's corporate representative, Kumaresh Pattabiraman, testified that the quoted language is an accurate description of how users generally use LinkedIn PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 143:9-18.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1136. Further disputed because the FTC's quotations and paraphrasing of the cited sources are incomplete and omit context. *See* Meta Resp. to Counter SMF ¶ 1132(a) (making the same point as to the same sources).

b. LinkedIn founder and former CEO Reid Hoffman stated in a 2019 interview that, regarding LinkedIn's focus on business:

> [P]eople began realizing that, in fact, they had different expressions of their identity. Who they connected with, how they filled out their profile, how they represented themselves, and what they shared was dependent on the platform. There are many people in their work lives that they would not be sharing family and vacation pictures with, and there [are] many people from their personal life that they would not want to be connecting with in their professional life. For example, if someone was trying to make clear what their professional skills are, it would look odd in a social context.

PX14877 at -004, Peter High, *Reid Hoffman Shares Lessons From His Career In Blitzscaling*, Forbes (Apr. 22, 2019), https://www.forbes.com/sites/peterhigh/2019/04/22/reid-hoffman-shares-the-lessons-from-across-his-career-in-blitzscaling/.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1136. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B).

c. Mark Zuckerberg testified at his 2023 deposition that he "d[idn't] think that LinkedIn is primarily about sharing with friends," that "their content and their feed certainly ha[ve] a somewhat more professional flavor," and "LinkedIn clearly emphasizes more professional content." PX6127, Zuckerberg (Meta) Dep. Tr., at 41:24-42:23. Mr. Zuckerberg would later testify that LinkedIn has "a major social media aspect of it which is probably the majority of the time spent on it at this point, but really a lot of it is about networking in a professional sense." PX6127, Zuckerberg (Meta) Dep. Tr., at 178:2-6.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated in Meta's responses to

paragraphs 1130 and 1136. Further disputed because the quotation is incomplete and omits context. In his 2023 deposition, Mr. Zuckerberg also testified that "to the extent that a lot of people's – a lot of people have friends from work, there's going to be some overlap" between Facebook and LinkedIn. Ex. 142 at 42:3-5 (Zuckerberg Dep. Tr.). Mr. Zuckerberg also testified: "[T]he way I think about this is this is all just part of one overall space, and there aren't completely different silos where, you know, one app is in one completely different zone than another. There's . . . emphases where LinkedIn clearly emphasizes more professional content, but there's also some overlap in connection between the use cases." *Id.* at 42:18-25; *see also* Meta Resp. to Counter SMF ¶ 1133(a) (describing additional 2020 testimony from Mr. Zuckerberg emphasizing similarities and competition between LinkedIn and Facebook).

d. In explaining what LinkedIn's CEO meant by describing LinkedIn's "unique professional context and capabilities," LinkedIn's corporate representative, Kumresh Pattabiraman, testified that:

> [Y]ou may use LinkedIn to share more of your accomplishments and things that are top of mind for you, as it relates to how you -- you connect with economic opportunity. That may be different from how you use another social platform with the same capabilities. So the -- the context that's being referred to here is the fact that LinkedIn is a social network for professionals. It creates certain context that -- that make it unique in terms of how people use it.

PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 160:2-162:17.

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1136. Further disputed because the excerpts are incomplete

and omit context. *See* Meta Resp. to Counter SMF ¶ 1132(a) (addressing Mr. Pattabiraman's testimony).

e. LinkedIn's corporate representative, Kumaresh Pattabiraman, also testified that:

> [W]e are a social network for professionals which means that we do see from a positioning standpoint that by positioning ourselves as a platform for our professionals, we create an identity for us, which is . . . an important consideration for how our users think of LinkedIn and how they use the product, the way they chose to use LinkedIn.

PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 166:3-11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1136. Further disputed because the quoted testimony is incomplete and omits context. *See* Meta Resp. to Counter SMF ¶ 1132(a) (describing Mr. Pattabiraman's testimony, including testimony that "we have always seen friends and family be a part of . . . LinkedIn," and that "LinkedIn is . . . used for friends and family").

f. A 2016 email describing user research conducted by LinkedIn in Europe noted the difference between "[p]ersonal vs. professional networks. Members draw a bright line between their personal and professional networks - and much prefer separate destinations for them. We often hear this in the US and other markets as well, but it was a pronounced effect in Europe." PX14898, LinkedIn email chain: J.M. Norvaisas to [redacted] distribution list re: "UER Status and Quote of the Week, 6/24/2016," (June 24, 2016), LI_METALIT_00038256, at -256.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to

paragraphs 1130 and 1136. Further disputed because the excerpts are incomplete and omit context. The document describes interviews of a small number of LinkedIn users outside of the United States – the FTC's proposed geographic market in this case – and notes that [redacted] *See* PX14898 at -257 (LI_METALIT_00038256). Even still, one participant explained that "it's okay for me to have some family on LinkedIn." *See id.* at -256. Four years later, LinkedIn represented in another document that, [redacted] Meta SMF ¶ 413 (quoting Ex. 75 at -771-772 (MetaFTC-Klein-DX-125, LI_METALIT_00001748)). LinkedIn's representative testified that "the norms are getting blurred," as it is "increasingly more common for [users] to share" to personal content on LinkedIn. Ex. 69 at 79:5-13 (Pattabiraman (LinkedIn) Dep. Tr.). [redacted] *Id.* at 270:6-272:6; *see also* Meta SMF ¶ 406 (additional testimony from Mr. Pattabiraman that friends and family sharing has "always" been a "part of [the] experience in LinkedIn" (quoting Ex. 69 at 77:19-78:1, 78:3-22 (Pattabiraman (LinkedIn) Dep. Tr.))).

g. In a 2017 interview, LinkedIn Executive Editor Daniel Roth explained how:

> When you write or share or comment on LinkedIn, your boss sees it, your employees see it, your future business partners see it. So people tend to be much more careful about what they say. It's fascinating to watch how self-policing LinkedIn is. When people start talking about politics, you will see this flood of comments beneath what they are writing, saying, 'This isn't Facebook, please don't put that here — this is LinkedIn, please talk about business.' This is not the company saying it at all. It's users.

PX14868 at -005, *Full Transcript: LinkedIn Executive Editor Daniel Roth on Recode Media*, Vox (Feb. 3, 2017), https://www.vox.com/2017/2/3/14491456/full-transcript-linkedin-daniel-roth-recode-media.

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1136.

h. In a 2022 interview, LinkedIn Chief Product Officer Tomer Cohen explained:

> Let's go back to your original question on why LinkedIn is unique. The context matters a ton because it brings the right audience in. You wear a hat right now at work — literally, you're wearing a hat — and I'm assuming it's your professional hat. When you walk out of work, you're going to wear a different hat. You might go and use a different tool. That makes a big difference in what type of exchange you expect at that moment. That's why the power of the ecosystem is about who is in it right now and the type of interactions you're looking for. If I'm going to a soccer match for my kids, I don't want somebody to go and pitch me why their startup is fantastic. I'm watching my kid's game right now. But if I'm on LinkedIn, then I'm in that mindset of doing work.

PX14869 at -009, Nilay Patel, *'We might be wrong, but we're not confused': how Tomer Cohen, chief product officer at Linkedin, figures out what works best*, The Verge (Dec. 20, 2022), https://www.theverge.com/23517319/tomer-cohen-linkedin-chief-product-officer-business-management.

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1136.

i. Former LinkedIn CEO Jeff Weiner observed, in a 2015 interview, that:

> Facebook [is] a social network largely connecting friends and family, Twitter is about real-time communications and interests . . . . I think you are seeing Facebook and Twitter all investing heavily in their content offerings. But that context is very different than LinkedIn. Our context exists solely to create value for professionals, to make them more productive and successful."

PX0298 at -002, *The Sit-Down: Jeff Weiner, CEO, LinkedIn*, Sports Bus. J. (May 18, 2015), https://www.sportsbusinessjournal.com/Journal/Issues/2015/05/18/People-and-Pop-Culture/Sit-Down.aspx (emphasis omitted).

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Further disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1136.

1137. Though users can connect with friends and family on LinkedIn, the context remains professionally focused. *See, e.g.*, PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 32:16-33:3 ("On LinkedIn, we have professionals that connect with their friends. They could -- could be because they are sharing content on what's happening in the professional world.

It could be because they are looking for jobs, and they need referrals. It could be because they need to message each other and stay in touch. These are all use cases that I'm aware of where we see friends and family connect on LinkedIn."); *id.* at 162:1-17 ("Uniquely is our social for professionals and professionals that offer very similar capabilities to what they are on -- many other social networks. They still in the context of all things economic opportunity, they use it a certain way. So, for example, you may use LinkedIn to share more of your accomplishments and things that are top of mind for you, as it relates to how you -- you connect with economic opportunity. That may be different from how you use another social platform with the same capabilities. So the -- the context that's being referred to here is the fact that LinkedIn is a social network for professionals. It creates certain context that -- that make it unique in terms of how people use it.").

Meta Response: Disputed in part. Undisputed that LinkedIn recognizes that it is used to share content with professional contacts, among other things. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the "context" of an app is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Indeed, the FTC concedes in this paragraph that users use LinkedIn to connect with friends and family.

(b) LinkedIn lacks functionality to foster and facilitate friends and family sharing.

1138. LinkedIn lacks functionality to foster and facilitate friends and family sharing. *Infra* CMF at ¶¶ 1138(a), 1139-46.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including because the FTC

provides no evidence that what it describes as "functionality to foster and facilitate friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. To the extent this statement incorporates the FTC's statements in subparagraph 1138(a) and paragraphs 1139-1146, Meta incorporates its responses to those statements here.

a. As Mr. Zuckerberg succinctly described it, LinkedIn has social networking functionality—like a feed and network connections—but that functionality is focused on professional networking, not friends and family sharing. PX6029, Zuckerberg (Meta) IH Tr., at 182:1-5 ("So, I mean, for example, LinkedIn has a feed, and it has a bidirectional contact model, and it has a lot of the -- these same basic features that a lot of other social apps have, but it clearly has a more professional tone."); *id.* at 182:21-24 (Mr. Zuckerberg further testified that LinkedIn "has a much more professional feeling, kind of work enterprise tone[,] than Facebook.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1138. Further disputed because the quotation is incomplete. *See* Meta Resp. to Counter SMF ¶ 1133(a) (describing Mr. Zuckerberg's testimony – which the FTC here omits – regarding competition and overlap between Facebook and LinkedIn). Moreover, nothing in the quoted testimony suggests that LinkedIn "lacks functionality to foster and facilitate friends and family sharing."

1139. LinkedIn has a social graph, but it is centered on professional connections, not friends and family.

Meta Response: Disputed in part. Undisputed that LinkedIn has a social graph, and it includes friends, family, and professional connections. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of a graph "centered on professional connections" as opposed to friends and family is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. The FTC has defined a social graph to be "the set of connections that users make among each other within a social network." Counter SMF ¶ 1088. LinkedIn has a social graph as the FTC defines it, as users can easily search for the friends' names and follow them. *See* Meta Resp. to Counter SMF ¶ 1130 (describing LinkedIn's functionality, including its social graph). Further disputed because "centered on" is vague and undefined.

a. Former LinkedIn CEO Jeff Weiner wrote in 2012 that LinkedIn's "ultimate dream is to develop the world's first economic graph. In other words, we want to digitally map the global economy, identifying the connections between people, jobs, skills, companies, and professional knowledge -- and spot in real-time the trends pointing to economic opportunities. It's a big vision, but we believe we're in a unique position to make it happen." PX0622, Jeff Weiner, *The Future of LinkedIn and the Economic Graph*, LinkedIn Pulse (Dec. 10, 2012), https://www.linkedin.com/pulse/20121210053039-22330283-the-future-of-linkedin-and-the-economic-graph/. Mr. Weiner also wrote that LinkedIn has "the world's largest professional graph," contrasting it with "Facebook CEO Mark

Zuckerberg['s] . . . concept of the social graph to describe his approach to mapping the world's social relationships." *Id.*

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1139.

b. LinkedIn has described its economic graph as "a real-time, granular representation of the global economy composed of the activity of more than 1 billion professionals." PX0629, *Data for Impact: A Partnership for Economic Opportunity*, LinkedIn Economic Graph, https://economicgraph.linkedin.com/data-for-impact# (last visited May 20, 2024).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1139.

c. Meta observed in a 2018 document that "Facebook, Linkedin, and Nextdoor coexist in the US with similar userbases but orthogonal graphs: Facebook connects friends and family, Linkedin connects coworkers, Nextdoor connects neighbors." PX2245, Meta document: "Possible End States for the Family of Apps" (Oct. 9, 2018), FB_FTC_CID_02068453, at -456.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1139.

d. Others have similarly observed the existence of LinkedIn's "professional graph." *See, e.g.*, PX0630 at -005, Vijay Govindarajan & Venkat Venkatraman, *The Next*

Great Digital Advantage, Harv. Bus. Rev. (May-June 2022), https://hbr.org/2022/05/the-next-great-digital-advantage ("LinkedIn's professional graph captures in real time how 774 million professionals who work in more than 50 million companies and attended 90,000-plus educational institutions respond to job postings, status updates, and live videos.").

Meta Response: Disputed. Disputed because the document does not contain the language quoted in this subparagraph. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1139.

e. In a 2019 submission [redacted], Pinterest wrote that "social networks can be distinguished based on use cases and target user base. 'Personal' versus 'professional' is one axis of differentiation: the networks people build on Facebook tend to be oriented toward family, friends, and social acquaintances, whereas the networks people build on LinkedIn are very much focused on professional contacts." PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -376-377.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1139. Further disputed because the FTC's characterization of the document is incomplete and misleading. *See* Meta Resp. to Counter SMF ¶ 1134(d) (addressing PX7034).

1140. LinkedIn has tools to build your network connections, but they are geared to building professional connections, not friends and family.

Meta Response: Disputed in part. Undisputed that LinkedIn has tools that allow users to build connections with their network, including friends, family, and professional connections. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the supposed "gearing" of LinkedIn's connection "tools" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. The materials cited in the subparagraphs do not support the assertion that LinkedIn does not provide tools for building connections with friends and family. [redacted] Meta SMF ¶ 405 (quoting Ex. 69 at 69:20-70:16 (Pattabiraman (LinkedIn) Dep. Tr.)); *see also* Meta SMF ¶ 406 (quoting Ex. 69 at 77:19-78:1, 78:3-22 (Pattabiraman (LinkedIn) Dep. Tr.)). [redacted] *See* Meta Resp. to Counter SMF ¶ 1130; Ex. 281 at 320:3-5 (Lampe Dep. Tr.) ("Q. And would you agree that Snapchat does not have public displays of connections? A. It does not."). Further disputed because "geared to" is vague and undefined.

a. A LinkedIn Help article titled "Connecting with Other Members - Best Practices" observes that "LinkedIn is built on the foundation of people connecting to other professionals they know and trust. We want you to build a valuable network and make meaningful connections that will have a positive impact on your career. To get the most out of LinkedIn and your network, we require members to connect to

others who they trust enough with their personal contact information. In addition to your email address, your connections can view your employment history, your recommendations and endorsements, and see your network updates that include Top Voices and Groups you're following. By connecting to only those who you know and trust, you'll better ensure you're protecting your employment information and sharing it with people who will find it relevant." PX0631, *Connecting with Other Members - Best Practices*, LinkedIn Help, https://www.linkedin.com/help/linkedin/answer/a1340458 (last updated "2 years ago").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1140. The material cited does not support the assertion that LinkedIn's tools for connecting are not "geared" towards friends and family – it simply states that users should connect only with those whom they "know and trust."

b. A separate LinkedIn Help article writes that "[y]our professional network is essentially a professional directory specific to each LinkedIn member, made up of the number of professionals they personally know. You can begin building your professional network by connecting with professional contacts that you know and trust." PX0632, *Build Your Professional Network*, LinkedIn Help, https://www.linkedin.com/help/linkedin/answer/a545734 (last updated "1 year ago").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1140.

c. Another LinkedIn Help article writes that "[b]uilding your LinkedIn network is a great way to stay in touch with alumni, colleagues, and recruiters, as well as connect with new, professional opportunities." PX0633, *Various Ways to Connect with People on LinkedIn*, LinkedIn Help, https://www.linkedin.com/help/linkedin/answer/a541669 (last updated "2 years ago").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1140.

1141. LinkedIn has a shared social space, but it is geared towards professional content, not friends and family content.

Meta Response: Disputed in part. Undisputed that LinkedIn has a shared social space and that users share friends, family, and professional content. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the supposed "gear[ing]" of LinkedIn's content is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. The materials cited in the subparagraphs do not support the assertion that LinkedIn's shared social space does not contain friends and family content, as the FTC defines it. For example, Mr. Pattabiraman testified that "personal content being shared" on LinkedIn has "increased" and can include "a personal update about –

can be anything from you overcoming a big challenge in your life. It could be you running a marathon. . . . Sometimes there is also your viewpoints, your personal viewpoints on topics that are important to society. Could be politics, religion. Could be anything that is important to you as an individual that you would also like your friends, families, and coworkers to know." Meta SMF ¶ 406 (quoting Ex. 69 at 77:19-78:1, 78:3-22 (Pattabiraman (LinkedIn) Dep. Tr.)). Further disputed because "geared towards" is vague and undefined.

a. In a 2016 slide deck reviewing feed engagement on LinkedIn, "[p]eople who matter talking about things that I care about in a professional context" was labeled as the bullseye on a slide recapping feed engagement themes. PX7057, LinkedIn document: "Feed Engagement: Threaded Comments, Likes on Comments, and Top Comments" (2016), LI_FTC_0006295, at -296.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1141. Further disputed that nothing in the statement suggests why "people who matter" cannot include a user's friends or family members.

b. In a 2019 submission to the European Commission, LinkedIn stated that "it may not be easy for a social network like LinkedIn that is primarily used for professional interactions to convince users to start thinking of LinkedIn as a place to post personal updates, photos, and videos." PX14687, LinkedIn document: "Market definition and competitive assessment in relation to social networking services" (July 10, 2019), LI_FTC_0000065, at -087; *see also* PX6112,

Pattabiraman (LinkedIn) Dep. Tr., at 274:1-13 (testifying that the quoted language was an accurate statement).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1141. Further disputed because the quotation is incomplete and misleading. *See* Meta Resp. to Counter SMF ¶ 1132(b) (describing context in this document that the FTC omits – including that the document states that [redacted]).

c. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1130 and 1141. Further disputed because the quotation is incomplete and misleading. [redacted] A user's "network" can include their friends and family members. *See* Counter SMF ¶ 1137 (FTC statement that "users can connect with friends and family on LinkedIn"); Meta SMF ¶ 405 (LinkedIn representative testifying that users can import mobile address books to "form connections with

. . . your friends, your family, and your coworkers" (quoting Ex. 69 at 69:20-70:16 (Pattabiraman (LinkedIn) Dep. Tr.))).

d. When a user posts in LinkedIn's feed, the default setting is for the poster's job title, real name, and employer to be displayed along with the post. PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 193:14-195:13.

Meta Response: Disputed. Disputed because the FTC mischaracterizes Mr. Pattabiraman's testimony. When asked if "the default setting . . . shows the poster's job title and employer," Mr. Pattabiraman testified, "I'm not a hundred percent sure about this," that "all poster-related information is something that the job poster will need to opt in to post," and that "I could be wrong." PX6112 at 195:1-13 (Pattabiraman (LinkedIn) Dep. Tr.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1141.

1142. Similarly, profiles on LinkedIn are designed to highlight users' professional and employment information.

Meta Response: Disputed in part. Undisputed that profiles on LinkedIn can show a user's professional and employment information, in addition to other information. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the supposed design of LinkedIn's profile is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. The materials cited in the subparagraphs do not support the assertion that LinkedIn lacks functionality for connecting with friends and family.

a. A LinkedIn Help article titled "Edit your profile" instructs users that they "can edit individual sections of [their] LinkedIn profile to best reflect [their] professional experience." PX0634, *Edit Your Profile*, LinkedIn Help, https://www.linkedin.com/help/linkedin/answer/a546603 (last updated "1 year ago").

Meta Response: Undisputed.

b. LinkedIn's senior director of product management in the consumer product team and corporate representative Kumaresh Pattabiraman testified that the purpose of profiles on LinkedIn is "[t]o help professionals represent themselves and tell their stories. When it comes to people in this world, if they have many different career paths that often go well beyond just their line of professional work, so if you think about someone that volunteered in a cookie stand early in their -- their lives and that helped them learn something that today is relevant to what they offer as a professional or relate to their professional work, it is also very much part of what we solve for as part of the LinkedIn profile." PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 24:16-21, 186:18-187:9.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1142. Further disputed because the quotation is incomplete and omits relevant context. *See* Meta Resp. to Counter SMF ¶ 1130 (describing Mr. Pattabiraman's testimony, including his testimony that "we have always seen friends and family be a part of your experience on LinkedIn").

c. When creating a profile, LinkedIn asks users "a series of questions and offer[s] them suggestions on which of these fields on the profile when filled will more likely connect them with economic opportunity," fields which include "a job title, the companies and schools you worked at or studied at. Side projects and your -- your interests, your hobbies, your patents, your publications, your test scores, anything that allows to you tell holistic story as an individual in a way that makes you qualify for that economic opportunity waiting for you someday." PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 187:10-188:13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1142.

d. LinkedIn does not prompt users to include their personal romantic relationship status on their LinkedIn profiles when creating a profile. PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 190:7-13 ("Q. Like a personal relationship status, like a romantic relationship, for example, is that -- is that a prompt in the LinkedIn profile creation? . . . A. I'm not sure. To the best of my knowledge, no.").

Meta Response: Disputed. Disputed that the testimony cited supports the assertion. Mr. Pattabiraman testified that he was "not sure" of the answer to the question asked. Further disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1142.

e. LinkedIn corporate representative Kumaresh Pattabiraman testified that LinkedIn allows users to make recommendations for or request recommendations from other users on their profiles, "[t]o help people be known as having a certain skill

set or having a certain experience." PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 202:18-203:16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1142.

f. LinkedIn has a feature called its "profile level meter," which informs users of how complete their profile is. The seven recommended sections to achieve an "All-star profile" on LinkedIn are Profile Photo, Location, Industry, Education, Position, Skills, and Summary. PX0635, *Your Profile Level Meter*, LinkedIn Help, https://www.linkedin.com/help/linkedin/answer/a594698 (last updated "10 months ago").

Meta Response: Undisputed.

g. LinkedIn users can also take skill assessments, such as for Python programming language or public speaking, which can be displayed on their profiles. PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 203:18-205:18 ("When professionals or other . . . members add to their profile the fact that they have a certain skill, they can further validate that by demonstrating that in an objective assessment that they create -- they can create -- take the form of a pass/fail or a certain score, that they achieve a certain grade. But they take these assessments to further solidify their credentials in a way that helps the person that's viewing their profile. And that could be a hiring manager. It could be a recruiter. It could be just someone that's looking to make a referral. But it helps them understand that you truly have that skill set.").

Meta Response: Undisputed.

1143. [redacted]

Meta Response: Disputed in part. Undisputed that LinkedIn earns revenue from its Talent Solutions business, in addition to advertising, and undisputed that the document contains the paraphrased language. Disputed that this paragraph creates a genuine dispute of material fact because "other social networks" is vague and undefined and the statement does not indicate what apps it purports to refer to and cites no evidence about [redacted]. Further disputed because this paragraph purports to describe the breakdowns of LinkedIn's revenue in the present tense [redacted], but cites only a document from 2019. Further disputed for the reasons stated above in Meta's response to paragraph 1130.

1144. LinkedIn does not offer certain features commonly found on PSN apps.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of "certain features" – or the particular examples it provides – are relevant to substitution, and for the reasons stated above in Meta's

response to paragraph 1130. The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC provides no evidence regarding what features are commonly found on PSN apps, and "commonly" is vague and undefined. Indeed, the examples in its subparagraphs do not support the FTC's assertion: subparagraph 1144(a) refers to albums – yet the FTC offers no evidence that Instagram or Snapchat offer a photo album feature; subparagraph 1144(b) refers to reactions, which the FTC concedes that LinkedIn does offer. Moreover, LinkedIn offers many of the same features that Facebook offers. *See* Meta SMF ¶¶ 401-407 (describing similarities between LinkedIn and Facebook features).

a. For example, LinkedIn users can share individual images, but LinkedIn does not offer a photo album feature. PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 210:20-211:14 (when asked why LinkedIn doesn't offer a photo album feature, LinkedIn's corporate representative testified that "I don't have any -- any obvious reasons why, but the first place we would start to answer that question is how does that help them connect to with economic opportunity").

Meta Response: Disputed in part. Undisputed that LinkedIn allows users to share images. Indeed, LinkedIn allows users to upload 20 photos to a multi-photo post. *See* Ex. 503 at 2 (LinkedIn, *Share Photos or Videos*, https://perma.cc/C5HB-GXHQ). Disputed because the FTC cites no evidence that each app it includes in its alleged PSNS market, like Snap or Instagram, offers a photo album feature. Nor is there any evidence that photo albums are defining features of a

PSN app. Further disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1144.

b. LinkedIn reactions also emphasize its professional focus, with reactions such as "Celebrate" (examples offered by LinkedIn include "[w]elcoming a new team member[;] [s]ecuring a speaking opportunity, getting promoted, or landing a new job[; or] [c]ompleting a successful project launch on time or fun team offsite to end a strong quarter") and Insightful (examples offered by LinkedIn include "[w]hen your company encourages you to take a day off each month to work on a project that you're passionate about[; and] [p]osts about tips and tricks"). PX0636, *Use LinkedIn Reactions*, LinkedIn Help, https://www.linkedin.com/help/linkedin/answer/a528190 (last updated "2 months ago"); *see also* PX9004, Lampe Report at ¶ 201 ("On LinkedIn, users can react to a post by tapping Like, Celebrate, Support, Love, Insightful, and Funny, compared to more emotional reactions on a PSNS like a sad or angry reaction. In particular, the Insightful and Celebrate reactions indicate that LinkedIn is geared more toward professional connections or academic interest.").

Meta Response: Disputed in part. Undisputed that LinkedIn offers reactions – Like, Love, Support, Funny, Insightful, Celebrate. Facebook also offers reactions – Like, Love, Care, HaHa, Wow, among others. Disputed that LinkedIn's reactions "emphasize its professional focus," including because the phrase is vague and undefined and the FTC cites no material to support this statement. And the FTC cites no evidence comparing Facebook, Instagram, Snap, and MeWe's reactions. Nor is there any evidence that reactions are defining features of a PSN

app. Further disputed for the reasons stated above in Meta's responses to paragraphs 1130 and 1144.

1145. LinkedIn launched a Stories feature in 2016 but "chose to sunset it in 2021 or 2022" because it "did not meet any of our value criteria for how it connects, at the end of the day, our members with economic opportunity." PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 220:15-221:12. LinkedIn "envisioned this feature would be used, where professionals shared daily moments in their work lives, everyday members and consumers shared daily moments in their personal lives, and when this happens at scale that people will feel more connected with each other and that in turn will lead to more economic opportunity. That hypothesis may not have played out exactly at the scale of which we thought it would." PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 223:5-14.

Meta Response: Disputed in part. Undisputed that LinkedIn offered a Stories feature and that the witness provided the quoted testimony. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of a stories feature is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1130. Indeed, many apps excluded from the FTC's claimed PSNS market contain stories features, including WhatsApp, *see* Meta SMF ¶¶ 117-118 (WhatsApp), ¶ 226 (TikTok), ¶ 838 (Signal); *see* also Ex. 1 at ¶ 51 (Ghose Rep.). And the FTC claims both Facebook and Instagram were PSN apps in 2012 – five and four years, respectively, prior to each launching a stories feature. *See* Meta SMF ¶ 34 (Facebook Stories introduced March 2017), ¶ 82 (Instagram Stories introduced August 2016).

1146. LinkedIn has not observed users that want to build a network of real-world friends and family switching from Facebook or Instagram to LinkedIn. PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 245:1-17 ("Q. Yeah. Has -- has LinkedIn observed users that want to build a network of real-world friends and family switching from Facebook to LinkedIn? . . . A. Specifically on switching, to the best of my knowledge, no. . . . Q. Has LinkedIn observed users that want to build a network of real-world friends and family switching from Instagram to LinkedIn? . . . A. For the record, I would be speculating. But to the best of my knowledge, no.").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the witness testified that he lacked specific knowledge on the subject. Further disputed for the reasons stated above in Meta's response to paragraph 1130.

(2) Nextdoor lacks core functionality and use for friends and family sharing.

1147. [redacted]

Meta Response: Undisputed.

1148. Professor Hemphill concluded that "Nextdoor is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 428; *see generally id.* at ¶¶ 414-428.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine

dispute of material fact. The cited paragraphs in Professor Hemphill's report do not show that "Nextdoor is not a reasonable substitute for users seeking PSN services." The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC defines "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including "[v]iewing or posting content in a Group focused on a geographic community, such as a neighborhood or city" or buying and selling items on Facebook marketplace. Meta SMF ¶¶ 580-584 (quoting Ex. 405 (MetaFTC-DX-997, FTC's Resp. to Meta's List of Features or Activities (Sept. 12, 2022))). [redacted] *See id.* at [redacted].

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and Nextdoor. Evidence from Meta and [redacted] both [redacted] Meta SMF [redacted]. *See id.* [redacted]

[redacted] *Id.* at [redacted]; *see also id.* at [redacted]; *id.* at [redacted]; *id.* [redacted]. Meta documents and testimony have likewise described Nextdoor as a competitor, including with respect to interest-based groups, connecting with neighbors, and buying and selling items. *See id.* at ¶¶ 365-368. Professor Lampe testified that users "can fulfill . . . th[e] motivation to seek information about a geographic community on both" Facebook and Nextdoor, notwithstanding "differences between th[e] platforms." *Id.* at ¶ 376 (quoting Ex. 281 at 261:4-15 (Lampe Dep. Tr.)).

Further, Nextdoor has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, a social graph, a feed, and other social features. *See id.* at ¶¶ 361-363, 375, 378-379. Nextdoor users can create profiles; find and connect with friends and family members; post and view content posted by other users in a feed, including photos; like and comment on content; review other users' connections; and shop in an online marketplace. *See id.* Nextdoor users can find accounts to follow by importing their

mobile contacts, searching for users, and receiving suggestions from Nextdoor's "Neighbors You May Know" tool. *Id.* at ¶ 363.

The record also shows that [redacted] *Id.* at [redacted]; *see also* Meta SMF [redacted].

1149. Professor Lampe opined that Nextdoor's design, motivations, and norms "indicate it is neither meaningfully an SNS nor a PSNS," and "is not designed or used for fostering the

development or maintenance of personal relationships." *See* PX9004, Lampe Report at ¶ 193; *see generally id.* at § V(A).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization [redacted] is relevant to substitution. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 160:8-17, 163:4-10 (Lampe Dep. Tr.)). Further disputed for the reasons stated above in Meta's response to paragraph 1148, including Professor Lampe's testimony that a user can fulfill "th[e] motivation to seek information about a geographic community on both" Facebook and Nextdoor, notwithstanding "differences between th[e] platforms." Meta SMF ¶ 376 (quoting Ex. 281 at 261:4-15 (Lampe Dep. Tr.)).

(a) Nextdoor has a core use of neighborhood connection, not friends and family sharing.

1150. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence [redacted] relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because

the materials cited in the subparagraphs do not support the implication that Nextdoor is not also used for friends and family sharing, as the FTC defines it.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1150.

b. Nextdoor's "About" page on its website, as of April 2023, begins: "Nextdoor is where you connect to the neighborhoods that matter to you so you can belong. By bringing neighbors and organizations together, we can cultivate a kinder world where everyone has a neighborhood they can rely on." PX12817, *About Nextdoor, the Neighborhood Network*, Nextdoor, https://about.nextdoor.com/ (last visited Apr. 10, 2023).

Meta Response: Undisputed. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1150.

c. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1150. Further disputed because the quoted language is incomplete. [redacted]

d. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1150.

1151. Meta recognizes Nextdoor has a core use of connecting neighbors online, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's supposed recognition of Nextdoor's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the materials cited in the subparagraphs do not support the assertion that Nextdoor is not used for friends and family sharing, as the FTC defines it – particularly as neighbors frequently are also friends (and sometimes family).

a. Co-founder of Instagram Kevin Systrom testified in a 2020 investigational hearing that he did not consider Nextdoor as a competitor to Instagram at the time of Instagram's acquisition by Meta because Nextdoor "is focused on neighborhood/community-sharing information, like where you -- 'Who's a good baby-sitter?' 'I saw something suspicious in the neighborhood' that has nothing to do with sharing images of your day." PX6027, Systrom (Meta/Instagram) IH Tr., at 158:16-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to

paragraphs 1148 and 1151. Further disputed because the testimony is describing competition in 2012. Over a decade later, there is extensive evidence that Facebook and Instagram compete with Nextdoor, for the reasons stated above in Meta's response to paragraph 1148.

b. Mike Krieger, co-founder of Instagram, also testified in a 2020 investigational hearing that Instagram did not consider Nextdoor as competition prior to Instagram's acquisition by Meta because Nextdoor's "main use cases [are] really around connecting with neighbors, text updates rather than photos, and more of a social graph based on proximity rather than around interest or friendship." PX6015, Krieger (Meta/Instagram) IH Tr., at 89:24-90:7.

Meta Response: Disputed in part. Undisputed that Mr. Krieger provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1151, and subparagraph 1151(a). Further disputed because the cited testimony is incomplete. Mr. Krieger first responded to the question by stating "I don't remember them being around very much, at least in my consciousness, back then," PX6015 at 90:1-2 (Krieger IH Tr.). Further disputed because the testimony is describing competition in 2012. Over a decade later, there is extensive evidence that Facebook and Instagram compete with Nextdoor, for the reasons stated above in Meta's response to paragraph 1148.

c. A 2018 Meta presentation classified Nextdoor's "Job[] To Be Done" as "[l]earn about my neighborhood." PX3440 at -068, Meta presentation: "Market Strategy Updates for CPS Leadership" (Oct. 4, 2018), FB_FTC_CID_04257875.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1151.

d. In a 2018 internal document, Meta observed that "Facebook, Linkedin, and Nextdoor coexist in the US with similar userbases but orthogonal graphs: Facebook connects friends and family, Linkedin connects coworkers, Nextdoor connects neighbors." PX2245, Meta document: "Possible End States for the Family of Apps" (Oct. 9, 2018), FB_FTC_CID_02068454, at -456.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1151.

e. A 2017 email from Meta's former Vice President of Business Development/Partnerships Dan Rose described Nextdoor's "model of wiring up local neighborhoods who share information about crimes, small business referrals, local legislations, etc." PX3441, Meta email chain: [redacted] to D. Rose re: "Your Friends Day post," (Mar. 3, 2017), FB_FTC_CID_03169960, at -961; PX6065, Rose (Meta) Dep. Tr., at 28:11-28:25.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1151.

1152. Other parties recognize Nextdoor has a core use of connecting neighbors online.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC

provides no evidence that other parties' supposed recognition of Nextdoor's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The materials cited in the subparagraphs do not support the implication that Nextdoor is not also used for friends and family sharing, as the FTC defines it.

a. [redacted]

Meta Response: Undisputed. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1152.

b. In a 2019 submission [redacted], Pinterest wrote that "[a]nother example of differentiation [among social networks] may be user location. Some social networks such as Nextdoor as designed to connect neighbors with one another. In that case, the value the network delivers is connecting you with people who live nearby." PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -377.

Meta Response: Undisputed. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1152.

c. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1152. Further disputed because the quoted language is incomplete and misleading. Another page of the same slide deck describes Nextdoor's "Competitive Landscape" as including "Meta" (including Instagram, WhatsApp, Messenger, and Facebook), "Facebook," "Snap," "Twitter," "Pinterest," and "Reddit." PX7059 at -005 (TWTR-META00125002).

1153. Consumer surveys further demonstrate users' recognition of Nextdoor's core use of connecting neighbors online.

Meta Response: Disputed in part. Undisputed that some survey respondents indicated they use Nextdoor for connecting with neighbors online, but other respondents indicated they use Nextdoor for friends and family sharing. Disputed that the statements in this

paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. [redacted] PX3442, Meta presentation: "[redacted]" (May 1, 2020), FTC-META-004003464, at -489, -491, -494.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1153. Further disputed because the quoted language is incomplete. The document describes Nextdoor as [redacted], PX3442 at -490 (FTC-META-004003464), and noted that [redacted] *Id.* at -467.

b. FTC expert Michal Malkiewicz's survey found that 77.8% of respondents selected "[t]o keep up to date on happenings in my local area" as their most important reason for using Nextdoor, compared to only 2.6% of respondents who

selected "[t]o keep up with my friends' and family's lives in one place." PX9006, Malkiewicz Report at ¶ 88, Table 15.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1153. Disputed that the statement, or Mr. Malkiewicz's survey, creates a genuine dispute of material fact, as Mr. Malkiewicz's survey, by his own admission, "never set out to measure economic substitution." Meta SMF ¶ 652 (quoting Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)). Further disputed because the survey only asked about the "most important" reason for using an app; it has no bearing on other reasons people use an app. *See* PX9006 at -122-137 (Malkiewicz Rep.).

1154. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that "[redacted]" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. Further disputed on the ground that "[redacted]" is vague and undefined. The materials cited in the subparagraphs do not support the assertion [redacted].

a. [redacted]

Meta Response: Disputed in part. Undisputed that provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1154. Further disputed because the quoted testimony is incomplete and omits context, , *see* Meta Resp. to Counter SMF , *see* Meta SMF .

b.

Meta Response: Disputed in part. Undisputed that provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to

paragraphs 1148 and 1154. Further disputed because the quoted testimony is incomplete and omits context. *See* Meta Resp. to Counter SMF ¶ 1154(a).

c. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1154.

d. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1154.

e. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and undisputed that LinkedIn and Facebook share many similar features. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1154. Further disputed because the quotation is incomplete, misleading, and omits context. [redacted]

(b) Nextdoor lacks functionality to foster and facilitate friends and family sharing.

1155. Nextdoor lacks functionality to foster and facilitate friends and family sharing. *Infra* CMF at ¶¶ 1156-64.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC cites no specific evidence in support of any fact. Further disputed because the FTC provides no evidence that friends and family functionality is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. To the extent this statement incorporates the FTC's statements in paragraphs 1156-1164, Meta incorporates its responses to those statements here.

1156. Nextdoor has a social graph, but it is centered on neighborhood connections, not friends and family.

Meta Response: Disputed in part. Undisputed that Nextdoor has a social graph and that it includes friends, family, and neighbors. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the extent to which Nextdoor's social graph is centered on "neighborhood connections" as opposed to friends and family is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. The FTC has defined a social graph to be "the set of connections that users make among each other within a social network." Counter SMF [redacted] *See* Meta Resp. to Counter SMF [redacted]. Further disputed because "centered on" is vague and undefined.

a. Nextdoor's Help Center article on "Nextdoor Connections" distinguishes connections on Nextdoor from connections on other social media platforms:

> [o]n other social sites you connect with friends and family, people you know professionally, or folks with shared interests, but geography usually isn't a factor. On Nextdoor, however, the idea is to connect with neighbors who live in your area, who you know in real life or who you may want to know better because you have shared interests or you think they have interesting things to say about your community. On Nextdoor, the purpose of the connections feature is to make your experience on Nextdoor more relevant and to build local community. Neighbors you may want to connect with on Nextdoor include friends, fellow parents from your child's school, someone you feel has a lot in common from one of your groups, or the person in your community who has really interesting perspectives and whose posts you never want to miss. On Nextdoor, you will get no prizes for having the most connections, but your

> experience will be better if you connect with the people locally who matter most to you.

PX0638 at -002, *About Nextdoor Connections*, Nextdoor Help Ctr., https://help.nextdoor.com/s/article/About-Nextdoor-Connections (last visited May 20, 2024).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1156. Further disputed that the quoted text supports the assertion in paragraph 1156: The document states that the neighbors a user "may want to connect with on Nextdoor include friends." PX0638 at -002 (Nextdoor Help Center, *About Nextdoor Connections*).

b. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Further disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1156.

c. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1156.

d. Meta observed in a 2018 document that "Facebook, Linkedin, and Nextdoor coexist in the US with similar userbases but orthogonal graphs: Facebook connects friends and family, Linkedin connects coworkers, Nextdoor connects neighbors." PX2245, Meta document: "Possible End States for the Family of Apps" (Oct. 9, 2018), FB_FTC_CID_02068454, at -456.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1156.

e. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1156.

1157. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that [redacted] is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. The material cited in the subparagraphs below does not support the assertion that [redacted]. For example, Nextdoor allows users to connect with users in their mobile address book. *See* Meta SMF [redacted]. [redacted]; Ex. 281 at 320:3-5 (Lampe Dep. Tr.) ("Q. And would you agree that Snapchat does not have public displays of connections? A. It does not."). Further disputed because "[redacted]" is vague and undefined.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1157.

b. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1157.

c. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1157.

d. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1157.

e. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted], and that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1157.

1158. Nextdoor added the ability for users to add other users as connections in 2022. PX0639 at -002, Queenie Wong, *Nextdoor Wants You to Connect With Neighbors You May Know*, CNET (Feb. 15, 2022), https://www.cnet.com/tech/mobile/nextdoor-wants-you-to-connect-with-neighbors-you-may-know; *see also* [redacted].

Meta Response: Undisputed.

1159. [redacted]

[redacted];

PX9000, Hemphill Report at ¶ 424 [redacted].

Meta Response: Disputed. The statement does not create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1148 and 1157, and because it is not supported by the cited material. Professor Hemphill concluded that [redacted] *See* Meta Resp. to Counter SMF [redacted].

1160. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that [redacted] is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. The material cited in the subparagraphs below does not support the assertion that [redacted]

[redacted]. Further disputed because "[redacted]" is vague and undefined.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1160.

b. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Also undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1160.

c. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1160. Further disputed because the first sentence does not correctly paraphrase the testimony. [redacted]

d. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted] Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1160.

e. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1160.

f. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1160.

1161. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence [redacted] relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. The material cited in the subparagraphs below does not support the assertion that [redacted] Further disputed because the phrase "[redacted]" is vague and undefined.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony [redacted]

Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1161.

b. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1161. Further disputed because [redacted]

c. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1148 and 1161.

1162. [redacted]

Meta Response: Undisputed.

1163. [redacted] *See, e.g.*, PX6085, Hsu (Nextdoor) Dep. Tr., at 251:4-252:13 [redacted], 254:4-9 (describing how Nextdoor does not allow for group messaging), [redacted].

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence [redacted] are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1148. The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC provides no evidence regarding what features are commonly

found on PSN apps, and because "commonly" is vague and undefined. Indeed, the examples do not support the FTC's assertion: [redacted], the FTC cites no evidence that Snap or Instagram – two of the four active apps in its proposed PSNS market [redacted]. As to group messaging, Ms. Hsu testified (when asked if Nextdoor offers group messaging): "I don't believe so. I think it only allows for one to one at this time. [redacted], the FTC has not taken the position in this litigation that any of them are defining features of a PSN app.

1164. [redacted]

Meta Response: Disputed. Disputed because the paraphrased testimony is misleading: [redacted]

[redacted] Further disputed for the reasons stated above in Meta's response to paragraph 1148.

(3) Strava lacks core functionality and use for friends and family sharing.

1165. Founded in 2009, Strava is "the largest sports community in the world" and "the leading platform for movement." PX10423 at -001, *About Us*, Strava, https://www.strava.com/about (last visited May 20, 2024).

Meta Response: Undisputed.

1166. Professor Hemphill concluded that "Strava is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 436; *see also id.* at ¶¶ 429-36.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. The cited paragraphs in Professor Hemphill's report do not show that "Strava is not a reasonable substitute" for other alleged "PSN services." The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The FTC has defined "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including posting fitness related content on a user's feed or in a group of fitness enthusiasts. *See* Meta SMF ¶¶ 580-584. [redacted] *Id.* [redacted].

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and Strava. [redacted] *See id.* [redacted]

Further, Strava has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, . *See* Meta SMF . ; *see also* Meta SMF

1167. Strava recognizes it has a core use of connecting with other athletes and communicating about fitness.

<u>Meta Response</u>: Disputed in part. Undisputed that Strava recognizes that it is used for connecting and communicating about fitness. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Strava's supposed recognition of a "core use" is relevant to substitution, and for the reasons stated above in Meta's response to

paragraph 1166. Further disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The materials cited in the subparagraphs do not support the implication that Strava is not also used for friends and family sharing, as the FTC defines it.

a. On its website, Strava describes itself as "the social network for athletes." PX0640 at -007, *Strava Features*, Strava, https://www.strava.com/features (last visited May 20, 2024).

Meta Response: Disputed in part. Undisputed that Strava's website contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1167. Further disputed because the quoted language is incomplete. Strava's website also states that Strava's "best features" include the ability to "[c]onnect with friends and share your adventure," "give kudos" (Strava's term for liking), and "leave comments." PX0640 at -002, -006-007 (Strava, *Features*). Strava also has "[h]undreds of thousands of clubs – and counting" that "build communities – friends, teams, brands, gear shops and more." *Id.* at -009. And Strava encourages users not to "just track your adventure – *show it*"; users can "attach as many photos and captions to an activity as you like and show your friends the story of your adventure." *Id.* at -011 (emphasis in original).

b. Mateo Ortega, Strava's Vice President of Connected Partnerships and corporate representative, confirmed that "Strava views its product as a center of connected fitness focused on interest-based connections, designed for, and utilized primarily

by, an interest-based audience of . . . engaged athletes." PX6060, Ortega (Strava) Dep. Tr., at 11:9-11, 122:6-15.

Meta Response: Disputed in part. Undisputed that Mr. Ortega provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1167.

c. In a 2017 interview, Strava's CEO described Strava as a "very specialist" platform which serves a "narrower communit[y] of interest." PX0641 at -003, Kurt Wagner, *How Strava is building a niche social network for athletes — without ads*, Vox (Sept. 30, 2017), https://www.vox.com/2017/9/30/16389990/strava-social-network-athletes-sports-business-james-quarles.

Meta Response: Disputed in part. Undisputed that Strava's CEO provided the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1167. Further disputed because the quoted language is incomplete, as the article also notes that Strava's CEO came from Instagram and plans "to help Strava expand into more sports, classes and business models" and that "Strava is preparing to open it up so that users can post other things, too, like links or questions." PX0641 at -002 (Vox, *How Strava is building a niche social network for athletes – without ads*).

d. Strava's corporate representative testified that the core use of Strava is related to Strava's "three core needs[:] community, tracking, and motivation," and that each of these three core needs sought by Strava users is "in the context of athletics or fitness." PX6060, Ortega (Strava) Dep. Tr., at 125:18-126:13.

Meta Response: Disputed in part. Undisputed that Mr. Ortega provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1167. Further disputed because the statement omits the question asked of Mr. Ortega, which prompted the testimony quoted, was: "[w]hat is the core use of Strava?" PX6060 at 125:18 (Ortega (Strava) Dep. Tr.).

1168. Norms on Strava are centered around athletics-related content.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the "norms" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1166. Disputed on the ground that "norms" is vague and undefined. The materials cited in the subparagraphs do not support the implication that Strava users do not also use Strava for friends and family sharing, as the FTC defines it.

a. People typically do not use Strava "to share non-athletics-related content with their followers." PX6060, Ortega (Strava) Dep. Tr., at 127:3-7.

Meta Response: Disputed in part. Undisputed that users on Strava share athletics-related content with their followers, which can include friends and family. Disputed that the quoted language supports the statement regarding "norms," as Mr. Ortega testified only regarding what users "typically" do, not about "norms." PX6060 at 127:3-7 (Ortega (Strava) Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1168. Further disputed because the term "typically" is vague and undefined.

b. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the cited testimony supports the statement regarding [redacted], as there are multiple ways to share with friends and family that do not include [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1168. Further disputed because the term [redacted] is vague and undefined.

c. People do not typically use Strava "to see updates from other users they follow that are unrelated to fitness." PX6060, Ortega (Strava) Dep. Tr., at 128:3-7.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1168. Further disputed because the term "typically" is vague and undefined.

1169. Strava also lacks functionality focused on friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of a "functionality focused on friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1166. Further disputed that the phrase "focused" is vague and undefined. The materials cited in the subparagraphs do not support the assertion that Strava "lacks functionality focused on friends and family sharing."

a. Users on Strava make "interest-based connections," which, in the context of Strava, are "primarily athletic interests-based connections. So we're both runners, we're both in the same area, that would be an interest-based connection. We're both interested in the same type of shoes, that could be an interest-based connection." PX6060, Ortega (Strava) Dep. Tr., at 123:2-9.

Meta Response: Disputed in part. Undisputed that users on Strava can make interest-based connections related to athletics. Disputed that the quoted language supports the assertion that Strava "lacks functionality focused on friends and family sharing." Mr. Ortega provided the quoted testimony in response to the question: "what are interest-based connections?" Ex. 76 at 123:2-9 (Ortega (Strava) Dep. Tr.). He did not testify that Strava "lacks functionality focused on friends and family sharing." Further disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1169.

b. Most users' posts on Strava are related to an "activity," [redacted] PX6060, Ortega (Strava) Dep. Tr., at 117:13-118:21 (explaining that an "activity" on Strava is defined "as a record or even say a transcript of someone's physical activity, whether it be a run, a ride, indoor cycling session, yoga").

Meta Response: Disputed in part. Undisputed that most users' posts on Strava are related to exercise. Disputed that the quoted language supports the assertion that Strava "lacks functionality focused on friends and family sharing." That many posts on Strava relate to athletics does not establish that Strava cannot be

used for friends and family sharing. Further disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1169.

c. On Strava, "a typical user's feed contain[s] mostly content related to exercise." PX6060, Ortega (Strava) Dep. Tr., at 120:7-10; *see also id.* at 42:19-21 ("Q. And does Strava encourage users to post diverse content and media to their feeds? A. Not really.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the quoted language supports the assertion that Strava "lacks functionality focused on friends and family sharing." That a Strava user's feed contains content related to exercise does not establish that Strava cannot be used for friends and family sharing. Further disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1169.

d. Strava introduced a "posts" feature in 2017, "to fulfill the need so that people could engage and be active on Strava and represent more of their athletic life than just the time they were sweating," [redacted]. PX6060, Ortega (Strava) Dep. Tr., at 54:4-14.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the quoted language supports the assertion that Strava [redacted] Further disputed for the reasons stated above in Meta's responses to paragraphs 1166 and 1169.

1170. Ordinary course surveys find that people use Strava for "community, motivation, and tracking," which respectively refer to "a community of engaged athletes," "tracking athletic activities," and "motivation to perform athletic activities." PX6060, Ortega (Strava) Dep. Tr., at 131:7-132:2.

Meta Response: Disputed in part. Undisputed that Strava has conducted surveys showing that people use Strava for "community, motivation, and tracking." Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1166.

b) Entertainment consumption apps are not reasonable substitutes for PSN services.

1171. Entertainment consumption apps provide users with entertainment content, typically video, and are not reasonable substitutes for PSN because they lack core functionality and use for serving demand for friends and family sharing. *See infra* CMF at § II.A(5)(b); PX9000, Hemphill Report at ¶¶ 499-500 ("Time spent on these apps is largely devoted to the passive consumption of unconnected content and so use of the app generally has nothing to do with maintaining relationships with friends and family."); *see generally id.* at § 3.2.2.4.4 ("Entertainment Consumption Apps").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact because the FTC proffers no evidence to support the assertion that apps that provide entertainment content are not reasonable substitutes for Facebook and Instagram. The FTC defines "PSNS" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including watching videos shared by both users that the viewer knows and does not know on Facebook and Instagram. *See* Meta

SMF ¶¶ 580-584. Equivalent activities are available on YouTube and TikTok, apps which the FTC labels as "entertainment consumption apps." *See* Counter SMF §§ II.A.5(b)(1) and (2); *see also* Meta SMF ¶¶ 166, 169, 175, 177-180 (YouTube features), ¶¶ 214-224, 229, 231-243 (TikTok features). Moreover, time spent on Facebook and Instagram also largely comprises watching videos, and increasingly videos from what the FTC calls "unconnected" sources. As of 2023, Instagram's video features – Reels, Live, and Stories (which is a mix of video and other content) – account for [redacted] time spent on Instagram, and [redacted] of all time spent on Facebook is on videos. *See* Meta SMF ¶¶ 13, 58 (citing Ex. 2 at ¶ 82 & p. 79, fig. 4; p. 76, fig. 2 (Carlton Rep.)). As of 2024, video accounts for more than 60% of time on both Facebook and Instagram today. *See* Ex. 499 at 6 (Meta Q1 2024 Earnings Call). The FTC's proffered industry expert, Professor Lampe, agreed that the motivation for watching video on Facebook and Instagram is "largely for entertainment purposes" rather than for personal social networking. *See* Meta SMF ¶ 607(a) (quoting Ex. 281 at 238:2-239:4 (Lampe Dep. Tr.)). Professor Carlton calculated that as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *Id.* at ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). Further disputed because apps that the FTC characterizes as "entertainment consumption apps" offer features that enable users to share content with friends and family. *See*, *e.g.*, Meta SMF ¶¶ 166, 169, 175, 177-180 (YouTube features), ¶¶ 214-224, 229, 231-243 (TikTok features).

All available empirical evidence of substitution shows that non-PSN services that the FTC describes as entertainment consumption apps like YouTube and TikTok are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See id.* at ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Bolstering this substitution evidence, non-parties the FTC excludes from its PSNS market – including YouTube and TikTok – view Facebook and Instagram as [redacted] competitors. *E.g.*, *id.* at ¶¶ 189-196, 200-202 (YouTube), ¶¶ 254-256, 267-270 (TikTok). And Meta's documents and testimony also show that Meta views applications the FTC characterizes as entertainment consumption apps as significant competitors to Facebook and Instagram. *E.g.*, *id.* at ¶¶ 181-188, 199 (YouTube), ¶¶ 244-253, 261-265 (TikTok).

Further disputed because the statement is conclusory and asserts an improper legal conclusion that the only "reasonable substitutes" for "PSN apps" are those with "core functionality and use for serving demand for friends and family sharing." The FTC's use of "core functionality" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this paragraph incorporates the FTC's statements in Section II.A(5)(b), Meta incorporates its responses to those statements here.

(1) YouTube lacks core functionality and use for friends and family sharing.

1172. Originally launched in 2005, YouTube is a video entertainment platform where users come to watch video content. PX7011, Google document: "Welcome to YouTube!" (*Dec. 6, 2011), GOOG-META-00887569, at -570; PX13494 at -002, Google Australia's Submission to ACCC Digital Platforms Services Inquiry: *March 2023 Interim Report on*

the Provision of Social Media Services by Social Media Platforms, ACCC (Nov. 18, 2022), https://www.accc.gov.au/system/files/Digital%20Platform%20Services%20Inquiry%20-%20Social%20Media%20Interim%20Report%20-%20Public%20Submission%20-%20Google%20Australia%20-%20November%202022.pdf?ref=0&download=y ("YouTube's primary function is to enable users to access and consume video content produced by creators.").

Meta Response: Disputed in part. Undisputed that YouTube launched in 2005 and is used to watch video content, among other things. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that its characterization of YouTube as "a video entertainment platform" is relevant to substitution. Further disputed because "video entertainment platform" is vague and undefined.

1173. Professor Hemphill concluded that "YouTube is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 532; *see generally id.* at ¶¶ 501-32 (discussing YouTube and distinguishing it as an entertainment consumption app).

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. Further disputed because the FTC has defined "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including watching unconnected video content. *See* Meta SMF ¶¶ 580-582 (citing Ex. 405 at 5-37 (MetaFTC-DX-997, FTC's Resp. to Meta's List of Features or Activities (Sept. 12, 2022))). YouTube competes with alleged PSN apps in the

provision of unconnected video content. *E.g.*, *id.* at ¶ 196 ([redacted] (quoting Ex. 10 at 74:12-75:10 (Kim (Alphabet) Dep. Tr.))); *id.* at ¶ 194 ([redacted] (quoting Ex. 14 at -900 (MetaFTC-Klein-DX-51, GOOG-META-02536890))); Ex. 9 at 68:9-12 (Filner (Alphabet) Dep. Tr.) (testimony that YouTube competes with Facebook and Instagram in providing video content).

All available empirical evidence of substitution shows that non-PSN services like YouTube are a closer substitute for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta SMF ¶¶ 533-566. Analyzing substitution patterns during an outage of Meta's apps on October 4, 2021, Meta's expert economist, Professor Carlton, found that [redacted]. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). *See id.* at ¶¶ 562-566. That is consistent with Professor List's pricing experiment, which found significant substitution between Facebook, Instagram, and YouTube. *See id.* at ¶¶ 537-547.

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and YouTube. Evidence from Meta and [redacted]; *see also id.* at ¶ 189 (quoting

testimony from YouTube executives stating that Instagram and YouTube "compete" (quoting Ex. 8 at 54:1-55:2, 242:4-14 (D. Weinstein (Alphabet) Dep. Tr.))). Professor Lampe testified that watching videos on Facebook and Instagram is largely for entertainment. *See id.* at ¶ 607(a) (quoting Ex. 281 at 238:2-239:4, 245:8-246:1 (Lampe Dep. Tr.)). Professor Lampe also opined that users watching Facebook or Instagram Reels with a motivation of entertainment or passing time due to boredom could "satisfy those same motivations" on YouTube. *Id.* at ¶ 612(b) (quoting Ex. 281 at 246:2-18 (Lampe Dep. Tr.) and Ex. 290 at ¶¶ 22-23 (Lampe Rep.)). Moreover, other apps the FTC alleges are PSN services view TikTok as a competitor. *See* Meta SMF ¶¶ 498-503, 504 (Snap), ¶¶ 530, 532 (MeWe).

Further disputed because the phrase "video entertainment platform" is vague and undefined. YouTube executives have acknowledged that YouTube is used to share with friends and family. *See id.* at ¶ 166 (YouTube testimony that users can view videos posted by friends and family and subscribe to their channels (citing Ex. 9 at 28:4-7 (Filner (Alphabet) Dep. Tr.) and Ex. 10 at 49:2-6 (Kim (Alphabet) Dep. Tr.))), ¶ 175 (YouTube testimony that users can upload videos of interest to their friends and family (citing Ex. 8 at 33:4-11 (D. Weinstein (Alphabet) Dep. Tr.))). Mr. Zuckerberg agreed that YouTube presently competes with Facebook in offering U.S. users the "use case of online sharing with friends." *Id.* at ¶ 182 (quoting Ex. 142 at 37:20-39:7 (Zuckerberg Dep. Tr.)). Indeed, to the extent they are relevant, even the surveys the FTC relies on indicate that YouTube is used for that purpose. *See*, *e.g.*, PX12982 at -032 (FTC-META-006826485) (Meta survey showing that [redacted]). YouTube users use many of the same social

features found on Facebook and Instagram; for example, users can share videos that they expect to be of interest to friends and family members, find and connect with another user (by subscribing to their channel), like and comment on videos, like and reply to other users' comments, and engage in other types of social interactions with other users, including friends and family members. Meta SMF ¶¶ 20-23, 34-38, 43-44 (Facebook features), ¶¶ 69, 71-72, 82-83, 88-90 (Instagram features), ¶¶ 164-169, 175-180 (YouTube features).

1174. Professor Lampe opined that YouTube's design, motivations, and norms "make it so [YouTube] is not a [PSNS]." PX9004, Lampe Report at ¶ 261; *see generally id.* at § V(G) (discussing YouTube and distinguishing it from PSNS).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization of YouTube's "design, motivations, and norms" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 47:20-48:13, 49:3-15, 160:8-17, and 163:4-10 (Lampe Dep. Tr.)).

(a) YouTube has a core use of entertaining video consumption, not friends and family sharing.

1175. YouTube recognizes it has a core use of entertaining video consumption, not friends and family sharing.

Meta Response: Disputed in part. Undisputed that YouTube recognizes that it is used for entertaining video consumption, among other things. Disputed that the statements in

this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that YouTube's supposed recognition of a "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. In a submission to the Australian Competition & Consumer Commission (ACCC), Google wrote that YouTube's primary function was consumption of video. Google Australia's Submission to ACCC Digital Platforms Services Inquiry: *March 2023 Interim Report on the Provision of Social Media Services by Social Media Platforms*, ACCC (Nov. 18, 2022), https://www.accc.gov.au/system/files/Digital%20Platform%20Services%20Inquiry%20-%20Social%20Media%20Interim%20Report%20-%20 Public%20Submission%20-%20Google%20Australia%20-%20November%202022. pdf?ref=0&download=y ("YouTube's primary function is to enable users to access and consume video content produced by creators . . . A user comes to YouTube primarily to find and consume video content, and YouTube's service offering is squarely focused on the video viewing experience.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1175. Disputed that the quoted language supports the statement regarding "core use," as the document does not say anything about whether YouTube recognizes that friends and family sharing is not a "core use"

case. Further disputed because the excerpt is incomplete. The cited document also states, under the heading "How YouTube competes for users," "YouTube faces competitive constraints for user attention from many sources, including social media platforms." PX13494 at -011 (ACCC Digital Platforms Services Inquiry: *March 2023 Interim Report on the Provision of Social Media Services by Social Media Platforms*).

b. In the same submission to the ACCC, Google wrote that "[w]hile there are various reasons why users typically visit YouTube, all centre on their consumption of video entertainment, information or knowledge published on the platform by content creators." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1175 and subparagraph 1175(a).

c. Aaron Filner, Senior Director of Product Management for YouTube, testified that YouTube's core function is video. PX6095, Filner (YouTube) Dep. Tr., at 14:6-16, 281:5-282:12 (agreeing YouTube's core function is video, unlike Facebook and Instagram's core functions of connecting friends and family).

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1175. Further disputed because the excerpt is incomplete. Mr. Filner testified that he agreed with the statement that Google offers a range of services, including YouTube, "that have one or more of the functionalities of a social network and therefore compete for users with social networks." PX6095 at

95:14-22 (Filner (Alphabet) Dep. Tr.). Mr. Filner also agreed with the statement from Alphabet's 2021 10-K, stating: "We face formidable competition" including from "social networks offered by ByteDance, Meta, Snap, and . . . Twitter." *Id.* at 60:20-21, 64:12-21. Mr. Filner also agreed that "YouTube compete[s] for user time with people who use Facebook" and with "users of Instagram." *Id.* at 87:5-13; *see also id.* at 351:12-20 ("I do believe that people can go to either Facebook or YouTube for user attention.").

d. In an interview with Axios, YouTube's CEO, Neal Mohan, referenced YouTube's core use case of connecting "with content through video . . . as opposed to trying to connect with your friends or sharing content with friends." PX13507, Axios, *What's Next Summit 2023*, YouTube (Mar. 29, 2023) at 8:04-8:05, https://www.youtube.com/watch?v=qLOLcdwsBkI.

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1175. Disputed that the quoted language supports the statement regarding "core use," as the interview does not say anything about whether YouTube recognizes that friends and family sharing is not a "core use" case.

e. In a filing with the SEC, Alphabet wrote that "YouTube provides people with entertainment, information, and opportunities to learn something new." PX0667 at -005 (Alphabet Inc. SEC Form 10-K, Dec. 31, 2021).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to

paragraphs 1173 and 1175. Disputed that the quoted language supports the statement regarding "core use," as the document does not say anything about whether YouTube recognizes that friends and family sharing is not a "core use" case. Further disputed because the excerpt is incomplete. Elsewhere in the cited document, Alphabet states: "We face formidable competition in every aspect of our business, including from: . . . Social networks offered by ByteDance, Meta, Snap, and Twitter. . . . Providers of digital video services, such as Amazon, Apple, AT&T, ByteDance, Disney, Hulu, Meta, and Netflix." PX0667 at -010 (Alphabet Inc. SEC Form 10-K).

1176. YouTube does not consider itself to be a social network:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that YouTube's characterization of itself as a "social network" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Disputed on the ground that "social network" is vague and undefined.

Further disputed because the materials cited in the subparagraphs below do not support the assertion that YouTube does not consider itself to be a social network. The FTC has defined "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including viewing unconnected video content. *See* Meta SMF ¶¶ 580-582 (citing Ex. 405 at 5-37 (MetaFTC-DX-997, FTC's Resp. to Meta's List of Features or Activities (Sept. 12, 2022))). YouTube competes with alleged PSN apps in the provision of unconnected video content and can be used to share content with friends and family. *See id.* at ¶ 196 (YouTube testimony that Facebook

Watch is a "direct offering that mimic[s] our services" in "direct competition with our services." (quoting Ex. 10 at 74:12-75:10 (Kim (Alphabet) Dep. Tr.))), ¶ 194 ([redacted] (quoting Ex. 14 at -900 (MetaFTC-Klein-DX-51, GOOG-META-02536890))); Ex. 9 at 68:9-12 (Filner (Alphabet) Dep. Tr.) (testimony that YouTube competes with Facebook and Instagram in providing video content). The FTC has not disputed that YouTube has also acknowledged that YouTube "ha[s] one or more of the functionalities of a social network and therefore compete[s] for users with social networks." Meta SMF ¶ 179 (including FTC's response) (quoting Ex. 14 at -896 (MetaFTC-Klein-DX51, GOOG-META-02536890) and citing Ex. 9 at 95:10-22 (Filner (Alphabet) Dep. Tr.)). YouTube has repeatedly described itself as a social network in its internal business documents. *See*, *e.g.*, *id.* at ¶ 178 ([redacted] (quoting Ex. 12 at -.042 (MetaFTC-Klein-DX-912, GOOG-META-03246369))). Other companies also describe YouTube as a social network. *See*, *e.g.*, Meta SMF ¶ 413 (LinkedIn describing YouTube as a social network). YouTube shares features and functionalities with what the FTC calls social networks, including the ability to connect by subscribing to other users' channels, liking or disliking video content, commenting on video content, and sharing video content. *See* Meta Resp. to Counter SMF ¶ 1173. "[S]ocial network" is also undefined, and Google itself has stated that "there is no industry-wide definition of social networking service." Meta SMF ¶ 177 (quoting Ex. 9 at 79:4-9 (Filner (Alphabet) Dep. Tr.)).

a. In its submission to the ACCC, Google wrote that "YouTube does not have a social networking purpose." PX13494 at -007, Google Australia's Submission to ACCC Digital Platforms Services Inquiry: March 2023 Interim Report on the Provision of Social Media Services by Social Media Platforms, ACCC (Nov. 18, 2022), https://www.accc.gov.au/system/files/Digital%20Platform%20Services%20Inquiry%20-%20Social%20Media%20Interim%20Report%20-%20Public%20Submission%20 -%20Google%20Australia%20-%20November%202022.pdf?ref=0&download=y.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1176.

b. Mr. Filner testified that "YouTube and social media platforms are not substitutable with respect to users." PX6095, Filner (YouTube) Dep. Tr., at 292:3-8.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1176. Further disputed because the excerpted testimony is incomplete and misleading, as it omits Mr. Filner's testimony about substitutability with alleged PSN applications. Mr. Filner testified that "Meta is a competitor to YouTube as a provider of digital video services" and that Facebook is "a substitute" to YouTube for "consum[ing] video." Meta SMF ¶ 195 (quoting Ex. 9 at 68:9-12, 103:6-16 (Filner (Alphabet) Dep. Tr.)). Mr. Filner also testified that he agreed that YouTube competes with "[s]ocial networks offered by

ByteDance, Meta, Snap, and Twitter," Meta SMF ¶ 189 (quoting Ex. 365 at -254 (MetaFTC-Klein-DX-50, GOOG-META-00041245)), and other evidence shows that [redacted]

c. Mr. Filner testified that he was "not aware of a social network service offered by Google including YouTube." PX6095, Filner (YouTube) Dep. Tr., at 245:11-21 ("Q: Turning to the second bullet, this reads, "As outlined in previous submissions, Google considers that it does not offer social network services." Do you see that? Witness: Yes. Q: Do you agree with that? Witness: Yes. Q: Why? Witness: I am not aware of a social network service offered by Google including YouTube.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1176 and subparagraph 1176(b).

d. Thomas Kim, Director of Product Management for Creator Monetization at YouTube, testified that YouTube is not a social media platform. PX6152, Kim (YouTube) Dep. Tr., at 16:9-17:1, 344:20-345:6 ("Q. And do you agree that YouTube is not a social media platform? A. Yes. Q. Why not? A. Social media implies aspects of social interactions. I think of it as things akin to some of the social graph concepts we've talked about. And so the way I interpret that word, I do not believe that we are.").

Meta Response: Disputed in part. Undisputed that Mr. Kim provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1176. Further disputed because the excerpted testimony is incomplete and misleading. Mr. Kim also testified that Facebook Watch and Instagram TV were in "direct competition" with YouTube's services, and that he "felt very much so" that YouTube competed with the two offerings for user time and attention. PX6152 at 74:12-75:10 (Kim (Alphabet) Dep. Tr.). Mr. Kim also testified that Instagram, TikTok, and YouTube all offer users "the choice to see short-form video" and that "Instagram and YouTube are competing in the short-form video space." *Id.* at 64:7-10; 76:15-16 (which (in the case of Instagram) the FTC asserts is included the alleged PSNS market). Further disputed that the use of the term "social media" is relevant to the FTC's classification of apps. *See* Ex. 290 at ¶ 256 (Lampe Rep.) (FTC's proffered industry expert, Professor Lampe, opining that "Groups like Pew Internet classify YouTube as social media.").

1177. Meta recognizes that YouTube lacks a core use of connecting with friends and family:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's supposed recognition of YouTube's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further

disputed because the materials cited in the subparagraphs do not support the assertion that YouTube is not also used for connecting with friends and family, as the FTC defines it.

a. Tom Cunningham, a former research scientist at Meta, contrasted YouTube with other platforms while testifying in a 2020 investigational hearing, referencing little curation of friendship or mutual following ties on YouTube compared to social networks. PX6008, Cunningham (Meta) IH Tr., at 21:24-22:20, 100:21-101:4 (distinguishing the "overwhelmingly passive consumption of content of YouTube and the relatively little curation of friendship or mutual following ties compared to the cluster of other apps which are more traditionally called social networks.").

Meta Response: Disputed in part. Undisputed that Mr. Cunningham provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1177. Further disputed because the FTC's characterization of Mr. Cunningham's testimony is incomplete and misleading. When asked whether YouTube is a social network, Mr. Cunningham stated that "in some contexts" it would be reasonable to describe YouTube as such, including "in terms of features" it has. PX6008 at 100:1-20 (Cunningham IH Tr.). When asked to identify the "core features" of YouTube, Mr. Cuningham testified that he "never had occasion to study that as part of [his] work at Facebook," and that he had "a much looser grasp of the patterns of usage of YouTube than [he] [did] of Facebook." *Id.* at 120:1-10.

b. A 2020 Meta presentation noted that YouTube was geared toward content curation and discovery, rather than updates on friends or followers. PX3025

at -035, Meta presentation: "What's the deal with TikTok?" (Nov. 2020), FTC-META-003283650 (observing YouTube, like TikTok, is "Wired for 'content curation and discovery', rather than updates on your friends / followers").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1177.

c. Mark Zuckerberg testified that "I don't think people would say that the main use of Reddit or YouTube is sharing with friends." PX6127, Zuckerberg (Meta) Dep. Tr., at 39:17-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1177.

1178. Other parties also recognize that YouTube lacks a core use of connecting with friends and family.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that other parties' supposed recognition of YouTube's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. [redacted], Head of Global Technology Investment Banking at Morgan Stanley, wrote in 2014 to then-Meta CFO David Wehner that YouTube is not a social network, but a video entertainment platform, and is "not about 'who' or

communicating," but instead what users "are watching." PX11677, Meta email chain: [redacted] (Morgan Stanley) to D. Wehner (Meta), et al. re: "Ramp slide update and backup XLS," (Feb. 19, 2014), FB_FTC_CID_10804702, at -702 ("We talked over Youtube with everyone here, and nobody concluded it was a social network. . . . It's a video entertainment platform where you go to see Taylor Swift or Piano Cat etc and its not about 'who' or communicating, its about what you are watching."); PX6072, Grimes (Morgan Stanley) Dep. Tr., at 8:13-19 (stating Mr. Grimes' title).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1178. Further disputed on the ground that [redacted] was describing YouTube in 2014. Since 2014, YouTube has released new features like YouTube Shorts, *see* Meta SMF ¶ 170, and Meta has introduced Facebook Watch (later renamed to Facebook Video), Instagram TV, Instagram Live, and Facebook and Instagram Reels, which are all video-only surfaces. *See id.* at ¶¶ 36-38, 43-44, 84-85, 88-90; Ex. 504 (Instagram, *Welcome to IGTV, Our New Video App*, https://perma.cc/563M-GN9B?type=image). YouTube has recognized that engagement on these features directly compete with YouTube. *See* Ex. 10 at 74:12-75:5, 98:6-99:19 (Kim (Alphabet) Dep. Tr.); [redacted].

b. V Pappas, former COO of TikTok and a former YouTube employee, testified that YouTube is an entertainment platform. PX6135, Pappas (TikTok) Dep. Tr., at 10:13-14, 88:5-18 ("Q. Mx. Pappas, I believe you said that YouTube is an entertainment platform? A. Yes.").

Meta Response: Disputed in part. Undisputed that V Pappas provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1178. Further disputed that the statement in the subparagraph supports the assertion that YouTube is not used for connecting with friends and family, as YouTube can be a platform that offers entertainment yet still function to connect with friends and family. *See* Meta Resp. to Counter SMF ¶ 1173. V Pappas described TikTok as an "entertainment platform" as well, yet also testified that Instagram Reels is a "directly competing feature" to TikTok. PX6135 at 14:10-17, 52:20-53:12 (Pappas (TikTok) Dep. Tr.).

c. Chris DeWolfe, co-founder and former CEO of Myspace, testified that he did not view YouTube as offering a service "for connecting with friends and family" when he was CEO of Myspace. PX6066, DeWolfe (Myspace) Dep. Tr., at 16:3-21, 149:15-21.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1178. Further disputed that the quoted material appears on the page cited. Further disputed because the FTC's characterization of Mr. DeWolfe's testimony is inaccurate. Asked whether in 2007, he viewed YouTube as "provid[ing] a service that was competitive with My[s]pace for the purpose of connecting with friends," Mr. DeWolfe answered, "[n]o." PX6066 at

148:15-21 (DeWolfe (Myspace) Dep. Tr.) (asking about Mr. DeWolfe's views at "the time of [an] article" published in 2007). This does not mean Mr. DeWolfe views YouTube as not offering users the ability to connect with friends and family. Additionally, Mr. DeWolfe testified that when Myspace launched "YouTube was definitely thought of as a competitor" to Myspace, which the FTC labels as a PSNS. PX6066 at 32:1-2, 32:20-33:2 (DeWolfe (Myspace) Dep. Tr.). Further disputed on the ground that Mr. DeWolfe was describing YouTube in 2007, when its feature set was more limited. Since 2007, YouTube has evolved, for the reasons stated above in Meta's responses to paragraph 1173 and subparagraph 1178(b).

1179. Consumer surveys further demonstrate YouTube's core use of entertaining video consumption, not friends and family sharing.

Meta Response: Disputed. Undisputed that some surveys' respondents indicated they use YouTube for consuming entertaining videos, but other respondents indicated they use YouTube for friends and family sharing. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. All available empirical evidence of substitution shows that YouTube is a closer substitute for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See* Meta Resp. to Counter SMF ¶ 1173; *see also* Meta SMF ¶¶ 580-584.

Further disputed because the materials cited in this paragraph and its subparagraphs do not support the assertion that YouTube is not also used for friends and family sharing. Moreover, to the extent relevant, the FTC's proffered expert Mr. Malkiewicz conducted a survey of consumers and found that more than 63% of respondents who reported using Instagram did not select "[t]o keep up with [their] friends' and family's lives in one place" as their "most important reason[ ]" for using Instagram, but instead chose reasons like "[t]o enjoy entertainment content" and "[t]o follow or interact with public figures" as their "most important reason[ ]" for using Instagram. *See* Meta SMF ¶¶ 645-646 (quoting Ex. 299 at p. 36, tbl. 6 (Malkiewicz Rep.)). Whether consumers respond they use YouTube for "entertaining videos" or "friends and family sharing" is not material to whether YouTube competes with Facebook and Instagram.

a. A 2018 Meta survey found that [redacted]. PX12992 at -044, Meta presentation: "[redacted]" (Aug. 21, 2018), FTC-META-003599295 ("[redacted]").

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1179.

b. Polling conducted by Morning Consult in 2019 and presented to TikTok found that 65% of survey respondents selected "[t]o be entertained" as their primary reason for using YouTube, while only 5% of respondents selected "[t]o stay

connected to friends and family." PX13608, TikTok presentation: "TikTok Polling Presentation" (Dec. 12, 2019), TIK-00006531, at -536.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1179.

c. A 2018 Meta analysis of [redacted] concluded that [redacted] PX10662, Meta presentation: "[redacted]" (Oct. 5, 2018), FB_FTC_CID_04988064, at -091 ("[redacted]").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1179.

d. FTC expert Michal Malkiewicz's survey found that 63.9% of survey respondents selected "[t]o enjoy entertainment content" as their most important reason for using YouTube, compared to only 2.8% of respondents who selected "[t]o keep up with my friends' and family's lives in one place." PX9006, Malkiewicz Report at ¶ 81, Table 10.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1179. Disputed that the statement, or Mr. Malkiewicz's

survey, creates a genuine dispute of material fact, as Mr. Malkiewicz's survey, by his own admission, "never set out to measure economic substitution." Meta SMF ¶ 652 (quoting Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)). Further disputed because the survey only asked about the "most important" reason for using an app; it has no bearing on other reasons people use an app. *See* PX9006 at -122-137 (Malkiewicz Rep.).

1180. There is not a norm on YouTube of connecting with friends and family:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the "norm[s]" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Disputed on the ground that "norm[s]" is vague and undefined. Further disputed because the materials cited in the subparagraphs below do not support the assertion that YouTube is not also used for friends and family sharing, as the FTC defines the term.

a. Bradley Horowitz, an advisor and former Vice President of Product Management at Google, testified that users do not use YouTube to regularly create networks of friends and family, nor do they regularly use YouTube to connect with friends and family. PX6148, Horowitz (Google) Dep. Tr., at 15:8-15, 141:3-16 ("Q. And do users on YouTube regularly create networks of friends and family? . . . . THE WITNESS: I don't think that's consistent with YouTube's primary use case . . . . Q. . . . [D]o users on YouTube regularly use YouTube to connect with friends and family? . . . . THE WITNESS: I do not believe that's YouTube's primary use case.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1180.

b. Debbie Weinstein, Google's business lead in the United Kingdom and Ireland and formerly Vice President of Global Advertising Solutions, testified that YouTube is not about interacting with other people, and that users engage with videos more than they engage with each other. PX6107, Weinstein (Google) Dep. Tr., at 12:1-14, 26:7-15) ("Users engage really with the video more than they engage with each other. So if you are using YouTube, you're maybe commenting or liking or sharing a video, but it's not really about interacting with other people.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1180.

c. [redacted]

Meta Response: Disputed. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1180.

(b) YouTube lacks functionality to foster and facilitate friends and family sharing.

1181. YouTube also lacks functionality to facilitate and foster friends and family sharing. *See infra* CMF at ¶¶ 1182-93.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that what it describes as "functionality to foster and facilitate friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1182-1193, Meta incorporates its responses to those statements here.

1182. YouTube does not have a social graph and does not plan to develop one.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of a "social graph" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173.

Further disputed because the materials cited in the subparagraphs below do not support the assertion that YouTube lacks a social graph. The FTC defines a "social graph" as "the set of connections that users make among each other within a social network." *See* Counter SMF ¶ 1088. The evidence shows that YouTube has a social

graph, as the FTC defines it, and users can search for accounts and make connections on YouTube. *See* Meta Resp. to Counter SMF ¶ 1173 (describing YouTube's functionality, including its social graph). For example, users can subscribe to other users' channels. *See* Meta SMF ¶ 166. YouTube enables many other ways for users to manifest interactions with other users: users can find and subscribe to other channels, find other users by the name of their channel, like and comment on videos, and like and reply to other users' comments. *See id.* at ¶¶ 164-169, 175-180. YouTube uses this information about a user's history of social interactions to recommend videos for the user to watch. *See id.* at ¶¶ 162-163. And testimony from both Meta and Google show that YouTube indeed has a social graph. Mr. Horowitz testified that when he was working on YouTube around 2014, "YouTube certainly had a social graph." PX6148 at 153:11-12 (Horowitz (Alphabet) Dep. Tr.). Mr. Zuckerberg testified that "YouTube has this basic structure which is that you have creators and you have a follow graph and people subscribe to it, which there is a network structure to it." Ex. 139 at 125:23-126:1 (Zuckerberg IH Tr.).

a. Aaron Filner, a Senior Director of Product Management at YouTube, testified that YouTube does not already have a social graph and that YouTube management has not indicated a desire to develop one. PX6095, Filner (YouTube) Dep. Tr., at 198:3-5 ("Q. Does YouTube already have a social graph? A. No."); *id*. at 202:12-14 ("Q. Has YouTube management indicated a desire to develop a YouTube social graph? A. I don't think so.").

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1182.

b. Mr. Horowitz testified that YouTube, unlike Google+, does not create a social graph that captures relationships between users. PX6148, Horowitz (Google) Dep. Tr., at 141:18-142:3 ("YouTube's not a social product in the sense that it creates a social graph that captures the relationships we aspired to in Google+.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1182. Further disputed because the excerpted testimony is incomplete and misleading. Mr. Horowitz testified that when he was working on the YouTube product around 2014, "YouTube certainly had a social graph." PX6148 at 153:11-12 (Horowitz (Alphabet) Dep. Tr.).

c. Meta has observed that "YouTube lacks a social graph." PX2543 at -014, Meta presentation: "Video Content Acquisition and Sales Rights" (Feb. 17, 2017), FB_FTC_CID_02026452.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1182.

d. [redacted], Google wrote that "connections on YouTube are mostly content and interest-driven." [redacted] GOOG-META-02536927, at -932.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1182.

1183. YouTube's connection tools are designed to connect users to their interests, not friends and family.

Meta Response: Disputed in part. Undisputed that YouTube has tools that enable users to connect to their interests, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the supposed design of YouTube's "connection tools" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Further disputed because the materials cited in the subparagraphs below do not support the assertion that YouTube's "connection tools" do not connect users to their friends and family. Further disputed because the term "connections tools" is vague and undefined.

a. YouTube user profiles, referred to as YouTube channels, are not focused on providing information about the user in order to facilitate connections to other users. *See* PX6095, Filner (YouTube) Dep. Tr., at 287:4-288:13 (agreeing that social media user profiles facilitate connections with other users in a manner that YouTube channels do not).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1183. Further disputed that the paraphrased testimony supports the assertion that YouTube lacks tools to connect with friends and family. On the contrary, YouTube channel pages contain some of the same information as what is shown in Facebook or Instagram profiles – like the user's username, profile picture, banner image, description, content the user has uploaded, external links, and the user's subscriptions to other channels (which are

connections with other users). *See* Ex. 505 at 1 (YouTube Help, *Manage Your Channel Branding*, https://perma.cc/PKV5-UG2A?type=image); Ex. 506 at 1 (YouTube Help, *Manage Your YouTube Channel's Basic Info*, https://perma.cc/YK8X-7J4R?type=image); Meta SMF ¶¶ 18-19, 68 (describing profile features on Facebook and Instagram).

b. On YouTube, while it is easy for users to find videos suited to their interests, it is not easy for users to find people they know. PX6095, Filner (YouTube) Dep. Tr., at 268:2-11 ("I think that ultimately it is easiest at YouTube to find videos that suit your interests and it is hard to find people you know.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1183.

c. YouTube does not have features which would allow users to find friends and family. PX6095, Filner (YouTube) Dep. Tr., at 31:3-31:10 ("Q. Okay. And does YouTube have a tool that allows users to find other users, such as friends or family, by typing in their name or e-mail address? . . . [A.] No, it has a feature that allows to you find people based on the name of their channel."); *id*. at 93:21-94:8 ("Q. Does YouTube have friend-finding functionality? . . . [A.] What do you mean by "friend-finding functionality"? . . . Q. The ability to find friends at YouTube. A. No, I wouldn't characterize the features of YouTube as having friend finding."); *id*. at 219:21-220:10 ("YouTube doesn't have, to my knowledge, a more structured mechanism like contacts or ways of finding your friends by phone number to subscribe or engage with them at YouTube.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1183. Disputed that YouTube lacks features allowing users to find their friends and family. Users can find other users based on the name of their channels, and once subscribed to their friend's channel, receive notifications when new content is uploaded. *See* Meta SMF ¶¶ 164-166.

d. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1183.

1184. YouTube's activity stream is heavily-consumption based and centered on public, interest-based video content.

Meta Response: Disputed in part. Undisputed that most YouTube users who upload videos upload them as public, which is the default setting on YouTube, as it is on Instagram for users over 16. Ex. 508 at 1 (Instagram Help Center, *Differences Between Public and Private Accounts on Instagram*). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the content on YouTube's activity stream is relevant to substitution, and for the reasons stated above in Meta's response to paragraph

1173. Further disputed because time spent on Facebook and Instagram also largely comprises consuming content posted by accounts users do not follow and that do not follow them, which the FTC characterizes as PSNS. *See* Meta SMF ¶¶ 11-12, 56-57, 580-584. In January 2023, [redacted] of time spent on Facebook was not associated with content from "friends." *See id.* at ¶ 11 (citing Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)). Similarly, [redacted] of time spent on Instagram in February 2023 was not associated with content from "friends." *See id.* at ¶ 56 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). Further disputed because the materials cited in the subparagraphs do not support the assertion that YouTube does not also have friends and family content. Further disputed because the terms "heavily-consumption based" and "centered on" are vague and undefined.

a. Content on YouTube is produced by a small minority of the platform's total user base. PX6152, Kim (YouTube) Dep. Tr., at 250:14-251:3 (testifying that, based on YouTube's broadest internal definition of "creator," there are [redacted] active creators out of more than [redacted] overall users—"it's a pretty small percent that are actively uploading videos and creating"); *see also* PX6148, Horowitz (Google) Dep. Tr., at 148:10-149:10 ("Again, if we had 1 percent of Google+ users posting and 99 percent simply passively scrolling, that was less interesting to us. That sort of replicated the YouTube creator economy, and we aspired to something that was more peer than that and more lean-in, as opposed to lean-back.").

<u>Meta Response</u>: Disputed in part. Undisputed that [redacted]. Disputed for the

reasons stated above in Meta's responses to paragraphs 1173 and 1184. Further disputed because the excerpted testimony is incomplete and does not support the statement in paragraph 1184, because Mr. Kim offered [redacted]. *See* PX6152 at 250:14-21 (Kim (Alphabet) Dep. Tr.).

b. Within the creator subgroup, viewer consumption is centered on a small minority of creators. PX6148, Horowitz (Google) Dep. Tr., at 151:18-152:17 ("So YouTube is driven largely by a small number of people producing content that is viewed by a large number of people."); *see also* PX2702, Meta presentation: "Evaluate YouTube Via A Family Lens: Audience, Consumption, Production, Sentiment" (Nov. 5, 2020), FB_FTC_CID_04987712, at -725 (noting that [redacted] of channels account for [redacted] of views).

<u>Meta Response</u>: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1184. Further disputed because the cited language does not appear on the cited page of PX2702. Further disputed to the extent the statement implies consumption patterns on YouTube [redacted] Facebook or Instagram – the cited document states that "YouTube app's production/consumption ratio [redacted] IGTV tab." PX2702 at -022 (FB_FTC_CID_04987711).

c. [redacted], Google wrote that "YouTube does not have a newsfeed," but that video suggestions "can be personalised based on

preferences and interests depending on a user's privacy settings." [redacted] GOOG-META-02536927, at -932.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1184.

d. Mr. Filner testified that YouTube users are generally not able to share content within the platform. PX6095, Filner (YouTube) Dep. Tr., at 285:3-10.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1173 and 1184.

1185. YouTube's tools are focused on allowing users to share videos publicly. PX6095, Filner (YouTube) Dep. Tr., at 32:21-33:5 ("What tools does YouTube provide to allow users to share videos with a group of their friends? . . . [A.] YouTube's video features are more focused at sharing publicly.").

Meta Response: Disputed in part. Undisputed that YouTube users can share public videos, among other things. YouTube users can also post "Private" videos, which are only viewable by other users who are granted access to view the video, or post "Unlisted" videos, which are only viewable to other users who are provided a link to the video. Ex. 507 at 1 (YouTube Help, *Change Video Privacy Settings*, https://perma.cc/7KKZ-A3GW?type=image). For example, a parent may post a child's recital on YouTube, and make it visible only to family members who have been granted access to the video (Private) or provided the link to the video (Unlisted). *Id.*; Meta SMF ¶¶ 173, 175.

Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the focus of YouTube's tools is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Moreover, content on Instagram is also shared publicly by default for users over 16. *See* Meta SMF ¶ 674; Ex. 508 at 1 (Instagram Help Center, *Differences Between Public and Private Accounts on Instagram*).

1186. There is not an effective mechanism on YouTube for a user wishing to share content with a network of connections. PX6152, Kim (YouTube) Dep. Tr., at 339:10-340:1 (testifying there is not a "good way to share a video with your network because we don't really have a network concept on YouTube."); *see also* PX3026, Meta email chain: [redacted] to [redacted] (Apple) re: "any news? (Facebook as an option in workflow in 3.x)," (July 21, 2009), FB_FTC_CID_07685097, at -097 ("Posting on youtube is posting to a large video web site, but none of your friends are aware you just posted the video and most of them will never see it . . . Posting on facebook means that all your friends will see the video . . . [it's] not competition to youtube, it[']s just different . . .").

<u>Meta Response</u>: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the effectiveness of sharing tools on YouTube is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173.

Further disputed because the materials cited in this paragraph do not support the assertion that YouTube lacks an "effective mechanism" for a user wishing to share content with a network of connections. On the contrary, YouTube has tools to share connect with friends and family. *See* Meta Resps. to Counter SMF ¶¶ 1173, 1182. The

evidence shows that when a user uploads a video to a channel, YouTube notifies the channel subscribers of the new video. *See* Meta SMF ¶ 164. A user's homepage will also prioritize displaying videos based on factors such as whether a video was posted by a channel the user has subscribed to. *See id.* at ¶ 163. Further disputed because the excerpted testimony is incomplete and misleading. Mr. Kim testified that "[w]e have lots of ways to share the video," including supporting sharing the video through "many" other platforms. PX6152 at 339:18-21 (Kim (Alphabet) Dep. Tr.). Further disputed because the term "effective" is vague and undefined.

1187. YouTube's features do not include a messaging service through which users can communicate privately or the ability to join social groups. PX13494 at -007-08, *Google Australia's Submission to ACCC Digital Platforms Services Inquiry, March 2023 Interim Report on the Provision of Social Media Services by Social Media Platforms*, ACCC (Nov. 18, 2022), https://www.accc.gov.au/system/files/Digital%20Platform%20Services%20Inquiry%20-%20Social%20Media%20Interim%20Report%20-%20Public%20Submission%20-%20Google%20Australia%20-%20November%202022.pdf?ref=0&download=y; PX6095, Filner (YouTube) Dep. Tr., at 283:14-284:16.

Meta Response: Undisputed.

1188. Even where YouTube's features overlap with those of social networks, those features are not designed to facilitate social networking and are ancillary to YouTube's core function of video. PX13494 at -008-09, *Google Australia's Submission to ACCC Digital Platforms Services Inquiry, March 2023 Interim Report on the Provision of Social Media Services by Social Media Platforms*, ACCC (Nov. 18, 2022),

https://www.accc.gov.au/system/files/Digital%20Platform%20Services%20Inquiry%20-%20Social%20Media%20Interim%20Report%20-%20Public%20Submission%20-%20Google%20Australia%20-%20November%202022.pdf?ref=0&download=y;

[redacted]

Meta Response: Disputed in part. Undisputed that one of YouTube's functions is offering videos. Disputed on the ground that "social networks," "social networking," and "core function of video" are vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that features that "overlap" but are "ancillary" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Further disputed because the cited evidence does not support the assertion that YouTube's features that overlap with social networks do not also facilitate social networking, as the FTC defines the term.

1189. [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Kim provided the quoted testimony. Disputed that this paragraph creates a genuine dispute of material fact, including because the FTC provides no evidence that theses "different reasons" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173. Further disputed to the extent the statement implies that Mr. Kim testified that Instagram Reels and YouTube Shorts do not compete for users. *See id.* Mr. Kim testified that "users have the choice to see short-form videos on Instagram Reels, TikTok

as well as YouTube Shorts," PX6152 at 64:7-10 (Kim (Alphabet) Dep. Tr.), and that YouTube "competes with Instagram for user time and attention in the short-form video space," *id.* at 76:7-16. He similarly testified that [redacted] is one of the factors that "very much" led YouTube to conclude that it was competing with other video offerings on Instagram and Facebook for user engagement. *Id.* at 74:12-75:10. YouTube's documents and testimony confirm YouTube's perception of Reels as a competitor. *See* Meta SMF ¶¶ 200-202.

1190. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that users' preferred method of suggesting videos is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1173.

Further disputed because the testimony is incomplete. Asked to elaborate on his testimony, Mr. Kim explained that [redacted]. PX6152 at 278:2-280:16 (Kim (Alphabet) Dep. Tr.). This is similar to how Meta recommends content on Facebook and Instagram and how users engage with content on Facebook and Instagram. *See* Meta SMF ¶¶ 249, 742. Professor Carlton calculated that [redacted] of content viewed on the Instagram Feed, including

advertising, is not associated with "friends and family sharing." *Id.* at ¶ 62 (quoting Ex. 2 at ¶ 74 & n.121 (Carlton Rep.)).

1191. Users do not need to create an account in order to view and enjoy YouTube content. PX13494 at -006, Google Australia's Submission to ACCC Digital Platforms Services Inquiry, March 2023 Interim Report on the Provision of Social Media Services by Social Media Platforms, ACCC (Nov. 18, 2022), https://www.accc.gov.au/system/files/Digital%20Platform%20Services%20Inquiry%20-%20Social%20Media%20Interim%20Report%20-%20Public%20Submission%20-%20Google%20Australia%20-%20November%202022.pdf?ref=0&download=y.

Meta Response: Undisputed.

1192. Most of the content consumed on YouTube is public. [redacted] GOOG-META-02536927, at -934.

Meta Response: Undisputed.

1193. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted] Undisputed that [redacted]. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence [redacted] relevant to substitution, and for the

reasons stated above in Meta's response to paragraph 1173. Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and YouTube. *See* Meta Resp. to Counter SMF ¶ 1173. [redacted]

Further disputed because the materials cited in the statement do not support the assertion [redacted]. Further disputed that [redacted].

(2) TikTok lacks core functionality and use for friends and family sharing.

1194. TikTok is an entertainment platform which allows users to view, create, and share entertainment content. *See, e.g.*, PX6097, Presser (TikTok) Dep. Tr., at 212:1-5 ("[Y]es, it is directionally correct in that we are engaged in an entertainment platform where we share and allow users to share, create, consume content[.]").

Meta Response: Disputed in part. Undisputed that TikTok can be used to view, create, and share entertaining content, among other things. Disputed that this paragraph creates a genuine dispute of material fact, including because the FTC provides no evidence that

its characterization of TikTok as "an entertainment platform" is relevant to substitution. Further disputed because "entertainment platform" is vague and undefined.

1195. Professor Hemphill concluded that "TikTok is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 555; *see generally id.* at ¶¶ 533-554.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC has defined "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including watching short-form videos. *See* Meta SMF ¶¶ 580-582 (citing Ex. 405 at 5-37 (MetaFTC-DX-997, FTC's Resp. to Meta's List of Features or Activities (Sept. 12, 2022))). [redacted]

All available empirical evidence of substitution shows that TikTok is a closer substitute for Facebook and Instagram than Snapchat, which the FTC asserts is PSN app. *See id.* at ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). The FTC's proffered expert, Professor Hemphill, acknowledged that [redacted]. *See id.* at ¶¶ 631-632 (citing Ex. 283 at 130:10-12, 130:14-18, 132:8-17 (Hemphill Dep. Tr.)).

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and TikTok. Evidence from Meta and TikTok show that both consider TikTok to compete with Facebook and Instagram. *See id.* at ¶¶ 244-253, 261-265 (Meta evidence), ¶¶ 254-256, 267-270 (TikTok evidence). [redacted] Moreover, other apps the FTC alleges are PSN services view TikTok as a competitor. *See* Meta SMF ¶¶ 498-504 (Snap), ¶¶ 528-530, 532 (MeWe).

Further, TikTok has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including a social graph, a feed, and other "social features." *Id.* at ¶¶ 20-23, 34-38, 43-44 (Facebook features), ¶¶ 69, 71-72, 82-83, 88-90 (Instagram features), ¶¶ 208-243 (TikTok features). Professor Hemphill conceded that TikTok has a "social graph," that "one to many communications can be sent and received over that social graph," and that TikTok is a "shared social space within which content delivery and interactions occur." *See id.* at ¶ 210 (quoting Ex. 283 at 46:16-47:18 (Hemphill Dep. Tr.)). Professor Lampe opined that TikTok is a "Social Networking Site" and possesses a "social graph" in which users interact in a "shared social space" and that TikTok can be used for "personal social networking." *Id.* ¶ 209 (citing PX9004 at ¶¶ 46, 85, 109, 226 (Lampe Rep.) and Ex. 281 at 334:1-211 (Lampe Dep Tr.)). Professor Lampe also conceded that it is "definitely possible" for users to use TikTok to share with friends and family. *Id.* at ¶ 209 (quoting Ex. 281 at 334:2-11 (Lampe Dep. Tr.)). [redacted] *See id.* at ¶¶ 219-220. TikTok

has released numerous "social features" to facilitate friends and family sharing; for example, users can follow their friends and family on TikTok; TikTok's "Friends tab" displays content exclusively from users' reciprocal followers; users can "like," comment on, and "tag" videos posted by their friends and family; and users can share videos with their friends and family through TikTok's messaging offering. *Id.* at ¶¶ 217-218, 224, 230-232, 237-239. [redacted] Ex. 24 at 33:18-34:2 (Presser (TikTok) Dep. Tr.). TikTok has a dedicated "Social team," Meta SMF ¶ 240, and a "real world friends strategy," which aims to "drive real world connections . . . on TikTok," PX13757 at -816 (TIK-00001816). [redacted]

The record also shows that TikTok users in fact use TikTok to share with family and friends. *See* Meta SMF ¶¶ 216, 241, 243. For example, a January 2020 Meta survey found that [redacted]. *Id.* at ¶ 216 (quoting Ex. 222 at -.001, -.047 (FTC-META-005944143)). [redacted] *See id.* at [redacted]. *See id.* at ¶ 241 (citing [redacted]

[redacted] and Ex. 279 at ¶ 287 (Hemphill Rep.)). Professor Hemphill conceded that he does not know if there is more "friends' content" on Instagram Reels or TikTok's For You page. Ex. 283 at 91:20-92:7 (Hemphill Dep. Tr.). And Professor Hemphill admitted that he did not recall talking to any users who use both TikTok and Instagram about how they use the apps. *See id.* at 43:18-44:18.

1196. Professor Lampe opined that TikTok's design, motivations, and norms "indicate . . . it is not a PSNS." *See* PX9004, Lampe Report at ¶ 238; *see generally id.* at § V(E).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization of [redacted] is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613.

(a) TikTok has a core use of entertainment, not friends and family sharing.

1197. TikTok views itself as an entertainment platform and not a social network.

Meta Response: Disputed in part. Undisputed that TikTok views itself as a platform where users can view entertainment content, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that TikTok's supposed view of itself is relevant to substitution, for the reasons stated above in Meta's response to paragraph 1195. Disputed on the ground that "social network" is vague and undefined.

Further disputed because the evidence demonstrates recognition of TikTok as a social network. In addition to the FTC's proffered expert, *see* Meta SMF ¶ 209 (Professor Lampe testimony that TikTok is a "Social Networking Site" and can be used for "personal social networking" (quoting Ex. 290 at ¶¶ 46, 85, 109, 226 (Lampe Rep.) and Ex. 281 at 334:2-11 (Lampe Dep. Tr.))); Snap, Google, Pinterest, and Walmart have all described TikTok as a "social network," *see* Ex. 464 at -497 (SNAP – FTC – No. 191-0134 – 0000129497); Meta SMF ¶ 189 (citing Ex. 365 at -254 (MetaFTC-Klein-DX-50, GOOG-META000041245)); Ex. 14 at -895 (MetaFTC-Klein-DX-51, GOOG-META-02536890); Meta SMF ¶ 257 (Walmart announcement of acquisition offer describing TikTok as a "social network"). So have the corporate representatives of Epic Games and Dispo. *See* Ex. 466 at 53:8-10 (Baumgarten (Epic Games) Dep. Tr.); PX6074 at 60:15-61:1 (Liss (Dispo) Dep. Tr.). Further disputed because the phrase "entertainment platform" is vague and undefined.

a. TikTok's corporate representative and current Head of Operations testified that TikTok primarily thinks of their platform as an entertainment platform, and that TikTok was not a social networking platform. PX6097, Presser (TikTok) Dep. Tr., at 65:12-17 ("I would say that we think of ourselves and our platform as primarily an entertainment platform that gives users the opportunity to create and share entertainment content."); *id.* at 212:1-5 ("yes, it is directionally correct in that we are engaged in an entertainment platform where we share and allow users to share, create, consume content; but we are not a social networking platform."); *id.* at 111:8-15 ("We offer messaging capabilities as a part of the service that we

provide to our users in their consumption of entertainment; but, no, I don't think we view ourselves as a social network.").

Meta Response: Disputed in part. Undisputed that Mr. Presser provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1197. Further disputed because the cited testimony is incomplete. Mr. Presser testified that TikTok has the elements of a social network, including finding other users on TikTok, following other users on TikTok, and sharing content with other users on TikTok. *See* PX6097 at 27:13-29:21, 39:5-40:14 (Presser (TikTok) Dep. Tr.). [redacted]

b. Vanessa "V" Pappas, TikTok's COO at the time of their deposition, testified that TikTok is not a social network, but is "an entertainment platform, first and foremost." PX6135, Pappas (TikTok) Dep. Tr., at 14:10-11, 22:11-12.

Meta Response: Disputed in part. Undisputed that V Pappas provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1197. Further disputed because the quoted language is incomplete. [redacted]

c. Blake Chandlee, TikTok's President of Global Business Solutions, told CNBC in a 2022 interview that TikTok is an entertainment platform. PX0318, Alex Sherman, *TikTok exec: We're not a social network like Facebook, we're an entertainment platform*, CNBC (June 16, 2022), https://www.cnbc.com/2022/06/16/tiktok-were-an-entertainment-app-not-a-social-network-like-facebook.html (Chandlee stating: "'Facebook is a social platform . . . They've built all their algorithms based on the social graph. That is their core competency. Ours is not. . . . We are an entertainment platform. . . . The difference is significant. It's a massive difference.'").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Further disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1197.

d. In a June 2020 written response to a European Commission Request For Information ("RFI"), ByteDance, TikTok's parent company, stated TikTok was an entertainment platform and not a social networking service. PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (*June 12, 2020), TIK-00000001, at -008 ("We believe that our services available to EEA users do not qualify as 'social networking services'. Bytedance's products and services are better described as entertainment platforms (TikTok and Vigo Video)[.]").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to

paragraphs 1195 and 1197. Further disputed because the quoted language is incomplete. The cited document offers a high-level response to a question from the European Commission asking how "personal" social networks can be distinguished. *See* PX13581 at -010 (TIK-00000001). In response, TikTok stated that "there is a certain degree of overlap between [TikTok] and 'social networking services.'" *Id.* at -008. TikTok responded that distinctions can be drawn between apps that promote "interpersonal contact for private and entertainment purposes" and those that "are used for professional purposes," but "note[d] that there is an increasing overlap in the use cases offered." *Id.* Moreover, TikTok described only two of the four apps the FTC claims are PSNS market participants as "[p]ersonal social networking services" – omitting Snapchat and MeWe – and included QZone, which is not in the FTC's alleged PSNS market. *Id.* at -011. Further, while TikTok described how it "believe[d]" users use "social networking services," it qualified its answer, explaining that "[w]e have not conducted studies on this question nor are we aware of such studies." *Id.* at -005. TikTok also stated that "users of 'personal social networking services' multi-home and use a variety of such services." *Id.* at -018.

e. In a May 2020 written response to a separate European Commission RFI, TikTok noted that TikTok is used as an entertainment platform, in contrast to Facebook, which is used to connect and network with friends and acquaintances. PX13583, TikTok document: "Case No Case AT.40684 - Facebook - Marketplace - RFI 2 to Social Media Platforms" (May 14, 2020), TIK-00349382, at -388-89 ("We do not believe that users use TikTok for exactly the same purpose that they use

Facebook. Users use Facebook to connect and network with friends and acquaintances. TikTok is used as an entertainment platform; users use TikTok predominantly to view, create and share creative, humorous or inspiring short video content. . . . As noted above, we believe there are significant differences between TikTok and Facebook because of the way that users perceive and interact with the platforms: whereas TikTok is a destination for entertainment and creativity, Facebook - in our view - is a networking platform.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1197. Further disputed because the quoted language is incomplete. In the cited document, the European Commission asked TikTok: "Please explain whether, in your view, users use your online social media platform for the same purposes as they use Facebook. If not, please explain the differences." PX13583 at -388 (TIK-00349382). TikTok responded that despite its perceived differences with Facebook, it "also includes aspects of personal socialisation." *Id.*

f. TikTok's corporate representative, Adam Presser, testified that users use TikTok because it provides them with a fulfilling entertainment experience. PX6097, Presser (TikTok) Dep. Tr., at 181:12-15 ("I think TikTok's users use our product because it gives them a fulfilling entertainment experience and hopefully by getting what our mission seeks -- seeks to achieve, which is to inspire creativity and bring joy.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1197 and subparagraph 1197(a).

1198. TikTok's primary goal is to provide users with a robust entertainment experience.

Meta Response: Disputed in part. Undisputed that one of TikTok's goals is to provide users entertaining content. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that TikTok's "goals" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Further disputed because the phrases "primary goal" and "robust entertainment experience" are vague and undefined.

a. TikTok's corporate representative testified that a core objective of TikTok is to provide users with the most entertaining and engaging platform. PX6097, Presser (TikTok) Dep. Tr., at 83:6-7 ("[O]ne of our core objectives is to provide our users with the most entertaining and engaging platform.").

Meta Response: Disputed in part. Undisputed that Mr. Presser provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1198 and subparagraph 1197(a). Additionally, Mr. Presser was asked: "Why would Reels potentially be a threat to TikTok?" PX6097 at 83:2-3 (Presser (TikTok) Dep. Tr.). In response, Mr. Presser testified that: "Well, as we've discussed, certainly, one of our core objectives is to provide our users with the most entertaining and engaging platform. And if there are other platforms that are seeking to do the same, then we would pay very close attention to them." *Id.* at 83:5-10. [redacted]

[redacted]

b. In a June 2020 written response to a European Commission RFI, ByteDance, TikTok's parent company, stated that TikTok's purpose was to entertain users. PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (*June 12, 2020), TIK-00000001, at -008 ("The purpose [of both TikTok and Vigo Video] is rather to entertain users through allowing them to view, create, and share short videos directly from their smartphones.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1198 and subparagraph 1197(d).

1199. TikTok does not intend for users to use its service to connect and stay in touch with friends or professional acquaintances. PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (*June 12, 2020), TIK-00000001 at -009-010 ("We believe that Facebook and Instagram are used as a 'complement' in addition to our services. This is because our services are not intended for networking purposes. For example: TikTok users can consume and create as well as share short-form videos but TikTok is not a service intended for connecting and staying in touch with friends and/or professional acquaintances. In order for TikTok users to connect with their friends or professional acquaintances they might use Facebook, Instagram and/or similar 'social networking services'.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that TikTok's

"inten[t]" is relevant to substitution, and for the reasons stated above in Meta's responses to paragraph 1195 and subparagraph 1197(d). Further disputed because the material cited does not support the assertion that TikTok is not also for friends and family sharing, as the FTC defines it. For example, TikTok has released numerous "social features" to facilitate friends and family sharing, including a messaging feature; the ability to comment on videos; and a "Friends tab," which displays content exclusively from users' reciprocal followers. Meta Resp. to Counter SMF ¶ 1195.

1200. Meta also recognizes TikTok as having a core use of entertainment, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's supposed recognition of TikTok's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the material cited in the subparagraphs below does not support the assertion that TikTok is not also used for friends and family sharing, as the FTC defines it.

a. Kevin Systrom, co-founder of Instagram, testified that TikTok's primary use case was entertainment from people not personally known to the user. PX6134, Systrom (Meta/Instagram) Dep. Tr., at 380:22-382:17 (noting for TikTok, "the primarily use case is entertainment of people you don't know. . . . Q. But Tik Tok [sic] today doesn't compete with Instagram to be a place where users share

updates with their family and friends, does it? . . . [A.] I don't believe that is the core use case that Tik Tok [sic] is competing with Instagram on, no.").

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1200. Further disputed because the excerpt is incomplete. Mr. Systrom testified that "some" users do use TikTok to "share updates about their lives with their families and friends." PX6134 at 380:18-22 (Systrom Dep. Tr.).

b. Dan Rose, Vice President of Partnerships at Meta, testified that TikTok was not primarily used to communicate with friends and family. PX6065, Rose (Meta) Dep. Tr., at 271:7-12 ("Q. And what about TikTok? Is it correct to say that TikTok is not primarily used to communicate with friends and family? . . . [A.] Yes, I would say that's correct."); *see also id.* at 28:22-24 (confirming title change to "vice president of partnerships").

Meta Response: Disputed in part. Undisputed that Mr. Rose provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1200. Further disputed because the excerpt is incomplete. Mr. Rose identified TikTok as "one of the largest competitors to Facebook," that includes "competing for time and attention, but also competing for connecting and sharing content with friends, with broader networks, with the public, and competing for people's time in how they would discover content, browse content online, and connect through that content." PX6065 at 259:24-260:18 & errata (Rose Dep. Tr.).

c. [redacted], a Meta Marketing employee, included in a 2020 "Insight[]" that TikTok was positioned more as an entertainment platform than a social one. PX3027, Meta email chain: [redacted] to [redacted] re: "Marketing Insights HPM: October 2020," (Nov. 11, 2020), FTC-META-003693370, at -372.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1200.

d. A 2020 Meta presentation titled "What's the deal with TikTok" noted that people use TikTok for entertainment first. PX3025 at -028, Meta presentation: "What's the deal with TikTok" (Nov. 2020), FTC-META-003283650.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1200. Further disputed because the excerpt lacks context and is incomplete. The statement refers to one slide in a 96-slide presentation discussing the results of a third-party survey of [redacted] TikTok users in the U.S. and U.K. conducted in June 2020. According to the cited slide, [redacted] of respondents said that they use TikTok to "stay in touch with what my friends are doing," while [redacted] said that they use TikTok to "share videos/details of what I'm doing." PX3025 at -028 (FTC-META-003283650).

e. Meta acknowledged in an internal 2019 email that "people are hiring TikTok for very different jobs [compared] to Instagram and they are not directly competing in the core areas of focus for our business" and added that "TikTok is not hired for sharing with friends and family." PX12351, Meta email: [redacted] to [redacted]

et al., re: "TikTok Competitive User Research," (Jan. 4, 2019), FB_FTC_CID_02872739, at -739.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1200. Further disputed because the email does not reflect Meta's views of TikTok. It was authored by a low-level, former Facebook employee, [redacted], who was not deposed during fact discovery. When [redacted] wrote the email in January 2019, TikTok had launched in the United States barely six months prior. Furthermore, [redacted]'s observations were based solely on interviews with *twelve* teenage TikTok users in 2018 in Mexico City. *See* PX12351 at -739 (FB_FTC_CID_02872739). The email also states "[w]e do compete with TikTok in terms of our user's time and attention," and suggests "watching the data and keeping track of what they launch." *Id.*

The evidence shows that TikTok's [redacted] since those 12 interviews were conducted. *See* Meta SMF ¶¶ 207, 216, 220, 223-224, 239-241, 243, 261-265. This document cited also predates Meta's launch of Reels on Facebook (in 2021) and Instagram (in 2020), *see id.* at ¶¶ 43, 88, which the FTC includes in its definition of "PSN services," *see id*. at ¶¶ 580-584. This statement is further refuted by evidence, including documents and testimony from Meta executives that Meta views TikTok as a competitor. *See id.* at ¶¶ 244-253, 261-266.

1201. Other parties similarly recognize TikTok as having a core use of entertainment, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that other parties' supposed recognition of TikTok's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the material cited in the subparagraphs below does not support the assertion that TikTok is not also used for friends and family sharing.

Further disputed because [redacted]. *See* Meta Resp. to Counter SMF [redacted]. And Viddy's co-founder, Mr. Aguhob, testified that TikTok has "been pushing to add more of your friends' content within their experience." Ex. 94 at 247:1-9 (Aguhob (Viddy) Dep. Tr.). Moreover, apps the FTC alleges are PSN services view TikTok as a competitor. *See* Meta SMF ¶¶ 244-253 (Meta recognizing competition with TikTok), ¶¶ 499-503, 510-520 (Snap), ¶¶ 526-531 (MeWe).

a. A 2020 Snapchat memorandum observed that TikTok was not a place for deep connection with friends. PX7015, Snap document: "TikTok Insights Deep Dive Memo" (Dec. 2020), SNAP – FTC – No. 191-0134 – 0000121297, at -306 ("Fun, laughs and entertainment are primary benefits and draws to TikTok across markets. Unlike Snapchat, TikTok is not a place for deep connection with friends or emotional engagement[.]").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1201. Further disputed because the quoted language is incomplete. Snap created the document to understand the "differences between TikTok and its competitors." PX7015 at -306 (SNAP–FTC–No. 191-0134–0000121297).

b. Snapchat's 30(b)(6) witness testified that the primary value TikTok delivers to users is not related to friends, but rather entertainment. PX6119, Andreou (Snap) Dep. Tr., at 140:12-18 ("We know that the primary value that a platform like TikTok delivers is not one of friends and close friends . . . This is not the thing that people say when they talk about TikTok. They talk about being entertained.").

Meta Response: Disputed in part. Undisputed that Mr. Andreou provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1201. Further disputed because Snap's documents show that Snap recognizes that users use TikTok for sharing content with friends and family, observing that many younger users [redacted]

Ex. 465 at -221 (MetaFTC-Klein-DX-393, SNAP – FTC – No. 191-0134 – 0000113220); *see also* Meta SMF ¶¶ 512-517 (citing Snap documents and testimony acknowledging competition with TikTok for friends sharing).

c. Dispo's corporate representative testified that connecting with friends and family is not what people use TikTok for. PX6074, Liss (Dispo) Dep. Tr., at 133:2-17

(observing that "connecting people with friends and family" is "not what people do on TikTok. That's not what people use TikTok for.").

Meta Response: Disputed in part. Undisputed that Mr. Liss provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1201. Further disputed because the excerpted testimony is incomplete. Dispo's corporate representative testified that TikTok "allows users to share content with other users, including real life friends and family" and is a "social network" like Facebook, Instagram, Twitter, and Snapchat. PX6074 at 56:5-9, 60:15-61:1 (Liss (Dispo) Dep. Tr.).

1202. Consumer surveys further demonstrate TikTok's core use of entertainment.

Meta Response: Disputed. Undisputed that in some surveys respondents indicated they use TikTok for entertainment, but other respondents indicated they use TikTok for friends and family sharing. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. All available empirical evidence of substitution shows that TikTok is a closer substitute for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See* Meta Resp. to Counter SMF ¶ 1195; Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Further disputed because the material cited in the subparagraphs below does not support the assertion that TikTok is not also

used for friends and family sharing. On the contrary, to the extent they are relevant, the surveys the FTC cites state a substantial number of users indicated that their most important or most frequent reason for using TikTok is sharing with friends and family. *See*, *e.g.*, PX12982 at -025-026 (FTC-META-006826485) (cited at Counter SMF ¶ 1084(d)) (showing that [redacted] stated that they use TikTok most frequently to share or view content from friends or family). The surveys also state that the majority of teens use TikTok to share with friends and family, among other reasons. *See id.* at -032-033 (stating that [redacted]); *see also* PX3573 at -017 (FTC-META-006817852) (cited at Counter SMF ¶ 1075(j)) (survey indicating that [redacted]).

a. Polling conducted by Morning Consult in 2019 presented to TikTok found that 60% of respondents indicated they primarily use TikTok "[t]o be entertained," compared to 10% who selected "[t]o stay connected to friends and family." PX13608, TikTok presentation: "TikTok Polling Presentation" (Dec. 12, 2019), TIK-00006531, at -536 (noting "TikTok is seen as an entertainment platform").

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by

admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1202.

b. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1202.

c. FTC expert Michal Malkiewicz's survey found that 63.4% of respondents selected "[t]o enjoy entertainment content" as their most important reason for using TikTok, compared to only 4.5% of respondents who selected "[t]o keep up with my friends' and family's lives in one place." PX9006, Malkiewicz Report at ¶ 80, Table 9.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1202. Disputed that the statement, or Mr. Malkiewicz's survey, creates a genuine dispute of material fact, as Mr. Malkiewicz's survey, by his own admission, "never set out to measure economic substitution." Meta SMF ¶ 652 (quoting Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)). Further disputed

because the survey only asked about the "most important" reason for using an app; it has no bearing on other reasons people use an app. *See* PX9006 at -122-137 (Malkiewicz Rep.).

1203. There is not a norm on TikTok of friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the "norm[s]" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Disputed on the ground that "norm[s]" is vague and undefined.

Further disputed because the material cited in the subparagraphs below does not support the assertion that [redacted].

a. TikTok's former COO, V Pappas, testified that "the primary use [of TikTok] is people want to be entertained. They open the app, and they're watching content, very much like how I want to watch television or the like whereas what we found -- and where this came from was research, I believe, that our marketing team had done, which` started to pick up on the vernacular difference where people would describe social networks, where it would be 'Oh, I check Facebook,' or 'I check Instagram,' which was distinct to, again, what the intention was in terms of opening the TikTok app, which was more to watch and be entertained, which, again, goes back to our mission statement." PX6135, Pappas (TikTok) Dep. Tr., at 22:13-23:2.

Meta Response: Disputed in part. Undisputed that V Pappas provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1203. Further disputed because the quoted language is incomplete. [redacted]

b. Eric Morrison, TikTok's former Director of UX Research, testified that "a lot of the people the [sic] we spoke to, who primarily viewed content on TikTok, didn't feel like they were connected to their personal social network on TikTok and instead would interact with their personal social network off TikTok and share content that they saw on TikTok on other platforms more so on than on TikTok itself." PX6162, Morrison (TikTok) Dep. Tr., at 69:4-11; *see also id.* at 12:13-16 (confirming former position at TikTok).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1203.

c. V Pappas testified, of TikTok, that

> [P]rimarily we are an entertainment platform and there is a very, kind of, distinguishing difference between how we think about a platform like TikTok and then those that are predicated on a social network, meaning social graph. So the difference and distinguisher there being TikTok is content first and foremost. So, when you open the app, you're experiencing content without having to have uploaded your contacts, to have a set of followers, which is very distinct to a social network where content is discovered

> because of that network of your family, your friends, and who you follow."

PX6135, Pappas (TikTok) Dep. Tr., at 14:13-15:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1203 and subparagraph 1203(a).

d. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1203 and subparagraph 1203(a). Further disputed because the quoted language is incomplete. In the cited document, the European Commission asked TikTok: "Please explain whether, in your view, users use

your online social media platform for the same purposes as they use Facebook. If not, please explain the differences." PX13583 at -388 (TIK-00349382). TikTok responded that despite its perceived differences with Facebook, it "also includes aspects of personal socialisation." *Id.*

e. Eric Morrison, TikTok's former Director of UX Research, testified that "there are a lot of differences and similarities that we noted over time. I would say that people tended to use Facebook . . . to connect with people that they know in everyday life and to maintain those relationships versus TikTok was used a little bit more for entertainment and also to unwind and enjoy content."). PX6162, Morrison (TikTok) Dep. Tr., at 12:9-16, 70:1-10.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1203.

f. User research from Meta in 2019 indicated that [redacted] PX2799, Meta document: "[redacted]" (*June 11, 2019), FB_FTC_CID_10695011, at -012.

Meta Response: Disputed. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1203. Further disputed because the document compiles "[redacted]. PX2799 at -010, -012 (FB_FTC_CID_10695011).

g. [redacted]

Meta Response: Disputed. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1203. Further disputed because the excerpt is incomplete. [redacted]

1204. Academic research has also found users' use of TikTok is unrelated to maintaining social relationships. *See, e.g.*, PX0322, Alexandra Masciantonio et al., *Don't put all social network sites in one basket: Facebook, Instagram, Twitter, TikTok, and their relations with well-being during the COVID-19 pandemic*, 16 PLoS ONE, 11 (2021) (finding "Twitter and TikTok use during quarantine were not related with social relationships, contrary to Facebook and Instagram."); PX0323, Aparajita Bhandari and Sara Bimo, *Why's Everyone on TikTok Now? The Algorithmized Self and the Future of Self-Making on Social Media*, 8 Soc. Media + Soc'y, 7 (2022); PX0324, Kristen Barta and Nazanin Andalibi, *Constructing Authenticity on TikTok: Social Norms and Social Support on the "Fun" Platform*, 5 Proceedings of the ACM on Human-Computer Interaction 430,

430:15 (2021) ("Participants' networks on TikTok varied, but many indicated that friends and known others were not part of their network or audience. . . . The prominence of strangers as a perceived audience contributed to a sense that TikTok was more anonymous than other platforms, where participants were connected to family, co-workers, and/or friends—in other words people with whom they had pre-existing ties.").

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that academic commentary on TikTok's relationship to "maintaining social relationships" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Further disputed because the material cited does not support the assertion that TikTok is not also used for friends and family sharing. On the contrary, the evidence shows that TikTok facilitates friends and family sharing, as the FTC defines it. *See* Meta Resp. to Counter SMF ¶ 1195. The first cited article purports to examine whether different apps, including TikTok, Instagram, and Facebook are "beneficial to well-being" based on a survey of roughly 800 French-speaking Europeans. PX0322 at -002, -004 (Masciantonio, *Don't Put All Social Network Sites in One Basket*). The second cited article purports to study how TikTok's algorithm affects "self-making practices." PX0323 at -002 (Bhandari, *Why's Everyone on TikTok Now?*). And the third cited article interviewed 15 U.S. TikTok users to examine "how authenticity is enacted" on TikTok. PX0324 at -003 (Barta, *Constructing Authenticity on TikTok*). None of the cited articles found that users do not interact with friends and family on TikTok.

1205. [redacted] PX9000, Hemphill Report at ¶ 549 (comparing TikTok's reciprocal connection percentage with Facebook, at [redacted], and Instagram, at [redacted]).

Meta Response: Disputed in part. Undisputed that the statement describes Professor Hemphill's calculations. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence [redacted] is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Professor Hemphill fails to explain why [redacted] to Facebook and Instagram. All available empirical evidence of substitution shows that TikTok is a closer substitute for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See* Meta Resp. to Counter SMF ¶ 1195. Further disputed because [redacted] Instagram and [redacted]. *See* Meta SMF [redacted].

1206. [redacted] in 2021 and the first half of 2022 was [redacted] that of Facebook and Instagram. *See* PX9000, Hemphill Report at ¶ 550, Ex. 29 (comparing [redacted] on Facebook, Instagram, and TikTok in 2020, 2021, and the first half of 2022) (relying on Meta Monthly User Engagement Data, Third Party Monthly User Engagement Data, FTC-META-012516616, and FTC-META-012516618-9).

Meta Response: Disputed in part. Undisputed that the statement describes Professor Hemphill's calculations. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence [redacted]

[redacted] relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. Professor Hemphill fails to explain why [redacted]. *See* Ex. 2 at ¶ 88 (Carlton Rep.). All available empirical evidence of substitution shows that TikTok is a closer substitute for Facebook and Instagram than Snapchat, which the FTC maintains is PSN app. *See* Meta Resp. to Counter SMF ¶ 1195.

(b) TikTok lacks functionality to foster and facilitate friends and family sharing.

1207. TikTok lacks functionality to foster and facilitate friends and family sharing. *See infra* CMF at ¶¶ 1208-16.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the FTC provides no evidence that what it describes as "functionality to foster and facilitate friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent this statement incorporates the FTC's statements in paragraphs 1208-1216, Meta incorporates its responses to those statements here.

1208. TikTok's functionality is built around an interest graph, instead of a social graph, much less a social graph of friends and family.

Meta Response: Disputed in part. Undisputed that TikTok allows users to find content based on their interests. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the extent to which functionality is supposedly "built around" an "interest

graph" as opposed to a social graph – terms that are vague and undefined – is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195.

Further disputed because the materials cited in the subparagraphs do not support the assertion that TikTok lacks a social graph. The FTC defines a "social graph" as "the set of connections that users make among each other within a social network." Counter SMF ¶ 1088. The evidence shows that TikTok has a social graph, as the FTC defines it, and users can search for accounts and make connections on TikTok. *See* Meta Resp. to Counter SMF ¶ 1195 (describing TikTok's functionality, including its social graph). Further disputed because the phrase "functionality is built around" is vague and undefined.

a. Blake Chandlee, TikTok's President of Global Business Solutions, testified that TikTok is an interest or content graph platform instead of a platform geared around the social graph. PX6160, Chandlee (TikTok) Dep. Tr., at 8:9-12, 17:7-21 ("I think the basic premise and the underlying business [of Facebook] is geared around the social graph, which is, you know, individuals' connections with friends, family, businesses, brands, whatever it might be, and that is core to the value proposition that both Facebook and Instagram present to their users. And that is the definition of social platform. You know, we are — we were an interest or a content graph platform versus social platform. So our content doesn't rely on relationships between friends and family, it relies on our interests. And so they're very different in their -- in their -- their utility to users."); *see also* PX0318, Alex Sherman, *TikTok exec: We're not a social network like Facebook, we're an entertainment platform*, CNBC (June 16, 2022),

https://www.cnbc.com/2022/06/16/tiktok-were-an-entertainment-app-not-a-social-network-like-facebook.html (Chandlee stating, "'Facebook is a social platform . . . They've built all their algorithms based on the social graph. That is their core competency. Ours is not.'").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1208. Further disputed that the statement can be supported by PX0318, which is not admissible evidence.

b. V Pappas, TikTok's former COO, testified that TikTok is predicated on a content graph, and came about at a time when other apps such as Instagram were focused on a users' connections in order for users to discover content. PX6135, Pappas (TikTok) Dep. Tr., at 21:11-22 ("So, again, when we think about TikTok and, I guess, the evolution of the product and the introduction of the product, it came at a time where there were no other products that were, to my knowledge, predicated on a content graph, first and foremost, meaning again the way that you discover content for those preexisting apps, including, you know, Instagram and others were largely focused on your connections in order for you to discover content. So, in terms of TikTok, it was a shift away from that to really put the content front -- and the creators front and center."); *see also id.* at 14:13-15:2 (distinguishing "a platform like TikTok and then those that are predicted on a social network, meaning social graph").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1208.

c. A November 2020 Meta presentation identified TikTok as having an interest graph, rather than a social graph. PX3025 at -037, Meta presentation: "What's the deal with TikTok" (Nov. 2020), FTC-META-003283650 (chart indicating Facebook, Instagram, Snapchat, and Twitter are built on a social graph, while TikTok and YouTube are built on an interest graph).

Meta Response: Disputed in part. Undisputed that a Meta presentation identified TikTok as an app that allows users to find content based on interests. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1208.

d. [redacted], a Meta Marketing employee, included in a 2020 "Insight[]" that TikTok is optimized to users' interest graph, versus their graph of who they keep in touch with. PX3027, Meta email chain: [redacted] to [redacted] re: "Marketing Insights HPM: October 2020," (Nov. 11, 2020), FTC-META-003693370, at -372 ("Positioned more as an entertainment platform than a social one, the TikTok experience is optimized to people's interest graph (what they watch and engage with) vs. their social graph (who they keep in touch with).").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1208.

1209. TikTok's connection tools are focused on better connecting users to their interests rather than friends or family.

Meta Response: Disputed in part. Undisputed that TikTok has tools that enable users to connect to their interests, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the "focus" of TikTok's connection tools is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195.

Further disputed because the materials cited in the subparagraphs do not support the assertion that TikTok's connection tools do not also connect users to their friends and family. Further disputed because that the term "connections tools" is vague and undefined.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1209. Further disputed the material cited supports the statement because Mr. Presser did not testify that TikTok does not try to connect users to friends and family, or that users cannot use TikTok to connect with friends and family. Mr. Presser testified that when a user's connections on

TikTok upload content or engage with a particular piece of content, TikTok is more likely to present that content to the user. *See* PX6097 at 168:21-169:4 (Presser (TikTok) Dep. Tr.).

b. In a 2020 submission to the European Commission, TikTok wrote that users' interactions on the platform are not "network-driven." PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (*June 12, 2020), TIK-00000001, at -008 ("The predominant form of user interaction within those services [TikTok and Vigo Video] is not network-driven.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1209. Further disputed the material cited supports the statement because the document does not state that TikTok does not try to connect users to friends and family, or that users cannot use TikTok to connect with friends and family. TikTok acknowledged that "there is a certain degree of overlap between [TikTok] and 'social networking services.'" PX13581 at -008 (TIK-00000001); *see id.* at -010 (noting that [redacted]).

c. In the same submission to the European Commission, TikTok wrote that "TikTok is not a service intended for connecting . . . with friends . . . ." PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (*June 12, 2020), TIK-00000001, at -009-010.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1209 and subparagraph 1209(b).

d. TikTok users have no real-world connection to many of the accounts they follow. PX0546, TikTok document: "TikTok's Response to the ACCC's Report on Social Media Services Issues Paper" (Sept. 29, 2022), at 2 ("It is worth noting that, unlike say a user's network on Facebook, in many cases, a user will have no real-world connection to many of the accounts that they follow and TikTok has historically been less reliant on the so-called 'social graph' associated with pure social networking. However, we have explored ways that social connections may provide other avenues to discovery and entertainment. All of these feature improvements, optionality, and innovations feed back into TikTok's core entertainment purpose.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1209.

1210. TikTok's activity stream is focused on entertaining and interest-based content, not friends and family content.

Meta Response: Disputed in part. Undisputed that TikTok's activity stream has entertaining and interest-based content, among other content. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the content on TikTok's activity stream is relevant to substitution, and for the reasons stated above in Meta's response to paragraph

1195. Further disputed because time spent on Facebook and Instagram also largely comprises consuming content posted by accounts users do not follow and that do not follow them, which the FTC characterizes as PSNS. *See* Meta SMF ¶¶ 11-12, 56-57, 580-584. In January 2023, [redacted] of time spent on Facebook was not associated with content from "friends." *See id.* at ¶ 11 (citing Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)). Similarly, [redacted] of time spent on Instagram in February 2023 was not associated with content from "friends." *See id.* at ¶ 56 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Further disputed because the materials cited in the subparagraphs do not support the assertion that TikTok does not also have friends and family content Among other features, TikTok has a "Following" feed, which displays content from accounts that users have chosen to follow (similar to Instagram), and a "Friends" feed, which displays content from a user's friends. *See* Meta SMF ¶¶ 218, 224. Further disputed on the ground that the term "focused on" is vague and undefined.

a. The "For You" feed is the center of the TikTok app. PX7014, Snap document: "Short Video Competitive Positioning - Update to Snap BoD" (Feb. 17, 2022), SNAP – FTC – No. 191-0134 – 0000128293, at -295 ("The TikTok user experience is anchored to the app's central For You feed, which presents an infinite vertical scroll of videos between seven seconds and three minutes in length (with five minute video currently in beta)."); PX0319, Angela Y. Lee et al., *The Algorithmic Crystal: Conceptualizing the Self Through Algorithmic Personalization on TikTok*, 6 Proceedings of the ACM on Human-Computer

Interaction at 3 (2022) (describing TikTok's "For You" feed as "arguably the most salient feature on the platform.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1210. Further disputed that the cited material supports the statement that TikTok is "not [focused on] friends and family content." The second document cited is an article that purports to investigate "how TikTok users conceptualize and engage with personalized algorithms" based on interviews with 24 students from California universities. PX0319 at -001, -004 (Lee, *The Algorithmic Crystal: Conceptualizing the Self through Algorithmic Personalization on TikTok*). The study did not examine whether TikTok users use TikTok for friends and family sharing. Nor did the study examine TikTok's "Following" [redacted]. *See* Meta SMF [redacted].

b. The "For You" feed is TikTok's primary mechanism for users to discover content. PX6135, Pappas (TikTok) Dep. Tr., at 23:22-24:5 ("And a lot of the magic of TikTok is the serendipity of finding content that you may not have otherwise have been interested to know and it gets discovered in the For You feed. So that continues to be our primary mechanism for our users to discover content . . . .").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1210.

c. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that Professor Hemphill [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1210.

d. The "For You" feed is algorithmically-curated to each user, providing users with a stream of unconnected short form video content based on their interests. *See, e.g.*, PX6135, Pappas (TikTok) Dep. Tr., at 23:22-24:5 ("And a lot of the magic of TikTok is the serendipity of finding content that you may not have otherwise have been interested to know and it gets discovered in the For You feed. So that continues to be our primary mechanism for our users to discover content . . . ."); PX7013, TikTok document: "TikTok: Key Messaging" (July 26, 2020), TIK-00292215, at -217 ("Compared with social media, TikTok is . . . [a]n app that is uniquely about you, not your social graph. TikTok is not about your friend base or social graph, it is about discovery of content that's related to your interests."); PX7014, Snap document: "Short Video Competitive Positioning - Update to Snap BoD" (Feb. 17, 2022), SNAP – FTC – No. 191-0134 – 0000128293, at -295 ("For You contains a mixture of trending content, interest-based recommendations, novelty/exploration, videos from followed creators, ads, and periodic livestreams.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1210. Further disputed that content in the For You feed is

"unconnected," as the FTC uses the term, as it includes content from accounts users follow and users' friends content. *See* Meta SMF ¶ 214. And a January 2020 Meta survey found that [redacted]. *Id.* at ¶ 216 (quoting Ex. 222 at -.001, -.047 (FTC-META-005944143)). Moreover, [redacted]. *See id.* at ¶ 241 (citing [redacted] and Ex. 279 at ¶ 287 (Hemphill Rep.)).

e. [redacted]

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1210. Further disputed that the cited material supports the assertion, as it provides no data showing that the "majority" of content on TikTok is "entertainment content." And, the quoted language is incomplete. [redacted]

f. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1195 and 1210.

1211. Users' real-life identities are not important on TikTok. PX12351, Meta email chain: [redacted] to A. Mosseri et al. re: "TikTok Competitive User Research," (Jan. 4, 2019), FB_FTC_CID_02872739, at -739 ("Identity is not important on TikTok, people only care about the content . . . TikTok is not hired for sharing with friends and family.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the importance of real-life identities on TikTok is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1195.

Further disputed because the material cited does not support the assertion that TikTok does not also connect users to their friends and family, and for the reasons stated above in Meta's response to subparagraph 1200(e). Among other issues, the document is based solely on interviews with *twelve* teenage TikTok users in 2018 in Mexico City; since then TikTok's size and features and use for friends and family sharing have dramatically increased. *See* Meta Resp. to Counter SMF ¶ 1200(e). Further disputed because the FTC has taken the position that the existence of anonymous accounts is not an impediment to using an app for friends and family sharing, as the FTC defines the term. *See* PX3434 at -410 (FTC-META-010019410). The FTC's proffered industry

expert notes approximately half of Instagram users are pseudonymous. *See* Ex. 290 at ¶ 163 n.356 (Lampe Rep.) (quoting PX6078 at 190:8-191:14 (Mosseri Dep. Tr.)). As Mr. Mosseri – the head of Instagram – testified: "[W]e allow people to use pseudonyms . . . . [I]n general, if you want to use a different name or a nickname or no name and just a handle, we are perfectly comfortable with that. . . . [M]aybe half of people or maybe a little bit more will use their first and last name there." PX6078 at 190:17-191:11 (Mosseri Dep. Tr.).

1212. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statement regarding [redacted] creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1195 and 1211.

1213. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement regarding "features" for "entertainment" creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1195. Further disputed because the phrase "in service of" is vague and undefined.

1214. TikTok's messaging feature is ancillary to users' entertainment experience on TikTok. PX6097, Presser (TikTok) Dep. Tr., at 111:8-112:16 (stating that TikTok views "messaging as really ancillary to the entertainment experience").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1195. Further disputed because the cited testimony does not support the assertion. Mr. Presser testified how TikTok "think[s] about" its messaging feature but did not address whether TikTok users view TikTok's messaging feature as "ancillary," nor did he testify about how users actually use the messaging feature. *See* PX6097 at 112:5-16 (Presser (TikTok) Dep. Tr.). Further disputed because the term "ancillary" is vague and undefined.

1215. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement regarding the potential deprecation of a feature relating to friends and family sharing creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1195. Further disputed because the

statement omits that TikTok also has a "Following" feed, *see* Meta SMF ¶ 218, which displays content from accounts that users have chosen to follow (similar to Instagram), which V Pappas did not testify may be depreciated. Further disputed because the phrase "successful" is vague and undefined.

1216. TikTok's daily candid photo feature, TikTok Now, was also unsuccessful and was discontinued less than a year after its introduction. PX0321, Jon Porter, *TikTok is discontinuing its BeReal clone*, The Verge (June 27, 2023), https://www.theverge.com/2023/6/27/23775125/tiktok-now-discontinued-notification-bereal-murder-clone.

Meta Response: Disputed in part. Undisputed that the feature was discontinued. Disputed that the statement regarding deprecation of a photo feature creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1195, 1208, 1209, and 1210. Further disputed because the phrase "unsuccessful" is vague and undefined.

c) Interest-based apps are not reasonable substitutes for PSN services.

1217. Interest-based apps provide users with a platform to connect with others over shared interests, and are not reasonable substitutes for PSNS because they lack core functionality and use for serving demand for friends and family sharing. *Infra* CMF at § II.A.5(c); PX9000, Hemphill Report at ¶¶ 437-41 (describing how "[i]nterest-based network apps either do not promote the formation of connections at all or emphasize unilateral follows . . . [P]eople use these apps to follow journalists and celebrities, research and discover interests, and interact—often anonymously—with other users around a shared interest."); *see id.* at § 3.2.2.4.3.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact because the FTC proffers no evidence to support the assertion that apps that provide interest-based content are not reasonable substitutes for Facebook and Instagram. The FTC defines "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including viewing or posting interest-based content in Facebook's Newsfeed, Facebook Groups, and on Instagram. *See* Meta SMF ¶¶ 580-584. Equivalent activities are available on Twitter, Reddit, and Pinterest, apps which the FTC labels as "interest-based apps." *See* Counter SMF §§ II.A.5(c)(1)-(3). The assertion that there is a distinct category of apps that provide "PSN services" is refuted because all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are a closer substitute for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta SMF ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment).

Further disputed because apps the FTC excludes from its PSNS market as "interest-based apps" – Twitter, Reddit, and Pinterest – all view Facebook and Instagram as significant competitors. *See*, *e.g.*, *id.* at ¶¶ 316-319, 324-326 (Twitter), ¶¶ 397-398 (Reddit), ¶¶ 347-358 (Pinterest). And Meta's documents and testimony also show that Meta views these applications as significant competitors to Facebook and Instagram. *See*, *e.g.*, *id*. at ¶¶ 311-315, 321-323 (Twitter), ¶¶ 392-396 (Reddit), ¶¶ 343-346 (Pinterest).

Further disputed because apps that the FTC characterizes as "interest-based apps" offer features that enable users to share content with friends and family. *See* Meta SMF

¶¶ 279-310 (Twitter features), ¶¶ 383-389 (Reddit features), ¶¶ 330-341 (Pinterest features). Moreover, time spent on Facebook and Instagram is largely *not* associated with friends and family sharing. Professor Carlton calculated that, as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *Id.* at ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Further disputed because the statement is conclusory and asserts an improper legal conclusion that the only "reasonable substitutes" for "PSN apps" are those with "core functionality and use for serving demand for friends and family sharing." Further disputed because "core functionality" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The cited paragraphs in Professor Hemphill's report do not cite any evidence to support the quoted language. To the extent this paragraph incorporates the FTC's statements in Section II.A.5(c), Meta incorporates its responses to those statements here.

(1) Twitter lacks core functionality and use for friends and family sharing.

1218. Launched in 2006, Twitter has described itself as "a global platform for public self-expression and conversation in real-time." PX10481 at -008, -091 (Twitter SEC Form S-1, dated Oct. 3, 2013).

Meta Response: Disputed in part. Undisputed that Twitter launched in 2006 and that its Form S-1 contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Twitter's

2013 description of itself is relevant to substitution. Further disputed on the basis that the quotation from the cited document is incomplete and misleading; the document also states, "[u]sers leverage our platform to express themselves publicly to the world, *share with their friends and family* and participate in conversations." PX10481 at -011 (Twitter 2013 Form S-1) (emphasis added).

1219. Professor Hemphill concluded that "Twitter is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 470; *see id.* at ¶¶ 442-70.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC has defined "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including viewing or posting interest-based content on Facebook and on Instagram. *See* Meta SMF ¶¶ 580-584. Twitter competes with PSN apps in the provision of interest-based content. *Id.* at ¶¶ 320-326 (collecting testimony and documents reflecting this competition). All available empirical evidence of substitution shows that non-PSN apps like Twitter are as good of substitutes for Facebook and Instagram as Snapchat, which the FTC maintains is a PSN app. *See id.* at ¶¶ 562-566 (Professor Carlton's analysis of October 2021 outage), ¶¶ 537-547 (Professor List's pricing experiment). Analyzing substitution patterns during an outage of Meta's apps on October 4, 2021, Meta's expert economist, Professor Carlton, found that [redacted] experienced the same increase in minutes as [redacted], which the FTC asserts is a PSN app. *See id.* at ¶¶ 562-566. Moreover, time spent on Facebook

and Instagram is largely not associated with friends and family sharing. Professor Carlton calculated that, as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is spent viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *Id.* at ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and Twitter. Evidence from Meta and Twitter show that both consider Twitter to compete with Facebook and Instagram. *See id.* at ¶¶ 311-326. For example, Twitter documents state Twitter "compete[s]" with "Facebook, Instagram and WhatsApp" "for people's attention." *Id.* at ¶ 316 (quoting Ex. 380 at 8 (Twitter 2021 Form 10-K)); *see also id.* at ¶¶ 318-19 (quoting testimony from Twitter executives stating that Twitter competes with Instagram and Facebook (quoting Ex. 40 at 20:4-7, 23:8-4, 23:10-24:14, 24:21-25:5 (Chen (Twitter) Dep. Tr.) and Ex. 39 at 16:21-17:1, 138:7-12, 139:15-18 (Perzyk (Twitter) Dep. Tr.)). Moreover, other apps the FTC alleges are PSN apps view Twitter as a competitor. *See* Meta SMF ¶¶ 498-501, 505 (Snap), ¶¶ 529-530, 532 (MeWe).

Further, Twitter has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, a social graph, a feed, and other social features. *See id.* at ¶¶ 279-282 (friends and family sharing), ¶¶ 283, 288 (feed posts), ¶¶ 289-291 (engaging with posts), ¶¶ 292-296 (follower network), ¶¶ 297-299 (profiles), ¶¶ 300-301 (messaging and calling). Twitter publicly describes itself as "a service for friends, family, and coworkers to communicate

and stay connected through the exchange of quick, frequent messages." *Id.* at ¶ 306 (quoting Ex. 378 (MetaFTC-DX-469)). A Twitter representative explained "friends and family can either follow each other and stay connected in public through messages, or what we call tweets, on Twitter; or they can privately message – message each other through our private messaging feature, which we call Twitter DMs, or direct messages." *Id.* (quoting Ex. 40 at 12:8-9, 68:8-17 (Chen (Twitter) Dep. Tr.)). Twitter users can also like and comment on posts, like and reply to other users' comments, and engage in other types of social interactions with other users, including possibly friends and family members. *Id.* at ¶¶ 289-290, 306-307.

The record also shows that Twitter users in fact use Twitter to share with family and friends. Professor Lampe testified that Twitter is "an SNS," or a "social networking site." *Id.* at ¶ 280 (quoting Ex. 281 at 314:13 (Lampe Dep. Tr.) and Ex. 290 at ¶ 49 (Lampe Rep.)). [redacted] And a January 2020 survey conducted by Meta showed that [redacted] *Id.* at ¶ 310 (quoting Ex. 222 at -.079 (FTC-META-005944143)). The same survey found that [redacted]. *See* Ex. 222 at -.060 (FTC-META-005944143). The document likewise noted that [redacted], *see id.*, leading Meta to conclude that [redacted]

[redacted] *Id.*; *see also* Meta Resp. to Counter SMF ¶ 1219 (additional discussion regarding Twitter).

1220. Professor Lampe opined that Twitter "is not designed to be a PSNS and is not used as one." PX9004, Lampe Report at ¶ 254; *see id.* at ¶¶ 239-54.

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization of Twitter's "design" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (quoting Ex. 218 at 160:8-17, 163:4-10 (Lampe Dep. Tr.)).

(a) Twitter has a core use of interest-based public conversation, not friends and family sharing.

1221. Twitter recognizes it has a core use of interest-based public conversation, not friends and family sharing.

Meta Response: Disputed in part. Undisputed that Twitter recognizes that it is used for interest-based public conversation, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Twitter's supposed view of itself is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the materials cited in the subparagraphs do not support the assertion that

Twitter is not also used for friends and family sharing, as the FTC defines it. Further disputed because "interest-based public conversation" is vague and undefined.

a. Speaking in his capacity as a corporate representative, Twitter Vice President Keith Coleman testified that:

> [T]here's a very clear singular theme that draws people to Twitter, which is, people come to see what's happening in the world and what people are saying about it. And there can be other reasons. Like some people come to broadcast to the world, inform others, while other people are kind of more staying informed. But that is far and away the reason people come to Twitter as a theme.

PX6144, Coleman (Twitter) Dep. Tr., at 39:4-14.

Meta Response: Disputed in part. Undisputed that Mr. Coleman provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1221. Further disputed because the cited testimony is incomplete. Mr. Coleman also testified that "shar[ing] with their friends and family" is a "value proposition" of Twitter. PX6144 at 40:9-41:2 (K. Coleman (Twitter) Dep. Tr.); *see id.* at 116:18-117:6 (answering "what features on Twitter would help users stay up to date with their friends" with "You could use the features – like you could post Tweets and read Tweets and reply. And those could be – like if you were following all – if you were following a group of friends, you would see whatever they were saying or talking about. And that use case certainly does exist on the product. [redacted]

[redacted] ("There's obviously like – there are some people who follow their friends on Twitter . . . ."). He also testified that sharing with friends and family over group messaging – which Twitter offers – has become increasingly popular. *See id.* at 99:1-101:7 ("Group messaging has also become popular in this time frame too. . . . like Twitter has DMs where you can do a certain amount of group messaging. Instagram has a feature like that. Facebook has a feature like that. So there's a variety of options for group messaging.").

b. Mr. Coleman testified that he:

> recall[ed] very consistently hearing that products like Facebook, Instagram and Snap were used to see what friends and family were doing as their primary use case. And that was, let's say, in contrast to seeing news or what Twitter's main use was, and is, of seeing what's happening in the world, which is more akin to news.

PX6144, Coleman (Twitter) Dep. Tr., at 50:14-51:22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1221 and subparagraph 1221(a). Further disputed because Mr. Coleman testified regarding his "impression" based on anecdotal hearsay rather than admissible evidence ("talking to our customers"). *See* PX1644 at 50:19-51:25 (K. Coleman (Twitter) Dep. Tr.)). Empirical data shows that only small portions of time on Facebook and Instagram are associated with friends and family. *See* Meta SMF ¶¶ 11-12 (Facebook usage data as of January 2023 showing that [redacted] of time on Facebook is associated with viewing content posted by friends), ¶¶ 56-57 (Instagram usage data as of February 2023 showing that [redacted] of time on Instagram is associated with viewing

content posted by a user's non-creator reciprocal follows (a conservative proxy for "friends").

Further disputed because the cited testimony is incomplete. Mr. Coleman testified that both Facebook and Instagram are used for seeing what's happening in the world. *See* PX6144 at 45:11-47:4 (K. Coleman (Twitter) Dep. Tr.) (agreeing Facebook competed with Twitter and "was trying to build products similar to Twitter"), 121:16-122:5 ("I think [Instagram has] evolved to be increasingly a place where you can see interests and you can follow interests. . . . [I]t has definitely expanded over time to be a place where you can follow interests."); PX6145 at 533:11-20 (agreeing "Twitter and Instagram both offer competing services for th[e] use case" of "staying up to date with celebrities"), 542:11-544:14 ("fair statement" that "Facebook [was a] competitor[ ] to some degree with Twitter for the use case of staying up to date on news"), 544:16-546:7 (same for "current events"), 546:9-547:15 (same for "pop culture"), 547:18-549:2 (same for "staying up to date with celebrities" and including Instagram), 551:3-13 (agreeing that "Twitter currently competes with Instagram with respect to the use case of staying up to date with celebrities and pop culture"), 554:7-555:8 (same for "influencers and experts" and agreeing that Instagram is the "best in serving that need" other than Twitter).

c. Mr. Coleman testified that "public conversation is kind of the heart of Twitter . . . most conversations on here are public." PX6145, Coleman (Twitter) Dep. Tr., at 404:7-405:12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, disputed the testimony is contained in PX6145. Disputed for the reasons stated above in Meta's responses to paragraphs 1221, 1221(a), and 1221(b).

d. Mr. Coleman testified that he "think[s] the primary reason people come to Twitter is to stay informed about things that are interesting to them." PX6145, Coleman (Twitter) Dep. Tr., at 488:10-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1221, 1221(a), and 1221(b).

e. Mr. Coleman testified that "one of the unique things about Twitter is that it is public conversation and -- versus just a conversation with people you know or conversation with just your friends. It's a distinguishing fact." PX6144, Coleman (Twitter) Dep. Tr., at 399:8-19.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1221 and subparagraphs 1221(a) and 1221(b). Further disputed because the cited testimony is incomplete. Mr. Coleman explained Instagram has the same public model as Twitter: "So Twitter is a like public follower model. You can create protected accounts where you have to approve people who see them, but the vast, vast majority of Twitter accounts are public, people follow them. *I think Instagram is the same*." PX6144 at 97:10-16 (K. Coleman (Twitter) Dep. Tr.) (emphasis added).

f. In a companywide email to employees, Twitter CEO Linda Yaccarino wrote "Twitter is on a mission to become the world's most accurate real-time information source and a global town square for communication." PX0642, Ryan Mac et al., *Twitter's New Chief Eases Into the Hot Seat*, New York Times (June 29, 2023), https://www.nytimes.com/2023/06/29/technology/twitter-ceo-linda-yaccarino.html.

Meta Response: Disputed. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's response to paragraph 1221.

g. Former Twitter CEO Dick Costolo stated in a 2013 interview that "we like to say Twitter is the global town square, it's all public, real time conversational and widely distributed, and public is the first word in there." PX0643, *The "Town Square" in the Social Media Era: A Conversation With Twitter CEO Dick Costolo*, Brookings Institute (June 26, 2013), https://www.brookings.edu/wp-content/uploads/2013/06/20130626_social_media_twitter_costolo_transcript.pdf.

Meta Response: Disputed. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's response to paragraph 1221.

h. A 2013 internal Twitter strategy document expressed Twitter's vision for its service:

> Twitter is differentiated from other similar services because it is the only communication platform at global scale that is

> **public**, **real-time**, **conversational**, and **distributed**. None of our competitors possess all of these characteristics. This combination of attributes allows us to build the **world's preeminent platform for public self-expression**. **We call this the Global Town Square**, and it is the vision for what we want Twitter to be.

PX15074, Twitter document: "May 2013 Strategy doc" (May 2013), TWTR-META00230473, at -473.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1221. Further disputed because the quotation is incomplete. [redacted]

i. A 2011 email among Twitter senior staff contrasted Facebook's "core competency of 'personal communication'" with Twitter's, opining "we should stay focused on public, broadcast, consumption." PX14113, Twitter email chain: K. Thau to E. Gil et al. re: "Facebook Acquires Beluga," (Mar. 1, 2011), TWTR-META00039601, at -601.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1221. Further disputed that the statement of one individual at Twitter in 2011 reflects the current state of competition between Facebook, Instagram, and Twitter. [redacted]

[redacted] As explained in Meta's response to subparagraph 1221(b), [redacted].

1222. Meta recognizes Twitter's core use of interest-based public conversation, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's recognition of Twitter's recognition of a "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the material cited in the subparagraphs below does not support the assertion that Twitter is not also used for friends and family sharing, as the FTC defines it.

a. In a 2012 email, Mark Zuckerberg wrote that "Twitter is kind of different from Facebook since it's primarily interest-based and all one medium." PX3450, Meta email chain: M. Zuckerberg to [redacted] re: "(no subject)" (Mar. 22, 2012), FB_FTC_CID_01544096, at -096.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1222. Further disputed because since 2012, Twitter has released new

features and is no longer one medium – it also displays photos and videos. *See* Meta SMF ¶¶ 283-284.

b. In a 2023 interview, current Head of Instagram Adam Mosseri stated that "Twitter pioneered the [public conversations] space." PX0683, Alex Heath, *Why Instagram is taking on Twitter with Threads*, The Verge (July 5, 2023), https://www.theverge.com/2023/7/5/23784870/instagram-threads-adam-mosseri-interview-twitter-competitor.

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1222. Further disputed because the statement that Twitter "pioneered" content does not support the assertion regarding core use.

c. Current Meta Head of Online Sales, Operations and Partnerships Justin Osofsky testified that:

> Facebook has had friends and family at the core. Twitter – certainly some people follow friends and family, but a lot of people are less having a two-way relationship between friends and more following kind of other figures, celebrities, journalists, people of interest. And so in that way, you had differentiated offers between Facebook and Twitter depending on what you're looking for.

PX6020, Osofsky (Meta) IH Tr., at 101:14-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1222. Further disputed because the cited testimony is incomplete. Mr. Osofsky testified in full: "[A]t this time in 2012," which was "a different time in

Facebook's history," "Facebook has had friends and family at the core" and that, for Twitter, "certainly some people follow friends and family" while "a lot of people are less having a two-way relationship between friends and more following kind of other figures, celebrities, journalists, people of interest." PX6020 at 101:15-23 (Osofsky IH. Tr.).

d. Meta internal researchers hypothesized "the current optimal use cases for Twitter to be: [g]etting public figure's viewpoints directly from them[;] [g]etting real-time updates from public figures as they happen[;] [and] [g]aining information from public figures to inform opinion and decisions." PX3452, Meta email chain: [redacted] to F. Simo, et al. re: "Use cases that are 'Twitter-like' and Twitter content attributes (according to users)," (Jan. 8, 2016), FB_FTC_CID_05519141, at -141.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1222. Further disputed because the statement regarding Twitter's "optimal use" does not support the assertion regarding core use.

1223. Other firms recognize Twitter's core use of interest-based public conversation, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that other parties' supposed recognition of Twitter's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Disputed on the ground that "core use" is vague and undefined and for the reasons

stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the material cited in the subparagraphs below does not support the assertion that Twitter is not also used for friends and family sharing, as the FTC defines it. Further disputed because "interest-based public conversation" is vague and undefined.

a. In a submission [redacted], Pinterest wrote that "[t]he networks people build on Twitter will often be different from the networks they assemble on Facebook or LinkedIn. There may be overlap in each, but people will often add Twitter users they don't know personally, but from whom they wish to receive news, and other information on current events." PX7034, Pinterest document: "[redacted]" (undated), FTC-PINTEREST-00001366, at -377 (emphasis omitted).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1223. Indeed, as Pinterest indicated, there "may be overlap" between an individual's Facebook and Twitter networks. PX7034 at -377 (FTC-PINTEREST-00001366). And as to Instagram, Pinterest categorized it (along with Snapchat) as having a "Celebrity / Influencer" type of network, not a "personal" network. *Id.*

b. When asked if he saw Twitter as a social network, former Pinterest Vice President Scott Coleman (speaking in his capacity as a corporate representative) testified that "I do and I don't. I see it more as a -- like, a celebrity and influencer platform where you can publish to a group of followers, but I don't think people are always

like friend-to-friend connected on that." PX6108, Coleman (Pinterest) Dep. Tr., at 240:8-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1223. Indeed, Mr. Coleman confirmed that he did view Twitter as a "social network" to some extent. PX6108 at 240:8-14 (S. Coleman (Pinterest) Dep. Tr.)). He also acknowledged that others "could certainly disagree" with him because "people have different definitions and – different definitions of what they consider to be within the social networking category." *Id.* at 240:22-241:16.

c. Speaking in his capacity as a corporate representative, current LinkedIn Senior Director Kumaresh Pattabiraman testified that "Twitter is in the business of helping people stay up to date with everything happening in the world." PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 30:13-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1223.

d. Former Alphabet Vice President Bradley Horowitz testified that "Twitter's social graph is more asymmetric. I care about LeBron James; he doesn't care about me. So it is more of a following graph than a symmetric friend graph, and as such, the primary use case is connecting to celebrities and brands which have this sort of many-to-one fan-out phenomenon." PX6148, Horowitz (Google) Dep. Tr., at 128:4-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1223.

1224. Consumer surveys further demonstrate Twitter's core use of interest-based public conversation, not friends and family sharing.

Meta Response: Disputed in part. Undisputed that some survey respondents indicated they use Twitter for interest-based purposes, but other respondents indicated they use Twitter for friends and family sharing. The FTC's use of "core use" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. All available empirical evidence of substitution shows that non-PSN apps like Twitter are as good of substitutes for Facebook and Instagram as Snapchat, which the FTC maintains is a PSN app. *See* Meta Resp. to Counter SMF ¶ 1219.

Further disputed because the material cited in the subparagraphs below does not support the assertion that Twitter is not also used for friends and family sharing, as the FTC defines it. On the contrary, to the to the extent they are relevant, other survey evidence in the record shows that substantial numbers of people use Twitter to share with their friends and family. For example, a Sharing Tracking Survey conducted by Meta in 2020 observed that [redacted] on Twitter, Ex. 222 at -.032 (FTC-META-005944143), finding that [redacted]

[redacted], *see id.* at -.060. The same survey observed that [redacted]. *See id.* Also, a survey of [redacted], *see* Ex. 273 at -.060 (FTC-META-006826485), observed that [redacted].

a. User research conducted by Meta in 2017 found that Twitter was seen as the best app for "reading/watching news to learn what's happening in the world." PX3431, Meta Workplace Post: [redacted] post to Research Insights (May 30, 2017), FTC-META-004676091, at -091.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1224.

b. A 2018 survey conducted by Meta found that [redacted] PX12992 at -044, Meta presentation: "[redacted]" (Aug. 21, 2018), FTC-META-003599295.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to

paragraph 1224. Further disputed because the survey question [redacted]. *See* PX12992 at -044 (FTC-META-003599293).

c. FTC expert Michal Malkiewicz's survey found that 42.9% of respondents indicated that "[t]o obtain and/or share news and information about my interests" as the most important reason they used Twitter, compared to only 5.5% of respondents who selected "[t]o keep up with my friends' and family's lives in one place." PX9006, Malkiewicz Report, Table 12.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 1224. Disputed that the statement, or Mr. Malkiewicz's survey, creates a genuine dispute of material fact, as Mr. Malkiewicz's survey, by his own admission, "never set out to measure economic substitution." *See* SMF ¶ 652. Further disputed because the survey only asked about the "most important" reason for using an app; it has no bearing on other reasons people use an app. *See* PX9006 at -122-137 (Malkiewicz Rep.).

1225. There is not a norm of friends and family sharing on Twitter.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the "norms" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Disputed on the ground that "norms" is vague and undefined. Further disputed because the material cited in the subparagraphs

below does not support the assertion that Twitter is not also used for friends and family sharing, as the FTC defines it.

a. Speaking in his capacity as a corporate representative, Twitter Vice President Keith Coleman testified that "sharing and interacting with people a user might not necessarily know in real life" is "the main way that the product is used." PX6144, Coleman (Twitter) Dep. Tr., at 400:3-10.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1225. Further disputed because the excerpt is incomplete, among other things, Mr. Coleman also testified that "shar[ing] with their friends and family" is a "value proposition" of Twitter. *See* Meta Resp. to Counter SMF ¶ 1221(a) (quoting PX6144 at 40:9-41:2 (K. Coleman (Twitter) Dep. Tr.)).

b. Mr. Coleman testified "[i]t's common for people to follow accounts of people they don't know in real life. I'd say that's the most common scenario on Twitter. There are cases where people follow accounts of people they know, but it's the less common case." PX6144, Coleman (Twitter) Dep. Tr., at 388:2-12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1225.

c. Mr. Coleman testified that "staying informed about what friends and family are doing . . . is not a primary use for Twitter." PX6145, Coleman (Twitter) Dep. Tr., at 445:5-446:9.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1225. Further disputed because the excerpt is incomplete, among other things, Mr. Coleman also testified that "shar[ing] with their friends and family" is a "value proposition" of Twitter. *See* Meta Resp. to Counter SMF ¶ 1221(a) (quoting PX6144 at 40:9-41:2 (K. Coleman (Twitter) Dep. Tr.)).

d. Mr. Coleman testified that:

> [T]he public use case is still huge. Twitter is huge. Lots of people use Twitter. It's very public. And I think it -- that serves a purpose really well. That makes it a good place to see what's happening in the world. It makes it – it's -- that model is probably a large reason why people don't use it to see what their friends and family are doing because for that they might want a more private space.

PX6144, Coleman (Twitter) Dep. Tr., at 99:14-100:1.

Meta Response: Disputed in part. Undisputed that the witness provided quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1225. Further disputed because the excerpt is incomplete, among other things, Mr. Coleman also testified that "shar[ing] with their friends and family" is a "value proposition" of Twitter. *See* Meta Resp. to Counter SMF ¶ 1221(a) (quoting PX6144 at 40:9-41:2 (K. Coleman (Twitter) Dep. Tr.)). Mr. Coleman also testified that Twitter offers group messaging in a "private space," which has recently "become popular." *See id.* (quoting PX6144 at 99:1-101:7 (K. Coleman (Twitter) Dep. Tr.).

e. In a 2011 email chain among Twitter employees discussing Meta's acquisition of Beluga, one Twitter employee wrote:

> First and most importantly, don't try to be what we're not. We were born with a certain DNA and we evolve, but we can't just up and decide to grow wings and fly. Concretely, this means that we can stretch to do more 'social' things but we can't (and shouldn't) try to reach into the core FB use case of 'share photos with your friends' . . . our strength is in public, one-to-many communication . . . .

PX15058, Twitter email chain: K. Lynn to L. Rechis, et al. re: "Facebook Acquires Beluga," (Mar. 6, 2011), TWTR-META00039541, at -541; *see also id.* at -542 (noting "we are normally about 'public' conversations").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1225. Further disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). [redacted] Ultimately, Twitter did develop a group messaging product that has "become popular" in recent times for sharing with friends and family. *See* Meta Resp. to Counter SMF ¶ 1221(a) (quoting PX6144 at 99:1-101:7 (K. Coleman (Twitter) Dep. Tr.). Further disputed that an e-mail chain from 2011 is informative regarding current patterns of substitution.

f. Former Meta Vice President Dan Rose testified that:

> We had public figures on Facebook, and we had a lot of content from public figures, but a lot of those public figures went to Twitter to have conversations and talk about stuff like TV, sports, and other things, where on Facebook they tended to post more personal information or photos.

PX6065, Rose (Meta) Dep. Tr., at 229:18-24.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1225. Further disputed because the testimony is incomplete. Mr. Rose also testified he "consider[ed] Twitter a competitor" because "[t]hey were a social product that was competing with us for time and attention. When users thought about where to share content, Twitter was an alternative to Facebook for sharing content. When users thought about where to go consume content, Twitter was an alternative to Facebook for consuming content. Our products continued over many years to converge and ask, to this day, I think still do converge on a lot of different features and use cases." PX6065 at 256:4-20 (Rose Dep. Tr.).

1226. [redacted] PX9000, Hemphill Report at ¶¶ 463-64.

Meta Response: Disputed in part. Undisputed that the statement describes Professor Hemphill's calculations. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the number of reciprocal connections on Twitter is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Professor Hemphill fails to explain why Twitter's number of reciprocal connections [redacted] for Twitter to be considered as an alternative to Facebook and Instagram. All available empirical evidence of substitution

shows that Twitter is as good of a substitute for Facebook and Instagram as Snapchat, which the FTC maintains is a PSN app. *See* Meta Resp. to Counter SMF ¶ 1219.

Further disputed because Professor Hemphill's analysis addresses [redacted] but does not address [redacted]. The FTC's proffered expert, Professor Lampe, notes [redacted] Ex. 290 at ¶ 253 (Lampe Rep.); *see* [redacted]. This is [redacted] the proportion of mutual followers for Instagram ([redacted]). *See* PX9000 at ¶ 389 & Ex. 21 (Hemphill Rep.).

(b) Twitter lacks functionality to foster and facilitate friends and family sharing.

1227. Twitter lacks functionality to foster and facilitate friends and family sharing. *Infra* CMF at § II.A.5(c)(1)(b).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the FTC provides no evidence that what it describes as "functionality to foster and facilitate friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. This paragraph cites no specific evidence in support of any fact. To the extent this statement incorporates the FTC's statements in Section II.A.5(c)(1)(b), Meta incorporates its responses to those statements here.

1228. Twitter's graph is primarily an interest-based graph, rather than a social graph of friends and family.

Meta Response: Disputed in part. Undisputed that Twitter allows users to find content based on their interests, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the extent to which functionality is supposedly "primarily" an "interest-based graph" as opposed to a "social graph" – terms that are vague and undefined – is relevant to substitution. Further disputed for the reasons stated above in Meta's response to paragraph 1219.

Further disputed because the materials cited in the subparagraphs do not support the assertion that Twitter lacks a social graph. The FTC has defined a social graph to be "the set of connections that users make among each other within a social network." Counter SMF ¶ 1088. The evidence shows that Twitter has a social graph, as the FTC defines it, and that users can search for the accounts and make connections on Twitter. *See* Meta Resp. to Counter SMF ¶ 1219 (describing Twitter's functionality, including its social graph). The FTC's proffered expert, Professor Lampe, likewise notes that Instagram accounts are asymmetric follow models, just like Twitter's. *See* Ex. 290 at ¶ 164 (Lampe Rep.) ("Connections on Instagram are asymmetric by design – users can 'follow' someone else without the other account reciprocating.").

a. Twitter corporate representative Keith Coleman agreed that "Twitter primarily focus[ed] on developing an interest-based network to keep users informed about what's happening," and it continues to do so today. PX6145, Coleman (Twitter) Dep. Tr., at 438:6-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1228.

b. Viddy co-founder JJ Aguhob testified that "because Twitter is much more of a following model and less of the confirm on the other end, that it's less of a social graph, and it's more of an interest graph." PX6159, Aguhob (Viddy) Dep. Tr., at 14:17-19, 171:4-7.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, though it is an incomplete and misleading portion of his full testimony. Disputed for the reasons stated above in Meta's response to paragraph 1228. Further disputed because the testimony is incomplete. Mr. Aguhob testified in full: "Q. . . . Do you have other examples of social networks that have social graphs? . . . THE WITNESS: I would say Myspace had a social graph. *Twitter has – I would say it's similar.* I wouldn't necessarily – in my mind – and this is just how I categorize things in my head, mostly from just kind of some of the nuances in how to differentiate the different platforms. But because Twitter is much more of a follower model and less of the confirm on the other end, that it's less of a social graph, and it's more of an interest graph." PX6159 at 170:15-171:7 (Aguhob (Viddy) Dep. Tr.).

c. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1228.

d. A 2018 Twitter strategy document observed that "[w]hile people certainly follow their friends and family on Twitter, we have primarily focused on developing an interest-based network to keep users informed about what's happening." PX15043, Twitter document: "CorpDev Discussion" (*May 2018), TWTR-FB00001033, at -035.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1228. Indeed, the document confirms "people certainly follow their friends and family on Twitter." PX15043 at -035 (TWTR-FB00001033).

1229. Twitter's connection tools are geared towards users' interests, not friends and family sharing.

Meta Response: Disputed in part. Undisputed that Twitter has tools that enable users to connect to their interests, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the "focus" of Twitter's connection tools is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219.

Further disputed because the materials cited in the subparagraphs do not support the assertion that Twitter's connection tools do not also connect users to their friends and family. Further disputed because the term "connections tools" is vague and undefined.

a. Upon signing up, Twitter prompts users to select topics and public figures they are interested in, which Twitter corporate representative Keith Coleman testified is "the main part of the process." PX6144, Coleman (Twitter) Dep. Tr., at 376:21-387:21 ("There are -- there is some kind of process where you can like enter your phone number and your -- or upload your contacts and try to find other people you might have in your phone contacts. But the main part of the process is to -- checking your interests and then following accounts of people you're not likely to know in person. They're more likely going to be celebrities or brands or government, you know, organizations or news media, things like that.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1229. Indeed, as Mr. Coleman confirmed, the sign-up process also prompts you to "enter your phone number" and "upload your contacts" to "try to find other people you might have in your phone contacts" – that is, identify people you know so that you can follow them on Twitter. PX6144 at 378:12-14 (K. Coleman (Twitter) Dep. Tr.); *see also* Meta SMF ¶¶ 294-296 (Twitter functionality to find people you know).

b. A Twitter business plan for the year 2017 observed that "[t]here's no easy way to discover/connect with my friends and family on Twitter." PX15041, Twitter

document: "Q4 2016 TBM Packet" (*Dec. 8, 2016), TWTR-FB00000120, at -129.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1229 and subparagraph 1229(a).

c. An internal Twitter email observed "[w]hile Facebook is oriented to following and being followed by personal friends. Twitter is definitely oriented towards following people you don't have a personal relationship with." PX15060, Twitter email: from S. Anderson (Oct. 18, 2012), TWTR-META00068437, at -438.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1229. Indeed, in the document cited, the author also noted that one of the "[p]ossible answers" to the "open [ ] question of who is supposed to follow you" on Twitter is "your personal friends." PX15060 at -438 (TWTR-META00068438).

d. After a user has signed up, Twitter provides suggestions of other accounts they might want to follow based on "interests the user identified or inferred based on the user's activity." PX6144, Coleman (Twitter) Dep. Tr., at 388:14-389:8.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1229 and subparagraph 1229(a).

1230. Twitter's activity stream is centered around public communication about users' interests.

Meta Response: Disputed in part. Undisputed that Twitters activity stream has public content, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that what content is centered on Twitter's activity stream is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Further disputed because time spent on Facebook and Instagram also largely comprises consuming content posted by accounts users do not follow and that do not follow them, which the FTC characterizes as PSNS. *See* Meta SMF ¶¶ 11-12, 56-57. In January 2023, [redacted] of time spent on Facebook was not associated with content from "friends." *See id.* at ¶ 11 (citing Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)). Similarly, [redacted] of time spent on Instagram in February 2023 was not associated with content from "friends." *See id.* at ¶ 56 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). Moreover, content on Instagram is also shared publicly by default for users over 16. *See id.* at ¶ 674; Ex. 508 at 1 (Instagram Help Center, *Differences Between Public and Private Accounts on Instagram*).

Further disputed because the materials cited in the subparagraphs do not support the assertion that Twitter does not also have friends and family connect. Further disputed on the ground that the term "focused on" is vague and undefined.

a. Twitter's "For You" timeline "is showing Tweets based on a user's interests or what the app believes to be a user's interests." PX6144, Coleman (Twitter) Dep. Tr., at 384:6-386:15 (also noting the "For You" timeline shows tweets based on "accounts the user has chosen to follow" and "content that is popular or trending on Twitter").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1230. Indeed Mr. Coleman explained that, while he "d[id]n't know exactly how [the For You timeline] generates all the Tweets to see," he did understand that the For You timeline would show content from accounts the user has chosen to follow, which may include a user's friends and family. PX6144 at 384:6-20 (K. Coleman (Twitter) Dep. Tr.); *see* Meta Resps. to Counter SMF ¶¶ 1219, 1221(a) (further describing tools enabling finding and following friends and family); Meta SMF ¶¶ 283 (For You feed), 294-296 (tools that enable finding and following friends and family).

b. Twitter's "Following" tab shows Tweets from accounts users follow in reverse chronological order. PX6144, Coleman (Twitter) Dep. Tr., at 383:17-21, 387:7-388:13.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1230. Indeed, the Following tab is exclusively content from accounts the user follows, *see* Meta SMF ¶ 283, which may include a user's friends and family. *See* Meta Resps. to Counter SMF ¶¶ 1219, 1221(a) (further describing tools enabling finding and following friends and family); Meta SMF ¶¶ 294-296 (same).

c. Twitter corporate representative Keith Coleman testified that on Twitter, "there's a large group of people who consume, [and] a much smaller group that engage and create." PX6145, Coleman (Twitter) Dep. Tr., at 489:20-22; *see also*

PX9000, Hemphill Rep. at ¶ 457 ("[redacted], in comparison with [redacted] of Facebook users and [redacted] of Instagram users."), ¶ 390, Ex. 22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and Professor Hemphill offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 1230. Disputed that Professor Hemphill's calculations provide reliable or accurate measurements of [redacted]. As Professor Hemphill explains, [redacted]. PX9000 at -149 (Hemphill Rep.) (Notes to Exhibit 22). Professor Hemphill thus chose to [redacted]. *Id.* [redacted]

d. An internal strategy document noted Twitter's value proposition of "offer[ing] me a unique channel for broad distribution, but it doesn't help me consistently and reliably reach a specific set of people who I know already." PX14139, Twitter document: "*CONFIDENTIAL – Product Proposal- Broadcast DM . . . " (*2020), TWTR-FB00022025, at -026.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to

paragraph 1230. Indeed, the cited document lists value propositions for "business[es] or large publisher[s] on Twitter" but does not otherwise address the value propositions for regular users. PX14139 at -026 (TWTR-FB00022026).

1231. Pseudonymity is common on Twitter, making connecting with friends more difficult.

Meta Response: Disputed in part. Undisputed that Twitter does not require users to use their real identities. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC provides no evidence that the importance of real-life identities on Twitter is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219.

Further disputed because the material cited in the subparagraphs below does not support the assertion that Twitter does not also connect users to their friends and family. Further disputed because the FTC has taken the position that the existence of anonymous accounts is not an impediment to using an app for friends and family sharing, as the FTC defines the term. PX3434 at -410 (FTC-META-010019410). The FTC's proffered industry expert notes approximately half of Instagram users are pseudonymous. *See* Ex. 290 at ¶ 163 n.356 (Lampe Rep.) (quoting PX6078 at 190:8-191:14 (Mosseri Dep. Tr.)). As Mr. Mosseri – the head of Instagram – testified: "[W]e allow people to use pseudonyms . . . . [I]n general, if you want to use a different name or a nickname or no name and just a handle, we are perfectly comfortable with that. . . . [M]aybe half of people or maybe a little bit more will use their first and last name there." PX6078 at 190:17-191:11 (Mosseri Dep. Tr.).

a. In a 2021 email chain, Meta's Consumer Product Strategy and Insight group explained that [redacted]

[redacted] PX3434, Meta email chain: [redacted] to T. Alison, et al. re: "CPSI Monthly Update - June 2021," (July 7, 2021), FTC-META-010019410, at -410 (reporting "CPSI's view . . . based on what we know so far"); PX6051, Patel (Meta) Dep. Tr., at 15:4-16:3 (indicating CPSI refers to "consumer product strategy and insight group").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1231. Indeed, the document cited by the FTC also states: [redacted] *See* PX3434 at -410 (FTC-META-010019410). Further disputed because the FTC has taken the position that the existence of anonymous accounts is not an impediment to using an app for friends and family sharing, as the FTC defines the term. *See id.* The FTC's proffered industry expert notes approximately half of Instagram users are pseudonymous. *See* Ex. 290 at ¶ 163 n.356 (Lampe Rep.) (quoting PX6078 at 190:8-191:14 (Mosseri Dep. Tr.)).

b. On its website, Twitter has previously described the "case for inclusivity through anonymity," with its then-Director of Product Management being quoted as saying "[y]ou can represent yourself however you want, and that's been a powerful building block of what Twitter is." PX0650 at -002, Common Thread, *What's in a name? The case for inclusivity through anonymity*, X Common Thread (Sept. 21, 2021), https://blog.x.com/common-

thread/en/topics/stories/2021/whats-in-a-name-the-case-for-inclusivity-through-anonymity.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1231. Indeed, Twitter's website also describes itself as a platform allowing users to "share with their friends and family." *See* Meta Resp. to Counter SMF ¶ 1218.

c. Twitter allows users to use pseudonyms so they can separate their interests from their real identity or professional career, or have multiple accounts to follow multiple interests. PX6144, Coleman (Twitter) Dep. Tr., at 390:6-392:5.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1231.

1232. The "vast, vast majority of Twitter accounts are public." PX6144, Coleman (Twitter) Dep. Tr., at 97:11-15.

Meta Response: Disputed in part. Undisputed that Twitter accounts can be public or private and that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the number of public accounts is relevant to substitution, and for the reasons stated above in Meta's responses to paragraphs 1219 and 1230. Further disputed because the testimony is incomplete. Mr. Coleman also testified: "So Twitter is a like public follower model. You can create protected accounts where you have to approve people who see them, but the vast, vast majority of Twitter accounts are public, people

follow them. *I think Instagram is the same*." PX6144 at 97:10-16 (K. Coleman (Twitter) Dep. Tr.) (emphasis added).

1233. In July 2023, Meta launched a new, standalone app called Threads, an app whose core use case is public conversation, to compete directly with Twitter. *See* PX0311 at -007, *Introducing Threads: A New Way to Share with Text*, Meta Newsroom (July 5, 2023), https://about.fb.com/news/2023/07/introducing-threads-new-app-text-sharing/.

Meta Response: Disputed in part. Undisputed that Meta launched Threads as a standalone app that can be used for public conversation and that it competes with Twitter. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that an app's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1219. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC has defined "friends and family sharing" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including sharing and viewing interest-based content. *See* Meta Resp. to Counter SMF ¶ 1219. Twitter competes with alleged PSN apps in the provision of interest-based content, not just with Threads. *See id.* All available empirical evidence of substitution shows that non-PSN apps like Twitter are as good of substitutes for Facebook and Instagram as Snapchat, which the FTC maintains is a PSN app. *See id.* Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and Twitter. *See id.*

a. Mark Zuckerberg described Threads and Twitter as "public conversations app[s]." PX0312 at -001, @zuck, Threads (July 5, 2023) https://www.threads.net/@zuck/post/CuVafQTvquB?igshid=MzRlODBiNWFlZA%3D%3D ("It'll take some time, but I think there should be a public conversations app with 1 billion+ people on it. Twitter has had the opportunity to do this but hasn't nailed it. Hopefully we will.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1233.

b. Meta Chief Product Officer Chris Cox described Threads as "our response to Twitter." PX0313 at -002, Alex Heath, *This is what Instagram's upcoming Twitter competitor looks like,* The Verge (June 8, 2023), https://www.theverge.com/2023/6/8/23754304/instagram-meta-twitter-competitor-threads-activitypub.

Meta Response: Disputed. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Further disputed for the reasons stated above in Meta's response to paragraph 1233.

c. Adam Mosseri described Threads as Meta's response to Twitter. PX0683 at -002-03, Alex Heath, *Why Instagram is taking on Twitter with Threads*, The Verge (July 5, 2023), https://www.theverge.com/2023/7/5/23784870/instagram-threads-adam-mosseri-interview-twitter-competitor (stating that Threads is designed for "public conversations" and that "[o]bviously, Twitter pioneered the space.").

Meta Response: Disputed. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed for the reasons stated above in Meta's response to paragraph 1233. Further disputed because the cited article does not report that Mr. Mosseri stated that Threads was "Meta's response to Twitter." He mentioned some similarities between Threads and Twitter. *See* PX0683 at -006 (The Verge, *Why Instagram is taking on Twitter with Threads*) ("Twitter pioneered the space"); *id.* at -008 ("model that Twitter pioneered with tweets and replies").

d. Meta built Threads to serve the same core use case as Twitter. PX3023 at -004-05, Meta presentation: "*P92 MZ Update . . ." (Feb. 27, 2023), FTC-META-012482279 [redacted]); *see also* PX3024, Meta document: "[A/C PRIV] Project 92 Target Consumer & Creator Audiences" (*2023), FTC-META-012482241 at -241 ("Our Goal: Build and launch a standalone app to compete with Twitter in Q1 2023, [redacted]), -242 ([redacted]

[redacted]).

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1233.

1234. Public sources describe Threads as a "clone" of Twitter. *See, e.g.*, PX0314 at -001, *Threads and the Social/Communications Map*, Stratechery (July 11, 2023), https://stratechery.com/2023/threads-and-the-social-communications-map ("Threads is a Twitter clone"); PX0315 at -001, Helen Li, *Threads, Meta's Twitter clone, just launched — and people are already complaining about it*, L.A. Times (July 6, 2023), https://www.latimes.com/business/technology/story/2023-07-06/threads-metas-twitter-clone-just-launched-and-people-are-already-complaining-about-it ("Threads, Meta's Twitter clone, just launched"); PX0316 at -001, Geoffrey A. Fowler & Naomi Nix, *What we love and hate about Threads, Meta's new Twitter clone*, Wash. Post (July 12, 2023), https://www.washingtonpost.com/technology/2023/07/05/threads-meta-instagram-twitter-alternative ("Mark Zuckerberg has unveiled Threads, a clone of Twitter . . . .").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1233.

(2) Reddit lacks core functionality and use for friends and family sharing.

1235. Launched around 2005, Reddit is a "community of communities," where "users will go to find communities that they're interested in." PX6115, Raymond (Reddit) Dep. Tr., at 18:5-11.

Meta Response: Undisputed.

1236. Professor Hemphill concluded that "Reddit is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 485; *see generally id.* at ¶¶ 471-85.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. *See* PX9000 at ¶ 470 (Hemphill Rep.). The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC has defined "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including viewing or posting community and interest-based content on Facebook and on Instagram. *See* Meta SMF ¶¶ 580-584. Reddit competes with PSN apps in the provision of community and interest-based content. *See id.* at ¶¶ 391-396 (collecting testimony and documents reflecting this competition). Moreover, time spent on Facebook and Instagram is largely not associated with friends and family sharing. Professor Carlton calculated that as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *Id.* at ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and Reddit. Evidence from Meta and Reddit show that both consider Reddit to compete with Facebook and Instagram. *See*

Meta SMF ¶¶ 392-398. For example, a Reddit document identified Facebook, Snap, and Instagram (among others) as competitors "For Entertainment"; and Facebook (among others) as a competitor for "passions and hobbies" and for "peer-to-peer commerce." *Id.* at ¶ 397 (citing Ex. 63 at -033 (MetaFTC-Klein-DX-319, REDDIT_20cv3590-DDC_00000001)). Tom Alison, head of the Facebook app, testified that [redacted]. *See* Meta SMF ¶ 394 (citing Ex. 146 at 53:9-53:15 (Alison Dep. Tr.)). When discussing Facebook Groups in his report, Professor Hemphill quotes testimony from Mr. Alison, explaining that Facebook Groups is "sometimes . . . use[d] to connect with groups of friends, but it's predominantly used to connect with larger groups of people who you may not necessarily know in real life." PX9000 at ¶ 270 n.504 (Hemphill Rep.) (quoting PX6069 at 42:19-24 (Alison Dep. Tr.)). Professor Lampe testified that "the dominant use for [Facebook] groups is around interest-based communities." Ex. 281 at 216:11-20 (Lampe Dep. Tr.). Professor Lampe testified "that both Reddit and Facebook groups offer interest-based communities." *Id*. at 217:4-10.

Further, Reddit has many features similar to Facebook and Instagram. Reddit has features for posting, watching, and sharing text, images, and videos; feeds that serve content tailored to the individual user; the ability to identify content related to one's interests; finding and subscribing to content; following other users; liking and commenting on posts, photos, and videos; sending messages or chats to other users; and other "social" features. *See* Meta SMF ¶¶ 383-389.

1237. Professor Lampe opined that Reddit's design, motivations, and norms "indicate that it is neither an SNS nor a PSNS," and "is not designed or used for cultivating the

development or maintenance of personal relationships." *See* PX9004, Lampe Report at ¶ 223; *see id.* at § V(D).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization of Reddit's "design, motivations, and norms" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 160:8-17, 163:4-10 (Lampe Dep. Tr.)).

(a) Reddit has a core use of interest-based community conversation, not friends and family sharing.

1238. Reddit recognizes it has a core use of interest-based community conversation, not friends and family sharing.

Meta Response: Disputed in part. Undisputed that Reddit is used for interest-based conversation, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Reddit's supposed recognition of a "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because while the material cited in the subparagraphs below describes the Reddit platform, none establishes any "core use" of Reddit as that term is used by the FTC. *See*

Meta Resp. to Counter SMF ¶ 1236 (describing Reddit). Further disputed because "interest-based community conversation" is vague and undefined.

a. "Reddit is community platform not social networking service; a network implies group or system of interconnected people. User-to-user relationships are not the focus of Reddit." PX13216, Reddit document: "Reddit, Inc.'s Response to the Directorate-General for Competition's August 30, 2019 Request for Information" (Sept. 27, 2019), Reddit-FTC-00000001, at -003.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1238. Further disputed because the quotation is incomplete, misleading, and lacks context. The paragraph quoted in the statement begins with the (omitted) disclaimer that "Reddit does not have a definition of social networking service, nor is it aware of a commonly accepted definition." PX13216 at -003 (Reddit-FTC 00000001) (emphasis in original). Reddit proceeds to quote the Wikipedia definition of "social networking service" before providing the response quoted in this subparagraph. *Id*.

b. "Reddit is an interest-based community of communities." PX6115, Raymond (Reddit) Dep. Tr., at 179:9-11; *see also id.* at 23:22-24:10 (agreeing that "communities" at Reddit are also known as "subreddits," which are organized around specific interests).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1238.

c. Reddit is "utilized primarily by users seeking community around interest-based content," because "[i]t's the nature of Reddit. Reddit is in and of itself. Communities organize around user interest or interests that users might be interested in." PX6115, Raymond (Reddit) Dep. Tr., at 181:10-22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1238.

d. Reddit Vice President of user experience Eunkyung Chung affirmed in testimony that "Reddit's communities are organized around specific interests." PX6121, Chung (Reddit) Dep. Tr., at 28:19-29:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1238.

1239. Meta recognizes Reddit has a core use of interest-based community conversation, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's supposed recognition of Reddit's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because while the material cited below describes attributes of Reddit, none establishes

any "core use" of Reddit as that term is used by the FTC. Further disputed because "interest-based community conversation" is vague and undefined.

a. Mark Zuckerberg testified that he "do[esn't] think people would say the main use of Reddit . . . is sharing with friends." PX6127, Zuckerberg (Meta) Dep. Tr., at 39:16-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1239.

b. Tom Alison, head of the Facebook app at Meta, cited Reddit as an example of an app "focus[ed] on interests." PX6069, Alison (Meta) Dep. Tr., at 9:18-21, 53:9-15.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1239. Further disputed because the testimony is incomplete and omits important context explaining that Reddit is a direct competitor to Facebook. Mr. Alison testified: "Part of the kind of what we learned there in particular when we looked at *competitors in the community space* and apps that focus on interests like YouTube and Reddit and others is that people associated those with community as well even though they're interest-based apps. So we've *incorporated that idea into kind of our product strategy* as well noting that shared interests can be a form of the way that people strengthen relationships or find ways to find community." PX6069 at 53:9-21 (Alison Dep. Tr.) (emphases added).

1240. An internal Meta document described Reddit as a "social app[] without personal connections." PX3462, Meta document: "2018-07-05 Network Effects & Competition in App Growth" (July 5, 2018), FB_FTC_CID_12302929, at -958.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1236.

a. In a 2021 email chain, Meta's Consumer Product Strategy and Insight group explained that [redacted] PX3434, Meta email chain: [redacted] to T. Alison et al. re: "CPSI Monthly Update - June 2021," (July 7, 2021), FTC-META-010019410, at -410; PX6051, Patel (Meta) Dep. Tr., at 15:4-16:3 (indicating CPSI refers to "consumer product strategy and insight group").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1240. Further disputed because the FTC has taken the position that the existence of anonymous accounts is not an impediment to using an app for friends and family sharing, as the FTC defines the term. *See id.* The FTC's proffered industry expert notes approximately half of Instagram users are pseudonymous. *See* Ex. 290 at ¶ 163 n.356 (Lampe Rep.) (quoting PX6078 at 190:8-191:14 (Mosseri Dep. Tr.)).

1241. Other parties recognize Reddit has a core use of interest-based community conversation, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that other parties' supposed recognition of Reddit's "core use" is relevant to substitution, for the reasons stated above in Meta's response to paragraph 1236. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because while the material cited below describes attributes of Reddit, none establishes any "core use" of Reddit as that term is used by the FTC. Further disputed because "interest-based public conversation" is vague and undefined.

1242. Former Myspace CEO Chris DeWolfe agreed that he did not "consider Reddit to be a competitor to the social networking experience of connecting with friends and family that MySpace offered." PX6066, DeWolfe (Myspace) Dep. Tr., at 35:15-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony (but at 144:15-20). Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1236 and 1241.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1241.

b. Twitter corporate representative Keith Coleman testified that "Reddit is broken up into sub-Reddits . . . which are basically communities, topic-related communities

which are substantially governed by community moderators." PX6144, Coleman (Twitter) Dep. Tr., at 279:4-8.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1241.

c. Twitter corporate representative Keith Coleman agreed that "public discussion of interest-based content" is one of the primary use cases for Reddit. PX6145, Coleman (Twitter) Dep. Tr., at 448:13-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1241.

1243. Consumer surveys further demonstrate Reddit of interest-based community conversation, not friends and family sharing. *Infra* CMF at ¶¶ 1244-46.

Meta Response: Disputed. Undisputed that some survey respondents indicated they use Reddit for interest-based purposes, but other respondents indicated they use Reddit for friends and family sharing. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Further disputed because "interest-based community conversation" is vague and undefined.

1244. Polling conducted by Morning Consult in 2019, and presented to TikTok, found that 41% of respondents selected "[t]o be entertained" and 30% selected "[t]o stay up to date with what's trending" as the primary reason they use Reddit, compared to only 5% who

selected "[t]o stay connected to friends and family." PX13608, TikTok document: "Tik Tok Polling Presentation" (Dec. 12, 2019), TIK-00006531, at -536.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). [redacted] Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1236 and 1243.

1245. User research conducted by Pinterest in 2018 found that 82% of respondents considered Reddit as a place for following "people I don't know," more than any other service in the survey. PX12611 at -008-09, Pinterest document: "What We Know About... Following" (June 2018), FTC-PINTEREST-00000571.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1236 and 1243.

1246. FTC expert Michal Malkiewicz's survey found that 47.9% of respondents selected "[t]o obtain and/or share news and information about my interests" as their most important reason for using Reddit, while 27.4% selected "[t]o enjoy entertainment content," compared to only 1.1% who selected "[t]o keep up with my friends' and family's lives in one place." PX9006, Malkiewicz Report at ¶ 87, Table 14.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact for the

reasons stated above in Meta's responses to paragraphs 1236 and 1243. Further disputed because Mr. Malkiewicz's survey, by his own admission, "never set out to measure economic substitution." *See* Meta SMF ¶ 652 (quoting Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)). Further disputed because the survey only asked about the "most important" reason for using an app; it has no bearing on other reasons people use an app. *See* PX9006 at -122-137 (Malkiewicz Rep.).

1247. There is not a norm of friends and family sharing on Reddit, and norms on Reddit are instead focused on anonymous interest-based conversation.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the "norms" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Disputed on the ground that "norms" is vague and undefined. Further disputed because none of the materials cited in the subparagraphs support any assertion about the "norms" of Reddit use. Further disputed because "interest-based public conversation" is vague and undefined.

a. Users come to Reddit "to connect with others with similar interests." PX6115, Raymond (Reddit) Dep. Tr., at 178:13-179:8.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1247.

b. Reddit assistant general counsel and corporate designee Winter Raymond agreed that "engaging with friends and family members" does not "fit within the Reddit experience." PX6115, Raymond (Reddit) Dep. Tr., at 13:16-19, 223:13-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1247.

c. A user "could" associate their Reddit account with their real-world identity, "but it's very unlikely. Users come to Reddit to be anonymous." *Id.* at 20:13-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1247.

d. "Time spent on Reddit is guided by personal intention and interests." PX13221, Reddit document: "Business" (*July 1, 2022), REDDIT_20cv3590-DDC_00000001, at -004; *see also* PX6115, Raymond (Reddit) Dep. Tr., at 59:8-22 (explaining the document is an excerpt of Reddit's S-1 filed with the SEC).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1247.

e. "Because Reddit is interest-driven versus friends-and-follower driven, and because Redditors have control over their identity, they often seek information on topics important to them that are not visible to social media platforms." PX13221, Reddit document: "Business" (*July 1, 2022), REDDIT_20cv3590-DDC_00000001, at -009.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1247.

f. Reddit users do not "generally find other logged-in users to follow based on real-world identities . . . [i]t's not generally something people would come to Reddit for." PX6115, Raymond (Reddit) Dep. Tr., at 221:14-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1247.

g. Reddit does not "observe its users broadcasting personal updates to a network of real-life friends and family on Reddit," nor is it "prominent on Reddit for its users to receive personal updates from real-life friends and family." *Id.* at 225:17-226:14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1247.

(b) Reddit lacks functionality to foster and facilitate friends and family sharing.

1248. Reddit lacks functionality to foster and facilitate friends and family sharing. *Infra* CMF at ¶¶ 1249-53.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that what it describes as "functionality to foster and facilitate friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's

statements in paragraphs 1249-1253, Meta incorporates its responses to those statements here.

1249. Reddit has an interest graph, not a social graph or a social graph of friends and family connections.

Meta Response: Disputed in part. Undisputed that Reddit has an interest graph. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of a "social graph" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Further disputed because the FTC's proffered expert, Professor Lampe, notes that Instagram accounts are asymmetric follow models, just like Reddit's. *See* Ex. 290 at ¶ 164 (Lampe Rep.) ("Connections on Instagram are asymmetric by design – users can 'follow' someone else without the other account reciprocating."); *see also* Meta Resp. to Counter SMF ¶ 1236 (describing Reddit functionality).

a. Reddit describes itself as having an "interest graph." PX13221, Reddit document: "Business" (*July 1, 2022), REDDIT_20cv3590-DDC_00000001, at -010; *see also* PX6115, Raymond (Reddit) Dep. Tr., at 73:14-74:7 (explaining an interest graph as "[s]o our communities are categorized by a parent and child interest groups. We have 15 across Reddit, things like health and beauty, gaming. So that's how we categorize our subreddits, and advertisers can target subreddits based on either subreddit or the interest groups that those subreddits belong to."); *id.* at 77:12-21 (affirming Reddit does not have a social graph and instead uses its interest graph to provide user targeting for advertisers).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1249.

b. "User-to-user relationships are not the focus of Reddit. Redditors generally remain anonymous, they are not required to create a public profile, nor do they need to create a list of friends or even contacts." PX13216, Reddit document: "Reddit, Inc.'s Response to the Directorate-General for Competition's August 30, 2019 Request for Information" (Sept. 27, 2019), Reddit-FTC-00000001, at -003.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1249.

c. Reddit assistant general counsel and corporate designee Winter Raymond agreed that Reddit does not use a social graph to organize users on its product. PX6115, Raymond (Reddit) Dep. Tr., at 13:16-19, 255:13-20 (defining a social graph as "a way for users to connect with their real-life friends or people that they know, and it is a way for that to then connect to online activity").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1249.

d. "[T]he anonymity of [Reddit] communities . . . means they're generally not comprised of a user's friends and family." *Id.* at 149:14-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1249.

1250. Reddit's tools are geared toward connecting users to their interests, [redacted].

Meta Response: Disputed in part. Undisputed that Reddit has tools that enable users to connect to their interests, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the supposed design of Reddit's "connection tools" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1250.

b. Reddit corporate representative Winter Raymond, who holds the title of director and assistant general counsel over Reddit's product and privacy teams, testified

that Reddit is not built around interconnections between its users. PX6115, Raymond (Reddit) Dep. Tr., at 13:16-19, 234:13-15.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1250.

c. Reddit does not provide a functionality for "uploading contacts" or "friend finding." *Id.* at 247:11-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1250.

d. Reddit does not provide functionality to suggest private profiles of other users that a user can add. *Id.* at 249:14-22.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1250.

e. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1250.

1251. Reddit's activity stream is populated by interest-based content, not content from users' friends and family.

Meta Response: Disputed in part. Undisputed that Reddit's activity stream has interest-based content. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the content on Reddit's activity stream is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Further disputed because time spent on Facebook and Instagram also largely comprises consuming content posted by accounts users do not follow and that do not follow them, which the FTC characterizes as PSNS. In January 2023, [redacted] of time spent on Facebook was not associated with content from "friends." *See* Meta SMF ¶ 11 (citing Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)). Similarly, [redacted] of time spent on Instagram in February 2023 was not associated with content from "friends." *See id.* at ¶ 56 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

a. Reddit's "Home feed is a collection of communities or subreddits that a user has joined." PX6115, Raymond (Reddit) Dep. Tr., at 33:16-19.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1251.

b. Reddit's "Popular feed [is] a group of posts that are Popular on Reddit," and the Popular feed "should be the same or roughly the same" for every user. *Id.* at 25:14-19, 38:2-5.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1251.

c. Ms. Raymond testified that Reddit does not serve content based on the interconnections between its users. *Id.* at 234:16-18.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1251.

d. Ms. Raymond testified that following other users on Reddit is "not a feature that I think is commonly used or is a prominent feature of the Reddit platform." *Id.* at 32:7-12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1251.

e. Reddit's "hot score," which helps determine the content shown to users, places a greater emphasis on "the topic of the post" as compared to "who writes a post." *Id.* at 188:1-189:8.

Meta Response: Undisputed. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1251.

1252. Anonymity is core to the Reddit user experience.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the anonymity is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1236. Further disputed because the FTC has taken the position that the existence of anonymous accounts is not an impediment to

using an app for friends and family sharing, as the FTC defines the term. PX3434 at -410 (FTC-META-010019410). The FTC's proffered industry expert notes approximately half of Instagram users are pseudonymous. *See* Ex. 290 at ¶ 163 n.356 (Lampe Rep.) (quoting PX6078 at 190:8-191:14 (Mosseri Dep. Tr.)). As Mr. Mosseri – the head of Instagram – testified: "[W]e allow people to use pseudonyms. . . . [I]n general, if you want to use a different name or a nickname or no name and just a handle, we are perfectly comfortable with that. . . . [M]aybe half of people or maybe a little bit more will use their first and last name there." PX6078 at 190:17-191:11 (Mosseri Dep. Tr.). Disputed on the ground that "core" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Ms. Raymond testified that "the real-life identity of users is not a core feature, product, or anything that Reddit promotes." PX6115, Raymond (Reddit) Dep. Tr., at 224:4-10 (explaining why it would be "very difficult" for users to find a long-lost high school classmate on Reddit).

   Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1252.

b. Reddit does not track the prevalence of users using their real-world names as user names on Reddit, because "the use of actual real-world names as user names" is not something that Reddit "think[s] happens in ordinary practice. Most Redditors enjoy Reddit because they can be anonymous." *Id.* at 215:1-6; *see also id.* at 215:7-12 ("Q. Does Reddit suggest user names for new users? A. Yes, we do. Q. And are those user names tied to a user's real name? A. No, they're not.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1252.

c. Reddit Vice President of User Experience EK Chung testified that:

> [u]sers value anonymity on Reddit but still make a connection based on their hobbies and passions and interests. So this is -- I understand this is kind of a common, general sentiment on Reddit, really value the unique value that we bring as a platform being able to remain anonymous and then have a conversation.

PX6121, Chung (Reddit) Dep. Tr., at 14:8-11, 212:2-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1252.

1253. Ms. Raymond testified that Reddit does not enable users "to create a network of real-life friends and family," and that "[t]he functionality of Reddit in and of itself would impede that." PX6115, Raymond (Reddit) Dep. Tr., at 224:11-19; *see also id.* at 225:21-226:4 ("Q. Today if a Reddit user wanted to receive personal updates from a network of real-life friends and family, could he or she do so on Reddit? A. Again, it would be very difficult. Our product by nature doesn't support that."); PX6121, Chung (Reddit) Dep. Tr., at 241:17-19 (testifying that people do not "use Reddit to stay connected with their friends and family").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1236 and 1252.

(3) Pinterest lacks core functionality and use for friends and family sharing.

1254. Pinterest is a "visual inspiration platform" that was "launched in 2010." PX0668, *Company*, Pinterest Newsroom, https://newsroom.pinterest.com/company/ (last visited May 20, 2024).

Meta Response: Undisputed.

1255. Professor Hemphill concluded that "Pinterest is not a reasonable substitute for users seeking PSN services." PX9000, Hemphill Report at ¶ 498; *see generally id.* at ¶¶ 486-498.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the FTC has defined "PSN services" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including viewing or posting interest-based content on Facebook and on Instagram. *See* Meta SMF ¶¶ 580-584. Pinterest competes with PSN apps including for viewing content relating to a users' interests. *Id.* at ¶¶ 343-358. Moreover, time spent on Facebook and Instagram is largely not associated with friends and family sharing. Professor Carlton calculated that as of January 2023, [redacted] of time spent on Facebook is associated with viewing content from friends and, as of February 2023, [redacted] of time spent on Instagram is viewing content from a user's non-creator reciprocal follows (a conservative proxy for "friends"). *Id.* at ¶¶ 11, 56 (quoting Ex. 2 at ¶ 69 & p. 68, tbl. 10; ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)).

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and Pinterest. Evidence from Meta and Pinterest show that both consider Pinterest to compete with Facebook and Instagram. *See id.* at ¶¶ 343-358. For example, a Pinterest competitive assessment document identifies Instagram and Facebook in a list of "Horizontal competitors" along with Amazon, Google, and YouTube and states that [redacted] *See id.* at ¶ 348 (quoting Ex. 46 at -660, -663 (MetaFTC-Klein-DX-14, PIN - FTC – 0000001660)). Pinterest's head of user growth, Ms. Roberts testified that – as reflected in Pinterest's documents – "Instagram consistently shows up on [Pinterest's] radar as a competitor that contends on marketshare, timeshare & mindshare or a generally less Pinterest familiar market," Ex. 45 at 16:20-22, 89:8-89:21 (Roberts (Pinterest) Dep. Tr.), that [redacted], *see id.* at 86:15-87:18, and that Pinterest can be successful in its competition against Meta, *see id.* at 75:13-77:22. Ms. Roberts also testified that [redacted] *Id.* at 55:4-20. Scott Coleman, the former head of international and product marketing at Pinterest, testified that Instagram directly competes with Pinterest in the inspiration space and that Instagram is a competitor in Pinterest's core verticals. *See* Ex. 50 at 114:15-115:1, 253:3-18 (S. Coleman (Pinterest) Dep. Tr.). Mr. Coleman also testified that Pinterest's internal analysis from outages impacting Facebook, Instagram, and TikTok was that Pinterest competed with these companies "for time and attention." Meta SMF ¶ 354 (quoting Ex. 50 at 112:21-113:12 (S. Coleman (Pinterest) Dep. Tr.)).

Further, Pinterest has features that are similar to Instagram and Facebook and that facilitate friends and family sharing, as the FTC uses the term, including user profiles, a social graph, a feed, and other social features. *See id.* at ¶¶ 330-341 (describing Pinterest's features). Pinterest has a feed, personal profiles, short-form videos, long-form videos, groups for sharing interests, commerce, photo and video sharing, commenting, search functionality, notifications, and messaging functionality. *Id.* at ¶¶ 331, 339, 341. Users can follow other users, and the graph of individuals' connections on Pinterest is traversable, meaning, users can see what accounts another user follows and what accounts follow them. *Id.* at ¶¶ 333-334. Professor Lampe opined that "Pinterest may check boxes that could classify it as [a social networking site]." *Id.* at ¶ 330 (quoting Ex. 290 at ¶ 212 (Lampe Rep.)). Professor Lampe also opined that [redacted]. *Id.* at ¶ 357 (quoting Ex. 290 at ¶ 206 (Lampe Rep.)). Professor Lampe also testified that Instagram "could also have core use of 'lifestyle,'" *id.* (quoting Ex. 281 at 198:9-22 (Lampe Dep. Tr.)), as it is a "big use of Instagram," Ex. 281 at 199:1-14 (Lampe Dep. Tr.).

The record also shows that Pinterest users in fact use Pinterest to share with family and friends. Pinterest's corporate representative testified that Pinterest is used for friends and family sharing and that Pinterest was working on [redacted]. *See* Ex. 45 at 43:12-44:1 (Roberts (Pinterest) Dep. Tr.) (acknowledging that when Pinterest found that when users share content on Pinterest, they "tend to share content with people they know . . . (friends & family)"), 131:12-132:19 (agreeing that on

Pinterest "messaging, sharing, and commenting definitely all have a social aspect to them" and that they are "social-oriented features"), 308:14-309:2 ([redacted]). To the extent relevant, even the documents the FTC cites indicate that [redacted] percent of respondents reported that they follow people they know on Pinterest. *See* PX12611 at -009 (FTC-PINTEREST-00000571). Pinterest's internal analysis in 2019 concluded that [redacted] percent of respondents indicated that Pinterest is used for "[f]ollowing friends and family members' interests." *See* Ex. 462 at -581 (MetaFTC-Klein-DX-17, PIN - FTC - 0000002507). Pinterest's corporate executive agreed that seeing pins from people they follow is an "important part of the Pinterest experience" to some users, [redacted] *See* Ex. 45 at 118:5-120:14 (Roberts (Pinterest) Dep. Tr.).

1256. Professor Lampe opined that Pinterest's design, motivations, and norms make it "distinguishable from most social networking platforms, let alone those that provide personal relationship maintenance services." *See* PX9004, Lampe Report at ¶ 212; *see generally id.* at § V(C).

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the paraphrased opinion. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization of Pinterest's "design, motivations, and norms" is relevant to

substitution, and for the reasons stated above in Meta's response to paragraph 1255. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (citing Ex. 281 at 160:8-17, 163:4-10 (Lampe Dep. Tr.)). Further disputed for the reasons stated above in Meta's response to paragraph 1255.

(a) Pinterest has a core use of lifestyle interest discovery, not friends and family sharing.

1257. Pinterest does not consider itself to be a social network.

Meta Response: Disputed in part. Undisputed that Pinterest has stated at times that it is not a social network. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Pinterest's supposed recognition of itself as a "social network" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. Disputed on the ground that "social network" is vague and undefined.

Further disputed because Pinterest's documents recognize that users view Pinterest as a social network. *See* PX12611 at -002 (FTC-PINTEREST-00000571) ("Many think Pinterest is a social network."). In analysis conducted by Pinterest, [redacted] percent of respondents identified Pinterest as a "social media app" and [redacted] *See* Ex. 45 at 43:12-45:17 (Roberts (Pinterest) Dep. Tr.) (describing MetaFTC-Klein-DX-11 at -707, -710, -720, -724 (PIN-FTC-0000000700)). The FTC's own proffered industry expert, Professor Lampe, classifies Pinterest as a social network. *See* Meta SMF ¶ 330 (quoting Ex. 290 at ¶ 212 (Lampe Rep.)).

Further disputed because to the extent the characterization of "social network" is relevant, Pinterest's former head of growth and international product testified in 2023 that "people have different definitions and – different definitions of what they consider to be within the social networking category," and he considers WhatsApp to be a "social network." Ex. 50 at 240:22-241:16; 239:8-13 (S. Coleman (Pinterest) Dep. Tr.). Pinterest's corporate representative agreed that "TikTok, Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of a social network. Ex. 45 at 427:21-428:1 (Roberts (Pinterest) Dep. Tr.). Pinterest has explained the label "social network" is not pertinent to substitution. [redacted] Pinterest has also taken the position in regulatory filings that Instagram is not a "personal" social network but "Celebrity/Influencer" network along with TikTok and Snapchat. PX7034 at -378 (FTC-PINTEREST-00001366). Pinterest's corporate representative testified that Pinterest agrees with that characterization in the U.S. today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

a. Pinterest appears in the "lifestyle" category in the Apple App Store. PX12603, *Pinterest*, Apple App Store, https://apps.apple.com/us/app/pinterest/id429047995 (last visited May 20, 2024); *see also* PX7053, Apple spreadsheet (untitled &

undated), APL-FTCMETA_00042482, tab "Historical App Descriptions" at row 5152 ("description" for Pinterest including "Pinterest is the place to explore inspiration").

Meta Response: Disputed in part. Undisputed that the documents state that Pinterest appears in the "lifestyle" category in the Apple App Store. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1257, including because the FTC's own expert, Professor Lampe, agreed that "lifestyle" is a "big use of Instagram." Ex. 281 at 199:1-14 (Lampe Dep. Tr.).

b. Pinterest co-founder and former CEO Ben Silbermann said in a 2017 interview that "[w]hen we talk to people about Pinterest we often describe it as not a social network . . . Social networks are about communicating with other people. Pinterest is really about planning and getting ideas for your own personal life." PX12605 at -002, Jane Martinson, *Pinterest Chief Ben Silbermann: 'We're Not a Social Network,'* The Guardian (June 12, 2016), https://www.theguardian.com/media/2016/jun/12/pinterest-ben-silbermann-social-network; *see also* PX6082, Roberts (Pinterest) Dep. Tr., at 250:20-251:6 (Pinterest's corporate representative testifying that the above language is an accurate description of Pinterest and that Mr. Silbermann frequently described Pinterest as "not a social network").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1257, and

because the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B).

c. Mr. Silbermann, in a 2019 earnings call, stated that "there is this kind of really different behavior on Pinterest that's planning inspirational behavior that is quite different from [what] they're seeing in social networks." PX12606 at -019, SA Transcripts, *Pinterest, Inc. (PINS) CEO Ben Silverman* [sic] *on Q1 2019 Results - Earnings Call Transcript*, Seeking Alpha (May 16, 2019), https://seekingalpha.com/article/4264794-pinterest-inc-pins-ceo-ben-silverman-on-q1-2019-results-earnings-call-transcript.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1257.

d. Julia Roberts, Pinterest's corporate representative who "lead[s] product for [Pinterest's] growth team," confirmed in her testimony that "the message that Pinterest is not a social network" is "something that the company has emphasized in communications with Pinterest's advertisers," as well as something emphasized in communications Mr. Silbermann to Pinterest employees. PX6082, Roberts (Pinterest) Dep. Tr., at 16:20-22, 251:4-10, 253:9-13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1257.

e. In a 2020 submission [redacted], Pinterest wrote that "Pinterest does not consider itself a social network." PX12609, Pinterest document:

[redacted] PIN - FTC - 0000001007, at -011.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1257.

f. Pinterest does not "have any plans to develop a social network and have that be part of our product." PX6083, Roberts (Pinterest) Dep. Tr., at 436:11-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1257.

g. Ms. Roberts testified that, to her knowledge, Pinterest has never "described itself as a social network in official external communications." *Id.* at 256:14-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1257.

1258. Pinterest recognizes it has a core use of lifestyle interest discovery, not friends and family sharing.

Meta Response: Disputed in part. Undisputed that Pinterest is used for interest discovery, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Pinterest's supposed recognition of a "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255.

Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because "lifestyle interest discovery" is vague and undefined.

a. On its website, Pinterest describes itself as "a visual discovery engine for finding ideas like recipes, home and style inspiration, and more." PX0653, *All about Pinterest*, Pinterest Help Ctr., https://help.pinterest.com/en/guide/all-about-pinterest (last visited May 20, 2024); *see also* PX6108, Coleman (Pinterest) Dep. Tr., at 141:1-4 (referring to Pinterest as "a visual discovery engine").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1258. Further disputed because the quoted language is incomplete. Pinterest's website also states that "[s]ometimes you'll find a Pin that you know a friend will love" and explains that you can "send Pins directly to a friend or a group in a message to pass the inspiration around." PX0653 at -003 (Pinterest, *All about Pinterest*). Pinterest also allows users to "use messages to chat with your friends." *Id.*

b. Ms. Roberts testified that "the primary purpose of Pinterest is not to connect with friends and families and -- or their family and see sort of what people are doing in their life, so just what I usually think of more as social network."). PX6082, Roberts (Pinterest) Dep. Tr., at 128:15-129:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1258.

c. Scott Coleman, former head of international and product marketing at Pinterest, testified that Pinterest thinks about itself as "a discover-and-do platform, a place where people could come to the service to find inspiration for an idea. Then they could save those ideas for later, and then the goal was to help them accomplish something in real life." PX6108, Coleman (Pinterest) Dep. Tr., at 23:22-25:16, 130:9-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1258.

d. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1258. Further disputed because the FTC's characterization of Mr. Coleman's testimony is incomplete and misleading. Mr. Coleman testified that Pinterest competes with Instagram across Pinterest's main verticals. *See* Meta SMF ¶ 358 (Mr. Coleman stating that Instagram is "a very strong competitor[ ]" in beauty and shopping use cases (quoting PX6108 at 94:22-95:4

(S. Coleman (Pinterest) Dep. Tr.))); PX6108 at 114:15-115:1 (S. Coleman (Pinterest) Dep. Tr.) (testifying that he viewed Instagram, YouTube, and TikTok as competitors in Pinterest's core verticals); *id.* at 124:13-19 (testifying that Instagram competes with Pinterest for beauty, fashion, and shopping intent).

e. In a 2019 submission [redacted], Pinterest wrote that "Pinterest is not about connecting you to family, friends, celebrities, athletes, or politicians—it is about you. . . . Pinterest is about helping you find the inspiration to live a life you love, and a productivity tool for planning your dreams." PX7034, Pinterest document: [redacted] FTC-PINTEREST-00001366, at -369.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1258. Further disputed because the cited document does not support the statement in paragraph 1258; instead, it offers a high-level response to a question asking for an explanation of the purposes that social networks serve. The same document also states that: "we compete with social networking platforms . . . for the time and attention of users." PX7034 at -369 (FTC-PINTEREST-00001366). Pinterest's corporate representative agreed that "TikTok, Twitter, Snap, Nextdoor, LinkedIn, Facebook, and Instagram, among others" met the definition of a social network. Ex. 45 at 427:21-428:1 (Roberts (Pinterest) Dep. Tr.). Moreover, Pinterest stated in the cited document that it would not classify Instagram or Snapchat as a "personal" social network, but as a "Celebrity/Influencer" social network in the same category as TikTok. PX7034 at

-378 (FTC-PINTEREST-00001366). Pinterest's corporate representative testified that Pinterest agrees with that characterization in the U.S. today. *See* Ex. 45 at 451:3-20 (Roberts (Pinterest) Dep. Tr.).

f. In the same 2019 submission [redacted], Pinterest wrote that "[w]hile Pinterest certainly contains some social elements, our aim is different. For example, you can send Pins, create group boards, and send messages. While communication with others users [sic] may help us fulfill our mission in some instances, it is not the purpose of the service. . . . Pinterest is not about connecting with family, friends, celebrities, athletes, or business acquaintances. It is about delivering inspiration to the user regardless of the source." *Id.* at -371-372.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255, 1258, and subparagraph 1258(e).

g. In a 2019 earnings call, Pinterest co-founder and former CEO Ben Silbermann stated: "People come to Pinterest to focus on themselves their interest and their lives not to keep up with other people or to socialize." PX12606, SA Transcripts, *Pinterest, Inc. (PINS) CEO Ben Silverman* [sic] *on Q1 2019 Results - Earnings Call Transcript*, Seeking Alpha (May 16, 2019), https://seekingalpha.com/article/4264794-pinterest-inc-pins-ceo-ben-silverman-on-q1-2019-results-earnings-call-transcript; *see also* PX6082, Roberts (Pinterest) Dep. Tr., at 255:13-256:12 (testifying that the above quoted language was an accurate description of why people use Pinterest).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1258.

h. Pinterest's purpose "is around bringing users the inspiration to create a life they love," which Pinterest views as distinct from connecting and communicating with friends and family. PX6082, Roberts (Pinterest) Dep. Tr., at 266:15-22.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed to the extent this statement suggests that Pinterest has one purpose, and for the reasons stated above in Meta's responses to paragraphs 1255 and 1258.

1259. Meta recognizes Pinterest has a core use of lifestyle interest discovery, not friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's supposed recognition of Pinterest's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because "lifestyle interest discovery" is vague and undefined.

a. Instagram co-founder Kevin Systrom testified that he did not consider Pinterest to be a competitor to Instagram in April 2012, because "like 99 percent plus of the content posted to Pintrest [sic] is not created by the user that's posted it. It's

reposting content found on the internet typically." PX6027, Systrom (Meta/Instagram) IH Tr., at 156:12-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1259. Further disputed because the FTC's characterization of Mr. Systrom's testimony is incomplete and misleading. Mr. Systrom testified that "[t]here are parts of the Pintrest [sic] behavior that I think compete with Instagram in the sense that, yes, today, Instagram people use it to collect photos of interesting things and put them on inspiration boards." PX6027 at 156:22-157:1 (Systrom IH Tr.).

b. Instagram co-founder Mike Krieger also testified that Instagram did not view Pinterest as competition by April 2012, because Pinterest "felt more like a desktop experience and around consumption and collection rather than producing original content." PX6015, Krieger (Meta/Instagram) IH Tr., at 88:4-13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1259.

c. Meta's Justin Osofsky, former Vice President Global Operations and Chief Operating Officer of Instagram, testified at a 2020 investigational hearing that "the use case on Pinterest was quite different" from Facebook,

> [b]ecause there is a couple of things, at least, that differ. One is if -- if one of the primary things you do on Facebook Blue, to use your phrase, is to connect with friends and family, on Pinterest you could connect with friends, but you also would, I think at the time, follow designers and other people that were quite different. The other thing is the nature

> of what you are sharing on Pinterest would be pretty different. It might be a couch if you're redecorating your living room, where the nature of what you're sharing on Facebook tended to be different.

PX6020, Osofsky (Meta) IH Tr., at 19:11-23, 86:6-87:7.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1259. Further disputed because Mr. Osofsky was describing Pinterest in 2012, when the feature sets of Pinterest, Facebook, and Instagram were more limited. For example, Ms. Roberts testified that [redacted]. *See* Ex. 45 at 308:14-309:2 (Roberts (Pinterest) Dep. Tr.). Further disputed because the cited testimony shows that Pinterest is used for connecting with friends and family. *See* PX6020 at 86:24-25 (Osofsky IH Tr.) ("[O]n Pinterest you could connect with friends").

d. Dan Rose, former Vice President of Business Development and Vice President of Partnerships at Meta, testified that Pinterest is not primarily used to communicate with friends and family. PX6065, Rose (Meta) Dep. Tr., at 28:19-25, 270:24-271:5.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1259. Further disputed because the FTC's characterization of Mr. Rose's testimony is incomplete and misleading. Mr. Rose's full testimony contradicts the FTC's assertion: "Q. Pinterest isn't primarily used to communicate with friends and family, are they? A. I think a lot of how Pinterest is used is for people who are planning weddings, for example,

where they might form a group and – with their friends and family to pin items that they were planning to use. I think it's also used in a broader sense for discovering content from across the internet. But all of these products include social features that allow you to connect with people and share content with people who you know. Q. My questions are about primary use case.· Is your understanding the primary use case of Pinterest is to communicate with friends and family? . . . . A. I mean, in that – if you're using that specific language, I would say primary use case of communicating with friends and family is really specific to messaging apps. I think most social apps have friends and family features as well as public features, and they are all, in most cases, merged together into an application that offers users lots of different choices. Q. And so to go back to my question: Is it your understanding that Pinterest is primarily used to communicate with friends and family? . . . . A. In the definition that I just gave, I would say no." PX6065 at 269:17-271:5 (Rose Dep. Tr.).

e. A 2012 Meta internal document with prepared responses to investor questions observed that "[s]pecific to Instagram, photos has been a core part of sharing on Facebook, it's a core part of our Platform. Pinterest and Path and others are different in that respect, they aren't part of our core experience." PX1204, Meta document: "Top Investor Questions" (May 2, 2012), FB_FTC_CID_01531355, at -357.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1259, and because the cited evidence does not support the assertion in this statement. The question posed was: "How do you

defend against new apps like Pinterest and Instagram that leverage Facebook to quickly grow, but take user time / engagement away from Facebook?" PX1204 at -357 (FB_FTC_CID_01531355). The prepared response is that sharing content from Pinterest and Path was not a core part of Facebook's experience. The cited evidence does not relate to or discuss any uses of Pinterest.

1260. Other parties recognize that Pinterest has a core use of lifestyle interest discovery, not friends and family sharing.

Meta Response: Disputed in part. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that other parties' supposed recognition of Pinterest's "core use" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. Disputed on the ground that "core use" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. While the materials cited below describe attributes of Pinterest, none establishes other parties' view of a "core use of lifestyle interest discovery" as that term is used by the FTC. Further disputed because "lifestyle interest discovery" is vague and undefined.

a. MeWe founder and former CEO Mark Weinstein testified that Pinterest "is more of a marketplace, you know, a creative place. . . . It's not based on a social graph. . . . You know, it's its own sort of unique little niche." PX6110, Weinstein (MeWe) Dep. Tr., at 299:19-300:13; *see also* PX6109, Weinstein (MeWe) Dep. Tr., at 18:20-19:14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to

paragraphs 1255 and 1260. Further disputed because Mr. Weinstein testified that he does not use Pinterest, *see* PX6110 at 299:20-21 (M. Weinstein (MeWe) Dep. Tr.), and because the FTC has defined a social graph to be "the set of connections that users make among each other within a social network," Counter SMF ¶ 1088, and the evidence shows that Pinterest has a social graph. *See* Meta SMF ¶¶ 330-341 (describing Pinterest's features).

b. Twitter Vice President of Products Keith Coleman differentiated Pinterest from Snapchat and Instagram:

> Snapchat is a place to see what your friends are doing, particularly with the focus on sense of like safety, privacy, like only your friends see it. It goes away. Instagram I think is a place to see what your friends are doing. Pinterest is, I don't know, a place to see -- I think it's a place to see like furniture and like pictures of like vacations. So it's really different from the others.

PX6144, Coleman (Twitter) Dep. Tr., at 16:15-16, 72:14-73:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1260.

c. Foursquare co-founder and former CEO (and corporate representative) Dennis Crowley described Pinterest as a "social digital scrapbooking service." PX6068, Crowley (Foursquare) Dep. Tr., at 18:19-21, 20:1-11, 140:9-11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1260.

d. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1260. Further disputed because the quoted testimony is incomplete and misleading. In her testimony, Ms. Yam described Pinterest as a "social network" along with Facebook, Instagram, TikTok, and Snap, and testified that in her personal view, YouTube, Facebook, Instagram, Amazon, Snap, Twitter, and Pinterest compete for users. *See* PX6099 at 34:16-35:10, 57:3-59:3 (Yam (Walmart) Dep. Tr.); Meta SMF ¶ 258.

1261. Consumer surveys further demonstrate users' recognition of Pinterest's of lifestyle discovery, not friends and family sharing.

Meta Response: Disputed. Undisputed that some survey respondents indicated they use Pinterest for interest-based purposes, but other respondents indicated they use Pinterest for friends and family sharing. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the cited consumer surveys are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. Further disputed because "lifestyle discovery" is vague and undefined. Further disputed because survey evidence in the record – to the extent it is relevant – shows that substantial numbers of

people use Pinterest to share with their friends and family. *See* Meta Resp. to Counter SMF ¶ 1261(a).

a. A 2018 survey conducted by Pinterest found that:

> Snapchat, Facebook, and Instagram are the top social apps for following people you know. Pinterest, Twitter, and Medium skew more towards people you do not know. . . . People usually follow people they don't know [on Pinterest] because they are interested in their content: either it matches their taste or its [sic] funny or humorous content.

PX12611 at -008-09, Pinterest document: "What We Know About... Following" (June 2018), FTC-PINTEREST-00000571.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1261. Further disputed because the quotation to the cited document is incomplete. [redacted] of the respondents to the Pinterest survey stated they considered Pinterest to be a social media app – which they defined as having, among other features, the ability to interact with people you know, message people, comment, follow people, and have a profile page. *See* PX12611 at -007 (FTC-PINTEREST-00000571). The document also shows that Pinterest facilitates friends and family sharing, *see id.* at -009 ("Among those who consider Pinterest a social app, messaging, sharing Pins, following, commenting, and posting are what users say make Pinterest social."), and that Pinterest is used for friends and family sharing. *See id.* at -010 ("When it comes to sharing content, Pinners tend to share with people they know well (friends & family)."). The study found that [redacted] of respondents considered Pinterest a place for following "[p]eople I know." *Id.* at -009; *see also id.* at -008 ([redacted] of respondents

selected "I follow all kinds of people and content, but I engage with only people I personally know.").

b. A 2020 survey from eMarketer used in a Pinterest analysis found that [redacted]% of U.S. adult respondents surveyed were using Pinterest for "[i]nspiration for at-home activities" during the Coronavirus pandemic, compared to only [redacted]% using it for "[s]taying connected with family/friends." PX7054 at -016, Pinterest presentation: "Content Relevance Ecosystem" (Apr. 2021), PIN - FTC - 0000076029.

Meta Response: Disputed in part. Undisputed that the cited document includes those percentages next to those categories, but the document does not indicate what question was posed and attributed its source to "News Articles, Blogs, CRISIL FR&A Analysis" and the document also lists [redacted] for "networking" on Pinterest. PX7054 at -016 (PIN - FTC - 0000076029). Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1261.

c. FTC expert Michal Malkiewicz's survey found that 29.2% of respondents wrote in their own answers for their most important reason for using Pinterest, with a "general theme around . . . inspiration and discovery," 27.2% of respondents selected "[t]o enjoy entertainment content," and 26.3% selected "[t]o obtain and/or share news and information about my interests" as their most important reason for using Pinterest , compared to only 2.6% of respondents who selected "[t]o keep up with my friends' and family's lives in one place." PX9006, Malkiewicz Report at ¶ 85, Table 13.

Meta Response: Disputed in part. Undisputed that Mr. Malkiewicz offered the quoted opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1261. Further disputed because Mr. Malkiewicz's survey, by his own admission, "never set out to measure economic substitution." *See* Meta SMF ¶ 652 (quoting Ex. 300 at ¶ 99 (Malkiewicz Rebuttal Rep.)). Further disputed because the survey only asked about the "most important" reason for using an app; it has no bearing on other reasons people use an app. *See* PX9006 at -013 (Malkiewicz Rep.).

1262. There is not a norm of friends and family sharing on Pinterest, and norms on Pinterest are instead focused on discovering lifestyle content.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the "norms" are relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. Disputed on the ground that "norms" is vague and undefined. Further disputed because none of the materials cited in the subparagraphs supports any assertion about the "norms" of Pinterest use.

a. Pinterest co-founder and former CEO Ben Silbermann explained in a 2016 interview that "[s]ocial networks are about communicating with other people. Pinterest is really about planning and getting ideas for your own personal life." PX12605 at -002, Jane Martinson, *Pinterest Chief Ben Silbermann: 'We're Not a Social Network,'* The Guardian (June 12, 2016), https://www.theguardian.com/media/2016/jun/12/pinterest-ben-silbermann-social-network.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is not supported by admissible evidence. *See* Fed. R. Civ. P. 56(c)(1)(B). Further disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1262.

b. Ms. Roberts testified that "if people join Pinterest expecting to see posts of their friends' Hawaiian vacation, like they're going to -- they're just going to be very disappointed in the sort of product experience. And so being able to communicate it as sort of collecting ideas for your own personal taste and planning things for your future is just helpful in sort of getting that across. Since people are more familiar with social networks, it's a helpful contrast." PX6082, Roberts (Pinterest) Dep. Tr., at 252:1-10.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1262.

c. Ms. Roberts testified that "people are not regularly posting content about their own lives" on Pinterest, in contrast to Instagram. PX6083, Roberts (Pinterest) Dep. Tr., at 417:16-418:13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1262. Further disputed that the cited excerpt supports the statement because Ms. Roberts did not testify that people are regularly posting content about their own lives on Instagram.

d. Mr. Coleman testified that "there's not really a concept of, you know, real names. So, like, actually finding your friends would be pretty challenging" on Pinterest. PX6108, Coleman (Pinterest) Dep. Tr., at 158:12-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1262.

e. When asked why Pinterest "emphasize[d] that it is not a social network in communications with Pinners," Mr. Coleman testified that:

> [t]here are a couple of reasons. The first one is, like -- is just that's what we'd hear from people in user research. So when we talked to Pinners or potential Pinners, they would all sort of say something like that. They'd say, you know, 'I get inspiration here. It's about me time. It's, like, not about, like, you know, my friends. I really like that aspect of it. Like, I like the fact that it feels like it's just for me, and I don't have to be, you know, connected to the rest of the world.' So we hear that a lot from users.

PX6108, Coleman (Pinterest) Dep. Tr., at 137:21-138:13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1262.

f. On a 2019 earnings call, Pinterest co-founder and former CEO Ben Silbermann said that the "basic user behavior, people going to Pinterest, getting inspiration to do something in their life, having fun, planning their future and they are going out and trying do that, that's remained really consistent over time and it continues to remain consistent[.]" PX12606, SA Transcripts, *Pinterest, Inc. (PINS) CEO Ben Silverman* [sic] *on Q1 2019 Results - Earnings Call Transcript*, Seeking Alpha

(May 16, 2019), https://seekingalpha.com/article/4264794-pinterest-inc-pins-ceo-ben-silverman-on-q1-2019-results-earnings-call-transcript.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1262.

1263. Pinterest does not track "reciprocal follows" in the ordinary course of business because "we don't really have the concept -- a reciprocal follow, I think, is -- maybe approximates a friend relationship on some other services, which is just something we don't feel like is core to the business." PX6082, Roberts (Pinterest) Dep. Tr., at 286:2-19.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including because the FTC provides no evidence [redacted] relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255.

1264. [redacted]

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence [redacted] relevant to substitution,

and for the reasons stated above in Meta's response to paragraph 1255. Further disputed because the cited material does not support the assertion. [redacted]

Further disputed for the reasons stated above in Meta's response to paragraph 1255.

(b) Pinterest lacks functionality to foster and facilitate friends and family sharing.

1265. Pinterest lacks functionality to foster and facilitate friends and family sharing. *Infra* CMF at ¶¶ 1266-73.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that what it describes as "functionality to foster and facilitate friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1266-1273, Meta incorporates its responses to those statements

here. None of the statements in those paragraphs state that Pinterest lacks any particular functionality. Further disputed because "foster" and "facilitate" are vague and undefined.

1266. Pinterest has a graph, but it is centered on users' interests, not friends and family.

Meta Response: Disputed in part. Undisputed that Pinterest has a graph. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of a graph centered on interests is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. Further disputed because the materials cited in the subparagraphs below do not support the assertion that Pinterest lacks a social graph. The FTC defines a "social graph" as "the set of connections that users make among each other within a social network." Counter SMF ¶ 1088. The evidence shows that Pinterest has a social graph as the FTC defines it, as users can search accounts and follow them. *See* Meta SMF ¶¶ 330-341 (describing Pinterest's functionality); Meta Resp. to Counter SMF ¶ 1255 (describing Pinterest functionality, including its social graph). Additionally, to the extent relevant, even the documents the FTC cites, indicate that [redacted] of respondents indicated that they follow people they know on Pinterest, [redacted]. *See* PX12611 at -009 (FTC-PINTEREST-00000571).

a. Pinterest former Head of Growth & International Product Scott Coleman testified that "Pinterest doesn't know who your friends are," and that there's no social graph on Pinterest. PX6108, Coleman (Pinterest) Dep. Tr., at 158:2-6; PX14484 at -002, *Scott Coleman – Adviser – Omaze*, LinkedIn, https://www.linkedin.com/in/wscoleman.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1266. Further disputed on the ground that the statement is incomplete and misleading. Mr. Coleman testified, "Pinterest doesn't know who your friends are, and so, you know, as I said, like, you don't – maybe we do now." PX6108 at 158:2-4 (S. Coleman (Pinterest) Dep. Tr.).

b. Pinterest Product Lead for Growth and corporate representative Julia Roberts testified that Pinterest principally relies on a user's "taste graph" rather than their social graph, and that she "d[idn't] actually think we have like a proper social graph." PX6082, Roberts (Pinterest) Dep. Tr., at 243:1-244:10 (explaining the term "taste graph" at Pinterest is "how we have spoken about externally our understanding of how users' interests might connect with sort of -- not connect with -- like how different interests overlap and how different content might be related and interesting for a specific user[,]" and that "a taste graph is interests. A social graph is -- I believe it's usually people."); *id.* at 16:20-22; *see also* PX6108, Coleman (Pinterest) Dep. Tr., at 142:10-13 (testifying that "we used the term 'taste graph' in reference to Pinterest").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1266.

c. In a 2018 email, former Head of Facebook at Meta Fidji Simo wrote that "Google, Amazon, Twitter, and to a much less threatening extent Pinterest are all on a race to get the best interest graph." PX11974, Meta email chain: F. Simo to M.

Zuckerberg et al. re: "Follow-up," (Sept. 26, 2018), FB_FTC_CID_05998071, at -072.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1266. Further disputed because the FTC's characterization of the document is incomplete and misleading. The cited document shows that Instagram competes with Pinterest, Google, Amazon, and Twitter for viewing and sharing interest-based content. Following the language quoted in the FTC's statement, Ms. Simo wrote: "IG has the chance to own the interest graph that is based on visual interests, which should represent the majority of interests over time if not already." PX11974 at -072 (FB_FTC_CID_05998071).

d. TikTok's President of Global Business Solutions, Blake Chandlee testified that Pinterest has a content or interest-based graph. PX6160, Chandlee (TikTok) Dep. Tr., at 8:11-12, 62:12-18.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1266.

1267. Pinterest primarily has tools to connect users to their interests, not friends and family.

Meta Response: Disputed in part. Undisputed that Pinterest has tools that enable users to connect to their interests, among other things. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the supposed design of Pinterest's "tools to connect" is relevant to substitution, and for the reasons stated above in Meta's response

to paragraph 1255. The material cited in the subparagraphs below does not support the assertion that Pinterest does not provide tools to connect with friends and family. In fact, unlike Snapchat – which the FTC asserts provides PSNS – Pinterest's social graph is traversable. *See* Meta Resp. to Counter SMF ¶ 1056; Ex. 281 at 320:3-5 (Lampe Dep. Tr.) ("Q. And would you agree that Snapchat does not have public displays of connections? A. It does not"). Further disputed because "primarily" is vague and undefined.

a. Pinterest former Head of Growth & International Product Scott Coleman testified that "[i]t'd be very, very hard to find all of your friends on Pinterest and build that type of, like, following and published network," and that "there's not a lot of features built that are around -- that know the relationships between people." PX6108, Coleman (Pinterest) Dep. Tr., at 157:16-158:17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1267.

b. During the new user signup process, Pinterest does not ask users to link their phone's address books nor prompt users to find their Facebook friends through Facebook's Find Friends API, but does ask users to identify their interests, because "the most critical piece of onboarding [is] to try to solve the . . . problem of finding content that users might be interested in." PX6082, Roberts (Pinterest) Dep. Tr., at 230:19-231:18.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in

Meta's responses to paragraphs 1255 and 1267. Further disputed because users can import their mobile contact list to find other accounts to follow on Pinterest, and they can search for their friends or other accounts to follow. *See* Meta SMF ¶ 333.

c. Pinterest's new user experience does not prompt users to identify people to follow on Pinterest, because following people is "not really a critical part of the app . . . onboarding is designed to sort of collect the critical parts of the pieces of information we need to sort of get your account set up and make you successful on Pinterest, and like following people is just not part of that." PX6082, Roberts (Pinterest) Dep. Tr., at 231:19-232:15.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1267.

d. Searching for other users via Pinterest's search function "is not a very common action on Pinterest." PX6082, Roberts (Pinterest) Dep. Tr., at 32:3-33:13.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1267.

1268. Pinterest's activity stream is focused on users' interests, not friends and family.

Meta Response: Disputed in part. Undisputed that Pinterest's activity stream displays content related to a user's interests. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the content on Pinterest's activity stream is relevant to

substitution, and for the reasons stated above in Meta's response to paragraph 1255. Further disputed because time spent on Facebook and Instagram also largely comprises consuming content posted by accounts users do not follow and that do not follow them, which the FTC characterizes as PSNS. *See* Meta SMF ¶¶ 11-12, 56-57. In January 2023, [redacted] of time spent on Facebook was not associated with content from "friends." *See id.* at ¶ 11 (citing Ex. 2 at ¶ 69 & p. 68, tbl. 10 (Carlton Rep.)). Similarly, [redacted] of time spent on Instagram in February 2023 was not associated with content from "friends." *See id.* at ¶ 56 (citing Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). Further disputed that Pinterest's Feed also includes content posted by a user's friends and family and other individuals they follow. *See* Meta SMF ¶¶ 331, 333, 336-338. Further disputed on the ground that the term "focused on" is vague and undefined.

a. Pinterest Product Lead for Growth and corporate representative Julia Roberts, when asked how Pinterest determines what pins to display to a user in the home feed, testified that "broadly speaking, we are trying to show users pins that are related to their interests and that they are likely to engage with[.]" PX6082, Roberts (Pinterest) Dep. Tr., at 242:10-19.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1268. Further disputed because Pinterest's Feed also includes content posted by user's friends and family and other individuals they follow. *See* Meta SMF ¶¶ 333, 338.

b. Ms. Roberts testified that "[t]here could be some pins in the home feed that are related to users or creators that you follow, but it's not a -- not a very large portion

of what a user would see in their home feed." PX6082, Roberts (Pinterest) Dep. Tr., at 29:6-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1268.

c. Pinterest uses the interests users select during the signup process "to populate their home feed to personalize the app." PX6082, Roberts (Pinterest) Dep. Tr., at 231:16-18.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1268.

d. A 2018 Meta internal document collecting weekly updates noted that Pinterest was an "interest-based feed[]." PX3471, Meta document: "MS Weekly Updates Archived 10/17/2018" (Oct. 17, 2018), FB_FTC_CID_11234620, at 740.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1268.

e. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1268.

1269. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that having "[f]ollowing other users" as a "core part" of the user experience is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255. Disputed on the ground that "core" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because Pinterest's corporate representative testified that seeing pins from people they follow is an "important part of the Pinterest experience" to some users, [redacted] *See* Ex. 45 at 118:5-120:14 (Roberts (Pinterest) Dep. Tr.).

a. [redacted]

Meta Response: Undisputed.

b. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1269. Further disputed because

"follower-based content" is vague and undefined. Mr. Coleman's testimony relates to Pinterest's efforts to promote content made by creators; his testimony has no bearing on whether Pinterest's users follow users for other reasons, such as to keep up with friends and family. *See* PX6108 at 186:1-11 (S. Coleman (Pinterest) Dep. Tr.) ([redacted]). Further disputed because the quoted testimony is incomplete and misleading. [redacted]

[redacted] *Id.* at 191:10-22.

c. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony, except the phrase "user behavior" should read "Pinner behavior." Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1269 and subparagraph 1269(b).

d. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1269.

1270. Pinterest's "group boards" are not widely used nor used for friends and family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the frequency of use of "group boards" is relevant to

substitution, and for the reasons stated above in Meta's response to paragraph 1255. Further disputed because the materials cited in the subparagraphs below do not support the assertion that group boards are not also used for friends and family sharing. On the contrary, when asked if the "primary purpose" of group boards is to "collaborate with your friends and family over ideas and plans," Ms. Roberts testified, "I think that's fair." Meta SMF ¶ 340 (quoting Ex. 45 at 39:22-40:4 (Roberts (Pinterest) Dep. Tr.)). Further disputed because "widely" is vague and undefined.

a. "A group board is, you know, similar to the boards we were talking about before where you can add a collaborator, where you can both save ideas to that board. It's common for people who are sort of planning something together, maybe like planning a wedding, planning a kitchen remodel, et cetera." PX6082, Roberts (Pinterest) Dep. Tr., at 37:12-22.

Meta Response: Undisputed.

b. Group boards are not "primarily . . . a social space" and "the primary purpose is not to socialize." PX6082, Roberts (Pinterest) Dep. Tr., at 37:16-39:21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1270. Further disputed because the FTC's characterization of Ms. Robert's testimony is incomplete and misleading. Ms. Roberts qualified her statement that "the primary purpose is not to . . . socialize" by stating that "[i]t depends on maybe what you mean by 'social.'" PX6082 at 39:16-21 (Roberts (Pinterest) Dep. Tr.). When asked if the "primary purpose" of group boards is to "collaborate with your friends and family over ideas and plans," Ms. Roberts

testified, "I think that's fair." Meta SMF ¶ 340 (quoting PX6082 at 39:22-40:4 (Roberts (Pinterest) Dep. Tr.)).

c. [redacted]

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1270.

d. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1255 and 1270. Further disputed because the FTC's characterization of Ms. Roberts's testimony is incomplete and misleading. Ms. Robert's testified that Pinterest "think[s] that group boards and collaborative boards is – can be like a really helpful tool in sort of collaborating and planning with others on Pinterest." PX6082 at 308:8-11 (Roberts (Pinterest) Dep. Tr.). Ms. Roberts also testified that [redacted] *Id.* at 308:19-309:2.

1271. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1255.

1272. Users do not need an account to use Pinterest. *See, e.g.*, PX0669, Mandy Carr, *How to Search Pinterest Without Actually Logging In*, ScreenRant, https://screenrant.com/search-pinterest-without-logging-in-how/ (last updated May 2, 2023); PX6082, Roberts (Pinterest) Dep. Tr., at 18:8-14 (noting Pinterest's "guest experience . . . for users without a Pinterest account").

Meta Response: Disputed in part. Undisputed that users can access some portions of Pinterest's functionality without using an account. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including because the FTC provides no evidence that the need for an account is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1255.

1273. Users wishing to replicate their social networking experience on Facebook or Instagram would not be able to do so on Pinterest. PX6083, Roberts (Pinterest) Dep. Tr., at 417:15-418:13 ("Q. Sure. If an Instagram user wanted to replicate her social networking experience on Instagram on another application, would she be able to do that on Pinterest? A. I don't think -- yeah, no. Q. Okay. Why not? A. A few different reasons. The first would be, I think, on Instagram there's an expectation that you will see content from people you follow in your feed maybe exclusively, but at least primarily that wouldn't happen on Pinterest. People are not regularly posting content about their own lives, and so it's sort of content -- I think you'd have to -- I think like an intentional pact with all of the people that you wanted to to try to get them to post that content and have

to go explicitly seek it out by going to their profile page or something like that if you wanted to regularly consume the content that they were posting.”).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that the ability to “replicate” a “social networking experience” is relevant to substitution, and for the reasons stated above in Meta’s response to paragraph 1255. Disputed on the ground that “social networking experience” is vague and undefined. Further disputed because the cited evidence does not support the assertion. On the contrary, when asked whether “an Instagram user who uses that platform to connect with friends and family be able to replicate that experience on Pinterest,” Mr. Coleman answered: “I think certain parts of it, yes,” and that “there’s pieces of that discovery experience that could be replicated.” Ex. 50 at 155:12-156:4 (Coleman (Pinterest) Dep. Tr.).

d) Mobile messaging apps are not reasonable substitutes for PSN services.

1274. Mobile messaging apps are ways of communicating with friends and family (*see, e.g.*, PX6127, Zuckerberg (Meta) Dep. Tr., at 32:6-16), but mobile messaging apps are used for one-to-one and one-to-few communications, which differ from the use case of PSN apps of maintaining relationships through creation of social network connections and communal sharing in a shared social space. *Infra* CMF at ¶¶ 1275-94.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact because the FTC proffers no evidence to support the assertion that what the FTC calls “mobile messaging apps” (hereinafter “messaging apps”) are not reasonable substitutes for Facebook and Instagram. The FTC defines “PSN apps” to include all activities in which users engage on apps that the FTC includes in the alleged PSNS

market, including sending messages on Facebook and Facebook Chat and Instagram Direct. *See* Meta SMF ¶¶ 580-584. Equivalent activities are available on messaging apps. *See id.* at ¶¶ 420-437. Mobile messaging exists on Instagram Direct, Facebook Chat, Messenger, WhatsApp, Snapchat, TikTok, Twitter, LinkedIn, [redacted], Pinterest, iMessage, Discord, among other apps. *See id.* at ¶¶ 79, 93, 115, 237, 300, 341, 423, [redacted], 437; Ex. 69 at 149:11-16 (Pattabiraman (LinkedIn) Dep. Tr.); [redacted]. "[O]ne-to-one and one-to-few communications" account for significant uses of alleged PSN applications. *See*, *e.g.*, Meta SMF ¶ 440 (Mr. Mosseri testifying that Instagram is "more of a messaging app than a broadcast-sharing app at this point" (quoting Ex. 143 at 206:2-4 (Mosseri Dep. Tr.))); *see id.* at ¶¶ 492-493 (and FTC responses) ([redacted] the time spent on Snapchat is spent on the "Chat" feature, which allows users to send one-to-one or group messages (citing Ex. 98 at 112:20-113:14 (MetaFTC-Klein-DX-390, SNAP – FTC – No. 191-0134 – 0000116009) and quoting Ex. 96 at 112:20-113:14 (Andreou (Snap) Dep. Tr.))), [redacted] (FTC's proffered expert, Professor Lampe, opining that [redacted] (quoting Ex. 290 at ¶ 182 (Lampe Rep.))).

The assertion that there is a distinct category of apps that provide "PSN services" is refuted because all available empirical evidence of substitution shows that non-PSN apps like YouTube and TikTok are a closer substitute for Facebook and Instagram than Snapchat, which the FTC asserts is a PSN app. *See* Meta SMF ¶¶ 562-565 (quoting Ex. 2 at ¶ 29 & p. 34, tbl. 1 (Carlton Rep.)). Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and

messaging apps. *See id.* Messaging apps the FTC excludes from its PSNS market [redacted]. *E.g.*, *id.* at [redacted]. And Meta's documents and testimony also show that Meta views messaging apps the FTC excludes from its PSNS market as significant competitors to Facebook and Instagram. *E.g.*, *id*. at ¶¶ 439-447 (iMessage, Google Messages, and others).

Further disputed because apps that the FTC characterizes as messaging apps offer features that enable users to share content with friends and family. *See id.* at ¶¶ 423-437. As the statement concedes, and the cited testimony supports, "telephones and messaging" is an example of "different ways to share with [users'] friends and family." PX6127 at 32:6-16 (Zuckerberg Dep. Tr.); *see also* [redacted]. And users in fact use messaging apps to share content with friends and family. *See* Meta SMF ¶¶ 430, 651. And undisputed evidence also shows that messaging apps are used for one-to-many communications or group conversations. *See*, *e.g.*, *id.* at ¶¶ 111-112 (Messenger community chats), ¶¶ 116, 120, 125 (WhatsApp supports group chats with 1,024 members, and has broadcast lists and channels), ¶ 426 (Apple's Messages app supports "communicat[ions] with up to 32 other people in a single conversation" (quoting Ex. 82 at 65:6-14 (Shah (Apple) Dep. Tr.))), ¶¶ 436 (Google Hangouts originally supported "message groups of up to 50 users" and expanded it to groups up "to 150 users" (quoting Ex. 19 at 32:4-19, 55:21-56:6 (Leske (Alphabet) Dep. Tr.))).

Further disputed because the statement is conclusory and asserts an improper legal conclusion that the only "reasonable substitutes" for "PSN apps" are those with "social network connections and communal sharing in a shared social space." Further disputed on the ground that "core use" and "PSN apps" are vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. This paragraph cites no specific evidence in support of that fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1275-1294, Meta incorporates its responses to those statements here.

1275. Examples of mobile messaging apps include iMessage, Facebook Messenger, and WhatsApp. *See, e.g.*, PX3180, Meta document: "Case COMP M 7217 Form CO" (Aug. 29, 2014), FB_FTC_CID_00004312, at -387, -414 (identifying Facebook Messenger, WhatsApp, and Apple (FaceTime/iMessage) as "consumer communications apps," for which the "core use case . . . is one-to-one communications").

Meta Response: Undisputed. Undisputed that iMessage, Facebook Messenger, and WhatsApp offer mobile messaging, among other features. Other apps that offer mobile messaging include Instagram Direct, Facebook Chat, [redacted], TikTok, [redacted], [redacted], among other apps. *See* Meta Resp. to Counter SMF ¶ 1274.

1276. Professor Hemphill concluded that "mobile messaging apps are not reasonable substitutes for personal social networking apps." PX9000, Hemphill Report at ¶ 589; *see generally id.* at § 3.2.2.5.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that Professor Hemphill's conclusory opinion creates a genuine dispute of material fact. Further disputed because the FTC has defined "PSN apps" to include all activities in which users engage on apps that the FTC includes in the alleged PSNS market, including sending messages on Facebook Chat and Instagram Direct. *See* Meta SMF ¶¶ 580-584. Messaging apps compete with PSN apps for messaging and sharing with friends and family. *See id.* at ¶¶ 439-456; *see also* Counter SMF ¶ 1274 ("Mobile messaging apps are ways of communicating with friends and family"); Meta Resp. to Counter SMF ¶ 1274.

Further disputed that the statement creates a genuine dispute of material fact regarding competition between Facebook, Instagram, and messaging apps. Evidence from Meta [redacted]. *See* Meta SMF ¶¶ 439-447 (Meta executives and documents discussing competition with messaging apps), [redacted]. For example, Mr. Zuckerberg testified that "a lot of, you know, what [the FTC is] calling friends sharing has actually shifted to messaging apps." Meta SMF ¶ 439 (quoting Ex. 142 at 18:3-9 (Zuckerberg Dep. Tr.)). He also noted that, "iMessage and text messaging are big competitors" to Facebook. *Id.* Similarly, Adam Mosseri testified that "[redacted]." *Id.* at ¶ 440 (quoting Ex. 143 at 203:15-18 (Mosseri Dep. Tr.)). Professor Ghose surveyed Meta internal documents and testimony and found that Meta frequently recognized apps offering messaging features as competing with Facebook and Instagram. *See* Ex. 1 at ¶¶ 94-95 (Ghose Rep.). And, in a

strategy document titled [redacted] Apple identified as one of the [redacted]

[redacted]

Ex. 79 at -078 (APL-FTCMETA_00016037). Other entities or applications that offer messaging, such as Google, [redacted], indicated that they view applications like Snapchat and Instagram as competitors. *See* Meta SMF [redacted]. Professor Hemphill conceded "that to communicate with real world friends or real world family under particular circumstances messaging is an alternative to which they might turn." Ex. 283 at 109:20-110:1 (Hemphill Dep. Tr.). Professor Lampe conceded that messaging can be used as an alternative to Facebook and Instagram to communicate and maintain relationships with close friends. *See* Meta SMF ¶¶ 458-459 (When asked if "messaging applications are also a substitute communication channel for communicating with close friends," Professor Lampe testified, "[m]essaging along with other apps can be used for maintaining relationships with close friends, yes." (quoting Ex. 281 at 57:17-58:7 (Lampe Dep. Tr.))).

Further, messaging apps have features that are similar to Instagram and Facebook and facilitate friends and family sharing, as the FTC uses the term, including a social graph, shared social space, and "social features." Counter SMF ¶ 1274 ("Mobile messaging apps are ways of communicating with friends and family"). For example, all mobile phones contain a contact list. Professor Hemphill testified that iMessage's "network of connections" includes "nodes and connections and these are people that you know in the real world," and he "suppose[s] it could be a social graph of a kind." Meta SMF ¶ 431 (quoting Ex. 283 at 97:22-98:15 (Hemphill Dep. Tr.)). He also testified that posts in a group on iMessage have "aspects I think of a shared social space there."

Ex. 283 at 99:2-3 (Hemphill Dep. Tr.). Users can send text, "photos, videos, attachments, documents, [and] links." Meta SMF ¶ 426 (quoting Ex. 82 at 65:6-14 (Shah (Apple) Dep. Tr.)). Messaging apps have added "likes," stickers, and other embellishments. *Id.* at ¶ 427. And users can engage in broadcast or group conversations. *Id.* at ¶¶ 111-112 (Messenger community chats), ¶¶ 116, 120, 125 (WhatsApp supports group chats with 1,024 members, and has broadcast lists and channels), ¶ 426 (Apple's Messages app supports "communicat[ions] with up to 32 other people in a single conversation"), ¶ 436 (Google Hangouts originally supported "message groups of up to 50 users" and expanded it to groups up "to 150 users").

There is also evidence that messaging app users in fact use messaging to share with family and friends. A witness from Apple testified that the "core use case" of iMessage was "to allow users to communicate with the people that are in their life that they know." *Id.* at ¶ 430 (quoting Ex. 82 at 13:22-14:2, 175:8-16 (Shah (Apple) Dep. Tr.)). And, to the extent relevant, at least a quarter of respondents to a survey commissioned by the FTC identified as their "most important" reason for using WhatsApp, Facebook Messenger, and text messaging (all outside the FTC's PSNS market) "[t]o keep up with my friends' and family's lives." Meta SMF ¶ 651 (quoting Ex. 299 at ¶¶ 53, 91 & pp. 56-59, tbls. 16-18 (Malkiewicz Rep.)). Further disputed because the statement is conclusory and asserts an improper legal conclusion regarding "reasonable substitutes" for "PSN apps." The cited paragraphs in Hemphill's Report do not cite any evidence to support the quoted language.

1277. Professor Lampe opined that "mobile messengers are not designed or used, and do not have norms consistent with personal social networking." PX9004, Lampe Report, at ¶ 270; *see generally id.* at § VI.

Meta Response: Disputed in part. Undisputed that Professor Lampe offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including because the FTC provides no evidence that Professor Lampe's characterization of messaging apps "design" and "norms" are relevant to substitution, and for the reasons stated above in response to paragraph 1276. Professor Lampe makes no claim that his opinion is relevant to whether apps are reasonable substitutes from an economic point of view. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 47:20-48:13, 49:3-15, 160:8-17, 163:4-10 (Lampe Dep. Tr.)).

(1) Mobile messaging apps lack a core use of friends and family sharing.

1278. Meta recognizes mobile messaging apps are not social networking apps, and that the two services are "not substitutes."

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's supposed recognition of messaging apps as "not social networking apps" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276. Disputed on the ground that "social networking apps" is vague and undefined.

Further disputed because the material cited in the subparagraphs below does not support the assertion that messaging apps are not also used for friends and family sharing. *See id.*

a. In a 2014 written response to questions from the European Commission regarding its acquisition of WhatsApp, Meta stated "a social networking service is not a substitute for a consumer communications service (or vice versa)." PX3002, Meta document: "Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (Aug. 6, 2014), FB_FTC_CID_00005242 at -243.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1278. Further disputed because the cited document was a response to questions from the European Commission in 2014. A decade later, there is extensive evidence that Facebook and Instagram compete with apps that offer messaging, such as iMessage for the reasons stated above in Meta's response to paragraph 1276.

b. In a 2014 written response to questions from the European Commission regarding its acquisition of WhatsApp, Meta recognized WhatsApp is not a social networking service. PX3002, Meta document: "Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (Aug. 6, 2014), FB_FTC_CID_00005242 at -245.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's responses to paragraph 1278 and subparagraph 1278(a).

c. A 2018 Meta presentation classified WhatsApp and Messenger as messaging apps, while Facebook and Instagram were separately classified as social apps.

PX3183 at -024, Meta presentation: "Market Strategy Updates for CPS Leadership" (Nov. 29, 2018), FB_FTC_CID_04956896.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 1278.

d. Chris Daniels, former Vice President of WhatsApp at Meta, affirmed during deposition testimony that WhatsApp is a messaging app, contrasting it with Facebook, a social network. PX6043, Daniels (Meta) Dep. Tr., at 51:3-15 (confirming title), 158:6-15 ("I mean, WhatsApp and Facebook are, like, very different things. So what -- like, Facebook is a social network where people are posting all sorts of content that they want their friends and potentially as many people as possible to see. And WhatsApp is a messaging app.").

Meta Response: Disputed in part. Undisputed that Mr. Daniels provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1278. Further disputed because the testimony is incomplete and misleading. Mr. Daniels also testified that: "By the time I left [in 2019], I think the list of companies that you could call competitors to Facebook would be pretty long. It would be almost any application or site that's sharing user-generated information. So it could be companies like LINE, or Telegram, or Signal, which happen to be messaging apps. It could be apps like YouTube where people are sharing videos, TikTok and Snapchat and BeReal and other kind of more social networks, even someplace like Quora where people are asking and answering questions." PX6043 at 192:15-25 (Daniels Dep. Tr.).

e. Javier Olivan, Meta's COO, testified in a 2020 investigational hearing that WhatsApp and Messenger were mobile messaging services. PX6017, Olivan (Meta) IH Tr., at 206:8-18 ("Q: Okay. So, we have been talking about mobile – I guess WhatsApp and Facebook Messenger, are they both mobile messaging apps? A: Yes, I would describe both as mobile messaging services, I think."); "Q. In June 2022 you became chief operating officer at Meta; is that right? A. Yes." PX6076, Olivan (Meta) Dep. Tr., at 63:8-10 (confirming Mr. Olivan's role as COO).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1278.

f. A 2019 Meta research summary on iMessage observed that iMessage is "not social media sharing." PX3181, Meta document: "iMessage research summary" (Feb. 7, 2019), FB_FTC_CID_00054291, at -292.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1278. Disputed that this observation was Meta's observation because the document appears to be summarizing "[k]ey differentiators" by "those who report using iMessage." PX3181 at -292 (FB_FTC_CID_00054291).

g. A 2018 Meta document distinguished between "mainly-messaging apps (such as WhatsApp, Messenger, iMessage, SMS, etc.)," and "mainly broadcast-apps (such as Facebook, Instagram, Snapchat, etc.)." PX1182, Meta document: "Possible

End States for the Family of Apps" (Oct. 9, 2018), FB_FTC_CID_02444215, at 220.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1278. Disputed because the description of the document is incomplete and misleading. The full sentence makes clear that both of these groupings are subcategories of "5 different social apps." PX1182 at -220 (FB_FTC_CID_02444215).

h. Meta conducts [redacted], separate from Meta's [redacted]. PX12990, Meta email chain: [redacted] to A. Schultz, et al. re: "[action items and notes] Results of H1-2021 FoA preference survey," (June 12, 2021), FTC-META-010851205 at -208 ("[redacted]").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1278. Further disputed because Meta's use of [redacted] does not support the assertion that "mobile messaging apps" and "social networking apps" are not substitutes.

1279. In 2018, Mark Zuckerberg forwarded to colleagues a summary of issues he had previously sent to Meta's board of directors, stating that "[t]here are many countries where WhatsApp is the leading messaging service, and Facebook is the leading social network." PX15115, Meta email: from M. Zuckerberg to C. Cox, et al. re: "Messaging summary," (Feb. 14, 2019), FB_FTC_CID_05991890, at -890.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1276 and 1278.

1280. Other firms recognize that mobile messaging apps are not social networking apps.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that other parties' supposed recognition of messaging apps as "not social networking apps" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276. Disputed on the ground that "social networking apps" is vague and undefined. Further disputed because the material cited in the subparagraphs below does not support the assertion that messaging apps are not also used for friends and family sharing.

a. Ronak Shah, Apple's director of product marketing for Internet technologies and user privacy (and Apple's corporate representative), testified that Apple's iMessage does not offer a personal social networking service. PX6106, Shah (Apple) Dep. Tr., at 13:22-14:2, 227:17-20.

Meta Response: Disputed in part. Undisputed that Mr. Shah provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1280. Further disputed because the testimony is incomplete. Mr. Shah was also asked whether "personal social networking service" is a term he uses in the "ordinary course" of his work at Apple. He replied, "no." Meta SMF ¶ 465 (quoting Ex. 82 at 272:21-273:5 (Shah (Apple) Dep. Tr.). And Mr. Shah also testified that the Messages app can be used to communicate with friends and family, which he described as a "core use case" of Messages. *See* Meta SMF ¶ 430 (quoting Ex. 82 at 175:8-16 (Shah (Apple) Dep. Tr.)).

b. JJ Aguhob, co-founder of Viddy, testified that he didn't consider messaging apps to be social media, but more of a communications platform. PX6159, Aguhob (Viddy) Dep. Tr., at 14:17-19, 137:21-138:9.

Meta Response: Disputed. Disputed that Mr. Aguhob provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1280. This paraphrase is incomplete. Mr. Aguhob was asked whether he was familiar with the term "social networking services"; he replied, "Personal social networking. I understand the description. I've never heard it described that way. To me they're – it's usually described as social media." PX6159 at 137:16-20 (Aguhob (Viddy) Dep. Tr.). He continued: "To me social media companies are

companies like Facebook, like Twitter, like Snapchat, and *I guess, indirectly, messaging apps*." *Id.* at 138:4-7 (emphasis added). After that, he said "But I don't really consider those social media. I consider those more communication platforms." *Id.* at 138:7-9.

c. Jacob Andreou, Snap's corporate representative and Senior Vice President of Growth, outlined how the company analyzes competition through different competitive sets, differing between its communication, social media, and short-form video products. PX6119, Andreou (Snap) Dep. Tr., at 17:7-9, 24:7-25:13; *see also* PX6131, Levenson (Snap) Dep. Tr., at 23:10-24:7 (identifying the same distinction between Snap's "messaging or chat" features, "stories and social networking features," and "short-form video features.").

Meta Response: Disputed in part. Undisputed that Mr. Levenson and Mr. Andreou provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1280. Further disputed because Mr. Levenson also testified that iMessage, WhatsApp, SMS, and other apps the FTC excludes from the PSNS market compete with Snap. *See* Meta SMF ¶ 499 (quoting Ex. 97 at15:7-9, 28:11-29:18 (Levenson (Snap) Dep. Tr.)); Ex. 114 at -.001 (MetaFTC-KleinDX-394, SNAP – FTC – No. 191-0134 – 0000115662) ([redacted]). Mr. Andreou also testified that he defined "social networking services" as "social media services broadly," which

"encompasses everything from one end of the spectrum of communication with friends all the way to the other end of the spectrum, which is more broadcast and entertainment." *Id.* at ¶ 474 (quoting Ex. 96 at 17:7-8, 148:3-21 (Andreou (Snap) Dep. Tr.)).

d. In a 2020 submission to the European Commission, TikTok wrote that while Facebook and Instagram qualified as social networking services, WhatsApp did not, instead writing that "WhatsApp qualifies as an online communications service," and in contrast to social networking services, "the functionalities of consumer communications apps are more limited and are focused on instead on enabling basic communication between users rather than creating a richer experience around users' digital identity." PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (June 12, 2020), TIK-00000001, at -006.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1280. Further disputed that the excerpt or the cited material supports the FTC's alleged PSN market, for the reasons stated above in Meta's response to subparagraph 1018(c).

e. Pinterest wrote in a 2020 submission [redacted] that "WhatsApp sits in a somewhat different space" than social networks. PX7034, Pinterest document: [redacted], FTC-PINTEREST-00001366, at -370.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the document is a 2020 [redacted] because it appears that it is an [redacted] document. *See* PX7034 at -366 (FTC-PINTEREST-00001366) ("[redacted] . . . [redacted]"). Disputed for the reasons stated above in Meta's response to paragraph 1280. Further disputed that the excerpt or the cited material supports the FTC's alleged PSN market, for the reasons stated above in Meta's responses to subparagraphs 1018(d)-(e).

1281. Meta and third parties recognize messaging apps and PSN apps as having different value propositions and serving different types of consumer demand, with messaging apps focused on immediate private communications and PSN services focused on communal sharing and relationship maintenance.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that Meta's and third parties' supposed recognition of an apps "value proposition" and "consumer demand" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276. The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because "immediate private communications," "communal sharing and relationship maintenance," and "different types of consumer demand" are vague and undefined, and none of the materials cited in the subparagraphs discuss or support the assertion that apps that serve "different types of consumer demand" cannot be in the same relevant market as Facebook and Instagram.

Further disputed because the material cited in the subparagraphs below does not support the assertion that messaging apps are not used for friends and family sharing.

Further disputed because the FTC's proffered expert, Professor Lampe, opines that uses of Facebook and Instagram are "extremely heterogeneous" and offer uses other than "personal social networking." Meta SMF ¶¶ 604-605 (quoting Ex. 281 at 165:12-166:4, 166:22-167:8 (Lampe Dep. Tr.)); *see id.* at ¶¶ 606-608 (collecting further testimony from Professor Lampe on those other uses). Professor Lampe also opined that apps the FTC does not classify as PSN services can satisfy the same uses as Facebook and Instagram. *See id.* at ¶ 612. The evidence shows that "one-to-one and one-to-few communications" account for significant uses of alleged PSN applications. *See*, *e.g.*, *id.* at ¶ 440 (Mr. Mosseri testifying that Instagram is "more of a messaging app than a broadcast-sharing app at this point." (quoting Ex. 143 at 206:2-4 (Mosseri Dep. Tr.)); *see id.* at ¶¶ 492-493 (undisputed that [redacted] of the time spent on Snapchat is on the "Chat" feature, which allows users to send one-to-one or group messages (citing Ex. 98 at 112:20-113:14 (MetaFTC-Klein-DX-390, SNAP – FTC – No. 191-0134 – 0000116009) and quoting Ex. 96 at 112:20-113:14 (Andreou (Snap) Dep. Tr.))), [redacted] (FTC proffered expert, Professor Lampe, opining that [redacted] (quoting Ex. 290 at ¶ 182 (Lampe Rep.))). Likewise, the FTC's proffered expert, Professor Hemphill, acknowledged that users can use apps the FTC does not classify as PSN services to connect and share with friends and family, and can use Facebook and Instagram to engage in activities other than connecting with friends and family that are offered on other services. *See id.* at ¶¶ 627-628.

a. In a 2014 written response to questions from the European Commission regarding its acquisition of WhatsApp, Meta wrote that users of consumer communications services have different uses than users do for social networking services. PX3002, Meta document: "Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (Aug. 6, 2014), FB_FTC_CID_00005242 at -243-244 ("Users of consumer communications services want to exchange urgent messages with a single recipient or a small group of their inner circle. By contrast, users of social networks post pictures or links to their walls, comment on or 'like' other user's activities, follow their friends' feeds or streams, play games, hone their profiles, explore other users' networks (i.e., through visible 'friend lists'), friend or unfriend other users, engage in polls, etc.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1281. Further disputed because the cited document was a response to questions from the European Commission in 2014. A decade later, there is extensive evidence that Facebook and Instagram compete with apps that offer messaging, such as iMessage, for the reasons stated above in Meta's response to paragraph 1276. *See also*, *e.g.*, Meta SMF ¶ 440 (Mr. Mosseri testifying that Instagram is "more of a messaging app than a broadcast-sharing app at this point." (quoting Ex. 143 at 206:2-4 (Mosseri Dep. Tr.))). Further disputed because there is extensive evidence in the record that since 2014, Facebook and Instagram users have shifted from broadcast sharing to sharing in messaging apps. *See* Meta SMF

¶¶ 440-442; *see also id.* at ¶ 451 (recognition by Google of shift from broadcast to private sharing).

b. In a 2014 written response to questions from the European Commission regarding Meta's acquisition of WhatsApp, Meta recognized that although social networking services include communications functionality, the functionality is used differently than the same functionality provided by a standalone consumer communications service. PX3002, Meta document: "Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (Aug. 6, 2014), FB_FTC_CID_00005242, at -244. ("Moreover, while services with social features can include communications functionality (see further Q2 below), this functionality is generally used differently to that provided by stand-alone communications services. For example, users commenting on a post cannot direct their message to a particular user and then continue to engage in a dialog with that user, they know that their comments may be addressed by commenters other than the poster of the original material, and they do not expect a real-time response.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1281 and subparagraph 1281(a).

c. Matthew Leske, former head of Google Chat, testified that Google Hangouts, a chat messaging app, and Google+ served different "fundamental value propositions." PX6101, Leske (Google) Dep. Tr., at 27:7-11, 37:12-40:19.

Meta Response: Disputed in part. Undisputed that the witness testified that for an "end user for Hangouts was the ability to message specific people" and that

Google+ served multiple "fundamental value proposition[s]" including "build communities, which you could share information, you could have events." *See* PX6101 at 37:12-40:19 (Leske (Google) Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 1281.

d. A 2019 Pinterest document observed that messaging apps focus on "direct, real-time communication between or among users rather than asynchronous sharing of information, media, and entertainment among pre-defined connections." PX7034, Pinterest document: [redacted] FTC-PINTEREST-00001366, at -370-371.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1281. Disputed that the quoted language was used to describe messaging apps in general because the context makes clear that the language was describing WhatsApp in particular.

e. Meta recognized in a 2012 presentation that WhatsApp's SMS-like use case was distinct from the "friend sharing" use case of Facebook. PX1590 at -004, Meta presentation: "Project Cobalt" (July 15, 2012), FB_FTC_CID_05905061 ("Based on our research, the SMS use case that Whatsapp is effectively replacing still is for the time being a more 'main stream' use case than the 'friend sharing' that is typical on Facebook. . . . Exposing the users that are familiar with the SMS use case on Whatsapp to the friend sharing use case in FB could be a way to both grow Facebook even further / enable more people to share with their friends through feeds as opposed to just through messages.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except the quoted language appears at -007. Disputed for the reasons stated above in Meta's response to paragraph 1281. Further disputed because Facebook, Instagram, and messaging apps have evolved since 2012, as stated above in Meta's response to subparagraph 1281(a).

f. Former Meta executive Dan Rose testified that "it turned out to be that the Facebook Blue app was very useful to people for the purpose of scrolling through a news feed and seeing content from lots of different sources including content from public figures or media content, lots of different types of content, format types. And that just turned out to be different than what people were using mobile messaging apps for, which was really a way to communicate in the way that -- before smartphones, people would communicate using SMS." PX6065, Rose (Meta) Dep. at 148:6-148:18.

Meta Response: Disputed in part. Undisputed that Mr. Rose provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1281. Further disputed because the testimony is incomplete. Mr. Rose also testified that "iMessage was one of the most popular apps. With respect to iMessage in particular and first-party apps from Google and Apple more broadly, we certainly viewed those as – we certainly viewed iMessage as one of our biggest competitors." PX6065 at 257:24-258:6 (Rose Dep. Tr.).

1282. People use mobile messaging apps to communicate with other users one-to-one or in small groups.

Meta Response: Disputed in part. Undisputed that people use messaging apps to communicate with users in one-to-one or in small groups and also in large groups. Undisputed evidence also shows that messaging apps are used for one-to-many communications or group conversations. *See*, *e.g.*, Meta SMF ¶¶ 111-112 (Messenger community chats), ¶¶ 116, 120, 125 (WhatsApp supports group chats with 1,024 members, and has broadcast lists and channels), ¶ 426 (Apple's Messages app supports "communicat[ions] with up to 32 other people in a single conversation"), ¶ 436 (Google Hangouts originally supported "message groups of up to 50 users" and expanded it to groups up "to 150 users"). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the ability to communicate with different group sizes is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276.

a. In a 2014 Meta presentation titled "The Social 'Periodic Table' of Sharing," messaging is listed under 1:1 and Group sharing, while Facebook and Instagram are each listed under Friends, Community, and Public forms of sharing. PX2508, Meta presentation: "The Social 'Period Table' of Sharing" (Mar. 26, 2014), FB_FTC_CID_04294019 at, -021.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 1282. Further disputed because Facebook, Instagram, and messaging apps have evolved since 2012, as stated above in Meta's response to subparagraph 1281(a).

b. In a 2014 written response to questions from the European Commission regarding its acquisition of WhatsApp, Meta observed that users of consumer communications services exchange messages "with a single recipient or small group of their inner circle." PX3002, Meta document: "Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (Aug. 6, 2014), FB_FTC_CID_00005242 at -243-244.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1282 and subparagraph 1282(a).

c. After its acquisition of WhatsApp, Meta's Board of Directors discussed how WhatsApp's focus on phone-contacts-based, small group communication complemented Meta's existing "traditional friends-based sharing model." PX3179, Meta document: "Minutes of a Meeting of the Board of Directors of Facebook, Inc." (Feb. 14, 2014), FB_FTC_CID_00002297 at -298.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1282 and subparagraph 1282(a).

d. Stan Chudnovsky, former Vice President of Messenger at Meta, testified that users use iMessage to "send messages to individual[s] or small groups." PX6049, Chudnovsky (Meta) Dep. Tr., at 76:5-12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1282.

e. Ronak Shah, Apple's Senior Director of Platform Product Marketing, testified that the core use case of Apple's Messages app "is to allow users to communicate with the people that are in their life that they know, in . . . relatively small groups of up to 32 people." PX6106, Shah (Apple) Dep. Tr., at 175:8-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1282.

f. Joel Flory, CEO and co-founder of VSCO, observed that users will use different apps depending on whether they are messaging one to one, one to few, or one to many. PX6104, Flory (VSCO) Dep. Tr., at 65:15-20.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1282.

g. WhatsApp co-founder Brian Acton testified that communicating via a back-and-forth communication via over-the-top messaging is different than the exchange of content in a feed because the back-and-forth of a messaging app is a private conversation between two people, whereas comments in a feed is often public and can be responded to all recipients of the content. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 54:1-13.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1282.

1283. People use mobile messaging apps to share privately, rather than to broadcast to their whole set of connections.

Meta Response: Disputed in part. Undisputed that people use messaging apps to communicate privately. Undisputed evidence also shows that messaging apps are used for one-to-many communications or group conversations. *See* Meta Resp. to Counter SMF ¶ 1282. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the ability to share privately is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276.

a. Mark Zuckerberg wrote in a 2013 email to Meta's Board of Directors that "[m]obile messaging means people sending private messages -- like text messages -- rather than posting things more broadly." PX3185, Meta email chain: M. Zuckerberg to P. Thiel, et al. re: "Board Update," (Feb. 11, 2013), FB_FTC_CID_06363061 at -061.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1283.

b. Chris Daniels, former Vice President of WhatsApp at Meta, testified that when he was at Meta, WhatsApp "wasn't meant as a service that was going to publically [sic] broadcast to a very broad public audience." PX6043, Daniels (Meta) Dep. Tr., at 49:19-50:3 (noting WhatsApp "was really about messaging your contacts in your contact list on your phone. So it wasn't meant as a service that was going

to publically [sic] broadcast to a very broad public audience. It was meant to be about private messaging to just your close contacts.”).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta’s response to paragraph 1283.

c. Ronak Shah, Apple’s Senior Director of Platform Product Marketing, testified that users cannot create a public profile in Apple’s Messages app because the “app isn’t really about discovery or . . . broadcasting either personal information or a communication. The app is about communicating . . . directly with a group, you know, you have established a relationship already.” PX6106, Shah (Apple) Dep. Tr., at 183:9-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta’s response to paragraph 1283.

d. Peter Deng, a former Messenger product manager at Meta, testified people use messaging apps for private sharing of information. PX6054, Deng (Meta) Dep. Tr., at 91:2-5.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta’s response to paragraph 1283.

e. Stan Chudnovsky, former Vice President of Messenger at Meta, noted that Messenger is used for more private discussions than the Facebook app. PX6049, Chudnovsky (Meta) Dep. Tr., at 85:7-9.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1283.

f. Alastair Slattery, Director of Communications Product Partnerships at Google, testified that sharing through a direct message is more private than sharing to a feed would be, as a message shared to a feed is intended to be more of a broadcast nature. PX6141, Slattery (Google) Dep. Tr., at 126:5-20.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony, which was based "[i]n [his] experience." PX6141 at 126:9, 16 (Slattery (Google) Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 1283.

g. Tom Alison, Meta's Head of Facebook, distinguished broadcast settings, such as feed or groups, from private settings, such as Messenger threads, based on the size of the audience in each setting. PX6069, Alison (Meta) Dep. Tr., at 105:17-106:4.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1283.

h. A 2019 Meta research summary on iMessage reported that iMessage is for messaging with close connections. PX3181, Meta document: "iMessage research summary" (Feb. 7, 2019), FB_FTC_CID_00054291, at -293.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language as a bullet summarizing an iMessage feature. Disputed for the reasons stated above in Meta's response to paragraph 1283.

(2) Mobile messaging apps lack functionality to foster and facilitate friends and family sharing.

1284. Mobile messaging apps lack functionality to foster and facilitate friends and family sharing. *Infra* CMF at ¶ 1285-91.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the FTC provides no evidence that what it describes as "functionality to foster and facilitate friends and family sharing" is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent this statement incorporates the FTC's statements in paragraphs 1285-1291, Meta incorporates its responses to those statements here.

1285. Messaging apps do not have a shared social space where users maintain relationships and can view content from or share content to all their connections.

Meta Response: Disputed. Messaging apps have a shared social space where users can maintain personal relationships and share experiences with friends, family, and other personal connections. Indeed, Professor Hemphill conceded that iMessage has a "social graph," and users use it to engage with multiple friends and family in a "shared social space" through group messaging. *See* Meta SMF ¶¶ 431-432 (quoting Ex. 283 at 97:22-98:15, 98:16-99:3 (Hemphill Dep. Tr.)). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the

FTC provides no evidence that a shared social space is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276. Disputed on the ground that "shared social space" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the material cited in the subparagraphs below does not support the assertion that messaging apps are not used for friends and family sharing.

a. In a 2014 form submitted to the European Commission, Meta explained that Facebook's user experience is a "rich social environment," while "WhatsApp is a deliberately bare bones communications tool built for real-time messaging within a small circle of people with whom users have exchanged phone numbers." PX3180, Meta document: "Form CO Relating to the Notification of a Concentration Pursuant to Regulation (EC) No 139/2004 Case M.7217 — Facebook, Inc/WhatsApp Inc." (Aug. 29, 2014), FB_FTC_CID_00004312 at -315-16 ("In contrast [to the Facebook user experience], WhatsApp users do not have homepages. They have no feeds. They receive no application updates, because there are no applications on WhatsApp. Unlike the rich social environment created by Facebook, WhatsApp is a deliberately bare bones communications tool built for real-time messaging within a small circle of people with whom users have exchanged phone numbers. Nine out of ten WhatsApp messages sent are from a single user to another.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1285. Further disputed because the cited document was a response to

questions from the European Commission in 2014. A decade later, there is extensive evidence that Facebook and Instagram compete with apps that offer messaging, such as iMessage for the reasons stated above in Meta's response to paragraph 1276.

b. Former Meta Vice President of Messenger Stan Chudnovsky testified that there is no feed or broadcast sharing for both Apple's Messages app and Android SMS. PX6049, Chudnovsky (Meta) Dep. Tr., at 76:20-77:17.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1285. Further disputed because "broadcast sharing" is vague and undefined.

c. Ronak Shah, Apple's Senior Director of Platform Product Marketing, testified that Apple Messages does not have a surface where users can view content shared by all of their contacts in a single, shared social space, because the focus of Apple Messages is on allowing users to connect inside of individual conversations.

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1285.

d. Microsoft Vice President of Product for Teams, Teams Consumer and GroupMe, Amit Fulay testified that there is not a "surface within Teams where . . . users can create, post or share content that is available for all of their contacts to view in a shared social space." PX6137, Fulay (Microsoft) Dep. Tr., at 148:21-149:13

(identifying "three ways [users] can share content": "direct messaging one-on-one," "group chats," and "communit[ies]."); *id.* at 9:17-20.

Meta Response: Disputed in part. Undisputed that Mr. Fulay provided the quoted testimony, except the quoted language appears at 149:7-11. Disputed for the reasons stated above in Meta's response to paragraph 1285. Further disputed because the testimony is incomplete. Mr. Fulay testified that Microsoft views and markets Microsoft Teams as a product for users to interact with family, friends, and other groups in one place. *See* PX6137 at 38:8-11 (Fulay (Microsoft) Dep. Tr.) ("Q. So Microsoft wants users to view Teams as a way to interact with friends and family; right? A. Yes."); *see also id.* at 39:3-7 ("Q. So Microsoft here is encouraging users to view Teams as a way to share memories with friends and family, like special photos, videos, reactions and the like; right? A. Yes, it is.").

1286. In messaging apps, users' communications with other users are organized into individual conversations.

Meta Response: Disputed in part. Undisputed that messages are organized into individual or group conversations. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that how individual conversations are organized on messaging apps is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276. Further disputed because the material cited in the subparagraphs below does not support the assertion that messaging apps are not also used for friends and family sharing.

a. WhatsApp co-founder Brian Acton testified that over-the-top messaging apps open into a chat or conversation list. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 41:15-19; *see also id.* at 45:8-15 (testifying that sharing in a chat or conversation list as opposed to sharing in a feed is "apples and oranges. A feed is designed implicitly to be public -- almost an act of publicity and broadcast; whereas, a conversation list is an act of private conversation.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1286.

b. Alastair Slattery, Director of Communications Product Partnerships at Google, testified that Google Messages does not have a feed, but that Google users the term "inbox" to describe where users can receive messages, which is distinct from a feed. PX6141, Slattery (Google) Dep. Tr., at 124:6-126:3.

Meta Response: Disputed in part. Undisputed that Mr. Slattery provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1286. Further disputed because the cited testimony is incomplete. Mr. Slattery testified that "[w]hether [one] would draw a parallel between an inbox and a feed is up for interpretation." PX6141 at 124:13-14 (Slattery (Google) Dep. Tr.).

c. Ronak Shah, Apple's Senior Director of Platform Product Marketing, testified that the focus of Apple Messages is on "allowing users to connect inside of individual conversations." [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1286.

1287. Users of messaging apps generally use phone numbers from their phone's address book to communicate with other users, rather than a social graph of connections between users.

Meta Response: Disputed. Undisputed that some messaging apps use phone numbers from the phone's address book; disputed that messaging apps do not have a social graph. Indeed, Professor Hemphill conceded that iMessage has a "social graph," and users use it to engage with multiple friends and family in a "shared social space" through group messaging. *See* Meta SMF ¶ 431-432 (quoting Ex. 283 at 97:22-98:15, 98:16-99:3 (Hemphill De. Tr.)). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the existence of a social graph is relevant to substitution, and for the reasons stated above in Meta's response to paragraph 1276. Further disputed because the material cited in the subparagraphs below does not support the assertion that messaging apps are not also used for friends and family sharing.

a. Chris Daniels, former Vice President of WhatsApp at Meta, testified that WhatsApp's "primary use case" was for users to send content to other users, "specifically to users on their contact list on their phone." PX6043, Daniels (Meta) Dep. Tr., at 43:19-44:3.

Meta Response: Disputed in part. Undisputed that Mr. Daniels provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1287. Further disputed because the testimony is incomplete and

misleading. Mr. Daniels also testified that: "By the time I left [in 2019], I think the list of companies that you could call competitors to Facebook would be pretty long. It would be almost any application or site that's sharing user-generated information. So it could be companies like LINE, or Telegram, or Signal, which happen to be messaging apps. It could be apps like YouTube where people are sharing videos, TikTok and Snapchat and BeReal and other kind of more social networks, even someplace like Quora where people are asking and answering questions." PX6043 at 192:15-25 (Daniels Dep. Tr.).

b. Dan Rose, former Vice President of Partnerships at Meta, testified that the features and functionalities of a mobile messaging app are "primarily a way to communicate with people who are in your mobile address book through messages back and forth." PX6065, Rose (Meta) Dep. Tr., at 115:21-116:1; *id.* at 28:19-29:18.

Meta Response: Disputed in part. Undisputed that Mr. Rose provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1287. Further disputed because the testimony is incomplete. Mr. Rose also testified that "iMessage was one of the most popular apps. With respect to iMessage in particular and first-party apps from Google and Apple more broadly, we certainly viewed those as – we certainly viewed iMessage as one of our biggest competitors." PX6065 at 257:24-258:6 (Rose Dep. Tr.).

c. Mr. Acton testified that users needed to have the telephone number of another WhatsApp user in order to add the user as a new connection on WhatsApp. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 47:15:24.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1287.

d. A 2014 form submitted by Meta to the European Commission noted users' phone's "native address book is the only source of contacts" on WhatsApp. PX3180, Meta document: "Form CO Relating to the Notification of a Concentration Pursuant to Regulation (EC) No 139/2004 Case M.7217 — Facebook, Inc/WhatsApp Inc." (Aug. 29, 2014), FB_FTC_CID_00004312 at -334.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1287. Further disputed because Facebook, Instagram, and messaging apps have evolved since 2014, for the reasons stated above in Meta's response to subparagraph 1281(a).

e. Mr. Slattery testified that a Google Messages user needs the phone number of another user to message that user via Google Messages. PX6141, Slattery (Google) Dep. Tr., at 110:9-17.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1287.

f. Aruna Harder, COO of Signal, affirmed in a declaration that Signal users can contact other users whose phone numbers they have or appear in their phone's address book. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1287.

g. A 2012 Meta presentation noted WhatsApp's dependence on a user's address book to present them with people they can contact on WhatsApp. PX1590 at -007, Meta presentation: "Project Cobalt" (July 15, 2012), FB_FTC_CID_05905061 ("Right now Whatsapp depends on the address book of your phone to present you with the set of people you can contact.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1287. Further disputed because Facebook, Instagram, and messaging apps have evolved since 2012, as stated above in Meta's response to paragraph 1281(a).

h. A 2019 Meta research summary on iMessage noted iMessage relies on users' phone numbers. PX3181, Meta document: "iMessage research summary" (Feb. 7, 2019), FB_FTC_CID_00054291 at -292.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 1287.

1288. Messaging apps do not suggest new connections to users not already in their phone's address book.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Messaging apps do suggest new connections to users. For example, there are ways that Apple's mobile operating system suggests contacts for users. *See* PX6049 at 78:1-24 (Chudnovsky Dep. Tr.) ("Q. In order to reach new contacts on iMessage, does the iMessage app suggest new contacts? A. New contacts. It's a nuance question. . . . Because the answer is yes and no. But here's how it's yes. Let's say there are two people communicating over email and – and a Apple device sees that. And let's say I communicated with Justin, one of my attorneys in here. Apple device sees that and so it's going to make a suggestion to add Justin to my contacts. It will appear on the top of the screen and say add Justin to your contacts, and all I need to do is to click one button and he's in my contacts. So, now, if I'm going to my Messages app and I start typing Justin, then all of his contact information is there. So it indirectly suggested Justin as a contact to me. However, it suggested me to add him to my address book which resulted in me having him in my address book. So now he's there. So it's both.).

Further disputed because the FTC provides no evidence that the ability to suggest new connections is relevant to substitution, for the reasons stated above in Meta's response to paragraph 1276. Further disputed because the material cited in the subparagraphs below does not support the assertion that messaging apps are not used for friends and family sharing.

a. Mr. Shah testified that Apple Messages does not suggest contacts for users.

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1288.

b. Mr. Harder affirmed in a declaration that Signal does not have a "people you may know" feature and focuses on communications with users' existing connections. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 1288.

c. Mr. Acton specified in deposition testimony that WhatsApp does not suggest potential contacts to users that users didn't have in their phone's address book nor does it have a "People You May Know" feature. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 48:22-51:3.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1288.

d. Microsoft Skype Director of Product Luis Carrasco testified that Skype does not "proactively suggest friends for you." [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1288.

1289. Users of messaging apps cannot browse other users' list of connections to add new connections.

Meta Response: Disputed in part. Undisputed that users of messaging apps cannot add new connections by browsing other users' list of connections. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the ability to browse other users' list of connections to add new connections is relevant to substitution, and for the reasons stated above in Meta's responses to paragraphs 1276 and 1288. Further disputed because Snapchat – which the FTC asserts provides PSNS – does not allow users to browse other users' list of connections to add new connections. *See* Meta Resp. to Counter SMF ¶ 1056; Ex. 281 at 320:3-5 (Lampe Dep. Tr.) ("Q. And would you agree that Snapchat does not have public displays of connections? A. It does not").

a. In a 2014 written response to questions from the European Commission regarding its acquisition of WhatsApp, Meta noted WhatsApp users cannot add new contacts by exploring other users friends' lists. PX3002, Meta document: "Case M.7217 – Facebook / WhatsApp Responses to Questions of 6 August 2014" (Aug. 6, 2014), FB_FTC_CID_00005242 at -245 ("Rather, it is focused on enabling fast, simple communications between WhatsApp users who already have entered each other's phone numbers in their handsets' native address books. In contrast to social networking services, WhatsApp does not allow to add new contacts by exploring other users' visible 'networks' (i.e., 'friends lists').").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1289.

b. Mr. Shah testified that Apple Messages itself doesn't have any functionality to allow users to find other users, and there is no feature allowing users to search for other users in the app, meaning users cannot discover people they don't know within the Messages app. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1288 and 1289.

c. Mr. Shah further testified that users cannot see a list of all the contacts of a particular contact they already have, because the focus of Apple Messages is communicating with people users already know. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1289.

d. Mr. Slattery testified that Google Messages users are not able to see the contacts of other users. PX6141, Slattery (Google) Dep. Tr., at 113:8-10.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1289.

e. On Skype, users can search for other users by phone number, username, or user ID. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1289.

1290. Users' profiles on messaging apps are limited and lack detailed personal information.

Meta Response: Disputed in part. Undisputed that users of messaging apps can create profiles and provide certain personal information in those profiles. Disputed because "limited" and "detailed personal information" are vague and undefined. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC provides no evidence that the level of detail in a user profile is relevant to substitution, and for the reasons stated above in Meta's responses to paragraphs 1276 and 1288.

a. Meta observed that users have a "much richer profile" on Facebook as compared to WhatsApp in a 2012 presentation. PX1590 at -007, Meta presentation: "Project Cobalt" (July 15, 2012), FB_FTC_CID_05905061 ("Right now Whatsapp depends on the address book of your phone to present you with the set of people you can contact. Often addressbook [sic] information is incomplete (people only store phone # and incomplete first name, last name). On FB people have a much richer profile – which creates a much richer experience[.]").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1290. Further disputed because Facebook, Instagram, and messaging apps have evolved since 2012, as stated above in Meta's response to subparagraph 1281(a).

b. In a 2014 form submitted to the European Commission, Meta recognized that WhatsApp users do not share the kind of personal information or content than they do on Facebook. PX3180, Meta document: "Form CO Relating to the Notification of a Concentration Pursuant to Regulation (EC) No 139/2004 Case M.7217 — Facebook, Inc/WhatsApp Inc." (Aug. 29, 2014), FB_FTC_CID_00004312 at -316 ("Another core feature of the Facebook social network is the Timeline, that allows users to organise [sic] and display the events and activities that matter most to them, enabling them to curate their memories in a searchable personal narrative that is organised [sic] chronologically. . . .Users choose the information to share on their Timeline, such as their interests, photos, education, work history, relationship status, and contact information, and users control with whom content is shared on their Timeline. None of this exists within WhatsApp. WhatsApp is a consumer communications service, not a cloud-based environment in which users organize and curate memories and create personal narratives.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1290. Further disputed because Facebook, Instagram, and messaging apps have evolved since 2014, as stated above in Meta's response to subparagraph 1281(a).

c. At the registration phase, WhatsApp only asked users to provide their phone number, a profile photo, and a display name, though photos are not mandatory

and there was no name verification. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 187:25-188:18.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1290.

d. Mr. Slattery testified that users do not need to create a profile in order to use Google Messages. PX6141, Slattery (Google) Dep. Tr., at 114:3-5.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1290.

1291. Differing from other messenger apps, Meta's Messenger is integrated with Facebook and Instagram, meaning users can contact other users who have Facebook or Instagram accounts rather than via their phone's address book. PX6049, Chudnovsky (Meta) Dep. Tr., at 81:2-82:4; *see also* PX3476 at -020, Meta presentation: "Family overview: what we know (and don't)" (June 2018), FTC-META-002470901 (noting "Facebook is why Messenger exists," with a chart demonstrating the monthly active user base of Messenger [redacted] the monthly active user base of Facebook).

Meta Response: Disputed in part. Undisputed that users of Messenger can message other Facebook users, and that users of Instagram Direct can contact other Instagram users – although, Facebook and Instagram provide users options to not receive messages from users they are not friends with. *E.g.*, Ex. 510 at 1 (Facebook Help Center, *Send Messages*). Disputed that the statement creates a genuine dispute of material fact, including because the FTC provides no evidence that a messenger's integration is

relevant to substitution, and for the reasons stated above in Meta's responses to paragraphs 1276 and 1288.

(3) PSN usage is not shifting to mobile messaging.

1292. PSN usage is not shifting to mobile messaging. *Infra* CMF at ¶¶ 1293-94.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. Substantial evidence shows that there is a shift in engagement from Facebook and Instagram to messaging apps. *See* Meta SMF ¶¶ 438-456. To the extent this statement incorporates the FTC's statements in paragraphs 1293-1294, Meta incorporates its responses to those statements here.

1293. Both PSN usage and mobile messaging are growing in absolute terms.

Meta Response: Disputed in part. Undisputed that usage of services the FTC calls "PSNS" – [redacted] – is growing. *See* Meta SMF ¶¶ 729-732. Also undisputed that services the FTC calls "mobile messaging apps" – including [redacted] – are growing. *See id.* at ¶ 424. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because it does not dispute that consumers can substitute between so-called "PSN" services and "mobile messaging" services. *See id.* at ¶¶ 438-452. For example, Professor Hemphill acknowledged that messaging on iMessage provides a way to share with a "network of connections" using a "social graph" in a "shared social space." *Id.* at ¶¶ 431-432 (quoting Ex. 283 at 97:22-98:15, 98:16-99:3 (Hemphill Dep. Tr.)). When asked if "messaging applications are also a substitute communication channel for communicating with close friends," Professor Lampe testified, "[m]essaging along with other apps can be used for maintaining relationships with close friends, yes." *Id.* at ¶ 459 (quoting Ex. 281 at 57:17-58:7 (Lampe

Dep. Tr.)). Further disputed because the vast amount of usage on so-called "PSN" services that Meta owns – Facebook and Instagram – is not friends and family sharing. *See id.* at ¶¶ 11-12, 56-57. The FTC's use of "PSN" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. While there has been [redacted] PX9007, Hemphill Rebuttal Report at ¶ 243 & Exs. 7-8.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because Professor Hemphill has no data showing that posts – either on Feed or Stories – relate to friends and family sharing. It is instead undisputed that the [redacted] of time spent on Feed and Stories (for both Instagram and Facebook) is not related to friends and family sharing, nor are most individual posts on those surfaces related to friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57. Further disputed that the portions of Professor Hemphill's rebuttal report and the testimony from Professor Hemphill that the FTC recites create a dispute of material fact. Although Professor Hemphill found that "[redacted]," and has [redacted], Professor Hemphill's analysis fails to account for the growth in the number of Facebook and Instagram users in that time period. *See* SMF ¶ 9 (undisputed that

Facebook's U.S. monthly active users count increased by approximately [redacted] between 2012 and 2022), *see also* ¶¶ 658, 724 (undisputed that Instagram's U.S. monthly active users count increased by approximately [redacted] between 2012 and 2022); *see also* PX9007, Hemphill Rebuttal Report Exs. 7, 8, and ¶ 243 (not controlling for number of users); Ex. 484 at 6-7, Meta's Resp. to Ex. C, Question 11 (explaining how "Original Broadcast Post Sessions" or "OBPS" is calculated). It is therefore undisputed that sharing with friends and family using messaging apps has increased, [redacted]. Further disputed because, even for the limited amount of sharing on Facebook and Instagram that relates to friends content, the FTC has not shown Meta has power to exploit that demand (through "price discrimination" or otherwise), making the statement in this subparagraph irrelevant to any material issue in either party's motion.

b. When asked about a shift from "Feed-based sharing to sharing via messaging," Professor Hemphill testified that "I don't know what we mean by – by shift. [redacted] . . . So based on the graph that you showed me, I don't know in what sense we mean shift. If we mean shift as a -- as a percentage, I guess possibly, right. It could be true that Feed and Stories together could be unchanged or a bit up and messages grows even bigger. And so mechanically as a fraction that would

increase. That would be a shift in a percentage basis of a kind, but not a shift that would significantly challenge my opinion that personal social networking services are a relevant antitrust market." PX6184, Hemphill (FTC) Dep. Tr., at 135:2-136:6; *see also* PX3475, Meta Board presentation: "Messaging" (Feb. 13, 2020), FTC-META-011025142, at -147 (graph demonstrating [redacted]); PX6184, Hemphill (FTC) Dep. Tr., at 108:12-18 (when asked what the graph is depicting, testifying that "[redacted]").

<u>Meta Response</u>: Undisputed that Professor Hemphill provided the quoted testimony.

c. Professor Hemphill testified that "I don't deny that growth in messaging may well be occurring . . . but that is perfectly consistent with the robust finding that personal social networking services is a market capable of being monopolized, and a relevant antitrust market and the growth of messaging which is reflected in my opinions doesn't -- doesn't refute that." PX6184, Hemphill (FTC) Dep. Tr., at 122:8-123:5

<u>Meta Response</u>: Undisputed that Professor Hemphill provided the quoted testimony.

d. Professor Lampe also explained that "I agree that private sharing has increased, but broadcast sharing is still pretty healthy. So it's hard for me to make an assessment of how much of that is a replacement, which I think is what you're asking, versus that both of those activities have increased. There's still both

public sharing and private sharing on Facebook." PX6175, Lampe (FTC) Dep. Tr., at 88:19-89:4.

Meta Response: Undisputed that Professor Lampe provided the quoted testimony.

e. Professor Carlton agreed that the share of friends and family activity within an app can decline "even if friends and family sharing activity is not declining in absolute terms." PX6179, Carlton (Meta) Dep. Tr., at 232:10-233:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed because this paragraph omits the context that Professor Carlton provided immediately after the quoted language in which he disputed the implication this statement tries drawing: "[redacted]." PX6179 at 233:5-7 (Carlton Dep. Tr.).

1294. Broadcast sharing remains a significant and important part of Facebook and Instagram. *See, e.g.*, PX9007, Hemphill Rebuttal Report at ¶ 243 ("[redacted]."); PX6175, Lampe (FTC) Dep. Tr., at 88:19-89:4 (observing "broadcast sharing is still pretty healthy. . . . There's still both public sharing and private sharing on Facebook."); PX6127, Zuckerberg (Meta) Dep. Tr., at 181:12-21 (testifying that today, "if you want to share with all your friends at once, [Facebook] is certainly one of the leading services for doing that."); PX0224 at -001-02, Mark Zuckerberg, *Read Mark Zuckerberg's Blog Post on His 'Privacy Focused Vision' for Facebook*, N. Y. Times (Mar. 6, 2019),

https://www.nytimes.com/2019/03/06/technology/facebook-privacy-blog.html ("[o]ver the last 15 years, Facebook and Instagram have helped people connect with friends, communities, and interests in the digital equivalent of the town square. . . . Public social networks will continue to be very important in people's lives — for connecting with everyone you know, discovering new people, ideas, and content, and giving people a voice more broadly.").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony, Professor Hemphill offered the quoted opinion, and the article from 2019 contain the quoted language. Disputed that this statement creates a genuine dispute of material fact pertinent to the resolution of either party's motion because – even accepting growth in "broadcast" posting – that category indisputably includes all posting, including posting public or unconnected content that does not relate to friends and family sharing. The vast majority of posts on both Facebook and Instagram – measured by time spent or impressions (i.e., posts or other instances of engagement with content) – are *not* related to friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57. Further disputed because an article from 2019 does not reflect current usage or consumer demand, and also because the FTC omits context from the article, in which Mr. Zuckerberg is quoted as explaining that a time spent sharing with friends and family is shifting to messengers: "[P]eople increasingly also want to connect privately in the digital equivalent of the living room. . . . Today we already see that private messaging, ephemeral stories, and small groups are by far the fastest growing areas of online communication. There are a number of reasons for this. Many people prefer the intimacy of communicating one-on-one or with just a few friends. People are more cautious of having a permanent record of what

they've shared." PX0224 at -001-002 (The New York Times, *Read Mark Zuckerberg's Blog Post on His 'Privacy Focused Vision' for Facebook*). That is consistent with evidence in the record showing that more time spent sharing with friends and family is shifting to mobile messaging. *See* Meta SMF ¶¶ 438-447. Nor does a conclusory quotation from Professor Hemphill's rebuttal report asserting something about a period of "ten years" create a genuine dispute of material fact regarding usage or demand today (or even recently).

e) Meta's experts fail to rebut that non-PSN apps lack a core use of friends and family sharing.

1295. Meta's experts fail to rebut the opinions and analysis presented by Professor Hemphill and Professor Lampe that non-PSN apps lack a core use of friends and family sharing.

Meta Response: Disputed. Disputed including for the reasons stated in response to the below subparagraphs. Further disputed because "PSN apps" and "core use" are vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Professor Carlton's report "did not analyze or assess whether [different] apps are used differently in general." PX6179, Carlton (Meta) Dep. Tr., at 270:3-17.

Meta Response: Disputed. The quotation inaccurately characterizes and omits all context from Professor Carlton's testimony:

> Q. Your report similarly does not analyze whether users use those features or the apps in question for similar or different purposes; correct?
>
> A. You know, that's true, I don't go app by app, but – and ask what they're using them for. But I had taken your question to mean, say, on the Like button, you know, I might use the Like button to send you a message – you send me a message and I like it, let's suppose you're a friend of mine. That may be different than when I like it if you – if someone I don't know sends me a video. So I

> assume you would count that as a different use. So I don't go through that type of analysis.
>
> Similarly, here on Table 6, where people are looking at things like, say, Reels, I'm not sure what it means – what the question means to say, did I evaluate what use people make of it. If you mean what use they make of Reels – you know, if I watch a Reels video on app 1 or app 2 or app 3, if it's the same Reel, I'm not sure what it means to say I'm making a different use of it.
>
> On the other hand, if what you mean is, Well, I might send it to my friend, but I might not if it's on a different app, I don't know, do you want to call that a different use? I mean, that's up to you. So I guess I should have said in answer to your questions, it really depends on what you mean by 'a different use.'
>
> But I'm simply making the point in Tables 3, 4, 5, and 6 that there are a lot of functions that are similar on different apps. The apps may be used differently. I don't know if it's a sensible question to ask: Is watching a short-form video on app 1 a different use than watching a short-form video on app 2?

PX6179 at 268:15-270:6 (Carlton Dep. Tr.). He concluded, "the thrust of what I'm saying is that that's not an appropriate way to necessarily define a market in the absence of price discrimination." *Id.* at 270:14-17.

b. Professor Carlton acknowledges that apps serving different types of demand could cause you to conclude they are not in the same relevant antitrust market. PX6179, Carlton (Meta) Dep. Tr., at 264:5-15.

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to subparagraph 1295(a). Further disputed because the paraphrasing inaccurately characterizes and omits all context from Professor Carlton's testimony:

> Q. Would the fact that apps with a Like button serve different types of consumer demand cause you to conclude that there could be a properly defined narrower market?
>
> A. That's certainly possible. I'm simply pointing out really two things, that there are a lot of firms that have similar features. So it can't just be that it's features that are determining, according to

> Professor Hemphill's analysis, who's in the market. It must be something else.
>
> And whatever his something else is, he has to articulate it. And it has to be other than, I think so; that is, what evidence are you using to answer the question about consumer substitution.
>
> I'm simply pointing out that having common functionality, for example, with a Like button, doesn't necessarily mean that they're in the market and they should be substitutes. If they did, according to an analysis like the one he's doing, you'd put them all in the market.
>
> I'd also point out, and this is an equally important point, that many of the apps copy each other in terms of features. That's an indication that they are competing for basically the time and attention of users through the introduction of features.

PX6079 at 264:5-265:10 (Carlton Dep. Tr.).

c. Professor Carlton's report "does not analyze the extent to which users use [various] apps with Stories features for similar or different purposes." PX6179, Carlton (Meta) Dep. Tr., at 267:17-268:3; PX9007, Hemphill Rebuttal Report at ¶¶ 273-80 (noting examples of non-PSN apps adding Stories features that were designed and used for a different purpose than friends and family sharing).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to subparagraphs 1295(a) and 1295(b). Further disputed because the paraphrasing inaccurately characterizes and omits all context from Professor Carlton's testimony:

> Q. Okay. Again, are you opining that any app with a Stories feature belongs in the same relevant market?
>
> A. Not necessarily. Again, the answer would be similar to the one I gave you earlier, that this is pointing out that if all you rely on is the functionality; that is, what you can do on an app and whether it has that functionality, then a lot of apps have that functionality. And according to an analysis based on only functionality, you would include them.

> So my point is, he did not use something like Table 3 to determine consumer substitution; and, therefore, ignoring the quantitative evidence on actual substitution is a mistake.
>
> Q. Your report does not analyze the extent to which users use each of these apps with Stories features for similar or different purposes; correct?
>
> A. I do not do that here. But, again, as I said, in answer to your prior question, that alone would not make them – would not tell you necessarily whether they're in the same market or different markets, based on what I talk about in the report about price discrimination.

PX6079 at 267:6-268:8 (Carlton Dep. Tr.).

d. Professor Carlton's report similarly "does not analyze the extent to which users use [various] apps [] with a Like bottom for similar or different purposes." PX6179, Carlton (Meta) Dep. Tr., at 265:11-17.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to subparagraphs 1295(a)-(c).

e. Professor Carlton does not dispute the evidence presented by Professor Hemphill and Professor Lampe that LinkedIn is "overwhelmingly focused on professional networking while Facebook is focused on networking with friends and family." PX6179, Carlton (Meta) Dep. Tr., at 265:22-266:13.

Meta Response: Disputed in part. Undisputed that Professor Hemphill provided the quoted testimony. Disputed because the quotation inaccurately characterizes and omits context from Professor Carlton's testimony, which was: "Right, I'm not disputing that evidence. But, of course, that evidence alone wouldn't say that they're in a separate market." PX6179 at 266:11-13 (Carlton Dep. Tr.).

f. Professor Ghose offered no opinion about whether the foregoing non-PSN apps have a core use of friends and family sharing. *See* PX6173, Ghose (Meta) Dep.

Tr., at 181:21-190:17; PX9007, Hemphill Rebuttal Report at ¶¶ 284-307 ("The evidence that other apps lack PSN as a core use is unrebutted by Meta's experts").

Meta Response: Disputed. Disputed because the paraphrasing inaccurately characterizes and omits context from Professor Ghose's testimony. When the above-cited colloquy began, Professor Ghose testified: "Q. What do you understand Professor Hemphill to mean by a core use? A. Actually I don't really know because that's why I have it in quotes, you know. He usually defined it – neither he or Professor Lampe actually define what is a core use." PX6173 at 181:6-11 (Ghose Dep. Tr.); *see also id.* at 181:16-20 ("I wouldn't even know . . . how to define what a core use is. Professor Lampe and Hemphill should have defined it; and . . . they did not."). The testimony continued: "Q. So your report does not offer an opinion on what the core use of Facebook is, correct? A. So I guess what I'm trying to say is, ... I would need a definition . . . how do we define 'core' here. I know that Professor Hemphill and Lampe do not do it. They should have. But one would have to first even consider what is the meaning of core use." *Id.* at 181:21-182:7. Professor Ghose then repeatedly noted the absence of a definition of what the questioner or Professor Hemphill (or Professor Lampe) meant by "core use," which the FTC did not provide. *See id.* at 181:21-190:17.

1296. Professor Ghose examined whether "similar" features exist on different apps, but did not examine how similar or different the features are across apps, nor how similar features may be used differently across apps. *See* PX6173, Ghose (Meta) Dep. Tr., at 198:20-199:12; *see also* PX9007, Hemphill Rebuttal Report at ¶ 269 ("Profs. Ghose and Carlton

are content to look at features across apps at a level of generality that is uninformative about whether those features are used for a similar purpose . . . and in fact seem indifferent to the context in which features are used within apps."); PX9010, Lampe Rebuttal Report at ¶ 3 ("a more appropriate way to ascertain whether personal relationship maintenance is a core purpose of a social network service from an academic perspective is by analyzing site design, motivations, and norms. The purported similarities between the platforms that Prof. Ghose discusses do not refute my showing of distinct design, motivations, and norms that make the platforms fundamentally different in their ability to meet consumer needs.").

Meta Response: Disputed. Disputed because the paraphrasing inaccurately characterizes and omits context from Professor Ghose's testimony. Professor Ghose's testimony, which was about an exhibit to his report and is taken out of context, was:

> Q. Exhibit E does not address ways in which you – sort of common features differ across apps, correct?
>
> A. Exhibit E is looking at the presence or the absence of a certain feature across the apps based on which you can assess, you know, how many features are common versus not. Yeah, that's what Exhibit E is doing.
>
> Q. And within those columns, Exhibit E does not assess how similar or different the features are across different apps, correct?
>
> A. That's fair. I have not done that quantification of the level of similarity between features. I've looked at whether that feature exists or not.

PX6173 at 198:20-199:12 (Ghose Dep. Tr.). That testimony provides no support for the FTC's argumentative and inaccurate assertion, nor is Professor Hemphill's and Professor Lamp's assertion and say so – also provided without context or explanation – capable of creating a genuine dispute of material fact. Neither Professor Hemphill nor Professor Lampe marshaled any empirical evidence of consumer substitution between services. *See* Meta SMF ¶¶ 633-635 (Hemphill), 613 (Lampe).

6. A hypothetical monopolist of PSN services in the United States would be able to profitably raise quality-adjusted price above a competitive level.

1297. A common method employed by antitrust economists and the antitrust enforcement agencies to identify a relevant antitrust market is the hypothetical monopolist test ("HMT"). PX15347, U.S. Department of Justice and the Federal Trade Commission, Merger Guidelines § 4.3 (2023) [hereinafter PX16347, 2023 Merger Guidelines]; PX15346, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 4.1 (2010) [hereinafter PX16347, 2023 Merger Guidelines]; PX9000, Hemphill Report at ¶¶ 172-79; PX9019, Carlton Rebuttal Report at ¶ 14; PX6179, Carlton (Meta) Dep. Tr., at 116:16-19; PX9018, List Report at ¶ 27; PX6178, List (Meta) Dep. Tr., at 57:22-58:6.

Meta Response: Disputed in part. Undisputed that the hypothetical monopolist test ("HMT") is a common method used by antitrust economists and U.S. antitrust enforcement agencies to identify a relevant antitrust market. Disputed that this statement, or any of this statement's subparagraphs, creates a genuine dispute of material fact. Nothing cited in the statement establishes that Professor Hemphill conducted an HMT or competently identified the FTC's alleged PSNS market in this case. *See* Meta SMF ¶¶ 633-635 (Professor Hemphill's concessions that he did not conduct an HMT or offer any quantitative evidence of substitution).

a. The HMT asks whether "a hypothetical monopolist controlling the products in the candidate market would find it worthwhile to charge a price that is higher than the price set if the products were supplied competitively"; if so, the candidate market is a relevant antitrust market. PX9000, Hemphill Report at ¶ 173; PX15347, 2023 Merger Guidelines § 4.3.A ("the HMT asks whether a hypothetical profit-

maximizing firm . . . that was the only present and future seller of a group of products ('hypothetical monopolist') likely would undertake at least a small but significant and non-transitory increase in price ('SSNIP') or other worsening of terms ('SSNIPT') for at least one product in the group."); PX15346, 2010 Merger Guidelines § 4.1.1.

Meta Response: Disputed in part. Undisputed that the HMT asks whether a hypothetical monopolist controlling the products in an alleged market could profitably impose at least a small but significant and non-transitory increase in price on at least one product in the market. Disputed that an HMT based on worsening of terms ("SSNIPT") is a common method employed by antitrust economists and the antitrust enforcement agencies to identify a relevant antitrust market. The FTC cites no evidence supporting that such an HMT is common, and SSNIPT only appeared in the DOJ and FTC's Merger Guidelines for the first time in 2023 after the FTC commenced this litigation. *Compare* PX15346 § 4.1.1 (2010 Merger Guidelines), *with* PX15347 § 4.3.A (DOJ and FTC Merger Guidelines).

b. The HMT examines the effect of a small price (or quality) increase (or decrease) on consumer behavior. Relevant dimensions of quality can include "price (SSNIP), but also other terms (broadly defined) such as quality, service, capacity investment, choice of product variety or features, or innovative effort." PX9000, Hemphill Report at ¶ 181; PX15347, 2023 Merger Guidelines § 4.3.B.

Meta Response: Disputed in part. Undisputed that the HMT examines the effect of a small but significant non-transitory increase in price on consumer

behavior. *See* PX15346 § 4.1.1 (2010 Merger Guidelines). Disputed that the HMT, as commonly employed by antitrust economists and enforcement agencies, considers the effect on consumers of increases or decreases in quality dimensions, including quality, service, capacity investment, choice of product variety or features, or innovative effort. The FTC cites no evidence supporting that such an HMT is common. It instead relies on an assertion that only appeared in the DOJ and FTC's Merger Guidelines for the first time in 2023 after the FTC commenced this litigation. *Compare id.*, *with* PX15347 § 4.3.A (DOJ and FTC Merger Guidelines). Further disputed that the statement creates a genuine dispute of material fact. None of the citations in the statement shows that it would be proper in this case to conduct an HMT based on the quality dimensions listed in the statement, where none of the material cited establishes what the "competitive" level of quality is or ever was, that greater competition would lead to higher quality in any particular dimension (given that the effect of competition on quality varies), *see* Ex. 2 at ¶¶ 126-128 (Carlton Rep.), or that Professor Hemphill conducted such an analysis (let alone correctly). Professor Hemphill testified that he did not perform an HMT because the "analysis was infeasible to perform." Meta SMF ¶ 633 (quoting Professor Hemphill's deposition testimony). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id.* at ¶ 635.

c. A proper implementation of the HMT requires assessing consumer behavior in response to a price (or quality) increase (or decrease) with several key features: (1) the price increase is small but significant (e.g., five percent); (2) the price increase is non-transitory; (3) the price increase applies only to one or more products in the candidate market; and (4) the price increase is from the competitive level. PX9007, Hemphill Rebuttal Report at ¶¶ 367-70; PX15347, 2023 Merger Guidelines § 4.3.B; PX15346, 2010 Merger Guidelines § 4.1.1; PX6179, Carlton (Meta) Dep. Tr., at 119:14-121:13, 178:14-19 (includes assessment of products in the candidate market); PX6178, List (Meta) Dep. Tr., at 59:19-60:10 (small but significant), 158:16-159:2 (non-transitory), 242:20-243:7 (competitive level); PX9018, List Report at ¶ 193 (competitive level).

Meta Response: Disputed in part. Undisputed that the HMT assesses consumer behavior in response to a small but significant non-transitory increase in price to only one or more products in an alleged market above prevailing prices. Disputed that the HMT, as commonly employed by antitrust economists and enforcement agencies, assesses consumer behavior in response to a quality increase or decrease. The FTC cites no evidence supporting that such an HMT is common. Further disputed that the statement creates a genuine dispute of material fact. None of the citations in the statement shows that it would be proper in this case to conduct an HMT based on the quality dimensions, where none of the material cited establishes what the "competitive" level quality is or ever was and that there is no evidence that greater competition would lead to higher quality in any particular dimension (given that the effect of competition on quality

varies). *See* Ex. 2 at ¶¶ 126-128 (Carlton Rep.). Professor Hemphill testified that he did not perform an HMT because the "analysis was infeasible to perform." Meta SMF ¶ 633 (quoting Professor Hemphill's deposition testimony). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id.* at ¶ 635.

1298. Assessing market definition and the HMT in a monopolization case requires special care because of the "*Cellophane* fallacy."

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that they assert legal conclusions. Further disputed because the material cited in the subparagraphs below does not support the statement in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed because "special care" is vague and undefined.

a. In a monopoly maintenance case, evaluating substitution at the prevailing price is inappropriate and can "paint a misleading picture of the relevant market and market power. Pointing to substitution at the monopolized price, and erroneously concluding that substitution to other goods at that price shows an absence of market power, is a fundamental analytical mistake [known as the Cellophane fallacy]." PX9000, Hemphill Report at ¶¶ 176-78; *see also* PX15347, 2023 Merger Guidelines § 4.3.B n.83 ("In the entrenchment context, if the inquiry is

being conducted after market or monopoly power has already been exercised, using prevailing prices can lead to defining markets too broadly and thus inferring that dominance does not exist when, in fact, it does."); PX15346, 2010 Merger Guidelines § 4.1.2 n.5.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The statement that evaluating substitution at the prevailing price is inappropriate, misleading, and an analytical mistake is incorrect. The *Cellophane* fallacy does not suggest that the *order* in which consumers switch to potential substitutes is different at the monopoly price. *See* Ex. 2 at ¶ 24 & n.26 (Carlton Rep.) ("Prof. Hemphill's alleged market definition has implications that can be tested using current substitution evidence even if Meta were exercising monopoly power and even if one were to accept that the Cellophane fallacy applies here. . . . [W]hen Prof. Hemphill claims that Snapchat is in his market in a hypothetically more competitive world, that implies that if there are closer current substitutes than Snapchat, then they should be in his market as well.").

b. Meta's economic experts agree that executing an HMT at the monopolized price or quality level in a monopolization case is indulging in the *Cellophane* fallacy, which leads to erroneously broad market definitions that overlook monopoly power. PX6179, Carlton (Meta) Dep. Tr., at 139:3-140:12 ("Q. [In a monopoly maintenance case], [i]f you executed the hypothetical monopolist test by imposing a SSNIP on top of prices that are already sup[ra]competitive, you would be overlooking the existing exercise of monopoly power; correct? A. I agree with

that. That would be the cellophane fallacy."), 144:3-145:11 (testifying on the description of the *Cellophane* fallacy from his textbook), 146:1-148:12, 149:4-150:14, 152:2-153:5; PX6178, List (Meta) Dep. Tr., at 64:20-65:14 (acknowledging that measuring consumer responses to a SSNIP from the monopolized price rather than the competitive price can impact the results), 155:19-156:4 (characterizing the Cellophane fallacy as a "very important consideration" when performing market definition or effects analysis in a monopolization case), 243:8-243:16 (agreeing that the cellophane fallacy could lead to an erroneously broad market).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's response to subparagraph 1298(a), and because the excerpted and paraphrased testimony from Meta's experts is incomplete and misleading. None of the cited testimony involved discussion of an alleged monopolized quality level. Moreover, contrary to the statement's assertion, Professor Carlton testified at his deposition that "looking at substitution is valuable even at the elevated price in order to determine the order of substitutes" when asking "who are the participants who should be in the market," instead of "can price go up from the current level." PX6179 at 159:1-14 (Carlton Dep. Tr.). And Professor List testified at his deposition that Professor Hemphill's assertions about the *Cellophane* fallacy were unwarranted because he had shown that "prices and quality levels in the but-for world do not differ materially from the observed prices and quality levels in the observed world." PX6178 at 243:17-245:6 (List Dep. Tr.). When asked, "if I

wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." Meta SMF ¶ 635. Further disputed because the statement assumes legal conclusions, not based in evidence, about "market definition" and "monopoly power."

c. Professor Carlton's textbook summarized the *Cellophane* fallacy as follows:

> Even a monopoly may raise its price sufficiently above competitive levels so that eventually it faces some competition from other products. Just because a monopolized product faces close demand substitutes at the monopoly price, it does not follow that the firm producing the product has no market power (though it may not be able to raise its price further) . . . The *Cellophane* case illustrates these difficulties in defining a market. The Court investigated whether du Pont had market power in the pricing of cellophane. The Court reasoned that du Pont lacked market power because, at the current market prices, a user of cellophane had many substitutes, such as paper bags, and du Pont's share of the market including these substitutes was not large. There was also evidence, however, that price substantially exceeded marginal cost. Based on the foregoing discussion, it was an error to include other wrapping materials in the market definition because they did not prevent the exercise of market power and constrain the price of cellophane to competitive levels.

PX15355, Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization, at -061-62 (Addison-Wesley, 4th Ed. 2005); *see also* PX6179, Carlton (Meta) Dep. Tr., at 144:8-145:11.

Meta Response: Undisputed. Undisputed that the cited textbook co-authored by Professor Carlton contains the above-quoted passage.

1299. The HMT can be assessed using a variety of qualitative and quantitative evidence, and quantitative evidence of demand substitution is not always available. PX9000, Hemphill Report at ¶¶ 170, 191; PX9007, Hemphill Rebuttal Report at ¶ 176; PX15346, 2010

Merger Guidelines § 4.1.3 ("Even when the evidence necessary to perform the hypothetical monopolist test quantitatively is not available, the conceptual framework of the test provides a useful methodological tool for gathering and analyzing evidence pertinent to customer substitution and to market definition."); PX15347, 2023 Merger Guidelines §§ 4.2, 4.3.C ("Section 4.2 describes some of the qualitative and quantitative evidence and tools the Agencies can use to assess the extent of competition among firms. The Agencies can use similar evidence and analogous tools to apply the HMT, in particular to assess whether competition among a set of firms likely leads to better terms than a hypothetical monopolist would undertake.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The statement cites no evidence to support that an HMT was properly conducted using qualitative evidence in this case. On the contrary, as Professor Carlton explained, Professor Hemphill's purported qualitative analysis ignores consumer substitution, relies on flawed qualitative evidence of product characteristics that fails to show there is distinct demand for "friends-and-family sharing," and misses the link between Meta's ad monetization and competition for users' attention, thereby ignoring important competitive forces from other apps that constrain Meta's behavior. *See* Ex. 2 at ¶ 13 (Carlton Rep.). Further disputed that quantitative evidence is unavailable in this case. Rather, quantitative evidence in this case contradicts the FTC's alleged market definition, showing that TikTok, YouTube, and several other apps are acceptable substitutes for Facebook and Instagram. *See* Meta SMF ¶¶ 543-547 (Pricing Experiment), ¶¶ 548-553 (TikTok Ban), ¶¶ 554-561 (Switching Analysis), ¶¶ 562-566 (Outage Analysis). Professor Hemphill testified that he did not perform an HMT because

the "analysis was infeasible to perform." *Id.* at ¶ 633 (quoting Professor Hemphill's deposition testimony). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id.* at ¶ 635. Further disputed that the statement above – about how the HMT can be "assessed" – relates to how the HMT can be implemented.

1300. It is common and appropriate to use qualitative evidence to assess consumer substitution and the HMT, especially in a monopolization case where quantitative evidence of substitution from a competitive level is rarely available. PX9000, Hemphill Report at ¶¶ 180, 191; PX9007, Hemphill Rebuttal Report at ¶ 176; PX15346, 2010 Merger Guidelines § 4.1.3 ("Even when the evidence necessary to perform the hypothetical monopolist test quantitatively is not available, the conceptual framework of the test provides a useful methodological tool for gathering and analyzing evidence pertinent to customer substitution and to market definition."); PX6179, Carlton (Meta) Dep. Tr., at 213:8-214:14; PX15347, 2023 Merger Guidelines § 4.3.C; *see also* PX15531 at -002, D. Carlton and M. Israel, *Response to Gopal Das Varma's Market Definition, Upward Pricing Pressure, and the Role of Courts*, Antitrust L. Source (Dec. 2010), https://media.crai.com/wp-content/uploads/2020/09/16164024/Market-Definition-Upward-Pricing-Pressure-and-the-Role-of-Courts-A-Response-to-Carlton-and-Israel.pdf ("We also support the wide range of qualitative and quantitative evidence (e.g., buyer surveys, business documents, industry participants' pricing behavior) listed in this section as potentially useful in market definition."); PX15344 at -002, Dennis Carlton, *Market Definition: Use and Abuse,* 3:1 Competition Pol'y Internat'l (Spring 2007),

https://ssrn.com/abstract=987061 ("The procedure for defining a market in a merger case or Section 2 case can be rigorously described, but the information required to implement the procedure is typically unavailable. Few analysts (or courts) follow the rigorous procedure in either merger or Section 2 cases. Instead, most markets are defined with some guidance from theory and some qualitative knowledge.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The statement cites no evidence to support that an HMT was properly conducted using qualitative evidence in this case. On the contrary, as Professor Carlton explained, Professor Hemphill's purported qualitative analysis ignores consumer substitution, relies on flawed qualitative evidence of product characteristics that fails to show there is distinct demand for "friends-and-family sharing," and misses the link between Meta's ad monetization and competition for users' attention, thereby ignoring important competitive forces from other apps that constrain Meta's behavior. *See* Ex. 2 at ¶ 13 (Carlton Rep.). In the deposition cited in this statement, Professor Carlton explained that "most analyses I've been involved in use a mixture of both [qualitative and quantitative] evidence," and when relying on qualitative evidence, "you're doing a very crude analysis" and "reliance on market definition and market shares in that situation is not necessarily a reliable method to assist either the agencies or the courts to determine, for example, if a merger is going to create market power, additional market power." PX6179 at 213:22-214:1, 216:2-8 (Carlton Dep. Tr.). Further disputed that quantitative evidence is unavailable in this case. Rather, quantitative evidence in this case contradicts the FTC's alleged market definition, showing that TikTok, YouTube, and several other apps are acceptable substitutes for Facebook and Instagram. *See* Meta SMF ¶¶ 543-547

(Pricing Experiment), ¶¶ 548-553 (TikTok Ban), ¶¶ 554-561 (Switching Analysis), ¶¶ 562-566 (Outage Analysis). Professor Hemphill testified that he did not perform an HMT because the "analysis was infeasible to perform." *Id.* at ¶ 633 (quoting Professor Hemphill's deposition testimony). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id.* at ¶ 635. Further disputed that all the materials cited in the above paragraph – specifically, unexplained articles asserting legal conclusions or summaries of how unspecified courts have ruled previously (without verification) – are competent evidence capable of creating a genuine dispute of material fact.

1301. The HMT does not lead to a single relevant market—any collection of products over which a single firm can profitably impose a small but significant, non-transitory increase in quality-adjusted price is a relevant market. PX9000, Hemphill Report at ¶ 169; PX15347, 2023 Merger Guidelines § 4.3 ("Market definition ensures that relevant antitrust markets are sufficiently broad, but it does not always lead to a single relevant market."); PX15346, 2010 Merger Guidelines § 4.1.1 ("The hypothetical monopolist test ensures that markets are not defined too narrowly, but it does not lead to a single relevant market. The Agencies may evaluate a merger in any relevant market satisfying the test, guided by the overarching principle that the purpose of defining the market and measuring market shares is to illuminate the evaluation of competitive effects.").

Meta Response: Disputed in part. Undisputed that the HMT does not always lead to a single relevant market. Disputed that the citations in this statement support that an HMT based on quality-adjusted price is appropriate in all cases, or in this case. None of the

cited material in this paragraph refers to quality-adjusted price or its propriety for use in an HMT in this case. When the FTC asked Professor Carlton whether "the hypothetical monopolist test can also be executed in terms of an increase in quality-adjusted price," he explained: "You've got to be a little careful what you mean by it. We went back to our discussion, can you define it for me? As a general statement I could agree with it, but in a specific application you'd have to say how you are defining quality-adjusted price. There's some places where it's easy to do. There are other places where it's much – very ambiguous how you would do it. And it's especially hard if people disagree. Consumers disagree about what's an increase in quality and what's a decrease in quality." PX6179 at 121:18-122:11 (Carlton Dep. Tr.). Professor Hemphill testified that he did not perform an HMT because the "analysis was infeasible to perform." Meta SMF ¶ 633 (quoting Professor Hemphill's deposition testimony). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id.* at ¶ 635.

1302. Professor Hemphill opines that there is a relevant antitrust market for PSN services in the United States. This relevant market consists of apps that possess core functionality and use in the provision of PSN services. Professor Hemphill concludes, through an assessment of a wide body of qualitative and quantitative evidence, that a hypothetical monopolist controlling all supply of PSN services in the United States would profitably raise quality-adjusted price above a competitive level. PX9000, Hemphill Report at ¶¶ 189-97 (Sec. 3.2.2. "There is a relevant market for personal social networking services"); PX9007, Hemphill Rebuttal Report at ¶¶ 229-364 (Sec. 2.2.2. "A wealth of

evidence demonstrates that personal social networking services is a properly defined antitrust market").

Meta Response: Disputed in part. Undisputed that Professor Hemphill offers the opinion that there is a relevant antitrust market for PSNS in the United States and that he claims a hypothetical PSNS monopolist would profitably raise quality-adjusted price above the competitive level. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Professor Hemphill did not demonstrate that there is, in fact, a relevant PSNS market, nor did he reach the paraphrased conclusions in the statement through an assessment of a wide body of qualitative and quantitative evidence. Professor Hemphill provided no quantitative assessment of substitutability between Facebook, Instagram, and apps supposedly outside of the FTC's alleged PSNS market. *Cf.*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data); *id.* at ¶¶ 643-644 (Professor Carlton's undisputed market share calculations when including time spent on TikTok, Twitter, and YouTube). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id*. at ¶ 635 (quoting Professor Hemphill's deposition testimony). And as Professor Carlton explained, Professor Hemphill's purported qualitative analysis ignores consumer substitution, relies on flawed qualitative evidence of product characteristics that fails to show there is distinct demand for "friends-and-family sharing," and misses the link between Meta's ad monetization and competition for users' attention, thereby ignoring important competitive forces from other apps that constrain Meta's behavior. Ex. 2 at ¶ 13 (Carlton Rep.).

Further disputed that citing entire sections of Professor Hemphill's reports in which he makes conclusory assertions – which the FTC here paraphrases without reference to record materials or explanation – creates a genuine dispute of material fact.

a. Professor Hemphill's opinions related to market definition relied on a variety of qualitative and quantitative evidence, including "empirical analysis of data furnished by market participants and other user-generated content (UGC) and communication apps, as well as the direct evidence of monopoly power." PX9007, Hemphill Rebuttal Report at ¶¶ 20, 229; PX6184, Hemphill (FTC) Dep. Tr., 140:12-141:8.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1302, and because this statement asserts a legal conclusion. Neither this statement nor the materials cited create a genuine dispute of material fact. Professor Hemphill provided no quantitative assessment of substitutability between Facebook, Instagram, and apps supposedly outside of the FTC's alleged PSNS market. *Cf.*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data); *id.* at ¶¶ 643-644 (Professor Carlton's undisputed market share calculations when including time spent on TikTok, Twitter, and YouTube). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id*. at ¶ 635 (quoting Professor Hemphill's deposition testimony). And as Professor Carlton explained, Professor Hemphill's purported qualitative analysis ignores consumer substitution, relies on flawed qualitative evidence of

product characteristics that fails to show there is distinct demand for "friends-and-family sharing," and misses the link between Meta's ad monetization and competition for users' attention, thereby ignoring important competitive forces from other apps that constrain Meta's behavior. Ex. 2 at ¶ 13 (Carlton Rep.). Further disputed on the ground that the cited materials – specifically paragraphs 20 and 229 of Professor Hemphill's Rebuttal Report – do not cite record evidence.

b. Professor Hemphill's opinions related to market definition additionally relied on a variety of qualitative evidence and quantitative analysis regarding the distinct consumer demand for friends and family sharing, the purposes for which consumers use PSN apps and non-PSN apps, and whether non-PSN apps have a core use or functionality to serve demand for friends and family sharing. PX9000, Hemphill Report at ¶¶ 189-97 (Sec. 3.2.2. "There is a relevant market for personal social networking services"); PX9007, Hemphill Rebuttal Report at ¶¶ 229-364 (Sec. 2.2.2 "A wealth of evidence demonstrates that personal social networking services is a properly defined antitrust market").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1302, and because the statement asserts legal conclusions. Professor Hemphill provided no quantitative assessment of substitutability between Facebook, Instagram, and apps supposedly outside of the FTC's alleged PSNS market. *Cf.*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data); *id.* at ¶¶ 643-644 (Professor Carlton's undisputed market share calculations when including time spent on TikTok, Twitter, and YouTube). When asked, "if I wanted to find quantitative evidence of substitution

in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id*. at ¶ 635 (quoting Professor Hemphill's deposition testimony). And as Professor Carlton explained, Professor Hemphill's purported qualitative analysis ignores consumer substitution, relies on flawed qualitative evidence of product characteristics that fails to show there is distinct demand for "friends-and-family sharing," and misses the link between Meta's ad monetization and competition for users' attention, thereby ignoring important competitive forces from other apps that constrain Meta's behavior. Ex. 2 at ¶ 13 (Carlton Rep.). Further disputed on the ground that the cited material – entire sections of expert reports spanning more than 100 paragraphs without elaboration or explanation, just paraphrasing conclusory assertions – does not create a genuine dispute of material fact.

c. Professor Hemphill's PSN services market definition was further supported by analysis and evidence that non-PSN apps are poor substitutes for users seeking to fulfill the distinct demand for personal social networking because they lack a core use and functionality for friends and family sharing. *See* PX9000, Hemphill Report at ¶¶ 371-570 (Sec. 3.2.2.4 "Other apps for user-generated content are not reasonable substitutes"); PX9007, Hemphill Rebuttal Report at ¶¶ 264-331 (Sec. 2.2.2.3 "Non-PSN apps lack functionality and use for personal social networking").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1302, and because the statement asserts legal conclusions.

Professor Hemphill provided no quantitative assessment of substitutability between Facebook, Instagram, and apps supposedly outside of the FTC's alleged PSNS market. *Cf.*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data); *id.* at ¶¶ 643-644 (Professor Carlton's undisputed market share calculations when including time spent on TikTok, Twitter, and YouTube). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id*. at ¶ 635 (quoting Professor Hemphill's deposition testimony). And as Professor Carlton explained, Professor Hemphill's purported qualitative analysis ignores consumer substitution, relies on flawed qualitative evidence of product characteristics that fails to show there is distinct demand for "friends-and-family sharing," and misses the link between Meta's ad monetization and competition for users' attention, thereby ignoring important competitive forces from other apps that constrain Meta's behavior. Ex. 2 at ¶ 13 (Carlton Rep.). Further disputed on the ground that the cited material – entire sections of expert reports spanning more than 100 paragraphs without elaboration or explanation, just paraphrasing conclusory assertions – does not create a genuine dispute of material fact.

1303. Professor Hemphill's finding of direct evidence of Meta's monopoly power over PSN services additionally supports his conclusion that PSN services in the United States satisfy the HMT and are a relevant antitrust market. *Infra* CMF at § II.C; PX9000, Hemphill Report at ¶ 187 ("A second approach [to market definition] is to provide direct

evidence that the scrutinized firm within the proposed market has market power. This second kind of evidence is probative of market definition because if the proposed market were not a relevant market, firms within it could not possess substantial market power. . . . The direct evidence of substantial market power [discussed elsewhere in my report] by itself establishes that this is a relevant market: Meta could not have substantial market power if there were close substitutes that would prevent a hypothetical monopolist of PSN services from exercising significant market power.").

Meta Response: Disputed. Disputed that Professor Hemphill competently evaluated evidence that is material to the issue of whether Meta possesses monopoly power in a relevant market. Further disputed that the evidence he evaluated constitutes direct proof of market power. Professor Hemphill ignored or discounted evidence of substitution and functional interchangeability among apps outside of the FTC's alleged PSNS market. *See*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data); *id.* at ¶¶ 643-644 (Professor Carlton's undisputed market share calculations when including time spent on TikTok, Twitter, and YouTube). Further disputed that Professor Hemphill conducted an HMT. *See id.* at ¶¶ 633-635 (Professor Hemphill's concessions that he did not conduct an HMT or offer any quantitative evidence of substitution). When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id*. at ¶ 635 (quoting Professor Hemphill's deposition testimony). And as Professor Carlton explained, Professor Hemphill's purported qualitative analysis ignores consumer substitution, relies on flawed qualitative evidence of product characteristics that fails to show there is

distinct demand for "friends-and-family sharing," and misses the link between Meta's ad monetization and competition for users' attention, thereby ignoring important competitive forces from other apps that constrain Meta's behavior. Ex. 2 at ¶ 13 (Carlton Rep.). Further disputed on the ground that the cited material – a single paragraph from Professor Hemphill's report, which asserts a conclusion without itself citing to any record material – does not create a genuine dispute of material fact. To the extent this statement incorporates the FTC's statements in Section II.C, Meta incorporates its responses to those statements here. Further disputed on the ground that the above statements assert legal conclusions.

1304. Professor List's de-merger model, when corrected to account for longer term user engagement effects, demonstrates that a firm controlling Facebook and Instagram would raise ad load, and separate ownership of Facebook and Instagram would decrease ad load. When corrected, Professor List's de-merger model shows that a hypothetical monopolist controlling Facebook and Instagram would raise quality-adjusted price above a competitive level. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 122-42, 228.

Meta Response: Disputed. Meta's expert economist Professor List performed an analysis that showed (based on realistic assumptions) that if Facebook and Instagram were separately owned – as they are today, given their current size, growth, engagement levels, and advertising businesses – then ad load would be higher. *See* Ex. 3 at ¶¶ 188-191 (List Rep.). The supposed "corrections" that Professor Hemphill made to the model were unjustified (he claims incorrectly that Professor List ignored long-term substitution; he did not, *see id.*, and lead to absurd results – including that higher usage increases revenues independent of any increase in ad revenues). *See* PX9007 at ¶ 140 (including

Ex. 5) (Hemphill Rebuttal Rep.); *see also* PX6178 at 241:11-21 (List Dep. Tr.) ("Facebook and Meta make money by selling ads. They don't make money by time. You have to have the ad market included in the part of model. If you don't, you're going to get crazy results like, you know what, only 30 percent of Facebook revenues will come from ad sales and only 10 percent of Instagram revenues will come from ad sales. That's the type of lunacy you get from not being thoughtful in adding functions at the end of something and understanding that this is already a longrun model."). As Professor List further explained in sworn testimony, his de-merger model expressly "measures a surrogate for the longrun." PX6178 at 217:9-10 (List Dep. Tr.). In any event, the analysis (however adjusted) does not support the FTC's market definition or create a genuine dispute of material fact, including because ad load is not price and a de-merger simulation does not measure substitution. *See* Meta SMF ¶ 148 (quoting Professor Hemphill's concessions that users have varied and subjective reactions to ads).

1305. As Professor Hemphill explained, "[e]vidence of competition for users' attention does not conflict with a relevant antitrust market for personal social networking services." Relevant markets routinely exist within a broader space, and extensive evidence indicates that the broader set of apps that Meta's experts point to as competing for time and attention are not close substitutes for PSN services. *See* PX9007, Hemphill Rebuttal Report ¶¶ 255-263; *see also* PX9000, Hemphill Report at ¶ 195.

Meta Response: Disputed in part. Undisputed that the quoted language appears in Professor Hemphill's Rebuttal Report. Disputed that Professor Hemphill demonstrated that competition among "PSN apps" and non-"PSN apps" does not conflict with the FTC's alleged PSNS market, and further disputed that Professor Hemphill's assertions

create a genuine dispute of material fact. Professor Hemphill ignored or discounted evidence of substitution and functional interchangeability among apps outside of the FTC's alleged PSNS market. *See*, *e.g.*, Meta SMF ¶¶ 533-566 (describing Meta's experts' empirical substitution data); *id.* at ¶¶ 643-644 (Professor Carlton's undisputed market share calculations when including time spent on TikTok, Twitter, and YouTube). And Professor Hemphill conceded that he did not conduct an HMT or offer any quantitative evidence of substitution. *Id.* at ¶¶ 633-635. When asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." *Id.* at ¶ 635. Further disputed that the cited material creates a genuine dispute of material fact because paragraph 195 of Professor Hemphill's report cites no evidence, record materials, economics literature, or anything else. And paragraphs 255 through 263 of Professor Hemphill's rebuttal report cites only other reports (including his own) – not record materials from Meta, materials from third parties, or economics literature.

7. Meta's incorporation of other activities in its PSN offerings does not undermine the PSN market or Meta's monopoly power.

1306. Over time, Meta has incorporated features into Facebook and Instagram that do not necessarily involve a direct interaction with a friend or family member. *See* FTC SGI at ¶¶ 32-33, 36-37, 86-87, 88-90.

Meta Response: Undisputed. Undisputed that Facebook and Instagram have features that users can use without necessarily interacting with a friend or family member.

1307. While users can engage in activities on Facebook and Instagram that serve uses other than friends and family sharing (such as watching a video on Facebook Watch or

Instagram Reels for entertainment purposes) this dynamic does not replace the lack of competition for serving demand for friends and family sharing. In turn, it does not undermine a finding that PSN services is a properly defined antitrust market, that non-PSN apps do not belong in that relevant market, and that Meta has monopoly power over PSN services. *Infra* CMF at ¶¶ 1308-39; PX9000, Hemphill Report at ¶¶ 265-72; PX9007, Hemphill Rebuttal Report at ¶¶ 234-54; 335-52.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that the statement asserts legal conclusions, not matters of fact. Further disputed that Facebook and Instagram are "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Disputed that Professor Hemphill demonstrated any of the conclusions asserted in the statement – including that PSN services is a properly defined antitrust market, that non-PSN apps do not belong in that relevant market, and that Meta has monopoly power over PSN services. *See*, *e.g.*, Meta SMF ¶¶ 633-635 (Professor Hemphill admitting there is no quantitative evidence of substitution), 636-639 (Professor Hemphill admitting that competition is at the margin for time spent), 640-642 (Professor Hemphill admitting there is no evidence of price discrimination against friends and family sharing demand). Professor Hemphill conceded that he has no evidence that Meta targets users "with a change in ad load" based on their "demand for friends and family sharing." Ex. 283 at 253:10-11, 253:16-17 (Hemphill Dep. Tr.); *see also id.* at 253:8-17 ("Q. . . . So it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing? . . . A. I don't know whether

they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load."); *id.* at 252:17-253:2 ("Q. . . . I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."). Moreover, the only data in the record about the relationship between friend counts and ad load shows [redacted]. *See* Ex. 2 at ¶ 110 (Carlton Rep.); *see id.* at ¶ 114 ([redacted] (emphasis added)); *see also id.* at ¶ 118 & tbl. 23 (same result for followings or followers on Instagram). To the extent the statement incorporates the FTC's statements in paragraphs 1308-1339, Meta incorporates its responses to those statements here.

a) Meta has incorporated other activities into Facebook and Instagram in an integrated manner.

1308. As noted, over time, Meta has incorporated features into Facebook and Instagram that do not necessarily involve a direct interaction with a friend or family member. *See* Meta Statement of Facts in Supp. of Summary Judgment, at Statement Nos. 32-33 (Facebook Marketplace, October 2016) (Apr. 5, 2024), ECF 325-2; *id.* at Nos. 36-37 (Facebook Watch, August 2017); *id.* at Nos. 36-37 (Facebook Reels, September 2021); *id.* at Nos. 86-87 (Instagram Shop, July 2020); *id.* at Nos. 88-90 (Instagram Reels, August 2020).

Meta Response: Undisputed. Undisputed that Facebook and Instagram have features that users can use without necessarily interacting with a friend or family member and that Meta has added features over time.

1309. Meta, however, has incorporated these activities into Facebook and Instagram in an integrated manner, leveraging its social graph to increase engagement in these activities and facilitating integration between these activities and friends and family sharing. *Infra* CMF at ¶¶ 1310-15; PX9000, Hemphill Report at ¶¶ 265-72.

Meta Response: Disputed. Disputed on the ground that "integrated manner," "leveraging," and "facilitating integration" are vague, conclusory, and undefined. Disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that its characterization of these activities – itself unsupported by evidence as discussed herein – is relevant to substitution. Facebook and Instagram users can engage in a variety of activities on Facebook and Instagram that have nothing to do with sharing with friends and family or a social graph, all of which (except Facebook Dating) are included in the FTC's alleged relevant market. *See* Meta SMF ¶¶ 620-626; *id.* at ¶ 621 (Professor Hemphill's testimony that "everything that's happening on the app is the provision of [PSNS]" (quoting Ex. 283 at 80:14-81:21 (Hemphill Dep. Tr.))). For example, Professor Hemphill recognized that a user may spend time on the "Reels tab" "watch[ing] a series of short videos of an otherwise unknown individual dancing," even when the content "was not posted or forwarded by anyone the user knows." *Id.* at ¶ 622 (quoting Ex. 283 at 80:20-81:21 (Hemphill Dep. Tr.)). Professor Hemphill also acknowledged a user may watch the Tonight Show on the Watch tab of Facebook, and the user may "never share[ ] [that] video with any part of their social graph." *Id.* at ¶ 624

(quoting Ex. 283 at 78:7-18 (Hemphill Dep. Tr.)). Disputed that the cited materials support the assertion, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). No record material shows that Meta "integrates" or "leverag[es]" all of these non-friends activities into friends and family sharing, e.g., that purchasing a couch from a stranger on Marketplace somehow incorporates friends and family sharing.

1310. Meta considers even "unconnected" content on Facebook and Instagram—for example, content served to a user views that is not posted by that user's friend or reciprocal connection—to be a vehicle for users to engage with their friends and family.

Meta Response: Disputed. Disputed on the ground that the term "vehicle" is vague, ambiguous, and undefined. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC proffers no evidence that its characterization of these activities – itself unsupported by evidence as explained herein – is relevant to substitution. Further disputed because the statements do not support the assertion that time a user spends on Facebook or Instagram – such as watching a clip of a TV show for entertainment that the viewer never shares with anyone – is more closely associated with friends and family sharing than watching the same clip on TikTok or YouTube. *See*, *e.g.*, Meta SMF ¶¶ 620-626 (Professor Hemphill's testimony that "everything that's happening on the app is the provision of [PSNS]," including watching a video of the Tonight Show that a user never shares with any part of their social graph (quoting Ex. 283 at 78:7-18, 80:14-81:21 (Hemphill Dep. Tr.))); *see also*, *e.g.*, *id.* at ¶ 169 (YouTube's several options to share video (citing Ex. 356 at 1 (YouTube Help, *Share Videos and Channels, Computer*, https://perma.cc/YS55-6NDB))), ¶ 232 (TikTok's several options to share video through

TikTok direct message or other services such as iMessage (citing Ex. 24 at 51:20-28, 52:1-2 (Presser (TikTok) Dep. Tr.))), ¶¶ 281-282, 296 (FTC's proffered experts' concessions and [redacted]; PX6127 at 37:20-38:11, 181:25-182:11 (Zuckerberg Dep. Tr.) (testifying that users share TikTok and YouTube content with friends in messaging services, such as iMessage). The vast majority of time spent on Facebook and Instagram is not spent viewing content posted by friends. *See* Meta SMF ¶¶ 11, 56.

a. Tom Alison, head of the Facebook app, testified that one of the ways Facebook helps users connect with friends is by "allow[ing] people to discover content that's interesting to them maybe through a recommendation that they find, and we allow them to share that with their friends and start a conversation or continue a conversation with a friend over a shared interest." PX6069, Alison (Meta) Dep. Tr., at 9:18-21, 41:24-42:5.

Meta Response: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1310. Further disputed because the cited testimony is incomplete and misleading. Mr. Alison testified that "one of the values of unconnected content is giving people things to talk about with their friends, but we also believe that one of the values that it provides people is being able to be entertained and connect with things that they're interested in." PX6069 at 127:8-14 (Alison Dep. Tr.). Mr. Alison explained that "unconnected content in the feed . . . could be

influenced by who somebody is connected with," but "[i]t's largely influenced by what we believe you are interested in and what we believe the content of the post is about. It could also be influenced by what other people on Facebook are doing or how they're interacting with that content, who you're not connected to." *Id.* at 46:6-18. Mr. Alison also testified that "we believe that the use case that Reels is meant to address and serve is public sharing. We believe that most people that want to share via Reels want their Reel to be viewed or discovered by people that they may not know in real life or that they may not be friends with. Because the product is aimed at that use case, we default the Reels audience to public because we believe that that's most people's preference when creating a Reel." *Id.* at 82:11-23; *see also id.* at 83:5-7 ("A big focus for Facebook and Meta is appealing to creators who are using TikTok and YouTube and other services").

b. Mr. Alison further testified that Meta believes Meta's unconnected content recommendations can enhance users' ability to connect with friends, using content recommendation "to be able to kind of share or start discussions with friends or people they know or may want to know better." PX6069, Alison (Meta) Dep. Tr., at 52:5-14.

Meta Response: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1310. Disputed because the cited testimony is incomplete and misleading. The FTC asked, "Facebook's unconnected content recommendations enhance people's ability to connect with friends, *pages, and communities* on

Facebook; correct?" PX6069 at 52:5-8 (Alison Dep. Tr.) (emphasis added). Mr. Alison testified, "We believe that they can be used in that way. Some people just use them for being entertained. Other people use them to be able to kind of share or start discussions with friends or people they know or may want to know better." *Id.* at 52:9-14. Mr. Alison also testified that unconnected content recommendations can "be used for entertainment or other purposes." *Id.* at 51:22-52:4. Mr. Alison added that "[f]orming community with people that you know in real life is something that happens on Facebook," but "people can often feel a sense of community with people they don't know in real life," such as in "large groups" where users "don't know the others in real life" and "comments of pages where people don't necessarily know the other people." *Id.* at 54:1-12. Mr. Alison further testified that users can also find this "sense of connection" through "competitors like . . . Twitter, YouTube, TikTok, and others." *Id.* at 54:14-18.

c. Adam Mosseri, head of Instagram, testified that Instagram Reels provides "a really good example" of how "in-feed recommendations" on Meta's apps "are meant to complement, you know, your ability to connect with friends, but even to improve them." PX6078, Mosseri (Meta) Dep. Tr., at 61:13-16, 131:20-25.

Meta Response: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1310. Disputed because the cited testimony is incomplete and misleading. Mr. Mosseri testified that "the hope with Reels was to make Instagram more interesting, more engaging, but in a way that, *not only helped*

with the entertainment use case, but even if we were thoughtful about it, also helped with the connecting-with-friends use case." PX6078 at 132:17-22 (Mosseri Dep. Tr.) (emphasis added). He explained, "the hope with in-feed recommendations is similar." *Id.* at 132:16-17. Mr. Mosseri also testified that he "was supportive of launching in-feed recommendations in the first place" because "[t]he industry" – including TikTok, YouTube, and Twitter (among others) – "is moving to a place where more and more social products are reliant on recommendations to stay relevant." *Id.* at 120:16-121:6; *see also id.* at 129:10-16 (the "intent of in-feed recommendation" was "to compete, whether it's TikTok and YouTube and, to a lesser degree, Twitter and Snapchat"). He further testified that the goal of in-feed recommendations on Instagram was "to make Instagram more interesting and engaging because, quite frankly, [ ] the competition is quite stiff, particularly with TikTok": "If we go down, they spike. If they go down, we spike, so clearly, there's a competitive effect." *Id.* at 126:15-23.

d. Mr. Mosseri further testified that Reels (and entertainment content) complements and fosters friends and family sharing by contributing to a "flywheel effect where you discover something, you share it with someone, you talk about it with them, and they discover something else," thereby "mak[ing] Instagram more interesting, more engaging, but in a way that, not only helped with the entertainment use case, but . . . also helped with the connecting-with-friends use case." PX6078, Mosseri (Meta) Dep. Tr., at 132:12-22.

Meta Response: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that this statement creates a genuine dispute of

material fact, including for the reasons stated above in Meta's response to paragraph 1310. Further disputed because the cited testimony is incomplete and misleading. The FTC omits Mr. Mosseri's testimony explaining that Reels was a competitive response to firms the FTC omits from its claimed market. When asked, "[redacted]," Mr. Mosseri testified that "[redacted]" was "[redacted]." PX6078 at 243:25-244:15. Mr. Mosseri added:

> We have also continued to try and build more and more on the friends space over the last couple of years, including when we decided to focus more and more on them in the context of this. They [TikTok] have done a bunch of different friends features, the friends tab, stories, a be-real competitor, etc., and so we are – we've just consistently been concerned that they are just an incredibly strong competitor and that if we want to stay relevant, that we're going to have to compete with them, and yes, do some of what they do and go toe to toe, but also, try to innovate and offer something more differentiated.

Id. at 244:20-245:9.

e. A 2021 presentation regarding the Facebook News Feed explained that "[unconnected] comment edge (UCE) posts display unconnected content that a viewer's friends have commented on, [redacted]" and noted that they "[redacted]" because "[redacted]" PX3008 at -034, Meta presentation: "Feed & Ecosystem XFN" (Oct. 4, 2021), FTC-META-006751948.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed because the paraphrase of the document is incomplete and misleading. Further disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1310, and because the fact that Facebook Feed shows whether a user's friends have commented on unconnected content does not support the above assertion regarding friends and family sharing. The cited 2021 slide deck [redacted]. PX3008 at -039 (FTC-META-006751948). The same bullet quoted in the above statement noted that [redacted] *See id.* at -034 [redacted]. *Id.* (emphasis in original). That is consistent with evidence that a vast majority of time spent on Facebook and Instagram is not spent sharing with friends and family (or consuming content shared by friends or family). *See* Meta SMF ¶¶ 11-12, 56-57.

1311. Similarly, Meta recognizes that user engagement with long-form or short-form video on Facebook and Instagram often involves friends and family sharing.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC proffers no evidence that its characterization of Meta's view of user engagement with long-form or short-form video on Facebook and

Instagram – itself unsupported by evidence as explained herein – is relevant to substitution. Disputed on the ground that the material cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), including for the reasons stated in Meta's responses to the subparagraphs below. None of the cited material supports the assertion that user engagement with video on Facebook and Instagram "often involves friends and family sharing." On the contrary, the most recent usage data in the record to consider this issue shows the opposite. *See* Meta SMF ¶ 11 (Professor Carlton's calculations that a vast majority of time spent on Facebook is not spent engaging with content shared by friends or family), ¶ 14 (Facebook video features, except Stories, have [redacted] of their content posted by a user's friends), ¶¶ 56-60 ([redacted] of time spent on Instagram Reels from users' reciprocal follows).

a. Mr. Alison testified that "one aspect of [Meta's] Reels strategy" is "Facebook and Instagram . . .being the best place to talk about and make videos with your friends." PX6069, Alison (Meta) Dep. Tr., at 126:6-11 ("Q. Meta's strategy for Facebook and Instagram also includes being the best place to talk about and make videos with your friends; correct? A. Yes, that's one aspect of the Reels strategy.").

Meta Response: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1311. The excerpted testimony does not support the statement in paragraph 1311 that "user engagement with long-form or short-form video on

Facebook and Instagram often involves friends and family sharing." Further disputed to the extent the statement suggests time spent talking about a Reel is the same as time spent viewing a Reel, which are indisputably different activities. Moreover, the quoted testimony is incomplete and misleading. Mr. Alison provided the quoted testimony when asked about a portion of a slide deck titled "Reels Update for the Board" that included Meta's strategy of "embracing short-form video and recommendations, building a best in class recommendations system, being the best place to talk about and make video with your friends[,] and becoming the preferred home for creators." PX6069 at 125:8-18 (Alison Dep. Tr.). Mr. Alison testified that "from what I recall, the board was very interested in how we were responding to the competitive threat from TikTok." *Id.* at 124:23-125:1. The first slide of the deck describes Meta's strategy after explaining, "[redacted]" Ex. 472 at -434 (PX10033, FTC-META-006224431).

b. A 2014 Meta discussion board post stated that survey results showed that "the type of content people watch varies by platform—people turn to Facebook for videos from friends/family, whereas YouTube dominates how-to, interests, and professional." PX3437, Meta message board post: [redacted] post to Videos FYI re: "[Videos FYI] ===Video Universe Survey Topline Findings===" (Sept. 19, 2014), FB_FTC_CID_02349518, at -518.

<u>Meta Response</u>: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the statement creates a genuine dispute of

material fact, including for the reasons stated above in Meta's response to paragraph 1311. Disputed on the ground that the statement is an incomplete and misleading quotation from the cited document. The document is from 2014, predating TikTok's existence by years, and says nothing about competition today. The most recent data in the record shows that the vast majority of time spent on Facebook and Instagram is not spent engaging with content shared by friends and family. *See* Meta SMF ¶¶ 11-12, 56-57. The document also demonstrates competition with YouTube. The document contains "[t]opline [f]indings" from a "Video Universe Survey" – a survey of 2,418 English-speaking U.S. Facebook users conducted "to develop a deeper understanding of consumer behavior in the online video space" as "the online video market continues to grow and change." PX3437 at -518, -519 (FB_FTC_CID_02349518). The document concludes with notes on how Facebook has "[r]oom to [i]mprove" as compared to YouTube. *Id.*

c. A 2019 Meta document reporting survey results regarding Facebook user perceptions of video content stated "[p]eople agree that they come to Facebook for videos made by Friends and Family," but "[t]hey disagree that they come to Facebook to watch videos from shows, entertainers, creators, or publishers." PX3438, Meta document: "People's perceptions of video on Facebook have been consistent for 2 years" (May 8, 2019), FTC-META-012248285, at -287.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1311. Further disputed on the ground that the quoted language is

incomplete and misleading. The quotation comes from a portion of a header in the cited document. The full text of that header ends: "Our goal is to shift this perception." PX3438 at -287 (FTC-META-012248285). Further disputed that the statement creates a genuine dispute of material fact because the cited material does not support the above assertion in paragraph 1311. The cited document is a post that describes "insights" that were "derived from on-platform survey responses collected from Q1 2016 through Q4 2018" – largely before TikTok's existence – from users in the United States, United Kingdom, and Mexico. *Id.* at -286. "The survey asked about video on Facebook" and noted that it was "important" that the question was "not specific to [ ] Watch," which did not launch until 2017 and was where "public content lives." *Id.* at -286, -287. The cited document describes Meta's efforts to have Facebook Watch "expand[ ] the value of Facebook by giving people a place to be entertained by videos." *Id.* at -288. The most recent data in the record shows that the vast majority of time spent on Facebook and Instagram is not engaging with friends and family content. *See* Meta SMF ¶¶ 11-12, 56-57.

d. A 2020 Meta presentation [redacted] PX3574 at -006, Meta presentation: "Reels

Value Proposition and Messaging Research" (May 2020), FTC-META-006817441.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language regarding [redacted]. *See* PX3574 at -016 (FTC-META-006817441) [redacted]. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1311. Further disputed because in a January 2020 survey conducted by Meta, described in an April 2020 slide deck, [redacted] Meta SMF ¶ 216 (quoting Ex. 222 at -.001, -.047 (FTC-META-005944143)). The most recent data in the record shows that the vast majority of time spent on Facebook and Instagram is not engaging with friends and family content. *See* Meta SMF ¶¶ 11-12, 56-57.

e. The presentation also explained how [redacted] PX3574 at -021, Meta presentation: "Reels Value Proposition and Messaging Research" (May 2020), FTC-META-006817441. Additionally, the study found that:

[redacted]

Id. at -031.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language (although the FTC cites the wrong pages). Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 1311 and subparagraph 1311(d). Today, [redacted] of time spent and [redacted] of total impressions on Instagram Reels comes from users' "reciprocal follows where neither account is a creator account (but one or both could be a business account)." *See* Meta SMF ¶ 60 (quoting Ex. 2 at ¶ 73 & p. 72, tbl. 12 (Carlton Rep.)). Disputed on the ground that the quoted language is incomplete and misleading. The same slide of the quoted presentation also states that a [redacted]

PX3574 at -033 (FTC-META-006817441).

1312. Further, when Meta has launched surfaces within Facebook and Instagram that involve unconnected content—such as Facebook Watch, Facebook Reels, and Instagram Reels—it "leveraged" its social graph and incorporated the surfaces within the apps to facilitate

sharing of the content with friends and family. Meta has emphasized that this integration differentiates the surface from, for example, watching video on YouTube or TikTok.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1310, because there is no evidence that the FTC's characterizations of "surfaces" on Facebook and Instagram – themselves unsupported by evidence as explained herein – are relevant to substitution, and because YouTube and TikTok have several friends and family sharing features. *See* Meta SMF ¶¶ 165-180, 212-243. Professor Hemphill acknowledged that he is not sure – following his review of the record – whether there is more friends-related content on Instagram Reels or the TikTok For You page. *See id.* at ¶ 216 (quoting Ex. 283 at 92:16-21 (Hemphill Dep. Tr.)). Further disputed on the ground that the material cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. Mr. Alison testified that "[redacted]" and confirmed that "[redacted]" PX6069, Alison (Meta) Dep. Tr., at 135:5-16.

Meta Response: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1312. Further disputed because the statement is an incomplete and

misleading summary of Mr. Alison's testimony. In the cited portion of Mr. Alison's testimony, he testified:

PX6069 at 135:5-136:4 (Alison Dep. Tr.) (emphases added).

b. Lars Backstrom, Meta's Vice President of Engineering, testified that, "to the extent that there is an increase in content, there is more available inventory and more opportunity for there to be something valuable to people when they open the app," and that users can then share this content within the Facebook app via News Feed, Stories, and messaging. PX6093, Backstrom (Meta) Dep. Tr., at 13:115-17, 125:17-21 ("Q. When users see videos in Facebook Watch, they have the option to share those videos with their friend connections on Facebook; right? A. Yes."); *see id.* at 179:20-180:13; *see also id.* at 174:18-176:20 (confirming that Facebook users can share content from various Facebook surfaces—including, inter alia, Watch, Groups, Reels, and Marketplace—via Facebook News Feed); *id.* at 178:4-

10 (confirming that users can share content from various Facebook surfaces within the Facebook app via messaging); *id.* at 177:10-12 (confirming that users can share content from various Facebook surfaces with a Facebook Group).

Meta Response: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that the statement accurately summarizes Mr. Backstrom's testimony. Mr. Backstrom testified that the Facebook "app can generally become more valuable [ ] by having an increase in the inventory that is available for consumers when they visit." PX6093 at 180:10-13 (Backstrom Dep. Tr.). Mr. Backstrom did not connect that testimony to other testimony regarding how content may be shared or consumed on Facebook (i.e., "friends" vs. non-friends content). *See id.* Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1312, and because a user can share content on TikTok to a contact through a direct message on TikTok or other messaging services. *See* Meta SMF ¶ 232 (citing Ex. 24 at 51:20-28, 52:1-2 (Presser (TikTok) Dep. Tr.)).

c. A December 2021 document produced by Facebook's "Consumer Product Strategy & Insights" team suggested that Meta should "[redacted]" PX10695, Meta document: "SFV – Bi-monthly Product Space Update" (Dec. 2021), FTC-META-006252553, at -553.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the statement creates a genuine dispute of

material fact, including for the reasons stated above in Meta's response to paragraph 1312.

d. A January 2022 Meta document intended "[redacted]" stated that "[redacted]" PX3007, Meta document: "Facebook Reels recommended target audience" (*Jan. 12, 2022), FTC-META-006257624, at -624-25.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1312. Further disputed on the ground that the statement is an incomplete and misleading description of the document. The document describes [redacted] PX3007 at -629 (FTC-META-006257624). The document also states "[redacted]" *id.* at -628, and notes the "[redacted]" *id.* at -629.

e. That January 2022 Meta document also stated that "[redacted]"

PX3007, Meta document: "Facebook Reels recommended target audience" (*Jan. 12, 2022), FTC-META-006257624, at -629.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1312 and subparagraph 1312(d).

f. Slide notes for a 2019 Meta presentation described Facebook's [redacted]:

> A 2019 Meta presentation described how [redacted] Many companies have reach, frequency, and some even have brand. But no company can build the social experiences we can build.

PX15381 at -099, Meta presentation: "FB App Strategy" (*Apr. 22, 2019), FB_FTC_CID_11240781.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1312. Disputed that the block quote accurately reproduces the text of the cited document. Further disputed because nothing in the statement refers to facilitating "sharing of the content with friends and family," as the above statement in paragraph 1312 asserts.

g. A 2019 Meta document contained a visual showing how various Facebook surfaces, including Groups, Watch, Marketplace, and Gaming, were "Socially-powered possibilities" on top of the social graph. PX3575, Meta document, "What is a Service?" (*May 22, 2019), FTC-META-006378961 at -961.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1312. Disputed that the statement's summary of the cited document accurately describes its contents. The cited document refers to itself as "a work-in-progress," and refers to "Market Competition" for "Watch" as YouTube, Netflix, and Hulu; for "Marketplace" as Craigslist and Amazon; and for "Gaming" as Twitch. PX3575 at -962, -966-967 (FTC-META-006378961).

h. [redacted]

Meta Response: Disputed in part. [redacted]

1313. Meta has recognized this same dynamic with respect to features like gaming and Groups.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC proffers no evidence that its characterization of features like gaming and Groups – itself unsupported by evidence as explained herein – is relevant to substitution. Further disputed because "same dynamic" is vague, ambiguous, and undefined. Further disputed on the ground that the material cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. When asked how Facebook helps users connect with their friends, Mr. Alison testified that Facebook Groups could be used "to connect with groups of friends." PX6069, Alison (Meta) Dep. Tr., at 42:6-24 ("Q. Any other ways Facebook helps people connect with their friends? A. . . . We also have a groups product which sometimes people use to connect with groups of friends, but it's predominantly

used to connect with larger groups of people who you may not necessarily know in real life.”).

Meta Response: Undisputed. Undisputed that Mr. Alison provided the quoted testimony, including that Facebook Groups is “predominantly used to connect with larger groups of people who you may not necessarily know in real life.” PX6069 at 43:22-24 (Alison Dep. Tr.).

b. A 2019 Meta slide deck reported that “[c]urrently the top FB games are all for leisure, and are primarily oriented around social features,” offering an example of a “Solitaire Live” virtual card game in which “[t]wo users are playing together competing with each other.” PX3439 at -043, Meta presentation: “FB Desktop Category Analysis” (Jan. 29, 2019), FB_FTC_CID_02330665.

Meta Response: Disputed in part. Undisputed that the cited document contained the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 1313. Further disputed because nothing in the statement refers to integration of Gaming with friends and family sharing. The cited document contains a Market Strategy slide deck regarding Facebook Desktop, and it identifies “Fastest Growing Competitors” as “Youtube, VK, Twitter, Reddit, Amazon, Roblox,” for the following Facebook desktop services: Video, News Feed, Groups, Marketplace, and Instant Game. PX3439 at -024 (FB_FTC_CID_02330665).

c. A 2019 Meta document contained a visual showing how various Facebook surfaces, including Groups, Watch, Marketplace, and Gaming, were “Socially-

powered possibilities" on top of the social graph. PX3575, Meta document, "What is a Service?" (*May 22, 2019), FTC-META-006378961 at -961.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1312. Disputed that the statement's summary of the cited document accurately describes its contents. The cited document refers to itself as "a work-in-progress," and refers to "Market Competition" for "Watch" as YouTube, Netflix, and Hulu; for "Marketplace" as Craigslist and Amazon; and for "Gaming" as Twitch. PX3575 at -962, -966-967 (FTC-META-006378961).

d. A 2019 Meta presentation described Facebook's ability to "uniquely build new services that rely heavily on identity and social graph" and identified "Groups" as an example of such a service PX15381 at -099, Meta presentation: "FB App Strategy" (*Apr. 22, 2019), FB_FTC_CID_11240781; *id.* at -101 (describing "Groups" and "Dating" as "new services").

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1312. Further disputed because nothing in the statement refers to Groups facilitating "sharing of the content with friends and family," as the statement in paragraph 1312 above asserts.

1314. Meta additionally views direct messaging within Facebook and Instagram as fostering the broadcast friends and family sharing experience of the apps.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because there is no evidence that the FTC's characterizations of direct messaging within Facebook and Instagram – itself unsupported by evidence as explained herein – is relevant to substitution. Further disputed on the ground that the material cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In fact, the material cited and other evidence contradicts the assertion in this paragraph, for the reasons stated in Meta's responses to the subparagraphs below. Meta offers direct messaging on Facebook and Instagram in intense competition with other apps that do the same, including both established messengers like iMessage and other apps that allow for direct messaging to share content like TikTok. *See* Meta SMF ¶¶ 237-238 (describing TikTok's messaging features), ¶ 300 (Twitter's messaging features), [redacted].

a. Mr. Alison described messaging on Facebook as [redacted]:

[redacted]

PX6069, Alison (Meta) Dep. Tr., at 153:4-23.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1314. Disputed that the statement accurately summarizes Mr.

Alison's testimony. On the contrary, immediately before the quoted testimony, Mr. Alison testified that [redacted]

PX6069 at 151:7-152:22 (Alison Dep. Tr.).

b. Mr. Mosseri similarly described messaging on Instagram as fostering broadcast sharing within the app:

> So in-feed recommendations, you might see a funny video or an inspiring video, maybe you follow the account, maybe you didn't. That's sort of an entertainment-type use case. Then often what will happen is you'll then share it with a friend and that will spark a conversation. Maybe you message it to me. Then I come back to Instagram, I message it with you and then maybe I watch some other videos or see some other public content.

PX6078, Mosseri (Meta) Dep. Tr., at 130:15-24.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1314. Disputed that Mr. Mosseri described messaging "similarly" to the inaccurate statement above in subparagraph 1314(a). Further disputed

because the quoted testimony does not support the statement in paragraph 1314 about "fostering broadcast sharing within the app." The quoted text itself makes plain that Mr. Mosseri testified that users sharing content through private, direct messaging prompts additional private messaging or additional passive consumption of public content, not "broadcast sharing" or "friends and family sharing," as the FTC uses those terms. Consumers can use many messaging services (including iMessage) to message with friends and family or even to share non-friends content that the user saw on Facebook or Instagram (or any other number of services). *See* Meta SMF ¶¶ 420-421, 423.

1315. Snapchat also provides features that can be used both for another use like entertainment and to complement and engage in friends and family sharing. *See* PX9000, Hemphill Report at ¶ 271.

Meta Response: Disputed in part. Undisputed that Snapchat provides features that can be used for both entertainment and friends and family sharing – [redacted] *See* Meta SMF [redacted]. The FTC cites no evidence comparing how much time on any of these services is devoted to friends and family sharing instead of consuming public or unconnected content. Snapchat offers many features for the consumption of public or unconnected content and views YouTube, TikTok, and others as competitors for time spent. *See* Meta SMF ¶ 499 (undisputed testimony from Snap witness, Mr. Levenson, that Snapchat competes with TikTok, YouTube, and others); *see also id.* at ¶¶ 498-505 (collecting evidence of Snap's acknowledgment that it competes with many apps outside of the supposed PSNS market). Disputed that the statements in this paragraph and its subparagraphs create a genuine

dispute of material fact, including because there is no evidence that the FTC's characterizations of Snapchat's features are relevant to substitution and because nothing in this statement or the subparagraphs explains why the FTC excludes apps from the alleged PSNS market that – like Facebook and Instagram (and Snapchat) – allow users to share content with their friends and family. *See* Meta Resp. to Counter SMF ¶ 1310.

a. Jacob Andreou, Snap's Senior Vice President of Growth, testified that Snapchat users can share public Stories—e.g., from the Discover tab—with their friends: "So if they see something like really interesting inside of one of those stories, they'll hit the 'share' button and they'll send it to one of their friends and they may talk about it." [redacted]

<u>Meta Response</u>: Disputed in part. Undisputed that the cited transcript contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1315. Further disputed on the ground that the quoted language is taken out of context. When asked whether people "tend to engage very much with their friends around a subscription in Discover or For You content," Mr. Andreou testified, "They'll share occasionally," but that "largely the content consumption experience" in the Discover tab "tends to be a pretty single-player experience." PX6119 at 254:10-19 (Andreou (Snap) Dep. Tr.).

b. Snapchat also has a newer "Spotlight" feature where users submit and consume short-form videos. [redacted]. Mr. Andreou testified that Snapchat users can not only share Spotlight content with their

friends, but also watch Spotlight content in the Chat surface so that both the user and their friends can engage with the content. Id. at 262:21-263:16.

Meta Response: Disputed in part. Undisputed that Snapchat has a Spotlight feature – which public sources, Snap witnesses and documents, and the FTC's own expert have all described as a competitive response (or competitor) to TikTok. *See* Meta SMF ¶ 497 (public sources and FTC's expert), ¶ 510 (Snap documents and testimony). Further undisputed that Mr. Andreou described the features in the statement. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1315. Further disputed on the ground that the quoted language is taken out of context. When asked whether "content that appears on short-form video" includes "bidirectional friend content," Mr. Andreou testified, "[i]t can, but that's not the like – that's not the 99 percent case. So if people are posting to Spotlight, they're posting to Spotlight specifically. And while you may stumble across a piece of content that one of your friends has created and posted to Spotlight, the primary use case of Spotlight is not just to see things from your friends." PX6119 at 48:13-49:1 (Andreou (Snap) Dep. Tr.).

b) Friends and family sharing remains large and important and a core use of Facebook and Instagram.

1316. Friends and family sharing remains a large and important form of consumer demand and a core use of Facebook and Instagram. *Infra* CMF at ¶¶ 1317-24; PX9007, Hemphill Rebuttal Report at ¶¶ 234-54.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The most recent data in the record shows the vast majority of time spent

and content viewed on Facebook and Instagram is not associated with friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57. Further disputed because Professor Hemphill conceded he has no evidence that Meta targets users "with a change in ad load" based on their "demand for friends and family sharing." Ex. 283 at 253:10-11, 253:16-17 (Hemphill Dep. Tr.); *see also id.* at 253:8-17 ("Q. . . . So it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing? . . . A. I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load."); *id.* at 252:17-253:2 ("Q. . . . I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."). Moreover, the only data in the record about the relationship between friend counts and ad load shows [redacted]. *See* Ex. 2 at ¶ 110 (Carlton Rep.); *see id.* at ¶ 114 ([redacted] (emphasis added)); *see also id.* at ¶ 118 & tbl. 23 (same result for followings or followers on Instagram). Further disputed on the ground that "large and important" and "core use" are vague and undefined. *See also* Meta's Introduction to its Response to the FTC's Counterstatement. To the extent the statement incorporates the FTC's statements in paragraphs 1317-1324, Meta incorporates its responses to those statements here.

1317. Meta and its experts point to data purporting to show that [redacted] of the time spent and [redacted] of the content viewed on Facebook in January 2023 and [redacted] of time spent and content viewed on Instagram in 2023 is not "associated with friends and family sharing." *See* FTC SGI at ¶¶ 11, 56.

Meta Response: Disputed in part. Undisputed that Meta and its experts point to the data described in this statement. Disputed that the data "purport[s] to show" these metrics; the FTC cites no evidence to support that assertion.

1318. These figures understate friends-and-family activity on Facebook and Instagram because Meta's experts do not acknowledge or account for the fact, detailed above, that Meta considers even activities that do not involve direct interaction with friends and family to have a role in fostering the friends and family sharing experience on Facebook and Instagram. *See supra* CMF at § II.A.7(a); PX9007, Hemphill Rebuttal Report at ¶¶ 251-52, 336, 345.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because there is no evidence that the FTC's characterizations of activities on Facebook and Instagram – itself unsupported by evidence as explained herein – is relevant to substitution. The FTC cites paragraphs 252, 336, and 345 of Professor Hemphill's rebuttal report, which observe simply that non-friends content can be shared with friends and family; Professor Carlton's figures show how often that occurs. *See* Meta SMF ¶¶ 11, 56. The FTC also cites paragraph 251 of Professor Hemphill's rebuttal report, which does not address Professor Carlton's calculations of time spent on the Facebook and Instagram apps (Professor Carlton's Table 10); that paragraph of Professor Hemphill's rebuttal report discusses a different calculation

(Professor Carlton's Table 8). Professor Hemphill offers no other calculation in the cited paragraphs of his rebuttal report (nor does the FTC in the statement above). To the extent the statement incorporates the FTC's statements in Section II.A.7(a), Meta incorporates its responses to those statements here.

1319. In any event, the cited data is only reporting *proportions* of time spent and impressions on Facebook and Instagram and this data (and Meta's experts more generally) do not demonstrate a decline in demand for friends and family sharing overall. Even accepting Meta's overly restrictive classification of friends and family activity, that the friends and family use case may have declined as a *share* of app activity does not logically or necessarily imply that there has been an overall decline in friends and family activity or that consumers value the friends and family use case any less. PX9007, Hemphill Rebuttal Report at ¶ 240.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that the statement is argumentative and does not state any fact. Further disputed because the FTC has proffered no evidence that activity that it characterizes as friends and family activity is relevant to substitution. Further disputed because the vast majority of time spent on Facebook and Instagram is not associated with friends and family sharing, and friends and family sharing is a declining proportion of activity on Facebook and Instagram. *See* Ex. 2 at ¶ 75 (Carlton Rep.) ("Prof. Hemphill's approach of looking only at a minority of usage on the Facebook and Instagram apps leaves him unable to explain the competitive conditions that drove the decline in friends and family sharing and the increases in other use cases."); *see also*

Meta SMF ¶¶ 11-12, 56-57. Nothing in the statement demonstrates otherwise. The statement cites only paragraph 240 of Professor Hemphill's rebuttal report, which also only supposes that there may not have been an overall decline in friends and family activity; neither the statement nor cited paragraph offers any calculation to support that these suppositions are reality. And the record in any event contradicts the suppositions. *See* PX6179 at 232:20-233:7 (Carlton Dep. Tr.) ("Q. So it's fair to say that the share of friends and family activity can decline by virtue of additional content being put into the app even if friends and family sharing activity is not declining in absolute terms; correct? A. That's true, but . . . [redacted] [redacted]").

1320. Ordinary course and testimonial evidence indicate that friends and family sharing remains a core use of Facebook and an important form of consumer demand. *See supra* CMF at §§ I.A.3(b), I.A.4(a)(1) [errata: "§§ I.A.3(b), I.A.4(a)(1)" should say "§§ II.A.3(b), II.A.4(a)(1)"] (citing documents and testimony from last several years).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC has proffered no evidence that supposed "friends and family sharing" activity is relevant to substitution and as explained in response to the below subparagraphs. Further disputed on the ground that the material cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In fact, the material cited and other evidence contradicts the assertion in this paragraph, for the reasons stated in Meta's responses to the subparagraphs below. To

the extent the statement incorporates the FTC's statements in Sections I.A.3(b) and I.A.4(a)(1), Meta incorporates its responses to those statements here.

a. Mr. Zuckerberg testified in 2023 that

> it's certainly the case that connecting with friends in particular has been one of the important use cases since the beginning. Family, you know, some number of years later joined and became one of the core pillars. It's one of the things that I think we do well, and we intend to keep doing it well even as we add other use cases, and those use cases may grow as a portion of what we're doing.

PX6127, Zuckerberg (Meta) Dep. Tr., at 11:14-22.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1320. Further disputed on the ground that the quoted testimony is incomplete and misleading. In the portion of the deposition immediately preceding the excerpted testimony, the FTC asked Mr. Zuckerberg whether it is "fair to describe today the Facebook application to provide the core experience of friends and family sharing." PX6127 at 11:2-4 (Zuckerberg Dep. Tr.). Mr. Zuckerberg testified: "It's one of the pillars of what we do for sure. I'm not 100 percent sure what you're getting at with the question. You seem to be phrasing it in a way that is maybe a little more singular about what we're doing, which I don't think is accurate because for many years we've also done a lot of other things. We're in entertainment and people finding content in other ways." *Id.* at 11:6-13. After the testimony excerpted in this subparagraph, when asked "What are the other core pillars that Facebook offers other than friends sharing," Mr. Zuckerberg explained: "I don't know that we think about the strategy in terms of a specific number of core pillars, but there are different . . . jobs to be

done for people." *Id.* at 11:24-12:5. Mr. Zuckerberg testified that besides content to see "what's going on with your friends and family," "increasingly what we found . . . especially over the last five or six years, is that there's also just been an explosion in non-friend or follower content especially as the algorithms have gotten a lot better at being able to recommend content to people that's interesting and that's growing to be a larger and larger portion of the content on the system." *Id.* at 12:6-25. The most recent data in the record shows the vast majority of time spent on Facebook and Instagram is not related to friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57.

b. Mr. Zuckerberg testified in 2020 that "the use cases that we've focused on the most over time [on Facebook] are around helping you connect with . . . your friends and family." PX6029, Zuckerberg (Meta) IH Tr., at 184:9-184:17 (contrasting this use case with one based on user interests).

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1320. Further disputed because the excerpted testimony is incomplete and misleading. In the same 2020 investigational hearing, Mr. Zuckerberg testified: "Over the last several years, we focused a lot on building up Groups and Communities to be increasingly core and at the same foundational level as even adding friends is. And part of that is just kind of getting at this – this reality that people have multiple different sets of people that they want to interact with, and just having a single set of friends was – was sort of limiting. And we saw that this was a really important way that people wanted to connect, so we're focused

on that." PX6029 at 55:15-24 (Zuckerberg IH Tr.). The most recent data in the record shows the vast majority of time spent on Facebook and Instagram is not related to friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57.

c. Mr. Zuckerberg has explained that although "[v]ideo and other public content have exploded on Facebook in the past couple of years," Meta would seek to prioritize content from friends and family because Facebook has "always put friends and family at the core of the experience" and "[a]t its best, Facebook has always been about personal connections." PX12503 at -003, *Bringing People Closer Together*, Meta Newsroom (Jan. 11, 2018), https://about.fb.com/news/2018/01/news-feed-fyi-bringing-people-closer-together/.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1320, and because the document is from January 2018, before the rise of TikTok (among many other competitive changes). The most recent data in the record shows the vast majority of time spent on Facebook and Instagram is not related to friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57.

d. Ms. Sandberg testified in 2020 that staying connected with friends and family is "a core part" of Facebook and "it's the majority of what people do." PX6022, Sandberg (Meta) IH Tr., at 44:10-44:14.

Meta Response: Disputed in part. Undisputed that Ms. Sandberg provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1320. Further disputed that Ms. Sandberg's recollection of what she

considers "the majority of what people do" – which the FTC did not ask for her to further elaborate on or define – creates a genuine dispute of material fact. As of 2023, the vast majority of time spent and content viewed on Facebook and Instagram is not associated with friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57.

e. Tom Alison, Head of the Facebook app, testified in 2023 that, [redacted]. PX6069, Alison (Meta) Dep. Tr., at 218:10-219:10 ([redacted]).

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

f. A 2021 presentation on the Facebook News Feed noted that "[redacted]" and recognized [redacted] PX3008 at -039, Meta presentation: "Feed & Ecosystem XFN" (Oct. 4, 2021), FTC-META-006751948.

<u>Meta Response</u>: Undisputed that the document regarding Facebook Feed contains the quoted language regarding "[redacted]" PX3008 at -039 (FTC-META-006751948).

i. Meta concluded in 2021 that [redacted]. Id.

Meta Response: Undisputed that the document contains the quoted language regarding [redacted].

ii. Meta concluded in 2021 that [redacted] and "[redacted]. Id. (emphasis omitted).

Meta Response: Undisputed that the document contains the quoted language [redacted].

1321. Ordinary course and testimonial evidence indicate that friends and family sharing remains a core use of Instagram and important form of consumer demand. *Supra* CMF at §§ I.A.3(c), I.A.4(a)(1) [errata: "§§ I.A.3(c), I.A.4(a)(1)" should say "§§ II.A.3(c), II.A.4(a)(2)"] (citing documents and testimony from last several years).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC has proffered no evidence that supposed "friends and family sharing" activity is relevant to substitution. Disputed on the ground that "core use" is vague and undefined and for the

reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the material cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In fact, the material cited and other evidence contradicts the assertion in this paragraph, for the reasons stated in Meta's responses to the subparagraphs below. To the extent the statement incorporates the FTC's statements in Sections I.A.3(c) and I.A.4(a)(1), Meta incorporates its responses to those statements here. The most recent data in the record shows the vast majority of time spent on Instagram ([redacted]) is not friends and family sharing. *See* Meta SMF ¶¶ 56-57. Professor Hemphill conceded that he has no evidence that Meta targets users "with a change in ad load" based on their "demand for friends and family sharing." *See* Meta Resp. to Counter SMF ¶ 1316. Moreover, the only data in the record about the relationship between friend counts and ad load shows [redacted]. *See id.*

a. Mr. Mosseri, head of Instagram, testified in 2023 that despite changes in the way Instagram users are using the app, the "primary" reason people say they use Instagram is to connect with friends, and friends and family content is still a core part of Instagram. PX6078, Mosseri (Meta) Dep. Tr., at 129:23-131:12.

<u>Meta Response</u>: Disputed. Disputed that the cited testimony creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1321. The paraphrase of Mr. Mosseri's testimony is an inaccurate summary of the cited portion of the deposition. The paraphrase is also incomplete and misleading. In the cited testimony, Mr. Mosseri did not testify that "the"

primary reason people say they use Instagram is to connect with friends. Mr. Mosseri testified that "[t]he two primary reasons people say they use Instagram in research in the U.S. . . . are to entertain themselves and to connect with friends. Actually, last I checked, their most common answer was to – I think, [redacted] of surveyed said that the primary reason they use Instagram was to be entertained and [redacted] said to connect with friends." PX6078 at 130:2-10 (Mosseri Dep. Tr.). Mr. Mosseri also explained that "if you look at personal sharing in general and you look at the distribution, how much of it is in Feed versus Stories versus DMs, that is shifting, so that on a percentage basis, [redacted]." *Id.* at 150:4-11. And when asked whether he "would [ ] agree" that "friends and family" is "a core content type for a healthy feed," Mr. Mosseri similarly testified, "Not really, actually. . . . [W]hat's happening is [redacted]." *Id.* at 324:14-23.

b. Current head of Meta's online sales, operations, and partnerships (and former COO of Instagram) Justin Osofsky similarly testified that one of the important "jobs that Instagram aims to be hired for" is "be a place where you can connect with friends and family." PX6077, Osofsky (Meta) Dep. Tr., at 52:20-53:20.

<u>Meta Response</u>: Disputed in part. Undisputed that Mr. Osofsky provided the quoted testimony. Disputed that the cited testimony creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1321, and because the paraphrased summary of Mr. Osofsky's

testimony is incomplete and misleading. In the portion of the transcript before the passage cited, the FTC asked Mr. Osofsky, "[W]hat's your understanding of the primary use case for Instagram?" PX6077 at 52:5-6 (Osofsky Dep. Tr.). Mr. Osofsky testified: "I think it depends on the person. . . . Different people come to Instagram for different things. Some people come to connect with friends and family. Some people come to be entertained. Some people come for shopping and to find products they want to buy. So I think different people use it in different ways." *Id.* at 52:9-19. In the portion of the transcript cited by the FTC, when asked for his understanding of "jobs that Instagram aims to be hired for," Mr. Osofsky testified: "I think there are many potential jobs. A couple of the important ones would be a place where you can connect with friends and family and I think a place where you could be entertained. But there are additional jobs, kind of as we talked; also be a place where you could find things to buy." *Id.* at 53:5-20. Later in the deposition, Mr. Osofsky testified, "[P]eople show up just to Instagram for different reasons. Some would show up to be entertained. Some would show up to follow LeBron James. Some would show up to shop." *Id.* at 147:14-17. And when asked again to identify "the primary use cases" for Instagram, Mr. Osofsky explained: "I think Instagram has lots of different use cases. One of the primary use cases is to go be entertained. One use case for some people is to find stuff to buy. One use case could be to see what a celebrity is up to. . . . One reason people use Instagram is to share content with friends and family." *Id.* at 147:23-148:14 ("I think there's lot of different reasons people use Instagram.").

c. In a 2022 set of answers to internally frequently asked questions regarding modifications to Instagram, Meta states that "[redacted]." PX12389, Meta document: "IG22 Sprint: Rallying around the vision" (*June 13, 2022), FTC-META-007320319, at -320.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1321. Further disputed because the cited excerpt is incomplete, missing context, and misleading. The document [redacted]. For example, the document states, "[redacted]" PX12389 at -319. (FTC-META-007320319) (emphasis in original).

1322. Quantitative data and Meta's internal assessments confirm that Facebook and Instagram users exhibit strong demand for friends and family sharing content and consume it in large quantities.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC proffers no evidence that any alleged demand for "friends and family sharing content" is relevant to substitution and for the reasons stated above in Meta's response to paragraph 1316. Further disputed because the material cited in the subparagraphs below does not

support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The most recent data in the record shows the vast majority of time spent on Instagram ([redacted]) is not friends and family sharing. *See* Meta SMF ¶¶ 56-57.

a. As recently as February 2023, [redacted]. PX3188 at -042, Meta presentation: "Feed & Ecosystems XFN Metrics Overview" (Feb. 21, 2023), FTC-META-012436530 (adding together "[redacted]" and "[redacted]" numbers).

<u>Meta Response</u>: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1322, and because the FTC misstates the document as showing [redacted] as of February 2023 – which is inaccurate. The table referenced in the cited document shows that [redacted]. *See* PX3188 at -042 (FTC-META-012436530). This data is consistent with the most recent data in the record, which shows that most time on Facebook – and [redacted], specifically – is not friends and family sharing. *See*

Meta SMF ¶¶ 11-12. Further disputed because the cited data about number of impressions (e.g., a piece of content) does not create a genuine dispute of material fact as to time spent – which Professor Carlton measured – as it could be that a user spends many minutes (or hours) watching a single public video that counts as only one impression.

b. Data furnished by Meta shows that production of posts on Feed and Stories—an acknowledged signal of friends and family sharing—[redacted]. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 242-43, Exs. 7 & 8.

<u>Meta Response</u>: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1322, and because the cited portions of Professor Hemphill's rebuttal report assert that time spent on Feed and Stories is friends and family sharing despite the undisputed fact that one can engage with unconnected or non-friends content on both Feed and Stories. Indeed, the document the FTC cites in the immediately foregoing subparagraph 1322(a) shows that [redacted] of impressions on Feed are not related to friends content. *See* PX3188 at -042 (FTC-META-012436530). That is consistent with Professor Carlton's analysis of Feed and Stories, which found – using the most recent data in the record – that [redacted] of impressions and time spent on Feed and Stories is not friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57.

c. Additionally, data from [redacted] to [redacted] shows that friend content (which consists of original and reshared friend content) constituted [redacted] of Facebook's Feed. PX9007, Hemphill Rebuttal Report at ¶ 246.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1322. The cited paragraph from Professor Hemphill's rebuttal report contains a graph (Exhibit 9) purporting to show the percentage of "view port views" – pieces of content, not time spent with that content – classified by certain categories. Even if Professor Hemphill's data analysis is accurate, it does not dispute that the time spent on Facebook Feed (all that Professor Hemphill considers in this analysis) is [redacted] of all time spent on Facebook, nor does it dispute that [redacted] of time spent on Facebook Feed is not spent engaging with the friends-related content Professor Hemphill identifies. *See* Meta SMF ¶¶ 11-12. Further disputed because the cited data about number of view port views (e.g., a piece of content) does not create a genuine dispute of material fact as to time spent – which Professor Carlton measured – as it could be that a user spends many minutes (or hours) watching a single public video that counts as only one impression. Further disputed because the document the FTC cites above in subparagraph 1322(a) – which uses more recent data than Professor Hemphill – shows that [redacted] of impressions on Feed are not related to friends content. *See* PX3188 at -042 (FTC-META-012436530).

1323. Meta's other internal assessments confirm that friends and family sharing remains important to users of Facebook and Instagram.

Meta Response: Disputed. Disputed because the statement that friends and family sharing "remains important to users" is vague, ambiguous, and undefined. Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC proffers no evidence that the supposed importance of "friends and family sharing . . . to users of Facebook and Instagram" is relevant to substitution and for the reasons stated in Meta's responses to the subparagraphs below. The FTC's own proffered industry expert acknowledged that consumers use Facebook and Instagram for many reasons. *See* Meta SMF ¶¶ 605-608 (citing Ex. 281 (Lampe Dep. Tr.)). The vast majority of time spent and content viewed on Facebook and Instagram is not associated with friends and family sharing. *See id.* at ¶¶ 11-12, 56-57. [redacted] for Feed and Stories features – which Professor Hemphill claims are friends and family sharing features primarily (without actual usage data) – [redacted] is not related to friends and family. *See* Ex. 2 at ¶¶ 69, 72-74 (Carlton Rep.). For example, [redacted] of time spent on Facebook Feed is engaging with content from friends, as opposed to from celebrities, influencers, organizations, businesses, or other public or unconnected sources. *See* Meta SMF ¶¶ 11-12. Similarly, [redacted] of time spent on Instagram Feed is engaging with content from non-creator reciprocal follows, as opposed to from celebrities, influencers, organizations, businesses, or other public or unconnected sources. *See id.* at ¶¶ 56-57.

a. Surveys indicate that many people have in the past and continue to use Facebook and Instagram to satisfy demand for friends and family sharing. *Supra* CMF at §§ II.A.4(a)(6), II.C.3(c) (detailing user surveys showing user dissatisfaction with limited friend content).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1316 and 1323. Further disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections II.A.4(a)(6) and II.C.3(c), Meta incorporates its responses to those statements here.

b. Meta's internal analysis concluded that "[redacted]" PX3175, Meta presentation: "IG Feed's State of the Union" (*Apr. 14, 2020), FTC-META-011756134, at -159.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1323. Further disputed because the statement takes the document out of context. The document cited – an undated slide deck about Instagram Feed – begins with bullets regarding "What we hope to achieve today," which include the point that "[redacted], but we'd love to align on *what else* we should focus on to support Feed's future." PX3175 at -135 (FTC-META-011756134) (emphasis in original). Further disputed because the document does not support the statement in paragraph 1323. On the same slide quoted in this subparagraph, the deck notes that "[redacted]

[redacted]." *Id.* at -159 (emphasis in original).

c. Meta has recognized that [redacted]. PX3169 at -032-33, Meta presentation: "[redacted]" (Apr. 16, 2019), FTC-META-004968222.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1323. Further disputed because the statement takes the document out of context. The document cited explains that [redacted]. PX3169 at -005 (FTC-META-004968222). The document also shows the following breakdown of user time spent on Instagram – the opposite of what the FTC asserts:

[redacted]

Id. at -036.

d. Meta analysis indicates that [redacted]

[redacted]. PX3008 at -042, Meta presentation: "Feed & Ecosystems XFN" (Oct. 4, 2021), FTC-META-006751948. *Id.* [redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language in the parenthetical. Disputed for the reasons stated above in Meta's response to paragraph 1323. Further disputed because the quotation is misleading and does not support the statement in paragraph 1323 regarding "Facebook and Instagram" because the quoted material concerns Facebook Feed only. *See* PX3008 at -042 (FTC-META-006751948) (addressing "top positions on Feed"). And the [redacted] of time spent on Facebook Feed is not friends and family sharing. *See* Meta SMF ¶¶ 11-12.

1324. Meta's experts do not dispute that Facebook and Instagram have a core use case of friends and family sharing, notwithstanding an increase in the proportion of content less directly related to interacting with friends and family.

Meta Response: Disputed in part. Undisputed that the proportion of content unrelated to friends and family sharing on Facebook and Instagram has increased. Disputed that the statement its subparagraphs create a genuine dispute of material fact, including because the FTC proffers no evidence that the existence of a supposed "core use case of friends and family sharing" is relevant to substitution. Further disputed because the materials cited in the subparagraphs below do not support the remainder of the statement, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In fact, the

materials cited and other evidence contradicts the assertion in this paragraph, for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's experts did not contest analysis and evidence that friends and family sharing has been, from the beginning, and remains a core use of Facebook and Instagram. PX9007, Hemphill Rebuttal Report at ¶¶ 238-39.

Meta Response: Disputed. Disputed, including for the reasons stated above in Meta's responses to paragraphs 1316 and 1324, and because the cited paragraphs of Professor Hemphill's rebuttal report are his assertions that Meta's experts did not contest his analysis, which does not corroborate the opinions that Meta experts actually offered. On the contrary, in the cited paragraphs of Professor Hemphill's rebuttal report, he recognizes that Meta experts calculated that sharing with friends and family constitutes a significant minority of usage on Facebook and Instagram. *See* Meta SMF ¶¶ 11-12 (Facebook usage data), ¶¶ 56-57 (Instagram usage data).

b. Meta's economic expert Professor Carlton does not dispute that Facebook has a friends and family sharing use case. PX6179, Carlton (Meta) Dep. Tr., at 226:2-227:10 ("Q. So then we are in agreement that there is, in fact, a friends and family sharing use case on Facebook; is that right? A. I would agree that people use Facebook to communicate with friends and receive communication from friends . . . Q. And, likewise, people use Facebook to make connections with friends and family, meaning to create a network of their friends and family on the app; correct? A. They can, yes.").

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1324, and because the paraphrased description of Professor Carlton's testimony is incomplete and misleading. Professor Carlton testified:

> Q. So then we are in agreement that there is, in fact, a friends and family sharing use case on Facebook; is that right?
>
> A. I would agree that people use Facebook to communicate with friends and receive communication from friends, but I want to emphasize that the word "friends" is not so obvious that it really means what you and I would think it is. If someone says who's your friend, Dennis, I would, you know, tell him who my friends are. But if they said, do I have 3,000 friends, you'd say, no, I don't think so. But a lot of people, you know, if you look at – so a lot of these, quote, friends aren't what you would call – what maybe you or I would call friends. They may be names you have. And on Instagram, they may be just people you're following. There are no friends. It's followers and follow . . . people who follow me, and I follow people. So I think the word is a little misleading. But putting that aside, I do agree that there are people who use Facebook for a lot of reasons, one of which can be to communicate with, say, someone you and I would agree is a friend.
>
> Q. And, likewise, people use Facebook to make connections with friends and family, meaning to create a network of their friends and family on the app; correct?
>
> A. They can, yes.

PX6179 at 226:2-227:10 (Carlton Dep. Tr.). Professor Carlton found that sharing with friends and family is a significant minority of time spent on Facebook. *See* Meta SMF ¶ 11. He also found that the relationship between friend counts and ad load shows [redacted]. *See* Ex. 2 at ¶ 110 (Carlton Rep.); *see id.* at ¶ 114 [redacted]

[redacted] (emphasis added)).

c. Meta's economic expert Professor Carlton does not dispute that Instagram has a friends and family sharing use case. PX6179, Carlton (Meta) Dep. Tr., at 227:17-228:3 ("Q. You agree that people also use Instagram to make connections with friends and family; correct? A. Well, it's a little more complicated with Instagram. My understanding of Instagram is you can be -- you can follow or be a follower. And you can also be a reciprocal follow/follower. So it's a little different. But, yes, you can do that.").

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1324, and because the paraphrased description of Professor Carlton's testimony is incomplete and misleading. Professor Carlton testified:

> Q. You agree that people also use Instagram to make connections with friends and family; correct?
>
> A. Well, it's a little more complicated with Instagram. My understanding of Instagram is you can be – you can follow or be a follower. And you can also be a reciprocal follow/follower. So it's a little different. But, yes, you can do that. But it's also the case that Instagram is a good example where you might get approached from someone just because you're following them, and that doesn't mean I know them. In fact, . . . my granddaughter, I was going to say this for her, but I actually got a post from Taylor Swift, who I assure you . . . I don't know her.

PX6179 at 227:17-228:12 (Carlton Dep. Tr.). Professor Carlton found that sharing with friends and family is a significant minority of time spent on Instagram. *See* Meta SMF ¶ 56. He also found that the relationship between reciprocal-follower counts and ad load shows [redacted]

[redacted]. *See* Ex. 2 at ¶ 118 & tbl. 23 (Carlton Rep.).

d. Meta's expert Professor Ghose does not dispute that Facebook has a use case of friends and family sharing. PX6173, Ghose (Meta) Dep. Tr., at 167:14-167:16 ("Yeah, you know, the whole idea of connecting friends and family is definitely possible on Facebook . . ."), 178:3-178:15 (explaining that he could use Facebook "if I want to connect with my close friends and family" as an example of a use case).

Meta Response: Disputed in part. Undisputed that Professor Ghose provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1324, and because the paraphrased description of Professor Ghose's testimony is incomplete and misleading. In the cited transcript he recognized that sharing with friends and family is a "possibility" on Facebook, not that it is a "core" use of Facebook (however the FTC defines it). Further disputed because Professor Ghose testified:

> Q. When you talk about competition for time and attention in your report, you're not talking about competition around any particular use case, correct?
>
> . . . .
>
> A. I don't know if that's fair because, look the competition – one form of competition for time and attention is because of the interchangeability and the use case. So that Twitter and the Facebook example I gave was if I want to connect with my close friends and family, I could do this on Twitter or I could do this on Facebook. At least to me, that's an example of a use case, right. And one reason why Facebook and Twitter compete is because there's at least one similar use case.

PX6173 at 177:3-6, 178:3-14 (Ghose Dep. Tr.); *see also id.* at 175:15-176:8 ([redacted]). Professor Ghose found that there are many uses for Facebook and Instagram beyond friends and family sharing, for which consumers have many substitutes. *See* Ex. 1 at ¶¶ 111-210 (Ghose Rep.). Professor Ghose also testified that Professors Hemphill and Lampe did not "actually define what is a core use." PX6173 at 181:6-11 (Ghose Dep. Tr.).

c) "Other activities" do not call for expansion of the relevant market and do not constrain Meta's exercise of monopoly power.

1325. Meta's incorporation of features and activities into Facebook and Instagram (such as Facebook Watch and Reels) bring Meta into more direct competition with non-PSN apps such as (e.g.) YouTube and TikTok for entertainment, although, as noted, Meta's provision of entertaining video, for example, is not "the same" as in non-PSN apps given Meta's integration of the activity with the friends and family sharing experience in Facebook and Instagram. PX9007, Hemphill Rebuttal Report, at ¶¶ 335-38; *supra* CMF at § II.A.7(a).

Meta Response: Disputed in part. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that it states legal conclusions – and for the reasons stated above in Meta's responses to paragraph 1316. Further disputed because the FTC proffers no evidence that its characterizations of activities on Facebook and Instagram – itself unsupported by evidence – is relevant to substitution. Further disputed because Meta offers features and uses that bring it into "direct competition" with

services the FTC omits from its claimed PSNS market. Further disputed because the FTC claims everything a user does on Facebook and Instagram (other than Dating) counts as time spent in its alleged relevant market, but not all time on Facebook and Instagram is spent connecting with friends and family. *See* Meta SMF ¶¶ 580-584. In fact, the vast majority of time spent and content viewed on Facebook and Instagram is not associated with friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57; *see also* Meta Resps. to Counter SMF ¶¶ 1309, 1310. To the extent this statement incorporates the FTC's statements in Section II.A.7(a), Meta incorporates its responses to those statements here.

1326. But that Meta (or any PSN app) provides functionality not directly tied to sharing with friends and family sharing does not mean that non-PSN apps with similar functionality can competitively constrain PSN apps in serving demand for friends and family sharing. PX9007, Hemphill Rebuttal Report, at ¶¶ 335-38.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph asserts legal conclusions – and for the reasons stated above in Meta's response to paragraph 1325.

1327. This is true for at least two reasons. First, because non-PSN apps still do not serve demand for friends and family sharing, Meta has a degree of market power over consumers that is not constrained by non-PSN apps but would be constrained by additional competition from PSN apps. Second, because price discrimination demonstrates that Meta is insulated from competition for users with inelastic demand for

friends and family sharing. *Infra* CMF at §§ II.A.7(c)(1)-(2); PX9007, Hemphill Rebuttal Report at ¶¶ 338-39.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph asserts legal conclusions – and for the reasons stated above in Meta's response to paragraph 1325. Further disputed because the FTC's proffered experts conceded consumers can use services the FTC omits from the claimed "PSNS" market to share with friends and family. *See* Meta SMF ¶¶ 457-460. To the extent this statement incorporates the FTC's statements in Sections II.A.7(c)(1)-(2), Meta incorporates its responses to those statements here.

1328. This means, in turn, that PSN services are a properly defined relevant market and that non-PSN apps should not be included as participants in the PSN services market. PX9007, Hemphill Rebuttal Report, at ¶¶ 338-39, 364.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that it states legal conclusions – and for the reasons stated above in Meta's responses to paragraphs 1325 and 1327.

1329. Meta's provision of activities not directly tied to sharing with friends and family could impact the measurement of market shares (providing an impetus to ensure that Meta's significance in serving demand for friends and family sharing is not overstated), but market shares calculated at both the app and sub-app level demonstrate Meta's monopoly power, ensuring that consumers' overall use of Meta's apps does not overstate Meta's dominance. PX9000, Hemphill Report at ¶ 268; *infra* CMF at § II.B.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that it states legal conclusions. To the extent the statement incorporates the FTC's statements in Section II.B, Meta incorporates its responses to those statements here. Further disputed because the referenced "sub-app level" measurements conflate time spent on Feed and Stories with friends and family sharing. The most recent data shows that the [redacted] of time spent on Feed and Stories – just those features – is not friends and family sharing. *See* Meta SMF ¶¶ 11-12, 56-57.

(1) Competition for other activities does not replace the lack of competition for friends and family sharing.

1330. Competition for other activities on Facebook and Instagram does not replace the lack of competition for friends and family sharing or prevent an increase in quality-adjusted price for Meta's PSN services. *Infra* CMF at ¶¶ 1331-39.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1331-1339, Meta incorporates its responses to those statements here.

1331. Users' ability to watch a video for entertainment purposes on Facebook and Instagram, as they could on YouTube or TikTok, does not indicate that YouTube or TikTok are reasonable substitutes for the demand for friends and family sharing satisfied on Facebook and Instagram. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 337-38.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the FTC – which bears the burden of proof – has no evidence that alleged "demand for friends and family sharing" is relevant to substitution. Further disputed because it is a conclusory assertion that cites as its only support two conclusory paragraphs from Professor Hemphill's rebuttal report. Further disputed because consumers can use services the FTC omits from its PSNS market for friends and family sharing. *See* Meta SMF ¶ 169 (describing YouTube's options to share videos with friends and family), ¶ 232 (TikTok's options), ¶¶ 281-282, 296 (Twitter's options). [redacted] And Professor Hemphill acknowledged that he does not know whether there is more friends-related content on Instagram Reels or the TikTok For You tab. *See id.* at ¶ 216 (quoting Ex. 283 at 92:16-21 (Hemphill Dep. Tr.)). The only quantitative evidence of substitution in the record shows that consumers will shift from Instagram and Facebook to a number of services – including TikTok, YouTube, and messaging services – in response to economic stimuli, not just Snapchat or other so-called PSN services. *See id.* at ¶¶ 533-566. Professor List showed (and the FTC has no contrary data) that this substitution pattern holds for Feed and Stories on Facebook and Instagram, *see* Ex. 3 at ¶¶ 176-180 & tbl. III-1 (List Rep.), even though those are two surfaces that Professor Hemphill asserts are primarily for friends and family sharing, *see* PX9007 at ¶ 242 (Hemphill Rebuttal Rep.) – showing that consumers can and do substitute from so-called friends and family sharing on Facebook and Instagram to many other services outside the claimed PSNS market.

1332. Non-PSN apps lack core functionality and use for friends and family sharing, and are not reasonable substitutes for PSN apps. *Supra* CMF at § II.A.5.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section II.A.5, Meta incorporates its responses to those statements here.

1333. Competition to serve use cases outside of friends and family sharing does not prevent Meta from raising the quality-adjusted price of friends and family sharing on its services above a competitive level. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 339-47; *see also supra* CMF at §§ II.A.2, II.A.4, II.A.6; *infra* CMF at § II.C.3.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the FTC has no measure of overall quality-adjusted price. *See* Meta SMF ¶ 129 (Professor Hemphill: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.))). Indeed, the FTC has reaffirmed that "constructing a quantitative quality index would not be possible." *Id.* ¶ 129 (FTC response). Professor Hemphill also acknowledged that he did not identify "any competitive benchmark for Meta's level of ad load," *id.* at ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that Meta's competitors have also "rais[ed] ad load over time," PX9000 at ¶ 716 (Hemphill Rep.). Professor Hemphill also agreed that increasing output with stable

economic price – both undisputed facts here – is evidence of decreasing quality-adjusted prices. *See* Meta SMF ¶ 130 (quoting Ex. 283 at 233:3-12, 233:16-22, 234:7-14, 234:15-235:1 (Hemphill Dep. Tr.)). Meta has spent billions investing in its services. *See id.* at ¶¶ 126, 710, 823. Professor Hemphill conceded that Meta has improved the quality of its services by innovating and releasing new features, like Stories and Reels. *See id.* at ¶ 127 (when asked, "You would agree with me that the addition of Stories to the Instagram and Facebook apps was a quality improvement, correct?" Professor Hemphill testified: "Yes. I would – I would agree with that and indeed emphasize the introduction of Stories by Facebook and Instagram as a product improving competitive response to the threat posed by Snapchat." (quoting Ex. 283 at 231:10-19 (Hemphill Dep. Tr.)); *see also id.* ("Q. . . . And the addition of Reels was a quality improvement, correct? . . . A. It's a quality improvement, I think I would agree with that, albeit one that is less directly improving of the provision of personal social networking services." Professor Hemphill later added: "Q. . . . And just to be clear, you agree that the addition of Reels was an innovation of Facebook and Instagram's personal social networking services, correct? . . . A. It was an innovation bringing the competition to TikTok in the way that we talked about and which I agree serves to, to some degree, improve the personal social networking offering for all users." (quoting Ex. 283 at 231:20-232:4, 263:17-264:4 (Hemphill Dep. Tr.))). To the extent this statement incorporates the FTC's statements in Sections II.A.2, II.A.4, II.A.6, and II.C.3, Meta incorporates its responses to those statements here.

1334. Indeed, Meta has raised quality-adjusted price on Facebook and Instagram, as reflected in poor and declining app quality across multiple quality dimensions, with sustained high profits. *Infra* CMF at §§ II.C.2-3.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections II.C.2-3, Meta incorporates its responses to those statements here.

(2) Meta also price discriminates, targeting inelastic users for higher quality-adjusted price.

1335. Price discrimination also demonstrates that Meta is insulated from competition from non-PSN apps. *Infra* CMF at ¶¶ 1336-39; CMF at § II.C.4.

Meta Response: Disputed. Disputed on the ground that the material cited does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1336-1339 and Section II.C.4, Meta incorporates its responses to those statements here.

1336. Meta's ability to price discriminate against more inelastic users allows it to "selectively 'discount' its service where necessary to prevent diversion to competition," as Meta "is able to retain customers who are most likely to switch to a competitor while continuing to earn high profits from the bulk of customers who are less likely to switch." PX9007, Hemphill Rebuttal Report at ¶ 352; PX9000, Hemphill Report at ¶ 760.

Meta Response: Disputed. Disputed on the ground that the material cited does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure

56(c)(1) and Local Rule 7(h). Disputed that the statement is even facially relevant to claimed monopoly power in the alleged market for PSNS. Professor Hemphill conceded that he has no evidence that Meta targets users "with a change in ad load" based on their "demand for friends and family sharing." Ex. 283 at 253:10-11, 253:16-17 (Hemphill Dep. Tr.); *see also id.* at 253:8-17 ("Q. . . . So it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing? . . . A. I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load."); *id.* at 252:17-253:2 ("Q. . . . I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."). Moreover, the only data in the record about the relationship between friend counts and ad load shows [redacted]. *See* Ex. 2 at ¶ 110 (Carlton Rep.); *see id.* at ¶ 114 ([redacted] (emphasis added)); *see also id.* at ¶ 118 & tbl. 23 (same result for followings or followers on Instagram).

1337. Meta price discriminates—targeting inelastic users of Facebook and Instagram for higher quality-adjusted price—in at least two ways.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, for the reasons stated in Meta's responses to the subparagraphs below. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. Meta price discriminates by setting higher ad load for inelastic users of Facebook and Instagram, which include users with more inelastic demand for friends and family sharing. *See infra* CMF at § II.C.4.(b)(1); PX9007, Hemphill Rebuttal Report at ¶ 349.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1337, and because Professor Hemphill conceded that he has no evidence that Meta targets users "with a change in ad load" based on their "demand for friends and family sharing." Ex. 283 at 253:10-11, 253:16-17 (Hemphill Dep. Tr.); *see also id.* at 253:8-17 ("Q. . . . So it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing? . . . A. I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load."); *id.* at 252:17-253:2 ("Q. . . . I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."). Moreover, the only data in the record about the

relationship between friend counts and ad load shows [redacted]. *See* Ex. 2 at ¶ 110 (Carlton Rep.); *see id.* at ¶ 114 ([redacted] (emphasis added)); *see also id.* at ¶ 118 & tbl. 23 (same result for followings or followers on Instagram). To the extent this statement incorporates the FTC's statements in Section II.C.4.(b)(1), Meta incorporates its responses to those statements here.

b. Meta has invested less in quality and innovation for the friends and family use case, which likewise price discriminates against users who more intensely use Facebook and Instagram for friends and family sharing. *See infra* CMF at §§ II.C.3(c), II.C.4(b)(2); PX9007, Hemphill Rebuttal Report at ¶ 350.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1337, and because there is no evidence that permits a comparison of investment in one particular feature or use case with another. Meta invested billions to release scores of features on Facebook and Instagram – all of them PSNS, according to the FTC, and therefore all PSNS innovations. *See* Meta SMF ¶¶ 17, 126, 710, 739. There is no evidence of Meta "underinvesting" in any of its services or features relative to some competitive threshold. Further disputed on the ground that Professor Hemphill provided no definition of "friends and family sharing" distinct from "personal social networking" which, he maintains, includes all activities on Facebook and Instagram other than Dating. *See* PX9007

at ¶ 252 (Hemphill Rebuttal Rep.) (indicating that "the friends and family sharing use case" is not "limited to Feed and Stories" but also embraces "Reels, Watch, and other surfaces"); Ex. 283 at 72:1-9 (Hemphill Dep. Tr.) ("Q. . . . 'All of the features, activities identified by Meta for Facebook and Instagram are part of Meta's personal social networking offering except Facebook Dating'; do you see that? A. Yes, I see that sentence. Q. Do you agree with that? A. Yes."). Professor Hemphill provided no quantitative or qualitative way to measure or identify "investment in friends and family sharing." On the contrary, Professor Hemphill also testified that Meta innovating to add features to its services (like Stories and Reels; both post-dating the acquisitions at issue) is a "quality improvement." Meta SMF ¶ 127 (quoting Ex. 283 at 231:20-232:4 (Hemphill Dep. Tr.)); *id.* at ¶¶ 126, 710, 823; Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:1 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking."). To the extent the statement incorporates the FTC's statements in Sections II.C.3(c) and II.C.4(b)(2), Meta incorporates its responses to those statements here.

1338. Professor Carlton conceded that "if Facebook charges a different 'price' to those who rely more on friends and family sharing than those who rely on it less," then Facebook is insulated from "the competitive forces for other uses." PX9019, Carlton Report at ¶ 103; *see also* PX9007, Hemphill Rebuttal Report at ¶¶ 104-06.

Meta Response: Disputed in part. Undisputed that the cited report contains the quoted language about what might follow "if" Professor Hemphill were to make a particular showing that he did not make. Disputed that the statement creates a genuine dispute of material fact, including because the citation to Professor Carlton's report is deliberately misleading. In the cited paragraph of Professor Carlton's report, he describes his understanding of Professor Hemphill's claim. *See* PX9019 at ¶ 103 (Carlton Rep.) (describing what "Prof. Hemphill is saying"). Professor Carlton did not concede Professor Hemphill's price discrimination theory; on the contrary, Professor Carlton stated that he "disagree[s] with Prof. Hemphill's claim." *Id.* Further disputed for the reasons stated above in Meta's response to paragraph 1316.

1339. Further, Meta's relative inattention to and underinvestment in friends and family sharing underscores its monopoly power over PSN services. PX9007, Hemphill Rebuttal Report at ¶¶ 353-64; *infra* CMF at §§ II.C.3(c), II.C.7(b).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement, and because the material cited does not support the statements in this paragraph and its subparagraphs, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). They do not cite (nor is there) any evidence that permits a comparison of investment in one particular

feature or use case with another. Meta invested billions to release scores of features on Facebook and Instagram – all of them PSNS, according to the FTC, and therefore all PSNS innovations. *See* Meta SMF ¶¶ 17, 126, 710, 739. There is no evidence of Meta "underinvesting" in any of its services or features relative to some competitive threshold. Further disputed on the ground that Professor Hemphill provided no definition of "friends and family sharing" distinct from "personal social networking" which, he maintains, includes all activities on Facebook and Instagram other than Dating. *See* PX9007 at ¶ 252 (Hemphill Rebuttal Rep.) (indicating that "the friends and family sharing use case" is not "limited to Feed and Stories" but also embraces "Reels, Watch, and other surfaces"); Ex. 283 at 72:1-9 (Hemphill Dep. Tr.) ("Q. . . . 'All of the features, activities identified by Meta for Facebook and Instagram are part of Meta's personal social networking offering except Facebook Dating'; do you see that? A. Yes, I see that sentence. Q. Do you agree with that? A. Yes."). Professor Hemphill provided no quantitative or qualitative way to measure or identify "investment in friends and family sharing." On the contrary, Professor Hemphill also testified that Meta innovating to add features to its services (like Stories and Reels; both post-dating the acquisitions at issue) is a "quality improvement." Meta SMF ¶ 127 (quoting Ex. 283 at 231:20-232:4 (Hemphill Dep. Tr.)); *see id.* at ¶¶ 126, 710, 823; Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:1 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking

offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking."). To the extent this statement incorporates the FTC's statements in Sections II.C.3(c), II.C.7(b), Meta incorporates its responses to those statements here.

a. Friends and family sharing has been and remains an important object of consumer demand. *Supra* CMF at § II.A.2.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1339. To the extent this statement incorporates the FTC's statements in Section II.A.2, Meta incorporates its responses to those statements here.

b. Yet Meta has reduced investment in quality and innovation in its core friends and family use case. *Infra* CMF at §§ II.C.3(c), II.C.4(b)(2), II.C.7(b).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1339. To the extent this statement incorporates the FTC's statements in Sections II.C.3(c), II.C.4(b)(2), II.C.7(b), Meta incorporates its responses to those statements here.

c. This has produced user dissatisfaction and reduced engagement, an indicator of the higher quality-adjusted price and reduced output that is typical of an exercise of monopoly power. *Infra* CMF at ¶¶ 1503, 1503(a)-(i), § II.C.7.(b).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1339. To the extent this statement incorporates the FTC's statements in paragraphs 1503, 1503(a)-(i), and Section II.C.7(b), Meta incorporates its responses to those statements here.

d. Instead of investing in friends and family sharing, Meta has "instead expanded into other uses to earn incremental advertising revenues." PX9007, Hemphill Rebuttal Report at ¶¶ 358, 364.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1339.

8. Meta's empirical analyses are irredeemably flawed.

1340. Two of Meta's experts—Professor Carlton and Professor List—present empirical analyses that they purport have relevance to assessing whether PSN services are a relevant antitrust market. PX9019, Carlton Report at ¶¶ 29-33; PX9018, List Report at ¶ 21.

Meta Response: Undisputed.

a. Professor Carlton presents an analysis related to an outage of Facebook, Instagram, Facebook Messenger, and WhatsApp, which lasted approximately six hours in October 2021. PX9019, Carlton Report at ¶¶ 25-26.

Meta Response: Undisputed.

b. Professor List presents three analyses:

Meta Response: Undisputed.

i. A "pricing experiment" in which participants in the treatment groups received a monetary payment to reduce the amount of time they spend on Facebook or Instagram below a "baseline" level of time spent established during the immediately preceding four weeks. PX9018, List Report at ¶¶ 52, 74.

Meta Response: Undisputed.

ii. An analysis of India's ban of a group of 59 Chinese apps in June 2020. *Id.* at ¶ 125.

Meta Response: Undisputed.

iii. A "switching analysis" which observes correlations in changes in users' share of time on a given app with changes in users' share of time on Facebook or Instagram. *Id.* at ¶ 150.

Meta Response: Undisputed.

1341. These analyses are unreliable and uninformative for assessing the relevant market or Meta's monopoly power because they fail to follow the basic elements of a properly executed SSNIP test and openly engage in the *Cellophane* fallacy. At bottom, they do not measure what is needed to inform a quantitative implementation of the HMT: consumer substitution in response to a small, sustained (non-transitory), price increase for products in the candidate market undertaken at the competitive price. PX9007, Hemphill Rebuttal Report at ¶¶ 25-26, 211.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. It is not supported by the cited material as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and is contradicted by other, more reliable evidence. Although Professor Carlton's and Professor List's analyses do not execute a SSNIP test or a quantitative implementation of the HMT, they are highly reliable and informative for assessing the relevant market and Meta's monopoly power. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.); PX6179 at 162:16-169:4 (Carlton Dep. Tr.); PX6178 at 25:1-27:17, 59:2-18, 76:13-77:2, 77:14-78:10, 84:12-86:2, 114:22-120:17, 180:8-181:6, 187:6-195:9 (List Dep. Tr.). Professor Carlton's and

Professor List's analyses do not engage in the *Cellophane* fallacy, as they assess relative order of substitution, not elasticity of demand at a particular price. *See* Ex. 2 at ¶¶ 7, 22-24 (Carlton Rep.); Ex. 3 at ¶¶ 24, 192-208 (List Rep.); PX6179 at 154:18-155:4, 158:15-159:14, 160:19-169:4 (Carlton Dep. Tr.); PX6178 at 64:2-65:14, 154:15-156:15, 243:17-250:18, 254:11-258:2, 259:21-261:11 (List Dep. Tr.). It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube (and others) must be included in the relevant market as well. *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.).

1342. Further, none of these analyses demonstrate that a properly executed SSNIP test on PSN services in the United States would fail. Stated differently, none of the analyses demonstrate that a hypothetical monopolist controlling the supply of all PSN services in the United States, or even just Facebook and Instagram, would not profitably be able to raise quality-adjusted price above a competitive level. Professor Carlton and Professor List indeed fail to offer any opinion to that effect. PX9007, Hemphill Rebuttal Report at ¶¶ 27, 216-17, 227-28; PX6179, Carlton (Meta) Dep. Tr., at 169:5-13; PX6178, List (Meta) Dep. Tr., at 65:15-19, 69:5-70:12.

Meta Response: Disputed in part. Undisputed that neither Professor Carlton nor Professor List performed a SSNIP test on PSN services in the United States or provide the specific opinion recited above because Professor Hemphill did not perform an HMT. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Disputed to the extent the statements imply that a SSNIP test on PSN services in the United States would pass, or that a hypothetical monopolist controlling the supply of all PSN services in the United States, or even just Facebook and Instagram, would profitably be able to raise quality-adjusted price above a competitive level. This implied claim is not supported by the cited material as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and is contradicted by other, more reliable evidence. Professor Carlton's and Professor List's

analyses show that there is no basis to assume the existence of a relevant market for PSN services, and that the empirical evidence demonstrates that no such market exists. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Also the terms "quality-adjusted price" and "competitive level" are vague and undefined; furthermore, neither the FTC nor Professor Hemphill has suggested any way to measure "quality-adjusted price," let alone compared it to a competitive level. *See* Ex. 283 at 232:17-233:2 (Hemphill Dep. Tr.); *see also id.* at 241:20-242:10 (acknowledging failure to offer any "quantitative measure of ad quality"), 243:17-244:6 (acknowledging failure to provide opinion that ad load on Facebook or Instagram is above a competitive level), 221:8-22 (acknowledging failure to provide measure of quality related to personal data), 222:1-15 (acknowledging failure to provide opinion that quality of privacy or quality of user control over personal information has declined by some measure), 224:6-225:20 (acknowledging failure to compare privacy on Meta's apps to TikTok or Snapchat). As Professor Carlton shows, Professor Hemphill does not perform any analysis that addresses "the fact that the pecuniary price for users of Facebook is zero so that hypotheticals to increase price by 5 percent make no sense." Ex. 2 at ¶ 15 (Carlton Rep.). "[N]owhere does Prof. Hemphill provide any empirical evidence on substitution to other products based on ad load even for those products he includes in his market. Thus, Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition." *Id.* at ¶¶ 15-16.

a) The empirical analyses fail to adhere to the basic elements of a properly executed SSNIP test.

1343. Professor Carlton's and Professor List's empirical studies fail to provide the evidence necessary to properly implement the HMT because none of them assess user substitution in response to a small but significant, non-transitory increase in quality-adjusted price of one or more products in the candidate market from the competitive level. PX9007, Hemphill Rebuttal Report at ¶¶ 365-70. The below table summarizes how all four studies fail to properly implement the HMT. *Id*. at ¶ 368.

	Outage Study	Pricing Experiment	India Ban on Chinese Apps	Switching Study
Price increase is small	Fails	Fails	Fails	Fails
Price increase is non-transitory	Fails	Fails		Fails
Price increase applies only to products inside PSN market	Fails		Fails	Fails
Price increase starts from competitive level	Fails	Fails	Fails	Fails

Meta Response: Disputed in part. Undisputed that Professor Carlton and Professor List did not attempt to implement an HMT. Disputed that the statement creates a genuine dispute of material fact. It is the FTC's burden to define a relevant market. The FTC and its experts have failed to conduct an HMT that assesses user substitution in response to a small but significant, non-transitory increase in quality-adjusted price of one more products in the candidate market from the competitive level. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed). The terms "quality-adjusted price" and "competitive level" are vague and undefined; furthermore, neither the

FTC nor Professor Hemphill has suggested any way to measure "quality-adjusted price," let alone compared it to a competitive level. *See id*. at 232:17-233:2; *see also id.* at 241:20-242:10 (acknowledging failure to offer any "quantitative measure of ad quality"), 243:17-244:6 (acknowledging failure to provide opinion that ad load on Facebook or Instagram is above a competitive level), 221:8-22 (acknowledging failure to provide measure of quality related to personal data), 222:1-15 (acknowledging failure to provide opinion that quality of privacy or quality of user control over personal information has declined by some measure), 224:6-225:20 (acknowledging failure to compare privacy on Meta's apps to TikTok or Snapchat). As Professor Carlton shows, Professor Hemphill does not perform any analysis that addresses "the fact that the pecuniary price for users of Facebook is zero so that hypotheticals to increase price by 5 percent make no sense." Ex. 2 at ¶ 15 (Carlton Rep.). "[N]owhere does Prof. Hemphill provide any empirical evidence on substitution to other products based on ad load even for those products he includes in his market. Thus, Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition." *Id.* at ¶¶ 15-16. In contrast to Professor Hemphill who did not analyze any data regarding user substitution in formulating or testing the alleged PSN market, Professor Carlton's and Professor List's empirical analyses focus specifically on user substitution with respect to the apps in the alleged PSN market. As described further below, it is also incorrect that none of the analyses assessed user substitution in response to a small but significant, non-transitory increase in quality-adjusted price of one or more products in the candidate market from the competitive level. *See* Meta Resps. to Counter SMF ¶¶ 1344-1347. Professor List's pricing experiment did approximate a small price increase that was "in the neighborhood" of the

"5 to 10 percent" specified in the Merger Guidelines. PX6178 at 69:11-70:1 (List Dep. Tr.) (pricing experiment assumed a baseline value of user time of $20/hour and paid participants $4/hour to reduce time on Facebook); *see* PX15347 at § 4.3.B (DOJ and FTC Merger Guidelines) ("The Agencies . . . may consider a different term or a price increase that is larger or smaller than five percent."); *see also id.* ("What constitutes a 'small but significant' worsening of terms depends upon the nature of the industry and the merging firms' positions in it, the ways that firms compete, and the dimension of competition at issue."). The length of this experiment was sufficient to estimate the effects of such an increase on user substitution over the long term. *See* PX6178 at 100:11-101:8 (List Dep. Tr.).

1344. Professor Carlton's outage analysis fails all the elements of a properly executed SSNIP test and thus does not provide reliable measures of substitution relevant to assessing the HMT. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 371-92.

Meta Response: Disputed in part. Undisputed that Professor Carlton's outage analysis did not attempt to execute a SSNIP test or HMT. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform a SSNIP test or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of

using substitution as his basis for market definition."). Professor Carlton's outage analysis shows that the FTC's alleged candidate market is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged "PSNS" market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); PX6179 at 179:14-21 (Carlton Dep. Tr.). It further demonstrates that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.*

a. The October 2021 outage was not a small price increase because an outage is equivalent to an infinite price increase. PX9007, Hemphill Rebuttal Report at ¶ 383; PX6179, Carlton (Meta) Dep. Tr., at 179:11-18 & errata.

Meta Response: Disputed in part. Undisputed that the 2021 outage was not a small price increase, because there is no price to use Facebook or Instagram, and that, as an economic matter, an app outage can be viewed as equivalent to an infinite price increase for the duration of the outage. Disputed for the reasons stated above in Meta's response to paragraph 1344. The outage analysis provides relevant evidence of substitution that undermines the FTC's market definition. Ex. 2 at ¶ 30 (Carlton Rep.) ("If, as Prof. Hemphill claims, Snapchat is in his relevant market, then apps with greater substitution from Facebook and Instagram than Snapchat should also be in his market. These data from the Meta outage indicate that TikTok, YouTube, built-in messaging apps, and Twitter should also be in Prof. Hemphill's relevant market.").

b. The outage was a transitory price increase because it lasted for approximately six hours. PX9007, Hemphill Rebuttal Report at ¶ 373; PX6179, Carlton (Meta) Dep. Tr., at 178:2-10; PX9019, Carlton Report at ¶ 26.

Meta Response: Disputed in part. Undisputed that the outage lasted for approximately six hours and that, as an economic matter, an app outage can be viewed as equivalent to an infinite price increase for the duration of the outage. Disputed for the reasons stated above in Meta's response to paragraph 1344. Further disputed that the outage was a transitory price increase because there is no price to use Facebook or Instagram.

c. The outage affected all of Meta's apps simultaneously, including two PSN apps, Facebook and Instagram, and two non-PSN apps, Facebook Messenger and WhatsApp. PX9019, Carlton Report at ¶ 31; Carlton (Meta) Dep. Tr., at 178:11-13. It thus did not affect only apps within the PSNS market or address the question of whether a profit-maximizing hypothetical monopolist would implement a quality-adjusted price increase on Facebook or Instagram only. PX9007, Hemphill Rebuttal Report at ¶¶ 390-92; PX6179, Carlton (Meta) Dep. Tr., at 178:14-19.

Meta Response: Disputed in part. Undisputed that the outage affected all of Meta's apps simultaneously. Disputed for the reasons stated above in Meta's response to paragraph 1344. Further disputed that the outage does not inform the question whether a hypothetical monopolist would implement a quality-adjusted price increase on Facebook or Instagram. In fact, the outage analysis provides relevant evidence of substitution that undermines the FTC's market definition.

See Ex. 2 at ¶ 30 (Carlton Rep.) ("If, as Prof. Hemphill claims, Snapchat is in his relevant market, then apps with greater substitution from Facebook and Instagram than Snapchat should also be in his market. These data from the Meta outage indicate that TikTok, YouTube, built-in messaging apps, and Twitter should also be in Prof. Hemphill's relevant market."). The FTC's use of "PSN apps" and "PSNS market" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

d. The outage operated as a price increase on Meta's prevailing quality-adjusted prices for Facebook and Instagram, not competitive prices, which indulges in the *Cellophane* fallacy. PX9007, Hemphill Rebuttal Report at ¶¶ 216, 385; PX6179, Carlton (Meta) Dep. Tr., at 160:19-161:14 (executing a price increase on prevailing prices answers the wrong question in a monopoly maintenance case because it overlooks existing market power).

Meta Response: Disputed in part. Undisputed that, as an economic matter, an app outage can be viewed as equivalent to an infinite price increase for the duration of the outage. Disputed that the outage did not operate on competitive prices and therefore indulges in in the *Celophane* fallacy. PX6179 at 159:10-14 (Carlton Dep. Tr.). There is no price to use Facebook or Instagram. In the but-for world absent the acquisition, the price to use Facebook and Instagram would also likely be zero. PX6178 at 243:17-246:12 (List Dep. Tr.). There is no empirical evidence that shows that ad load on Facebook and Instagram would be lower in the but-for world, and Professor List's de-merger model demonstrates that the opposite is likely to be the case. *See* Ex. 3 at ¶¶ 190-191 (List Rep.). Disputed

that the *Cellophane* fallacy is relevant to the order in which users substitute to alternative goods, which is what the outage analysis investigated. *See* Ex. 2 at ¶¶ 25-44; PX6179 at 157:15-158:6, 158:15-159:14, 162:16-163:16 (Carlton Dep. Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 1344.

1345. Professor List's pricing experiment fails nearly all the elements of a properly executed SSNIP test and thus does not provide reliable measures of substitution relevant to assessing the HMT. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 415-46.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Although Professor List did not perform a SSNIP test, his pricing experiment provides reliable measures of substitution relevant to assessing the alleged PSN market. *See* Ex. 3 at ¶¶ 111-120 (List Rep.); PX6178 at 59:2-18, 82:9-83:9, 84:12-18 (List Dep. Tr.).

a. The pricing experiment does not approximate a small price increase (or quality decrease) of five percent, which is the standard level in the Merger Guidelines. PX9007, Hemphill Rebuttal Report at ¶ 420; PX6178, List (Meta) Dep. Tr., at 69:5-70:1 (estimating that the pricing experiment's monetary payment was a 20% price increase).

Meta Response: Disputed in part. Undisputed that the pricing experiment does not approximate a price increase of five percent. Disputed for the reasons stated above in Meta's response to paragraph 1345. Further disputed because the term

"quality decrease" is vague and undefined. Professor List did not conduct the pricing experiment to implement an HMT or define a relevant market, but to demonstrate that the FTC's alleged PSN market is inconsistent with empirical evidence regarding substitution. The statement that the pricing experiment did not use a price increase of five percent also makes no sense because there is no price to use Facebook or Instagram. The pricing experiment did, however, approximate a small price increase that was "in the neighborhood" of the "5 to 10 percent" specified in the Merger Guidelines. PX6178 at 69:11-70:1 (List Dep. Tr.) (pricing experiment assumed a baseline value of user time of $20/hour and paid participants $4/hour to reduce time on Facebook); *see* PX15347 at § 4.3.B (DOJ and FTC Merger Guidelines) ("The Agencies . . . may consider a different term or a price increase that is larger or smaller than five percent."); *see also id.* ("What constitutes a 'small but significant' worsening of terms depends upon the nature of the industry and the merging firms' positions in it, the ways that firms compete, and the dimension of competition at issue.").

b. The purported price increase in Professor List's pricing experiment was transitory because it lasted only four weeks and participants were aware that the experiment would end after four weeks. PX9007, Hemphill Rebuttal Report at ¶¶ 420-27; PX6178, List (Meta) Dep. Tr., at 164:7-22.

Meta Response: Disputed in part. Undisputed that the pricing experiment lasted four weeks. Disputed for the reasons stated above in Meta's response to paragraph 1345. Further disputed because Professor List did not conduct the pricing experiment to implement an HMT or define a relevant market, but to

demonstrate that the FTC's alleged PSN market is inconsistent with empirical evidence regarding substitution. Further disputed that the pricing experiment was "transitory" in the sense used in the Merger Guidelines. *See* PX6178 at 70:4-7 (List Dep. Tr.) ("My experiment is four weeks, but what I observe after a week is a lot of stability. So I view that as a good surrogate. So I do view that as non-transitory."); *id*. at 73:19-74:18, 97:20-98:4 ("I consider my experiment a long-term one. It's a long-term one because I can get a surrogate and then I know the long-run elasticity. So let's be clear about what an experimentalist calls 'long term.' So if I said 'long term' here, that that would be at least four weeks, that's right."). Disputed that the participants were aware that the experiment would end after four weeks; the participants were informed about the duration of the experiment after they were selected into the treatment group. PX6178 at 163:6-164:6 (List Dep. Tr.).

i. Professor List does not consider whether participants' responses to the treatment were affected by their knowledge that the experiment was transitory. PX6178, List (Meta) Dep. Tr., at 160:11-22.

Meta Response: Disputed in part. Undisputed that Professor List did not address the empirical question of whether participants' knowledge regarding the duration of the experiment could have affected their behavior. Disputed for the reasons stated above in Meta's responses to paragraph 1345 and subparagraph 1345(b). Further disputed because Professor List determined he did not need to perform such an analysis because he found that participants' behavior stabilized after a week, which

provided a surrogate for long-run behavior. *See* PX6178 at 160:11-167:9 (List Dep. Tr.).

ii. Furthermore, Professor List's pricing experiment only captured users' short-run responses, which can differ from long-run effects, especially in the context of apps characterized by network effects and high switching costs. PX9007, Hemphill Rebuttal Report at ¶¶ 420-22; *see also* PX6178, List (Meta) Dep. Tr., at 98:8-21.

Meta Response: Disputed in part. Undisputed that short-run responses could, in theory, differ from long-run effects. Disputed for the reasons stated above in Meta's responses to paragraph 1345 and subparagraph 1345(b). Further disputed that the apps in the experiment have high switching costs, which the results of the experiment contradict and which none of the cited testimony supports. *See* PX6178 at 126:11-132:4 (List Dep. Tr.).

c. Professor List likewise implemented his purported price increase on Meta's prevailing quality-adjusted prices for Facebook and Instagram, thereby embracing the *Cellophane* fallacy. PX9007, Hemphill Rebuttal Report at ¶¶ 216-17, 419.

Meta Response: Disputed. Professor List did not conduct the pricing experiment to implement an HMT or define a relevant market, but to demonstrate that the FTC's alleged PSN market is inconsistent with empirical evidence regarding substitution. The pricing experiment did not embrace the *Cellophane* fallacy. There is no price to use Facebook or Instagram. In the but-for world absent the acquisition, the price to use Facebook and Instagram would also likely

be zero. *See* PX6178 at 243:17-246:12 (List Dep. Tr.). There is no empirical evidence that shows that ad load on Facebook and Instagram would be lower in the but-for world, and Professor List's de-merger model demonstrates that the opposite is likely to be the case. *See* Ex. 3 at ¶¶ 190-191 (List Rep.). Further disputed because the *Cellophane* fallacy does not address order of substitution to alternative goods, which was a focus of Professor List's experiment. *See id.* at ¶¶ 22, 111-120.

d. Moreover, despite the prevalence of network effects and switching costs for PSN services, Professor List does not factor either into his pricing experiment.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support this statement. Professor List's pricing experiment accounts for switching costs and network effects. *See*, *e.g.*, PX6178 at 126:11-132:4 (List Dep. Tr.). The FTC's use of "PSN service" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

i. In a paper cited by Professor List describing a four-week experiment where participants agreed to deactivate Facebook, some participants wrote that "they were much less comfortable deactivating for eight weeks instead of four, as they would have to make much more extensive arrangements to communicate with friends, coworkers, and schoolmates during a longer deactivation." PX9007, Hemphill Rebuttal Report at ¶ 421 (citing Hunt Allcott et al., The Welfare Effects of Social Media, 110

Am. Econ. Rev. 629, 670 (2020)); *see also* PX9018, List Report at ¶ 49 & n.35.

Meta Response: Disputed in part. Undisputed that the Allcott et al. paper contains the quoted language. Disputed that the quoted language supports the statements in paragraph 1345 and subparagraph 1345(d), or is at odds with Professor List's approach. Allcott et al. conclude that the eight-week results were not reliable due to "suggested prices or other anchors" that were part of the paper's methodology. Ex. 511 at 34 (Allcott et al., *The Welfare Effects of Social Media*) ("Thus, we do not believe this increase [for the 8-week group] is relevant for a consumer welfare calculation, and we do not draw any substantive conclusion from it.").

ii. In the pricing experiment, Professor List does not account for switching costs to any third-party apps, including Snapchat. PX6178, List (Meta) Dep. Tr., at 128:5-130:5. Switching costs can prevent users from quickly switching between different apps. *Id.* at 106:7-22. Switching costs on social networks like Facebook can include the costs of setting up a new profile and establishing a network of connections. *See id.* at 122:7-124:2.

Meta Response: Disputed in part. Undisputed that Professor List did not model switching costs to third-party apps in the pricing experiment, and that switching costs on social networks can include the costs of setting up a new profile and establishing a network of connections. Disputed that these statements create a genuine dispute of material fact. The term

"quickly" is vague and undefined. Disputed that switching costs materially affect the ability of users to download new apps or switch between them. Professor List's pricing experiment shows extensive multi-homing between Facebook and Instagram and third-party apps, including Snapchat, as well as diversion among these apps. *See* Ex. 3 at § II.B.iii (List Rep.).

iii. Professor List does not account for switching costs in the pricing experiment, which affects his results. PX9007, Hemphill Rebuttal Report at ¶¶ 423-26. Professor List's data shows that diversion rates between two PSN apps (Facebook, Instagram, Snapchat) are dramatically higher for users of PSN apps, and dramatically lower for users that do not use the other PSN app. *Id.* For experiment participants who were already users of another PSN app and had already taken the time to set up an account and connect with friends, PSN apps often have the highest diversion in List's data—more than TikTok and YouTube. *Id.*

Meta Response: Disputed in part. Undisputed that, in Professor List's pricing experiment, diversion rates between Facebook and Instagram were higher for people who were active users of both apps prior to the launch of the experiment than for people who used only one of the two apps prior to launch. Disputed for the reasons stated above in Meta's response to subparagraph 1345(d). Facebook users who also use Instagram should be expected to have higher diversion rates to Instagram than Facebook users who do not use Instagram because [redacted]

[redacted]. PX6178 at 110:21-111:4 (List Dep. Tr.) ("[redacted]"). [redacted] *See id.* at 110:21-111:4, 129:16-130:5. This unsurprising result has no bearing on the competitive effects of the Instagram acquisition, which in the absence of evidence that there is price discrimination against a particular subgroup (e.g., single-homers) depends on aggregate diversion, not diversion among particular subgroups. Ex. 2 at ¶ 18 (Carlton Rep.); *see id.* at ¶¶ 107-108, 119. [redacted], *see* PX9007 at ¶¶ 423-426 (Hemphill Rebuttal Rep.), [redacted]. *See* PX6178 at 110:21-111:4, 129:16-130:5 (List Dep. Tr.). This disproves Professor Hemphill's conclusion that so-called PSN services have high switching costs or network effects. Professor Hemphill's conclusions also are at odds with the reality that apps are easy and free to download and reside on users' devices, and users can easily alternate between them. *See* Ex. 2 at ¶¶ 191-194 (Carlton Rep.). Professor Hemphill provides no evidence that diversion patterns among multi-homers differ due to switching costs, as opposed to the empirical evidence that [redacted]

[redacted].

iv. In the pricing experiment, Professor List does not account for network effects inherent to social networks. PX6178, List (Meta) Dep. Tr., at 141:17-145:11, 146:13-147:4. For services characterized by network effects, such as social networking platforms like Facebook and Instagram, the value that the service provides to users is a function of the number of people on the network. *Id.* at 133:14-136:3, 149:3-10. Network effects on social networking platforms can lead to user "'lock-in,' which means members are almost shackled to using these platforms." PX15517, John A. List, Voltage Effect 104 (2022) ("The positive spillovers we observed with CHECC are a type of spillover known as the network effect, or a network externality, and it is potently relevant to business in the digitized twenty-first century. Take the examples of Facebook and LinkedIn (or pretty much any social networking platform). If only ten other people use these platforms, the benefits they provide are small because the network is small. In Facebook's case, you want to stay connected to the lives of many people you know, and in LinkedIn's case you won't have much new terrain to explore for professional contacts if there are few users. But if lots of people are on these services, then benefits are far greater. This type of voltage gain is called parabolic growth. And as a network scales, the benefits to its members get bigger and bigger and bigger—often to the

point of what is known as 'lock-in,' which means members are almost shackled to using these platforms.").

Meta Response: Disputed in part. Undisputed that Professor List's pricing experiment does not explicitly model network effects. Disputed because the other statements in this subparagraph are not supported by the cited material and are contradicted by other, more reliable evidence. Professor List's pricing experiment analyzes individual diversion patterns, not group diversion patterns, [redacted]. *See* Ex. 3 at App'x L (List Rep.) ([redacted]); *id.* at App'x I-8 ([redacted]). Although network effects provide value to users, there are many features of a social networking platform that provide value, and it is therefore incorrect that "the value that the service provides to users is a function of the number of people on the network." PX6178 at 133:14-134:18 (List Dep. Tr.); Ex. 2 at ¶¶ 144-145 (Carlton Rep.). There is no evidence that users of Facebook or Instagram experience "lock-in," and the empirical evidence, including from Professor List's pricing experiment, shows otherwise. Professor List's pricing experiment shows

extensive multi-homing between Facebook and Instagram and third-party apps, including Snapchat, YouTube, and TikTok, as well as diversion among these apps. *See* Ex. 3 at § II.B.iii (List Rep.). The demise of Myspace and other apps that the FTC has characterized as PSNs belies claims of lock-in, as does the rapid growth of TikTok as well as many other apps. *See* Ex. 2 at ¶ 197 (Carlton Rep.).

v. Professor List does not account for network effects in the pricing experiment, which affects his results. PX9007, Hemphill Rebuttal Report at ¶ 428-31. Experiment participants were less likely to turn to PSN apps like Facebook, Instagram, and Snapchat, which heavily rely on network effects and have high switching costs, than to non-PSN apps like YouTube and TikTok, which are less dependent on network effects and have low switching costs. *Id.* One possible reason that Facebook users did not switch to Instagram during the pricing experiment was that their network of friends and family is not on Instagram. PX6178, List (Meta) Dep. Tr., at 156:16-157:2.

Meta Response: Disputed in part. Undisputed that Professor List's pricing experiment does not explicitly model network effects. Disputed for the reasons stated above in Meta's responses to paragraph 1345 and subparagraph 1345(d). Further disputed that potential network effects affect the results of the pricing experiment. The cited portions of Professor Hemphill's report do not support such a claim or provide evidence of the existence or magnitude of network effects for alleged PSN

apps or non-PSN apps. Users in the Facebook arm of the pricing experiment did switch to Instagram, *see* Ex. 3 at ¶¶ 112-115 (List Rep.), and the cited portions of Professor List's deposition do not indicate otherwise. Professor List further explained that the theory that any differences in relative switching rates among users in the Facebook arm may be a result of network effects is directly contradicted by the evidence from the pricing experiment that people divert as much attention away from Feed and Stories as other parts of the Facebook service when they are paid not to use Facebook. PX6178 at 156:21-158:15 (List Dep. Tr.). In general, network effects are less relevant where, as here, apps are easy to download and adopt and multi-homing among apps is already extensive. Ex. 2 at ¶¶ 194, 297-300 (Carlton Rep.).

e. Professor List's pricing experiment also has other relevant limitations.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the statement in this subparagraph.

i. The participants of Professor List's pricing experiment were likely not representative of Facebook and Instagram users generally. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 433-34.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1345 and subparagraph 1345(e). Further disputed because Professor List's pricing experiment used a large sample of respondents with eligibility requirements that ensured that participants

were representative of most usage on Facebook and Instagram. *See* Ex. 3 at ¶¶ 64-66 (List Rep.). The cited portions of Professor Hemphill's report merely speculates that "[i]t is likely that experiment participants differed along other unobservable dimensions," but provides no empirical basis for that speculation or theory as to potential effects. PX9007 at ¶¶ 433-434 (Hemphill Rebuttal Rep.). Professor List's reweighting of the experimental sample further ensures that the results are more representative of the target user base for Facebook and Instagram. Ex. 3 at ¶ 88 (List Rep.).

ii. Professor List is unfamiliar with, and does not cite, any real-world examples of price or quality changes that mirror the conditions of his pricing experiment. PX6178, List (Meta) Dep. Tr., at 84:12-86:11. [redacted] *Id.* at 93:6-97:5. Professor List did not review any ordinary course experiments measuring substitution between Facebook and Instagram or any "cannibalization" studies. *Id.* at 94:15-96:5.

<u>Meta Response</u>: Disputed in part. Undisputed that Professor List's pricing experiment was novel in terms of the payments to users to reduce time on Facebook and Instagram; [redacted]; and that Professor List did not review ordinary course studies

of substitution or cannibalization of Facebook and Instagram. Disputed for the reasons stated above in Meta's response to subparagraph 1345(e). Professor List is one of the leading experimental economists in the world, and his pricing experiment was a large-scale undertaking that was costly and technically complex. It is therefore unsurprising and irrelevant that others have not previously conducted the same type of experiment. As Professor List explained, however, many aspects of his experiment have been validated through other similar academic studies that look at how exogenous changes in quality or price affect users and usage. *See* PX6178 at 84:12-86:11 (List Dep. Tr.); Ex. 3 at ¶¶ 49-50 (List Rep.).

iii. The only metric Professor List evaluates is time spent; he does not analyze any other engagement metrics. PX6178, List (Meta) Dep. Tr., at 77:3-13.

Meta Response: Disputed in part. Undisputed that Professor List's pricing experiment evaluated time spent, and no other engagement metrics. Disputed for the reasons stated above in Meta's responses to paragraph 1345 and subparagraph 1345(e). The cited testimony is incomplete and lacks context. Professor List testified that he reported results both on how users' time spent changed during the experiment, where that time went when it was not spent on Facebook and Instagram, and where that time came from on the various surfaces of Facebook and Instagram. *See* PX6178 at 76:13-77:2 (List Dep. Tr.).

1346. Professor List's analysis of India's Chinese app ban fails nearly all the elements of a properly executed SSNIP test and thus does not provide a reliable measure of substitution relevant to assessing the HMT. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 447-64.

Meta Response: Disputed in part. Undisputed that Professor List's analysis of the India's TikTok ban did not attempt to execute a SSNIP. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor List's analysis of the India TikTok ban shows that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 3 at ¶¶ 21, 122, 137-139 (List Rep.).

a. The India Chinese app ban analysis purports to measure the behavior of Indian users when the price of TikTok "goes to infinity." PX6178, List (Meta) Dep. Tr., at 180:11-13. It is thus not a small price stimulus. PX9007, Hemphill Rebuttal

Report at ¶ 450 ("A price increase of that magnitude necessarily conflates marginal effects, which the HMT is intended to analyze, with inframarginal effects.").

Meta Response: Disputed in part. Undisputed that the testimony contains the quoted language, and that, as an economic matter, an app ban can be viewed as equivalent to an infinite price increase for the duration of the ban. Disputed for the reasons stated above in Meta's response to paragraph 1346, and because the phrase "small price stimulus" is vague and undefined. Further disputed that the India TikTok ban was not a small price stimulus, because there is no price to use Facebook or Instagram. The India TikTok ban provides relevant evidence of substitution that undermines the FTC's market definition. *See* Ex. 3 at ¶¶ 21, 122, 137-139 (List Rep.).

b. The India Chinese app ban analysis purports to measure substitution from a product outside of the candidate market, TikTok, to two products within the candidate market, Facebook and Instagram, despite the fact that cross-elasticities between two products are generally asymmetric. PX9007, Hemphill Rebuttal Report at ¶¶ 448-49 (citing PX15355, Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization 648 (Addison-Wesley, 4th Ed. 2004)); PX6178, List (Meta) Dep. Tr., at 181:7-182:8; PX6179, Carlton (Meta) Dep. Tr., at 54:4-19.

Meta Response: Disputed in part. Undisputed that Professor List's analysis of the India TikTok ban measures substitution between TikTok and Facebook and Instagram, and that substitution from TikTok to Facebook and Instagram is not

necessarily symmetric with substitution from Facebook and Instagram to TikTok. Disputed for the reasons stated above in Meta's response to paragraph 1346. Professor List's analysis of the India TikTok ban "suggests that when people no longer use TikTok, they move to Facebook and Instagram, and that's the definition of being a substitute." PX6178 at 191:21-192:2 (List Dep. Tr.); *see* Ex. 3 at ¶¶ 21, 122, 137-139 (List Rep.).

c. Professor List's conclusion with respect to the India Chinese app ban analysis is that "Facebook and Instagram are economic substitutes for TikTok in India." This conclusion is not even about the market for PSN services in the United States. PX9018, List Report at ¶ 21; PX6178, List (Meta) Dep. Tr., at 191:3-192:2. The India Chinese app ban analysis does not purport to measure the extent to which TikTok is a substitute for Facebook or Instagram in the United States. PX6178, List (Meta) Dep. Tr., at 179:2-11, 181:7-182:21.

Meta Response: Disputed in part. Undisputed that Professor List offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 1346, and because the quoted language is incomplete, lacks context, and is misleading. Although Professor List's India TikTok ban analysis concludes that "Facebook and Instagram are economic substitutes for TikTok in India," he further finds: "Facebook, Instagram, TikTok, and many other apps offer similar services in India and the United States. If Facebook and Instagram are substitutes for TikTok in India, then Facebook and Instagram are likely to be substitutes for TikTok in the United States as well." Ex. 3 at ¶ 123 (List Rep.).

The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

d. Professor List's report also refers to the India Chinese app ban as the "TikTok Ban," but there were in fact 58 other apps (including WeChat and Helo) also banned on the same day, and 118 additional apps were banned less than three months later. PX9007, Hemphill Rebuttal Report at ¶¶ 454-55; PX6178, List (Meta) Dep. Tr., at 195:10-14. The India Chinese app ban analysis does not distinguish between changes in time spent on Facebook and Instagram that occurred as a result of the ban on TikTok from the effects from the ban on any of the other apps or from a significant spike in COVID cases in India. PX9007, Hemphill Rebuttal Report at ¶¶ 458-59; PX6178, List (Meta) Dep. Tr., at 195:10-200:14, 209:4-8.

Meta Response: Disputed in part. Undisputed that India banned 58 apps on the same day as TikTok and 118 additional apps less than three months later. Disputed for the reasons stated above in Meta's response to paragraph 1346. Further disputed because, among these 58 other banned Chinese apps, TikTok accounted for [redacted] of usage. PX6178 at 188:3-11 (List Dep. Tr.); *see also id.* at 198:7-17 (TikTok accounted for approximately [redacted] of the 176 total banned apps). Further, Professor List's analysis used a synthetic control group, which enabled the changes in time spent on Facebook and Instagram as a result of the India TikTok ban to be distinguished from the effects of COVID in India. *Id.* at 190:19-191:2, 200:17-21. Professor List found that it was unnecessary to consider the effects of diversion from any other apps for the purposes of his

analysis given TikTok's [redacted] share among all banned apps during the initial ban. *See id.* at 198:18-202:1.

1347. Professor List's switching analysis does not even purport to involve a price stimulus akin to a SSNIP and thus does not provide reliable measures of substitution relevant to assessing the HMT. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 465-74.

Meta Response: Disputed in part. Undisputed that Professor List's switching analysis does not implement a SSNIP. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform a SSNIP, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor List's switching analysis shows that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 3 at ¶¶ 21, 142, 122, 160-163 (List Rep.); PX6178 at 25:13-22 (List Dep. Tr.) (switching analysis "informative about the relevant substitutes").

a. Professor List's switching analysis does not analyze user behavior in response to a price or quality change and thus does not measure demand substitution relevant to an HMT market definition analysis. PX9007, Hemphill Rebuttal Report at ¶ 467; *see also* PX9018, List Report at ¶ 13 ("Market definition is based on the extent to which consumers switch to other services or activities in response to changes in relative price or quality.").

Meta Response: Disputed in part. Undisputed that Professor List's switching analysis does not implement an HMT. Disputed for the reasons stated above in Meta's response to paragraph 1347. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor List's switching analysis shows that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 3 at

¶¶ 21, 142, 122, 160-163 (List Rep.); PX6178 at 25:13-22 (List Dep. Tr.) (switching analysis "informative about the relevant substitutes").

b. The switching analysis also indulges in the *Cellophane* fallacy, given that the observed "switching" activity occurred at Meta's prevailing prices for Facebook and Instagram. PX9007, Hemphill Rebuttal Report at ¶ 474.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1347. Further disputed because Professor List did not conduct the switching analysis experiment to implement an HMT or define a relevant market, but to demonstrate that the FTC's alleged PSN market is inconsistent with empirical evidence regarding substitution. The switching analysis did not embrace the *Cellophane* fallacy, as the switching analysis assesses relative order of substitution, not elasticity of demand at a particular price. There is no price to use Facebook or Instagram. The phrase "prevailing prices for Facebook and Instagram" is vague and undefined. In the but-for world absent the acquisition, the price to use Facebook and Instagram would also likely be zero. *See* PX6178 at 243:17-246:12 (List Dep. Tr.). There is no empirical evidence that shows that ad load on Facebook and Instagram would be lower in the but-for world, and Professor List's de-merger model demonstrates that the opposite is likely to be the case. *See* Ex. 3 at ¶¶ 190-191 (List Rep.).

c. The switching analysis also has other relevant limitations.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1347. Further disputed because the materials cited in the subparagraphs below do not support the assertion in this paragraph.

i. The switching analysis cannot identify the reasons why users shifted shares of time. PX9007, Hemphill Rebuttal Report at ¶¶ 468-71; PX9018, List Report at ¶¶ 141 ("[T]he available data do not allow me to identify why individuals shifted time between apps"), 150 ("Individuals' use of mobile devices can vary over time for a wide variety of reasons that are not observed and thus cannot be accounted for in empirical analysis."); *see also* PX6178, List (Meta) Dep. Tr., at 26:8-14.

Meta Response: Undisputed.

ii. The switching analysis's "share of time shifted" estimate between Facebook and Instagram is contradicted by other estimates of diversion in the record, including those calculated by Meta's data scientists in their "End States" analysis, and by Professor Carlton in his ad load experiment data analysis. PX9007, Hemphill Rebuttal Report at ¶¶ 472-73.

Meta Response: Disputed in part. Undisputed that the share of time shifted between Facebook and Instagram in Professor List's switching analysis differs from the amount of diversion found in other analyses. Disputed for the reasons stated above in Meta's responses to paragraph 1347 and subparagraph 1347(c). The comparisons are not apples-to-apples. Whereas Professor List's switching analysis used data through April 2023, Meta's End States analysis was conducted in 2018, the first year of TikTok's operation in the U.S. *See* Ex. 3 at ¶¶ 140 & n.88 (List Rep.). Whereas Professor List's switching analysis looked at data for users of only Facebook or Instagram (single-homers) as well as users of

both (multi-homers), Professor Carlton's analysis of ad load data was limited to multi-homers, who not surprisingly exhibit greater diversion between the two services. *See* Meta Resp. to Counter SMF ¶ 1345(d)(iii).

iii. Professor List characterizes the switching analysis as a "correlational" and "wallet share" analysis. PX6178, List (Meta) Dep. Tr., at 23:15-24:18.

Meta Response: Disputed in part. Undisputed that Professor List used the quoted terms in describing the switching analysis. Disputed for the reasons stated above in Meta's responses to paragraph 1347 and subparagraph 1347(c). The quoted language is taken out of context and is incomplete. Professor List testified that his switching analysis "helps you get conjectures about what are the substitutes in this market. And the way I think about wallet share, and in this case time share, you are exploring how these shares change over time, and in my experience they're informative about the relevant substitutes. So that information is valuable, and that's why I put it in the report because it's informative about the relevant substitutes." PX6178 at 25:13-22 (List Dep. Tr.).

iv. The switching analysis also lacks a comparison of "share of time shifted" estimates to the size of apps and fails to consider network effects. PX9007, Hemphill Rebuttal Report at ¶ 474.

Meta Response: Disputed in part. Undisputed that the switching analysis did not compare a share of time shifted to the size of apps and did not explicitly model network effects. Disputed for the reasons stated above in Meta's responses to paragraph 1347 and subparagraph 1347(c).

The term "size of apps" is vague and undefined. The cited portions of Professor Hemphill's report provide no evidence or theory as to why a comparison to the number of users of an app, or network effects, would materially affect the analysis or results. The results of the switching analysis demonstrate that there is no necessary relationship between the number of users of an individual app and observed diversion patterns. *See* Ex. 3 at ¶¶ 153-163 (List Rep.). The HMT framework recognizes that the competitive constraints depend on the extent to which engagement is diverted to rival apps, not the percentage of engagement expressed relative to the "size" of the app (however defined). PX15347 at § 4.3.A (DOJ and FTC Merger Guidelines); PX15346 at § 4.1.1 (DOJ and FTC Horizontal Merger Guidelines). To the extent that switching patterns approximate patterns of economic substitution, the amount of time that is switched is the relevant metric. *See* Ex. 3 at ¶¶ 140-146 (List Rep.).

b) The failure to adhere to the elements of the SSNIP test is consequential.

1348. Professor Carlton's and Professor List's violation of established HMT principles makes their empirical studies inherently unreliable and uninformative—both with respect to answering the ultimate HMT question of whether a hypothetical monopolist of PSN services can exercise market power and to assessing any "order of diversion" between PSN and non-PSN apps (and, in any case, market definition does not require firms to be added in strict order of diversion. *See infra* CMF at § II.A.8.(c); *see also* PX9007, Hemphill Rebuttal Report at ¶¶ 209-28.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and is contradicted by other, more reliable evidence. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.* Further disputed on the ground that "PSN services" and "PSN apps" are vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1349. The failure to use "small" price increases is problematic for at least several reasons. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 383-89, 420, 450.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed because the term "small price increase" is vague and undefined.

a. Relevant markets are defined around the ability of a hypothetical firm controlling a set of products to impose a "small" price increase; established antitrust practice does not ask consumers to suffer large or "infinite" price increases before a relevant market is delineated. PX9007, Hemphill Rebuttal Report at ¶¶ 367-68; PX15347, U.S. Department of Justice and the Federal Trade Commission, Merger Guidelines § 4.3 (2023); *cf.* PX15346, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 4.1.2 (2010) (focusing on a small increase "properly directs attention to the effects of price changes commensurate with those that might result from a significant lessening of competition caused by the merger").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1349. Further disputed because although Professor Carlton's and Professor List's analyses do not execute a SSNIP test or a quantitative implementation of the HMT, they are highly reliable and informative for assessing the relevant market and Meta's monopoly power. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.); PX6179 at 162:16-169:4

(Carlton Dep. Tr.); PX6178 at 25:1-27:17, 59:2-18, 76:13-77:2, 77:14-78:10, 84:12-86:2, 114:22-120:17, 180:8-181:6, 187:6-195:9 (List Dep. Tr.). Professor Carlton's and Professor List's analyses do not engage in the *Cellophane* fallacy, as they assess relative order of substitution, not elasticity of demand at a particular price. *See* Ex. 2 at ¶¶ 7, 22-24 (Carlton Rep.); Ex. 3 at ¶¶ 24, 192-208 (List Rep.); PX6179 at 154:18-155:4, 158:15-159:14, 160:19-169:4 (Carlton Dep. Tr.); PX6178 at 64:2-65:14, 154:15-156:15, 243:17-250:18, 254:11-258:2, 259:21-261:11 (List Dep. Tr.). It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and

MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.* The term "small price increase" is vague and undefined. The criticism that Professor Carlton and Professor List did not use a price increase of five percent also makes no sense because there is no price to use Facebook or Instagram. The pricing experiment did, however, approximate a small price increase that was "in the neighborhood" of the "5 to 10 percent" specified in the Merger Guidelines. PX6178 at 69:11-70:1 (List Dep. Tr.) (pricing experiment assumed a baseline value of user time of $20/hour and paid participants $4/hour to reduce time on Facebook); *see* PX15347 at § 4.3.B (DOJ and FTC Merger Guidelines) ("The Agencies . . . may consider a different term or a price increase that is larger or smaller than five percent."); *see also id.* ("What constitutes a 'small but significant' worsening of terms depends upon the nature of the industry and the merging firms' positions in it, the ways that firms compete, and the dimension of competition at issue."). Relevant markets may be defined around the ability of a hypothetical firm controlling a set of products to impose a price increase, but that is not the only evidence that may be considered. *Id.* at § 4.3 (describing HMT as one of four categories of evidence considered in market definition).

b. Focusing on large price increases—especially those like the "infinite" increases of the Carlton outage event and the List India ban—also conflates marginal effects and inframarginal effects, triggering greater substitution than one would expect with a smaller stimulus. PX9007, Hemphill Rebuttal Report at ¶¶ 368, 384, 450; *see also* PX3445, Meta document: "Diversion Ratio Estimates" (Apr. 11, 2019),

FB_FTC_CID_08245151, at -155 ("An outage can be thought of as a total degradation of quality, so the estimates may not translate marginal effects."); PX3446, Meta document: "Substitutability of Apps: Evidence from a YouTube Outage" (Nov. 6, 2018), FB_FTC_CID_06741046, at -053 ("[I]f someone absolutely had to watch a video at the time of the [YouTube] outage, they had a very strong incentive to look for a substitute. They might not want to do this if the change in the quality of the app was just marginal—this leads to overestimation of the effect.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1349 and subparagraph 1349(a). Further disputed because the criticism that Professor Carlton's outage analysis and Professor List's India TikTok ban analysis focused on large price increases is misplaced given that there is no price to use these apps, and the evidence suggests the price would also be zero in the but-for world. *See* PX6178 at 243:17-246:12 (List Dep. Tr.); Ex. 3 at ¶¶ 190-191 (List Rep.).

1350. The failure to use "non-transitory" price increases is also problematic for at least several reasons, which have salience given the significance of network effects and switching costs to the provision of PSN services. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 373-82, 420-27.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. It is not supported by the cited material as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and is contradicted by other, more reliable evidence. The FTC's use of "PSN services" is disputed for the reasons stated in Meta's

Introduction to its Response to the FTC's Counterstatement. Although Professor Carlton's and Professor List's analyses do not execute a SSNIP test or a quantitative implementation of the HMT, they are highly reliable and informative for assessing the relevant market and Meta's monopoly power. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.); PX6179 at 162:16-169:4 (Carlton Dep. Tr.); PX6178 at 25:1-27:17, 59:2-18, 76:13-77:2, 77:14-78:10, 84:12-86:2, 114:22-120:17, 180:8-181:6, 187:6-195:9 (List Dep. Tr.). Professor Carlton's and Professor List's analyses do not engage in the *Cellophane* fallacy, as they assess relative order of substitution, not elasticity of demand at a particular price. *See* Ex. 2 at ¶¶ 7, 22-24 (Carlton Rep.); Ex. 3 at ¶¶ 24, 192-208 (List Rep.); PX6179 at 154:18-155:4, 158:15-159:14, 160:19-169:4 (Carlton Dep. Tr.); PX6178 at 64:2-65:14, 154:15-156:15, 243:17-250:18, 254:11-258:2, 259:21-261:11 (List Dep. Tr.). It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including

TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.* Disputed that the pricing experiment was "transitory" in the sense used in the Merger Guidelines. *See* PX6178 at 70:4-7 (List Dep. Tr.) ("My experiment is four weeks, but what I observe after a week is a lot of stability. So I view that as a good surrogate. So I do view that as non-transitory."), *id*. at 73:19-74:18, 97:20-98:4 ("I consider my experiment a long-term one. It's a long-term one because I can get a surrogate and then I know the long-run elasticity. So let's be clear about what an experimentalist calls 'long term.' So if I said 'long term' here, that that would be at least four weeks, that's right."). Disputed that Professor Hemphill's report establishes the significance of network effects or switching costs to the provision of PSN services; he merely speculates about such effects and costs, which he makes no attempt to quantify.

a. Demand substitution can be different in the short run versus the long run. PX6178, List (Meta) Dep. Tr., at 120:18-121:2. Transitory changes in price or quality may yield different results in consumer behavior than non-transitory changes. *Id.* at 159:3-7; *see also* PX9007, Hemphill Rebuttal Report at ¶¶ 374-75.

Meta Response: Disputed in part. Undisputed that the statements are true as a theoretical matter. Disputed for the reasons stated above in Meta's response to paragraph 1350. Professor Carlton's and Professor List's analyses provide relevant evidence of substitution despite the fact that these analyses were limited in duration. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List

Rep.); PX6179 at 162:16-169:4 (Carlton Dep. Tr.); PX6178 at 25:1-27:17, 59:2-18, 76:13-77:2, 77:14-78:10, 84:12-86:2, 114:22-120:17, 180:8-181:6, 187:6-195:9 (List Dep. Tr.).

b. Meta explicitly recognizes this dynamic, observing when it studied a prior YouTube outage: "[A]s the outage most likely was perceived as a very temporary one, people didn't necessarily have to look for a replacement app—this leads to underestimation of the effect." PX3446, Meta document: "Substitutability of Apps: Evidence from a YouTube Outage" (Nov. 6, 2018), FB_FTC_CID_06741046, at -053.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1350. Disputed that the quoted language supports the statement, or accurately reflects what Meta recognizes, as opposed to the views of one Meta employee. Like Professor Carlton's outage analysis and Professor List's analysis of the India TikTok ban, the document provides an ordinary course example of using an outage (in this case of YouTube) as a natural experiment to measure diversion and analyze, based on that diversion, which apps may belong in the same market. *See* PX3446 at -052 (FB_FTC_CID_06741046) ("However, we can observe some of the substitution patterns and make claims about the relative degrees of substitutability between YouTube and the other apps.").

c. Moreover, PSN services exhibit strong network effects and switching costs. *See infra* CMF at § II.B.2. Those network effects and switching costs would prevent a consumer of PSN services on one PSN app from temporarily switching to a new

PSN app. PX9007, Hemphill Rebuttal Report at ¶¶ 212-15. The "switching" to non-PSN apps that Professor Carlton and Professor List observe in response to their transitory stimuli therefore does not imply substitution of demand for friends and family sharing as opposed to users postponing their demand for PSN services. *See id.* at ¶¶ 370, 375-76, 421-422. For the same reason, the "order of diversion" between PSN apps and non-PSN apps in response to a transitory price increase for PSN services would not be the same as for a non-transitory price increase. *Id.* at ¶ 215, 377-78, 423-26.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1350. Further disputed because the term "strong network effects and switching costs" is vague and undefined, and neither Professor Hemphill's reports nor other evidence establishes that network effects or switching costs prevent consumers from switching between so-called PSN apps. Professor Carlton's and Professor List's analyses show that such switching occurs extensively. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.); PX6179 at 162:16-169:4 (Carlton Dep. Tr.); PX6178 at 25:1-27:17, 59:2-18, 76:13-77:2, 77:14-78:10, 84:12-86:2, 114:22-120:17, 180:8-181:6, 187:6-195:9 (List Dep. Tr.). The phrase "postponing their demand for PSN services" is vague and undefined, and none of the cited evidence shows that users can or have postponed such demand. Professor List's experiment was not "transitory" as that term is used in the Merger Guidelines, and therefore there is no basis to claim that the diversion it found would not be the same if the pricing experiment was conducted for a longer period. *See* PX6178 at 70:4-7 (List Dep. Tr.) ("My

experiment is four weeks, but what I observe after a week is a lot of stability. So I view that as a good surrogate. So I do view that as non-transitory."), *id*. at 73:19-74:18, 97:20-98:4 ("I consider my experiment a long-term one. It's a long-term one because I can get a surrogate and then I know the long-run elasticity. So let's be clear about what an experimentalist calls 'long term.' So if I said 'long term' here, that that would be at least four weeks, that's right.").

d. Consistent with this, evidence indicates that increased usage of non-PSN apps during the period of the outage studied by Professor Carlton was unrelated to friends and family sharing, including people using other apps to learn about or discuss the outage itself. PX9007, Hemphill Rebuttal Report at ¶¶ 393-402. For example:

Meta Response: Disputed in part. Undisputed that it is possible that some increased usage of what the FTC has termed "non-PSN apps" during the outage was unrelated to friends and family sharing, including people using other apps to learn about or discuss the outage itself. Disputed for the reasons stated above in Meta's response to paragraph 1350. Professor Hemphill merely shows that searches related to the outage increased; he does not claim, much less demonstrate, that such searches comprised a material amount of the time that was diverted, nor is there any basis to assume that is likely the case. Disputed that the FTC has provided a coherent definition of "PSN App."

i. Tim Perzyk, Twitter's Vice President of Sales Enablement, testified that the brief surge in Twitter usage was mostly due to

> people Tweeting about the fact that those applications were down. So the use case itself was

> unique in that the news story became being down. It wasn't this is suddenly the place I'm going to go and share recipes and family reunion photos. It was let me go talk about this other event that's going to happen.

[redacted] User interest in particular news events causes spikes in Twitter usage. [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Perzyk provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1350(d). The cited testimony is taken out of context and is incomplete. [redacted]

The spike in traffic was so significant that Twitter issued an apology to users for technical issues it said were due to the increased traffic. *Id.* at 126:12-127:4; Ex. 512 (MetaFTC-Klein-DX-807). [redacted]

ii. As a result of the October 2021 Meta outage, TikTok experienced a dramatic spike for the hashtags "#facebookdown" and "#instagramdown." PX9007, Hemphill Rebuttal Report at ¶¶ 395-96.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1350(d). Professor Hemphill claims that "the upshot is that at least part of the time that users spent on TikTok during the outage was likely to look for information about or reactions to the outage itself, rather than consuming content on TikTok instead of Facebook or Instagram," *see* PX 9007 at ¶ 395 (Hemphill Rebuttal Rep), but provides no data to support, much less quantify, that assertion.

e. Also consistent with this, both the Carlton outage analysis and the List pricing experiment found that large portions of time spent did not move to *any* other online service—that is, people stopped using their mobile devices altogether. PX9007, Hemphill Rebuttal Report at ¶¶ 403-14, 436-38. This again implies users' waiting to resume consumption of PSN services. *Id.* Moreover, this indicates that users materially lacked any "substitute" to Meta's PSN services, which confirms the lack of reasonable substitutes for PSN services and Meta's monopoly power with respect to PSN services. *Id.*

Meta Response: Disputed in part. Undisputed that both Professor Carlton's outage analysis and Professor List's pricing experiment found that some time diverted from Facebook and Instagram to off-phone activities. Disputed for the

reasons stated above in Meta's response to paragraph 1350. Disputed that this implies users were waiting to resume consumption of PSN services, for which Professor Hemphill provides no evidentiary support, even though he could have tested the claim by measuring usage after the outage/experiment. The fact that, after the outage and pricing experiment usage of Facebook and Instagram returned to [redacted], respectively, does not affect the conclusions of Professor Carlton's outage analysis and Professor List's pricing analysis, which demonstrate that when users decrease their usage of Facebook and Instagram they divert more of their time to apps the FTC classifies as "non-PSN" services than to apps the FTC classifies as "PSN services," contrary to Dr. Hemphill's theory and alleged market definition. *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). Disputed that diversion to off-phone activity indicates that users lacked a substitute to Meta's PSN services, for which Professor Hemphill likewise provides no evidentiary support. Both the Carlton and List analyses show that the [redacted] of time is diverted to other apps, and that [redacted] of such diverted time goes to apps the FTC classifies as "PSN apps." *See id.*

1351. The use of Meta's prevailing market prices is problematic because it overlooks Meta's existing exercise of monopoly power and embraces the *Cellophane* fallacy.

Meta Response: Disputed. Disputed that the statements and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed because the term "prevailing market

prices" is vague and undefined. There is no price to use Facebook or Instagram, and in the but-for world absent the acquisition, the price to use Facebook and Instagram would also likely be zero. *See* PX6178 at 243:17-246:12 (List Dep. Tr.). There is no empirical evidence that shows that ad load on Facebook and Instagram would be lower in the but-for world, and Professor List's de-merger model demonstrates that the opposite is likely to be the case. *See* Ex. 3 at ¶¶ 190-191 (List Rep.).

a. Executing a SSNIP on already-elevated monopoly prices is committing the *Cellophane* fallacy. PX9000, Hemphill Report at ¶¶ 176-78; PX6179, Carlton (Meta) Dep. Tr., at 139:15-21.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1351. Further disputed because the statement is an inaccurately stated generality.

b. Professor Hemphill details extensive direct evidence that Meta has monopoly power. *See infra* CMF at § II.C.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1351. Further disputed because the statement is conclusory and is not supported by evidence. To the extent the statement incorporates the FTC's statements in Section II.C, Meta incorporates its responses to those statements here.

c. "Order of diversion" between PSN apps and non-PSN apps is also unlikely to be the same if a SSNIP is imposed at a monopolized price for PSN services compared to a competitive level.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1351 and in response to the subparagraphs below. Further disputed because the statement wrongly assumes that Facebook and Instagram charge a monopolized price for PSN services. *See* Meta Resp. to Counter SMF ¶ 1351. The FTC's use of "PSN service" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

i. It is a basic economic principle that the cross-elasticity of demand between two products can change as the price of one product increases. PX15355, Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization 647 (Addison-Wesley, 4th Ed. 2004) ("The cross-elasticity of demand is the percentage change in quantity demanded in response to a 1 percent change in the price of another product.") (emphasis omitted). Two products that are more distant substitutes may become closer substitutes as price of one product is increased. *Id.* at 646 ("The degree of substitution between products depends on the current prices of the two products. For example, A and B may be highly substitutable at a high price for A, but not at a low price for A.").

Meta Response: Undisputed but immaterial.

ii. This implies that as the price of PSN services increases above a competitive level, non-PSN apps become more attractive and receive more substitution than at a competitive price for PSN services. *See id.*; PX9007, Hemphill Rebuttal Report at ¶¶ 219.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1351 and subparagraph 1351(c). The terms "price of PSN services" and "competitive level" are vague and undefined, and the cited portions of Professor Hemphill's report describe neither. The implied assumption in the statement that Facebook and Instagram are provided at a monopolized price is wrong for the reasons noted above and finds no support in the cited paragraph of Professor Hemphill's rebuttal report. As Professor Carlton explained, "[i]t is reasonable to expect that the order of closest substitution remains the same at the monopoly price as at the lower price." Ex. 2 at ¶ 24 n.26 (Carlton Rep.).

c) Professor Carlton's algorithmic approach to market definition is unmoored from the evidence and established market definition principles.

1352. Professor Carlton claims that because Snapchat was included in the candidate market, apps which are closer substitutes to Facebook and Instagram than Snapchat must also be included in the market. PX9019, Carlton Report at ¶ 24; PX6179, Carlton (Meta) Dep. Tr., at 161:19-162:12.

Meta Response: Disputed. Professor Carlton gave the opinion that "when Prof. Hemphill claims that Snapchat is in his market in a hypothetically more competitive world, that implies that if there are closer current substitutes than Snapchat, then they should be in his market as well." Ex. 2 at ¶ 24 (Carlton Rep.); *see* PX6179 at 163:7-16 (Carlton Dep. Tr.).

1353. Professor Carlton asserts that apps are closer substitutes to Facebook and Instagram than Snapchat if they received higher diversion rates than Snapchat. PX9019, Carlton Report at ¶¶ 30, 34; PX6179, Carlton (Meta) Dep. Tr., at 116:5-9.

Meta Response: Disputed in part. Disputed that this statement creates a genuine dispute of material fact. The cited testimony is incomplete and taken out of context. Professor Carlton concludes that Professor Hemphill's PSN market definition fails because, among other reasons, it includes Snapchat in the relevant market but excludes apps with greater substitution from Facebook and Instagram than Snapchat. Ex. 2 at ¶ 30 (Carlton Rep.). As he states: "If you exclude from the market the closest substitutes, I'm not sure what the purpose of defining a market is." PX6179 at 116:2-4 (Carlton Dep. Tr.). Further, as Professor Carlton opined, *see* Ex. 2 at ¶ 30 n.41 (Carlton Rep.), this draws support from the 2010 Horizontal Merger Guidelines, which state:

> When applying the hypothetical monopolist test to define a market around a product offered by one of the merging firms, if the market includes a second product, the Agencies will normally also include a third product if that third product is a closer substitute for the first product than is the second product.

And also:

> Example 6: In Example 5, suppose that half of the unit sales lost by Product A when it raises its price are diverted to Product C, which also has a price of $100, while one-third are diverted to Product B. Product C is a closer substitute for Product A than is Product B. Thus Product C will normally be included in the relevant market, even though Products A and B together satisfy the hypothetical monopolist test.

PX15346 at § 4.1.1 (DOJ and FTC Horizontal Merger Guidelines).

1354. Professor Carlton's approach is flawed for several reasons. *See infra* CMF at ¶¶ 1355-67.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. This paragraph fails to cite any record evidence, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). To the extent this paragraph incorporates statements in paragraphs 1355-1367, Meta incorporates its responses to those statements here.

(1) There is no "closest substitute" requirement for market definition.

1355. Any collection of products that satisfies the hypothetical monopolist test is a relevant antitrust market. PX9000, Hemphill Report at ¶ 173; *see also* PX15347, U.S. Department of Justice and the Federal Trade Commission, Merger Guidelines § 4.3 (2023) ("Market definition ensures that relevant antitrust markets are sufficiently broad, but it does not always lead to a single relevant market."); PX15346, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 4.1.1 (2010) ("The hypothetical monopolist test ensures that markets are not defined too narrowly, but it does not lead to a single relevant market. The Agencies may evaluate a merger in any relevant market satisfying the test, guided by the overarching principle that the purpose of defining the market and measuring market shares is to illuminate the evaluation of competitive effects."); PX6179, Carlton (Meta) Dep. Tr., at 114:19-115:17.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The term "relevant market" is a legal term; the statement is a generality unconnected to the facts of the case. The materials cited do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The FTC, which has the burden of defining a relevant antitrust market, has not attempted to do so using an HMT.

1356. This means that if a candidate market for PSN services—consisting of those apps identified as PSN apps by Professor Hemphill—satisfies the HMT, it is a relevant antitrust market, even if, *arguendo*, non-PSN apps received greater diversion than Snapchat or MeWe in response to a properly executed SSNIP on Facebook or Instagram. PX9007, Hemphill Rebuttal Report at ¶¶ 193, 217.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that they assert legal conclusions regarding what constitutes a "relevant antitrust market." Further disputed because the materials cited do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The FTC, which has the burden of defining a relevant antitrust market, has not attempted to do so using an HMT. The hypothetical in the statement assumes facts that are not in evidence, but are instead contrary to the evidence, and in any event do not undermine Professor Carlton's and Professor List's criticisms of the FTC's approach and conclusions regarding the alleged PSN market. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). The FTC's use of "PSN services" and "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1357. Neither the 2010 Horizontal Merger Guidelines nor the 2023 Merger Guidelines require firms to be added to a candidate market in order of diversion.

Meta Response: Disputed in part. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Although the 2010 and 2023 Guidelines do not expressly require firms to be added to a candidate market in order of

diversion, both suggest that a properly defined market should include the closest substitutes for a given product. *See*, *e.g.*, PX15347 at § 4.3 (DOJ and FTC Merger Guidelines) ("outer boundaries of a relevant product market are determined by the 'reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it'" (quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962))); PX15346 at § 4.1.1 (DOJ and FTC Horizontal Merger Guidelines).

a. The 2010 Horizontal Merger Guidelines provide that "[w]hen applying the hypothetical monopolist test to define a market around a product offered by one of the merging firms, if the market includes a second product, the Agencies will *normally* also include a third product if that third product is a closer substitute for the first product than is the second product." PX15346, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 4.1.1 (2010) (emphasis added).

Meta Response: Undisputed that the document contains the quoted language.

b. The 2023 Merger Guidelines lack any reference to adding firms to a candidate market in order of diversion. *See* PX15347, U.S. Department of Justice and the Federal Trade Commission, Merger Guidelines § 4.3 (2023).

Meta Response: Disputed in part. Undisputed that the 2023 Guidelines do not expressly require firms to be added to a candidate market in order of diversion. Disputed for the reasons stated above in Meta's response to paragraph 1357. The 2023 Guidelines suggest that a properly defined market should include the closest substitutes for a given product. *See*, *e.g.*, PX15347 at § 4.3 (DOJ and FTC

Merger Guidelines) ("outer boundaries of a relevant product market are determined by the 'reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it.'" (quoting *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962))). The transactions at issue occurred in 2012 and 2014, respectively, when the 2010 Horizontal Merger Guidelines were in place. The 2010 Merger Guidelines expressly state "[w]hen applying the hypothetical monopolist test to define a market around a product offered by one of the merging firms, if the market includes a second product, the Agencies will *normally* also include a third product if that third product is a closer substitute for the first product than is the second product." PX15346 at § 4.1.1 (DOJ and FTC Horizontal Merger Guidelines) (emphasis added).

1358. Respected antitrust economists likewise do not support this "algorithmic" approach to market definition. *See* PX9007, Hemphill Rebuttal Report at ¶ 189; PX0648 at -009, Nancy Rose & Carl Shapiro, *What's Next for The Horizontal Merger Guidelines*, 36 Antitrust 4 (2022); PX0649 at -001-03, Kostis Hatzitaskos, Nicholas Hill & Brad T. Howells, *Aetna-Humana and the Algorithmic Market Definition in the Guidelines*, Antitrust Source 1 (2017); PX0647 at -020-22, John Asker, Kostis Hatzitaskos, Bob Majure, Ana McDowall, Nathan Miller & Aviv Nevo, *Comments on the January 2022 DOJ and FTC RFI on Merger Enforcement*, Regulations.gov (Apr. 20, 2022), https://www.regulations.gov/comment/FTC-2022-0003-1847; *see also* PX6179, Carlton (Meta) Dep. Tr., at 130:11-22.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The materials cited do not support the assertion in this paragraph, as

required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). All of the cited sources advocate the use of the HMT to define a relevant market, which is something the FTC and Professor Hemphill have failed to do in this case. None of the cited sources addresses the situation here, where a market is defined without reference to an HMT, and where empirical evidence shows that products excluded from the candidate market are closer substitutes than the products included in that market.

1359. The "algorithmic" approach to market definition is "mistaken and unwarranted" and also produces "perverse, economically incoherent results" in a monopoly maintenance case. PX9007, Hemphill Rebuttal Report at ¶ 188-95.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The materials cited do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the

alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.*

1360. Professor Carlton acknowledges that the 2010 Horizontal Merger Guidelines do not require firms to be added to a candidate market based on order of diversion. PX6179, Carlton (Meta) Dep. Tr., at 124:11-17.

Meta Response: Disputed in part. Undisputed that Professor Carlton acknowledged that the 2010 Guidelines do not "require" firms to be added to candidate market based on order of diversion, but he went on to testify that the Guidelines "indicated a general preference for it." PX6179 at 124:16-17 (Carlton Dep. Tr.).

1361. Professor Carlton acknowledges that the 2023 Merger Guidelines "abandon" any reference to adding firms to a candidate market based on order of diversion. PX0682 at -009, Dennis W. Carlton, *The 2023 Merger Guidelines: A Critical Assessment*, Rev. Indus. Org. (2024); *see also* PX6179, Carlton (Meta) Dep. Tr., at 129:21-130:10.

Meta Response: Disputed. The citations do not support the statement in this paragraph. Professor Carlton did not state that the 2023 Merger Guidelines "abandon" any reference to adding firms to a candidate market based on order of diversion. His 2024 paper contains no such quotation or one similar. He does, however, explain how the 2023 Merger Guidelines contain "many caveats" that are "seemingly aimed at litigation that allow the agencies to have flexibility in how they define markets," which "is likely to lead to gerrymandering market definition in order to obtain the desired results." PX0682

at -008, -009 (Dennis W. Carlton, *The 2023 Merger Guidelines: A Critical Assessment*). In his deposition, Professor Carlton stated that he "didn't see" a reference to including firms in a candidate market based on order of diversion, but continued to testify that "there was a statement that I thought indicated they were aware of the preference to do so. But I'd have to refer the 2023 guidelines." PX6179 at 130:3-10 (Carlton Dep. Tr.).

(2) The flaws in Meta's experts' empirical analyses infect their derived orders of diversion.

1362. By failing to adhere to the elements of a properly executed SSNIP, the empirical analyses of Professor Carlton and Professor List do not—by definition—reveal that non-PSN apps receive more diversion than PSN apps in response to a small, but significant non-transitory increase above a competitive level, which is the question posed by the HMT. *See supra* CMF at §§ II.A.8.(a)-(b); PX9007, Hemphill Rebuttal Report at ¶¶ 211-16, 219.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The materials cited do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor

List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.* As described above, Professor List's switching analysis did approximate a small price increase that was "in the neighborhood" of the "5 to 10 percent" specified in the Merger Guidelines. PX6178 at 69:11-70:1 (List Dep. Tr.) (pricing experiment assumed a baseline value of user time of $20/hour and paid participants $4/hour to reduce time on Facebook); *see* PX15347 at § 4.3.B (DOJ and FTC Merger Guidelines) ("The Agencies . . . may consider a different term or a price increase that is larger or smaller than five percent."); *see also id.* ("What constitutes a 'small but significant' worsening of terms depends upon the nature of the industry and the merging firms' positions in it, the ways that firms compete, and the dimension of competition at issue."). His pricing experiment also was "non-transitory" in the sense used in the Merger Guidelines. *See* PX6178 at 70:3-7 (List Dep. Tr.) ("My experiment is four weeks, but what I observe after a week is a lot of stability. So I view that as a good surrogate. So I do view that as non-transitory."), *id*. at 73:19-74:18, 97:20-98:4 ("I consider my experiment a long-term one. It's a long-term one because I can get a surrogate and then I know the long-run elasticity. So let's be clear about what an experimentalist calls 'long term.' So if I said 'long term'

here, that that would be at least four weeks, that's right."). The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1363. Further, as detailed above, Professor Carlton's and Professor List's failures—including using large, transitory increases above Meta's elevated prices—would specifically bias diversion in favor of non-PSN apps. *See supra* CMF at ¶¶ 1349-1350; PX9007, Hemphill Rebuttal Report at ¶ 220.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1350 and 1362. In addition, Professor Hemphill provides no evidence to show that Professor Carlton's and Professor List's analyses bias diversion in favor of non-PSN apps. As Professor Carlton explained, "[i]t is reasonable to expect that the order of closest substitution remains the same at the monopoly price as at the lower price." Ex. 2 at ¶ 24 n.26 (Carlton Rep.). Professor List likewise explained that his pricing experiment did not bias diversion in favor of non-PSN apps given the use of a randomized control group. PX6178 at 64:2-65:14 (List Dep. Tr.). The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1364. Meta's experts provide no support for their contrary assumptions about order of diversions.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

in Meta's responses to the subparagraphs below, and because the materials cited in the subparagraphs below do not support the statement in this paragraph.

a. Professor Carlton provides no support for his assumption that the order of diversion remains the same under monopolized or competitive conditions. PX9019, Carlton Report ¶ 24 & n.26; PX6179, Carlton (Meta) Dep. Tr., at 174:5-175:3.

Meta Response: Disputed. Professor Carlton explained the basis for his assumption. *See* PX9019 at ¶ 24 & n.26 (Carlton Rep.) ("It is reasonable to expect that the order of closest substitution remains the same at the monopoly price as at the lower price. Also, as I understand Prof. List discusses, empirical evidence on responses to changes in ad load indicates that substitution is unlikely to be substantially different than it is today even if ad load were lower, *i.e.*, even if Prof. Hemphill's 'price' were lower in his but-for world, it is unlikely substitution patterns would be much different."); *see also* PX6179 at 176:3-10 (Carlton Dep. Tr.) (the order of diversion in response to a transitory price increase "doesn't have to be the same" as the order in response to a non-transitory increase, "but unless I see evidence to suggest otherwise, I don't know why it would not be. In light of the evidence in this case, I think it's a reasonable assumption."); Ex. 2 ¶ 24 & n.26 (Carlton Rep.). Professor List's analysis confirms Professor Carlton's basis for his assumption. *See* PX6178 at 64:2-19, 154:18-156:15 (List Dep. Tr.).

b. Professor Carlton provides no support for his assumption that the order of diversion remains the same in response to a large or small price increase. PX6179, Carlton (Meta) Dep. Tr., at 175:4-11, 179:22-180:5.

Meta Response: Disputed. Professor Carlton explained at his deposition that he was not aware of any evidence or reason that the order of diversion could vary depending on the size of the price increase and had not "seen anything to suggest that that's likely in this case." PX6179 at 175:4-11 (Carlton Dep. Tr.).

c. Professor Carlton provides no support for his assumption that the order of diversion remains the same in response to a transitory or non-transitory price increase. PX6179, Carlton (Meta) Dep. Tr., at 175:12-176:10.

Meta Response: Disputed. Professor Carlton explained at his deposition that the order of diversion in response to a transitory price increase "doesn't have to be the same" as the order in response to a non-transitory increase, "but unless I see evidence to suggest otherwise, I don't know why it would not be. In light of the evidence in this case, I think it's a reasonable assumption." PX6179 at 176:3-10 (Carlton Dep. Tr.). Professor Carlton noted that Professor Hemphill has not "done any study of this" whereas Professor List concluded that his results apply in the long run, and "that the adjustments that occur in the longer run such as increasing your network or adding features would apply to both, say Snapchat as well as some of these other firms, these other apps." *Id.* at 176:14-177:6.

d. Professor List does not provide support for his assumption that the order of diversion remains the same under monopolized or competitive conditions. *See* PX9018, List Report at ¶¶ 195-99. His claim that the impact of ad load on engagement is low overlooks Meta's substantial market power, network effects, long-run effects of ad load on engagement that are not captured by [redacted], and the other dimensions of quality that are components of

the quality-adjusted price. *See id.*; PX6178, List (Meta) Dep. Tr., at 250:19-251:4. 252:13-19; PX9007, Hemphill Rebuttal Report at ¶¶ 129-37, 221-26.

Meta Response: Disputed. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* PX9018 at ¶¶ 13-22 (List Rep.). He further demonstrates that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.* Professor List's criticism of the FTC's and Professor Hemphill's alleged market holds even assuming – contrary to the empirical evidence – that prices would be lower in a hypothetically less competitive world. *See* PX6179 at 176:3-10 (Carlton Dep. Tr.); Ex. 2 ¶ 24 & n.26 (Carlton Rep.). Professor List explained

that "there is no basis to conclude that diversion rates based on current market conditions would differ systematically from those based on but-for conditions. As a monopolist raises price (or lowers quality), customers that were on the margin between switching to another product at the competitive price are replaced by a new set of customers that are on the margin at the monopoly price or quality. There is no necessary reason to expect that diversion rates between the new and old marginal customers would differ." PX9018 at ¶ 200 (List Rep.). He further explained that "there is every reason to expect that, as of today, uses of Facebook, Instagram, and other services in the but-for world would have faced a price of zero" because "[t]he fact that no major non-PSNS platform has adopted a business model of compensating users implies that there is no basis assume that Meta would have initiated such payments in the but-for world." *Id.* at ¶ 201 & n.113. Professor List's de-merger model shows that ad load is likely to be lower, not higher, in the but-for world. *Id.* at ¶ 191 & tbl. III-2. Professor List's de-merger model controls for Meta's market share, network effects, the long-run effects of ad load on engagement, and other dimensions of quality. *See id.* at ¶¶ 190-191 & App'x P (List Rep.); PX6178 at 103:21-104:15, 140:7-141:16, 146:13-147:4 (List Dep. Tr.).

1365. The order of diversion derived from Professor Carlton's outage analysis is different than those derived from Professor List's pricing experiment. These differences themselves indicate that the nature of the experiments—including the size, duration, and target of the purported price increases—alter the resulting order of diversions.

Meta Response: Disputed in part. Undisputed that the order of diversion derived from Professor Carlton's outage analysis is different from those derived from Professor List's pricing experiment. Disputed that these differences indicate that the nature of the experiments alter the resulting order of diversions. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. According to Professor Carlton's outage analysis, the order of diversion from Meta's apps [redacted]. PX9019, Carlton Report at ¶ 29, Table 1.

Meta Response: Undisputed.

b. According to Professor List's pricing experiment, the order of diversion from Facebook [redacted]. PX9018, List Report, Figure II-5, Appendix K-2 ([redacted]).

Meta Response: Undisputed.

c. According to Professor List's pricing experiment, the order of diversion from Instagram [redacted]

[redacted]. PX9018, List Report, Figure II-6, Appendix K-2 ([redacted]).

Meta Response: Undisputed.

1366. Further, Meta's control of Instagram has directly altered diversion relative to a more competitive PSN market.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed on the ground that "PSN market" is vague and undefined and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Meta has raised quality-adjusted price on Facebook and Instagram through its control of Instagram, which alters diversion between the two apps. *See infra* CMF at §§ II.C.3, IV.B-C; PX9007, Hemphill Rebuttal Report at ¶¶ 224-26.

Meta Response: Disputed. The term "quality-adjusted price" is vague and undefined. None of the citations in support of this statement shows that Meta raised the price or lowered the quality of Facebook or Instagram, or that any such increase of price or decrease in quality altered the diversion between the two apps. Professor Hemphill does not even assert, much less demonstrate, this to be the case. For example, he provides no evidence of what the quality-adjusted price of Facebook and Instagram was before the acquisition or for any subsequent period, nor does he provide the quality-adjusted price of any other app. Nor does Professor Hemphill show that any alleged change in the quality-adjusted price

altered the diversion between the two apps. Professor Hemphill admitted that he had no way to measure "quality-adjusted price" or other claimed dimensions of quality. *See* Ex. 283 at 232:17-233:2 (Hemphill Dep. Tr.); *see also id.* at 241:20-242:10, 243:17-244:6, 221:8-22, 222:1-15, 224:6-225:20. There is no price to use Facebook or Instagram. In the but-for world absent the acquisition, the price to use Facebook and Instagram would also likely be zero. *See* PX6178 at 243:17-246:12 (List Dep. Tr.). There is no empirical evidence that shows that ad load on Facebook and Instagram would be lower in the but-for world, and Professor List's de-merger model demonstrates that the opposite is likely to be the case. *See* Ex. 3 at ¶¶ 190-191 (List Rep.).

b. Once it controlled Instagram, Meta directed Instagram to avoid actions that could "cannibalize" Facebook usage, effectively minimizing relative diversion between the apps and increasing relative diversion to non-PSN apps. *See infra* CMF at § III.D.1(b).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1366. Further disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

c. Meta's 2018 efforts to achieve ad load [redacted] between Facebook and Instagram were explicitly designed to reduce "cannibalization" of Facebook engagement by

Instagram, thereby limiting switching between the apps. *See infra* CMF at §§ IV.B.2, IV.C.2.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1366 and subparagraph 1366(a). Further disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections IV.B.2 and IV.C.2, Meta incorporates its responses to those statements here.

d. Starting in 2018, Meta took steps to differentiate Instagram's offerings—including its underlying social graph—from Facebook to discourage users from substituting one for the other. In particular, Meta directed Facebook to focus on "everyone you know" and Instagram to focus on "close friends and interests." *See infra* CMF at § III.D.1(b).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1366 and subparagraph 1366(a). Further disputed because the statements in this paragraph ignore the fact that Facebook and Instagram had differentiated offerings prior to the acquisition and prior to 2018. As Professor List has shown, moreover, "there is no basis to assume that Facebook and Instagram would have been closer substitutes in the but-for world than they are today," and considerable evidence demonstrating that the opposite is more likely. Ex. 3 at ¶ 204 (List Rep.). Further disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil

Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

e. Professor List testified that there is evidence that indicates that the order of diversion today would differ from that which would exist in the but-for world. PX6178, List (Meta) Dep. Tr., at 247:19-249:6. Professor List did not review any evidence concerning steps that Meta took to differentiate Facebook and Instagram. *Id.* at 247:11-18.

Meta Response: Disputed in part. Undisputed that Professor List testified that he did not review any evidence concerning steps that Meta took to differentiate Facebook and Instagram. *See* PX6178 at 247:19-249:6 (List Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 1366. The first statement in this paragraph mischaracterizes Professor List's testimony. Professor List testified that "[t]here are forces on both sides of this. Surely they try to differentiate on some dimensions. On other dimensions surely they try to emulate." *Id*. at 247:19-249:6. Professor List then explained that the level of differentiation that would exist in the but-for world is an empirical question, and that Professor List's experiment demonstrated that, at least with respect to ad load, the evidence indicates it would be higher, not lower, in the but-for world. *Id.* at 15:12-16:2, 245:7-246:12; Ex. 3 at ¶¶ 190-191 (List Rep.).

1367. Professor Carlton also fails to follow his own "algorithmic" market definition approach, producing gerrymandered results.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In addition, this paragraph wrongly implies that Professor Carlton attempted to define a relevant market.

a. Professor Carlton declines to opine that a properly defined market for PSN services requires extending the market to all firms that receive greater diversion than MeWe, even though his algorithmic approach would call for doing so. PX9007, Hemphill Rebuttal Report at ¶¶ 191-92; *see* PX6179, Carlton (Meta) Dep. Tr., at 164:12-167:9.

Meta Response: Disputed. The statement mischaracterizes Professor Carlton's opinions. Professor Carlton does not attempt to define a relevant market, and nowhere provides the opinion that if a market is defined to include Firms A, B, and C, the market must include all firms that receive greater diversion than exists between those firms. The FTC has the burden to define a relevant antitrust market. The FTC's approach to doing so ignores diversion among apps. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-

16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Hemphill claims that MeWe is in the relevant market despite minimal diversion between Facebook and Instagram and MeWe. Professor Carlton explained that: "If you think [MeWe is] an important competitive constraint, that is you, I mean Professor Hemphill, I think this is an important competitive constraint and says anyone who is like MeWe in terms of its influence, constraining influence on Facebook should be in the market, well, I do think it would lead to tons of firms in the market, but I don't think that's reasonable." PX6179 at 166:9-16 (Carlton Dep. Tr.). The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. Professor Carlton and Professor List both found that diversion to [redacted] was higher than diversion to [redacted].

<u>Meta Response</u>: Disputed in part. Undisputed that both Professor Carlton and Professor List found that there is more diversion from Facebook and Instagram to [redacted] than to [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1367. This subparagraph and its cited material also do not support the statement in paragraph 1367, which as described above mischaracterizes Professor Carlton's opinions as a market-definition approach.

i. Professor Carlton's outage analysis found that diversion to [redacted] was higher than diversion to [redacted] or [redacted], among other apps. PX9019, Carlton Report, Table 1.

<u>Meta Response</u>: Disputed in part. Undisputed that Professor Carlton's outage analysis found that diversion to [redacted] was higher than diversion to [redacted], [redacted], and other apps. Disputed that this statement creates a genuine dispute of material fact. The statement wrongly suggests [redacted] is necessarily a closer substitute to Facebook or Instagram than [redacted], [redacted], or other apps with lower diversion. Use of [redacted] is not analogous to use of a single app, but instead provides a user access to a limitless number of other websites and services. *See* PX9019 at ¶ 29 (Carlton Rep.). Further, these figures may understate the degree of substitution to some apps because [redacted]. PX9019 at ¶ 29 (Carlton Rep.).

ii. Professor List's pricing experiment found that diversion from Facebook to [redacted] was higher than diversion to [redacted], [redacted], [redacted], or [redacted], among other apps. PX9018, List Report, Figure II-5, Appendix K-2 (noting that [redacted] was aggregated into the "[redacted]" app category and [redacted] was aggregated into the "[redacted]" app category); PX6178, List (Meta) Dep. Tr., at 78:19-22 (testifying that [redacted] is combined with other apps in the [redacted] category); *id.* at 80:18-83:19 (testifying that diversion to [redacted] is "pretty high" and that the diversion rate for each app category is the sum of the

diversion rates for the individual apps within that category); PX9018, List Report, backup materials.

Meta Response: Disputed in part. Undisputed that Professor List's pricing experiment found that diversion from Facebook to [redacted] was higher than diversion to [redacted], [redacted], [redacted], [redacted], and other apps. Disputed that this statement creates a genuine dispute of material fact. The statement wrongly suggests that [redacted] is necessarily a closer substitute to Facebook than these or other apps with lower diversion. Use of [redacted] is not analogous to use of a single app, but instead provides a user access to a limitless number of other websites and services. *See* Ex. 2 at ¶ 29 (Carlton Rep.). Further, these figures may understate the degree of substitution to some apps because [redacted]. *Id.* at ¶ 29.

iii. Professor List's pricing experiment found that diversion from Instagram to [redacted] was higher than diversion to [redacted], [redacted], or [redacted], among other apps. PX6178, List Report, Figure II-6, Appendix K-2 (noting that [redacted] was aggregated into the "[redacted]" app category and [redacted] was aggregated into the "[redacted]" app category); PX6178, List (Meta) Dep. Tr., at 80:18-83:19 (testifying that diversion to [redacted] is "pretty high" and that the diversion rate for each app

category is the sum of the diversion rates for the individual apps within that category); PX9018, List Report, backup materials.

Meta Response: Disputed in part. Undisputed that Professor List's pricing experiment found that diversion from Facebook to [redacted] was higher than diversion to [redacted], [redacted], [redacted], and other apps. Disputed for the reasons stated above in Meta's response to paragraph 1367. The statement wrongly suggests that [redacted] is necessarily a closer substitute to Instagram than these or other apps with lower diversion. Use of [redacted] is not analogous to use of a single app, but instead provides a user access to a limitless number of other websites and services. *See* Ex. 2 at ¶ 29 (Carlton Rep.). Further, these figures may understate the degree of substitution to some apps because [redacted]. *Id.* at ¶ 29.

c. Professor Carlton omits [redacted] from his alternative market share calculations despite his data showing that [redacted] has higher diversion, and is therefore a "closer substitute," to Facebook and Instagram than [redacted] or [redacted]. *See* PX9019, Carlton Report, Tables 14-16 (calculating alternative markets shares for PSN apps plus YouTube, TikTok, and Twitter); *see supra* CMF at ¶¶ 1352-53.

Meta Response: Disputed in part. Undisputed that [redacted] is not included in Tables 14-16 of Professor Carlton's rebuttal report and that it shows [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1367. This subparagraph and its support do not support the statement in paragraph 1367, which as described above mischaracterizes Professor Carlton's opinions as a market-definition approach. The statement wrongly suggests that [redacted] is a closer substitute to Facebook than other apps with lower diversion. Use of [redacted] is not analogous to use of a single app, but instead provides a user access to a limitless number of other websites and services. *See* PX9019 at ¶ 29 (Carlton Rep.). It is unknown whether any single use or activity on [redacted] has higher diversion than [redacted] or [redacted], and therefore no such comparisons are possible. There is accordingly no inconsistency in Professor Carlton's approach to exclude [redacted] from Tables 14-16 despite its [redacted]. The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

d. Professor Carlton finds [redacted] diversion to off-device time but ignores that diversion when adding apps to his alternative market shares. *See* PX9019, Carlton Report, Tables 14-16; *see supra* CMF at ¶ 1357(a).

Meta Response: Disputed in part. Undisputed that off-device time is not included in Tables 14-16 of Professor Carlton's rebuttal report and that off-device time shows [redacted] diversion than other apps that were included in those tables.

Disputed that this statement creates a genuine dispute of material fact. This subparagraph also does not support the statement in paragraph 1367, which as described above mischaracterizes Professor Carlton's opinions as a market-definition approach. Disputed that Professor Carlton's data show that off-device time is a closer substitute to Facebook than other apps with lower diversion. Off-device time is not analogous to use of a single app, but instead comprises a limitless number of other activities. *See* Ex. 3 at App'x E-26-27 & tbl. E-10 (List Rep.). It is unknown whether any off-device activity has higher diversion than other apps in Tables 14-16, and therefore no such comparisons are possible. There is accordingly no inconsistency in Professor Carlton's approach to exclude off-device time from Tables 14-16 [redacted].

~~d)~~ Aspects of the empirical results support the relevant market and the conclusion that Meta has monopoly power.

1368. Professor Carlton and Professor List fail to acknowledge aspects of their empirical results that support a conclusion that Meta has monopoly power over users and that PSN services are relevant antitrust market. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 403-14, 436-38.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The materials cited do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Professor Hemphill first claims that, because some time that diverts from Facebook and Instagram goes to off-device activities, it suggests that "[redacted] of time that users spent on Meta apps cannot readily be replaced by other online services." PX9007 at ¶ 403 (Hemphill Rebuttal Rep.); *see also id.* at ¶¶ 436-438. This is incorrect as a matter of

economics. The fact that there is diversion from Facebook and Instagram to off-device activities merely establishes that some degree of substitution exists between Facebook and Instagram and these other activities, but does not imply that PSN services may or may not comprise a relevant market or that Meta has market power in such a market. *See* Ex. 3 at ¶¶ 169-172 (List Rep.). Professor Hemphill next claims that following certain outages and other events that he claims would be expected to harm user perception of Meta, time on Facebook did not materially change, which he claims supports the conclusion that "short run demand for Facebook and Instagram is inelastic, which supports my conclusion that Meta exercises market power over its users." PX9007 at ¶ 414 (Hemphill Rebuttal Rep.); *see id.* at ¶¶ 404-413. As an initial matter, Professor Hemphill fails to demonstrate that a causal relationship exists between subjective user sentiment regarding Meta as a company and use of Meta's services. Thus, no weight can be accorded to the fact that use of Meta services was not materially affected by events that allegedly reduced subjective user sentiment of Meta as a company. Similarly, the fact that users did not permanently divert away from Meta services following outages does not establish the absence of substitutes. The diversion patterns during such outages demonstrate that such substitutes exist; the fact that users choose to allocate more time to Meta services than to other apps does not prove that Meta has market power; it merely shows that users perceive greater benefits from allocating their time to Meta's services. *See* Ex. 3 ¶ 141 (List Rep.) ("Although the available data do not allow me to identify why individuals shifted time between apps, it is a fundamental economic principle that people shift time from apps that they value less highly to apps that they value more highly.").

The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1369. The analyses conducted by Professor Carlton and Professor List found that [redacted] of Facebook and Instagram time did not go to any other online service. The observation that [redacted] was to off-device time indicates that there is a substantial share of time on Facebook and/or Instagram that users cannot readily replace with time on any other app. PX9007, Hemphill Rebuttal Report at ¶¶ 403-04, 438. This is further evidence of demand inelasticity and Meta's existing monopoly power over users. *Id.*

Meta Response: Disputed in part. Undisputed that the analyses conducted by Professor Carlton and Professor List found diversion from Facebook and Instagram time to off-device activities. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Professor Hemphill's claim that such diversion to off-device activities shows that users cannot readily replace time on Facebook and Instagram with time on any other app is incorrect as a matter of economics. The fact that there is diversion from Facebook and Instagram to off-device activities merely establishes that some degree of substitution exists between Facebook and Instagram and these other activities, but does not imply that PSN services may or may not comprise a relevant market or that Meta has market power in such a market. *See* Ex. 3 at ¶¶ 169-172 (List Rep.).

a. Professor Carlton's outage analysis found that [redacted] of time spent on Meta's apps went to off-device time. PX9019, Carlton Report at ¶ 29 (noting that [redacted] of time was a "reduction in time spent using the phone"). The diversion to off-device time was [redacted] the diversion to any other app. *See id.* Table 1.

Meta Response: Disputed in part. Undisputed that Professor Carlton's outage analysis found that [redacted] of time spent on Meta's apps went to off-device time, which is [redacted] the diversion to any individual app. Disputed for the reasons stated above in Meta's response to paragraph 1369. Disputed that Professor Carlton's data show that off-device time is a closer substitute to Facebook than other apps [redacted]. Off-device time is not analogous to use of a single app, but instead comprises a limitless number of other activities. *See* Ex. 3 at App'x E-26-27 & tbl. E-10 (List Rep.). It is unknown whether any off-device activity has [redacted] than other apps, and therefore no such comparisons are possible. There is accordingly no inconsistency in Professor Carlton's approach to exclude off-device time [redacted].

b. Professor List's pricing experiment found that 39% and 29% of time on Facebook and Instagram, respectively, was diverted to off-device time. PX9018, List Report, Figures II-5 (noting 39% of diversion to "off-device time"); *id.* II-6 (noting 29% of diversion to "off-device time"). The diversions to off-device time was larger than the diversion rate to any other app or app category. *See id.*

Meta Response: Disputed in part. Undisputed that Professor List's pricing experiment found that 39% and 29% of time on Facebook and Instagram, respectively, was diverted to off-device time, which is larger than the diversion to any individual app. Disputed for the reasons stated above in Meta's response to paragraph 1369. Disputed that Professor List's data show that off-device time is a closer substitute to Facebook than other apps with lower diversion. Off-device time is not analogous to use of a single app, but instead comprises a limitless

number of other activities. *See* Ex. 3 at App'x E-26-27 & tbl. E-10 (List Rep.). It is unknown whether any off-device activity has higher diversion than other apps, and therefore no such comparisons are possible. There is accordingly no inconsistency in Professor List's approach to exclude off-device time despite its higher diversion rate as a whole.

c. When analyzing earlier outages, Meta employees referred to off-device time as "lost" and "non-substitutable" time. PX3460 at -026, Meta presentation: "Mobile App Ecosystem" (Aug. 11, 2017), FB_FTC_CID_04960602 ("Of the decreased minutes on FB & IG, 67.8% of those minutes were 'lost' and lead to the 7.1% fewer minutes on mobile. These minutes can be thought of as 'non-substitutable.'").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1369. The selective quotations are incomplete and misleading, and in any event do not substitute for economic analysis. The Mobile App Ecosystem found that during an outage time spent on Facebook and Instagram decreased by 40 percent and 49 percent, respectively, and that 67.8 percent of that time diverted to off-device activities. PX3460 at -025, -026 (FB_FTC_CID_04960602). The document's description of such time as "lost" does not support a claim diversion to off-device activities shows that users cannot readily replace time on Facebook and Instagram with time any other app, which is incorrect as a matter of economics. The fact that there is diversion from Facebook and Instagram to off-device activities merely establishes that some degree of substitution exists

between Facebook and Instagram and these other activities, but does not imply that PSN services may or may not comprise a relevant market or that Meta has market power in such a market. *See* Ex. 3 at ¶¶ 169-172 (List Rep.).

1370. The data also reveals that switching between PSN apps is higher in Professor Carlton's outage analysis and in the Professor List's pricing experiment when focusing on users who had more than one PSN app account.

Meta Response: Disputed in part. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Given network effects and switching costs, consumers of PSN services were unable to substitute their demand for friends and family sharing in such transitory episodes as the Carlton outage analysis and the List pricing experiment. *Supra* CMF at ¶¶ 1345(d), 1350(c).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1345(d) and 1350(c). There is no empirical evidence that network effects or switching costs have prevented consumers from substituting their demand for friends and family sharing during the Carlton outage analysis and the List pricing experiment. Both show the opposite. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.); PX6179 at 162:16-169:4

(Carlton Dep. Tr.); PX6178 at 25:1-27:17, 59:2-18, 76:13-77:2, 77:14-78:10, 84:12-86:2, 114:22-120:17, 180:8-181:6, 187:6-195:9 (List Dep. Tr.).

b. People with more than one PSN app account were, however, somewhat better positioned to attempt to substitute demand for PSN services, although even this is imperfect if someone does not already have an active network of friends or does not have fully overlapping networks, e.g., on Snapchat or MeWe. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 373-79, 420-22.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1370. Further disputed because, with respect to Professor Carlton's outage analysis, the only data discussed in Professor Hemphill's rebuttal report at paragraphs 373-379 [redacted]. Such data do not support the statement in this subparagraph. Among other things, these data [redacted]. With respect to Professor List's pricing experiment, Professor Hemphill's rebuttal report at paragraphs 420-422 discusses academic studies of different durations to support the contention that "one should not base estimates of long term behavioral changes only on experiments of short duration." PX9007 at ¶ 422 (Hemphill Rebuttal Rep.). This is unrelated to the statement in this paragraph, which related to the substitution patterns of users with more than one PSN account. As the statement in this subparagraph concedes, many people have more than one PSN account, which shows that any theoretical switching costs or network effects are not a barrier to consumers substituting demand for PSN services.

c. In Professor Carlton's study, when focusing on Meta users who are also active users of Snapchat, Snapchat is the app with the largest increase in usage—and therefore the highest diversion rate—when Meta's apps were unavailable due to the October 2021 outage. *Id.* at ¶¶ 380-82.

Meta Response: Disputed in part. Undisputed that, in Professor Carlton's outage analysis, people who used Snapchat for an average of at least five minutes per day during the week before the outage [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1370. Professor Hemphill manipulates the data by arbitrarily defining an active user of Snapchat as one who used the service at least five minutes per day in the week prior to the outage. He also fails to apply his limitation to users of other apps, which creates an apples-to-oranges comparison between "active" users of Snapchat and users of all other apps. [redacted] users in the outage analysis qualified for Professor Hemphill's treatment, *see* PX9007 at p.128, Ex. 13 (Hemphill Rebuttal Rep.) – as active Snapchat users – [redacted], *see* Ex. 2 at p.34, tbl. 1 (Carlton Rep.). Across the entire study group, consumers switched more to TikTok ([redacted]), YouTube ([redacted]), and Google Messages ([redacted]) than to Snapchat ([redacted]). *See id.* The rate of switching to these non-Snapchat services compared to the rate of switching to Snapchat is even greater for the [redacted] of the study group that is not included in Professor Hemphill's subset.

d. In Professor List's pricing experiment, data shows that "diversion rates between two PSN apps [Facebook and Instagram] are dramatically higher for people who

are active users of both apps, and dramatically lower for users that do not use the other app. Users that are active on two PSN apps generally substitute more between the two apps than to TikTok or YouTube." *Id.* at ¶¶ 423-26.

Meta Response: Disputed in part. Undisputed that, in Professor List's pricing experiment, diversion rates between Facebook and Instagram were higher for people who were active users of both apps prior to the launch of the experiment than for people who used only one of the two apps prior to launch. Disputed for the reasons stated above in Meta's response to paragraph 1370. Facebook users who also use Instagram should be expected to have higher diversion rates to Instagram than Facebook users who do not use Instagram because [redacted]. *See* PX6178 at 110:21-111:4 (List Dep. Tr.) ("[redacted]"). [redacted] *See id.* at 110:21-111:4, 129:16-130:5. This unsurprising result has no bearing on the competitive effects of the Instagram acquisition, which in the absence of evidence that there is price discrimination against a particular subgroup (e.g., single-homers) depends on aggregate diversion, not diversion among particular subgroups. Ex. 2 at ¶ 18 (Carlton Rep.); see id. at ¶¶ 107-108, 119. [redacted], *see* PX9007 at ¶¶ 423-426 (Hemphill Rebuttal Rep.), [redacted]

[redacted]. *See* PX6178 at 110:21-111:4, 129:16-130:5 (List Dep. Tr.). This disproves Professor Hemphill's conclusion that so-called PSN services have high switching costs or network effects. Professor Hemphill's conclusions also are at odds with the reality that apps are easy and free to download and reside on users' devices, and users can easily alternate between them. *See* Ex. 2 at ¶¶ 191-194 (Carlton Rep.). Professor Hemphill provides no evidence that diversion patterns among multi-homers differ due to switching costs, as opposed to the empirical evidence that [redacted].

e) Meta's experts fail to opine on the ultimate question.

1371. The HMT is not about whether there is any substitution to products outside a candidate market, but rather whether there is enough substitution to make it unprofitable for a hypothetical monopolist of the candidate products to profitably raise price above a competitive level. PX9000, Hemphill Report at ¶¶ 173-79.

Meta Response: Disputed in part. Disputed that this statement creates a genuine dispute of material fact. The statement does not relate to any facts at issue. The FTC's description of the purpose of the HMT is misleading and incomplete. The 2010 Merger Guidelines state: "The Agencies employ the hypothetical monopolist test to evaluate whether groups of products in candidate markets are sufficiently broad to constitute relevant antitrust markets. The Agencies use the hypothetical monopolist test to identify a set of products that are reasonably interchangeable with a product sold by one of the merging firms." PX15346 at § 4.1.1 (DOJ and FTC Horizontal Merger Guidelines). The 2023 Merger Guidelines state: "The Hypothetical Monopolist/Monopsonist [sic] Test

("HMT") evaluates whether a group of products is sufficiently broad to constitute a relevant antitrust market. To do so, the HMT asks whether eliminating the competition among the group of products by combining them under the control of a hypothetical monopolist likely would lead to a worsening of terms for customers." PX15347 at § 4.3.A (DOJ and FTC Merger Guidelines). The statement does not relate to or support the claim in the FTC's subheading that "Meta's experts fail to opine on the ultimate question." It is the FTC's burden to define a relevant market, and it is the FTC's proffered experts who failed to even attempt an HMT.

1372. Despite offering empirical analyses of "substitution," Meta's experts do not opine that a candidate market consisting of all PSN apps in the United States fails to satisfy the HMT.

Meta Response: Disputed in part. Undisputed that Meta's experts do not opine that a candidate market consisting of only four alleged PSN apps in the United States fails to satisfy the HMT. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The materials cited in the subparagraphs below do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The FTC's use of "PSN service" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Neither Professor Carlton nor Professor List opine that a hypothetical monopolist of PSN services would not be able to profitably raise quality-adjusted price above the competitive level. PX9007, Hemphill Rebuttal Report at ¶¶ 216-17, 227-28, 417-18.

Meta Response: Disputed in part. Undisputed that neither Professor Carlton nor Professor List performed an HMT for PSN services, and therefore did they not opine that a hypothetical monopolist of PSN services would not be able to profitably raise quality-adjusted price above the competitive level. Disputed for the reasons stated above in Meta's response to paragraph 1372. The terms "quality-adjusted price" and "competitive level" are vague and undefined. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be

included in the relevant market as well. *See id.* As Professor Carlton shows, Professor Hemphill does not perform any analysis that addresses "the fact that the pecuniary price for users of Facebook is zero so that hypotheticals to increase price by 5 percent make no sense." Ex. 2 at ¶ 15 (Carlton Rep.). "[N]owhere does Prof. Hemphill provide any empirical evidence on substitution to other products based on ad load even for those products he includes in his market. Thus, Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition." *Id.* at ¶¶ 15-16. In contrast to Professor Hemphill who did not analyze any data regarding user substitution in formulating or testing the alleged PSN market, Professor Carlton's and Professor List's empirical analyses focus specifically on user substitution with respect to the apps in the alleged PSN market. It is irrelevant that these analyses cannot be used to implement an HMT, because neither Professor Carlton nor Professor List have attempted to define a relevant market, which is the purpose for which an HMT is conducted.

b. Professor Carlton offers no opinion on whether a market narrower than Facebook, Instagram, and Snapchat would satisfy the HMT. PX6179, Carlton (Meta) Dep. Tr., at 169:5-17.

Meta Response: Disputed in part. Undisputed that Professor Carlton does not opine on whether a market narrower than Facebook, Instagram, and Snapchat would satisfy the HMT. Disputed for the reasons stated above in Meta's response to paragraph 1372. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-

141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's analysis demonstrates that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 2 at ¶¶ 20-44 (Carlton Rep.). Professor Carlton further demonstrates that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.* at ¶¶ 20-44.

c. None of Professor List's quantitative analyses purport to conduct a Hypothetical Monopolist Test. PX6178, List (Meta) Dep. Tr., at 65:15-19, 69:5-70:12.

Meta Response: Disputed in part. Undisputed that Professor List does not purport to conduct an HMT. Disputed for the reasons stated above in Meta's response to paragraph 1372. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that

"particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor List's analyses demonstrate that the FTC's alleged candidate market consisting of only four alleged PSN apps is inconsistent with the empirical evidence in this case, which shows that Facebook and Instagram users substituted more time to apps outside the alleged PSN market (including TikTok, YouTube, Twitter, and others) than to apps within the alleged market (Snapchat or MeWe). *See* Ex. 3 at ¶¶ 13-22 (List Rep.). They further demonstrate that, because of the relative magnitude of switching, if Snapchat and MeWe are within the relevant market, then TikTok and YouTube must be included in the relevant market as well. *See id.* at ¶¶ 13-22.

d. In his deposition, Professor List characterized his de-merger model as a "reverse HMT." PX6178, List (Meta) Dep. Tr., at 57:22-58:6. The model only addresses the effect of a simulated de-merger of Facebook and Instagram on advertising load; Professor List model does not purport to measure the effect on any other dimension of quality or on the nominal price. PX6178, List (Meta) Dep. Tr., at 212:9-18, 250:19-251:8, 252:13-19.

Meta Response: Disputed in part. Undisputed that Professor List characterized his de-merger model as a "reverse HMT." Undisputed that the model addresses the effect of a simulated de-merger of Facebook and Instagram on advertising load, not other potential dimensions of quality or on the nominal price. Disputed

for the reasons stated above in Meta's response to paragraph 1372. The terms "any other dimension of quality" and "nominal price" are vague and undefined. Professor List's findings with respect to ad load undermine the FTC's contentions regarding the effect of the Instagram acquisition. The FTC has not identified what potential dimensions of quality or nominal price theoretically were affected by the merger that it believes Professor List's de-merger model could have been used to evaluate, much less attempted any such analysis on its own.

e. Professor Ghose does not conduct an HMT analysis. PX6173, Ghose (Meta) Dep. Tr., at 43:4-43:12.

Meta Response: Undisputed. It is the FTC's burden to define a relevant market, but Professor Hemphill did not perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition.").

1373. If a firm is already exercising significant market power, it necessarily satisfies the hypothetical monopolist test on its own. PX9007, Hemphill Rebuttal Report at ¶ 184; *see also* PX6179, Carlton (Meta) Dep. Tr., at 139:22-141:7. The ability to exercise

significant market power indicates that there are no close enough substitutes to discipline that exercise. PX9007, Hemphill Rebuttal Report at ¶ 184.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The materials cited do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The statement does not relate to any facts at issue. Professor Hemphill has not shown that a market consisting of Facebook or Facebook and Instagram satisfies the HMT on its own, or even alleged these may be relevant antitrust markets.

1374. Given the direct evidence of monopoly power, a market consisting solely of Facebook and Instagram satisfies the HMT. PX9007, Hemphill Rebuttal Report at ¶¶ 187, 193.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact. The materials cited do not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Professor Hemphill asserts that there is direct evidence of monopoly power, but provides no evidence in support of that assertion. As demonstrated in response to the FTC's statements in Section II.C, Professor Hemphill's claims that there is direct evidence of monopoly power fail for multiple reasons. Professor Hemphill also does not demonstrate that a market consisting solely of Facebook and Instagram satisfies the HMT. He provides no analysis of such a hypothetical market. He instead merely asserts that he analyzed a market that includes Snapchat and MeWe, and "concluded that this collection of products satisfies the HMT." PX9007 at ¶ 187 (Hemphill Rebuttal Rep.). Even with respect to this conclusion, however, Professor Hemphill does not perform a proper HMT. As Professor Carlton shows, Professor

Hemphill does not, for example, perform any analysis that addresses "the fact that the pecuniary price for users of Facebook is zero so that hypotheticals to increase price by 5 percent makes no sense." Ex. 2 ¶ 15 (Carlton Rep.). "[N]owhere does Prof. Hemphill provide any empirical evidence on substitution to other products based on ad load even for those products he includes in his market. Thus, Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition. Prof. Hemphill's approach to defining markets also does not adequately address the linkage between users and the advertising side of the market, where Meta monetizes the user attention that it attracts." *Id.* at ¶¶ 15-16.

a. Professor Carlton concedes that, where a hypothetical monopolist controlling firms A and B can impose a five percent price increase, the Hypothetical Monopolist Test (HMT) is satisfied and the relevant market includes firms A and B alone. PX6179, Carlton (Meta) Dep. Tr., at 114:19-115:17; *see also id*. at 121:1-13 (agreeing that, in running a SSNIP test, a small but significant price increase is an increase of approximately five percent).

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed that where a hypothetical monopolist controlling firms A and B can impose a five percent price increase, the HMT is satisfied. Disputed for the reasons stated above in Meta's response to paragraph 1374. The FTC has not demonstrated that this hypothetical is relevant to any of analyses it has sponsored in this case. The citations to Professor Carlton's testimony are also incomplete and misleading. Professor Carlton explained that "[i]f you exclude from the market the closest

substitutes, I'm not sure what the purpose of defining a market is." PX6179 at 116:2-4 (Carlton Dep. Tr.).

1375. Adding additional firms, including Snapchat and MeWe, was a conservative decision to include all firms making the relevant product. PX9007, Hemphill Rebuttal Report at ¶¶ 184, 187, 195.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. Disputed that Professor Hemphill has demonstrated that adding Snapchat and MeWe "was a conservative decision to include all firms making the relevant market." This claim is circular: the HMT is intended to help define the relevant market (and, therefore, the relevant product), whereas Professor Hemphill assumes the relevant market consists solely of apps with certain functional characteristics and excludes many apps that share those functional characteristics. This is not a conservative approach to market definition, but a textbook example of a gerrymandered market. PX6179 at 112:7-113:9 (Carlton Dep. Tr.); PX6178 at 263:5-265:9 (List Dep. Tr.).

1376. Once the hypothetical monopolist test is satisfied in a monopolization case, using the inclusion of smaller and less competitively significant participants in the monopolized market to justify adding remote substitutes could understate the market share of the dominant firm and thereby overlook the existing exercise of monopoly power. PX9007, Hemphill Rebuttal Report at ¶¶ 185-94, 217.

Meta Response: Disputed in part. Undisputed that this statement could potentially be true as a theoretical matter. Disputed that this statement creates a genuine dispute of material fact, including because it does not relate to any of the facts at issue in this case. It is the FTC's burden to define a relevant market, but Professor Hemphill did not

perform an SSNIP or HMT, and instead admitted that he performed no quantitative analysis of substitution. *See* Ex. 283 at 140:12-141:8 (Hemphill Dep. Tr.) (testifying that no HMT was performed because that "particular kind of analysis was infeasible to perform and would be misleading if it was performed"); *see also id.* at 142:16-144:4 (acknowledging that no analysis of "quantitative evidence of substitution in response to any change in quality" was performed); Ex. 2 at ¶¶ 15-16 (Carlton Rep.) ("Prof. Hemphill's analysis is devoid of using substitution as his basis for market definition."). Professor Carlton's and Professor List's criticisms of Professor Hemphill's approach to market definition do not add smaller and less competitively significant participants to the alleged market, but just the opposite. Their analyses show that Professor Hemphill includes relatively small participants (like Snapchat and MeWe) while excluding major participants (like TikTok and YouTube) that empirical evidence shows are closer substitutes for Facebook and Instagram. *See*, *e.g.*, Ex. 2 at ¶¶ 20-44 (Carlton Rep.); Ex. 3 at ¶¶ 13-22 (List Rep.); PX6179 at 162:16-169:4 (Carlton Dep. Tr.); PX6178 at 25:1-27:17, 59:2-18, 76:13-77:2, 77:14-78:10, 84:12-86:2, 114:22-120:17, 180:8-181:6, 187:6-195:9 (List Dep. Tr.).

9. The United States is a relevant geographic market for PSN services, which Meta does not dispute.

1377. The United States is a relevant geographic market for PSN services. PX9000, Hemphill Report at ¶ 595.

Meta Response: Disputed in part. Undisputed that, for purposes of summary judgment only, the United States is a relevant geographic area for analyzing competitive issues. Disputed that Meta is a "PSN service[ ]" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1378. Meta's economic expert, Professor Carlton, does not dispute that the United States is a relevant geographic market for PSN services. PX6179, Carlton (Meta) Dep. Tr., at 109:18-110:4 ("Q. Professor Hemphill defined a relevant geographic market for analysis of Meta's conduct to be the United States. Do you recall that? A. Yes. Q. You do not dispute Professor Hemphill's opinion with regard to geographic market; correct? A. Yes. I mean correct.").

Meta Response: Disputed in part. Undisputed that, for purposes of summary judgment only, the United States is a relevant geographic area for analyzing competitive issues. Disputed that Meta is a "PSN service[ ]" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a) PSN services exhibit country-level network effects.

1379. Network effects on Meta's PSN apps are both evident at a country-wide level and country-specific.

Meta Response: Disputed. Disputed that this vague and conclusory statement creates a genuine dispute of material fact. The FTC does not define "[n]etwork effects" – a broad term in economics – or how they apply to the facts at issue. Further disputed that Meta's apps are "PSN apps" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. On average, [redacted] of a Facebook user's friends in the United States are also located in the United States. PX9000, Hemphill Report at ¶ 598, Exhibit 31 (showing share of Facebook friends in the same country) (relying on data from FTC-META-011922222).

Meta Response: Disputed. It is a tautology that a user's friends in the United States are located in the United States.

b. On average, [redacted] of Instagram reciprocal follows in the United States are also located in the United States. PX9000, Hemphill Report at ¶ 598, Exhibit 32 (showing share of Instagram reciprocal follows in the same country) (relying on data from FTC-META-010478093).

Meta Response: Disputed. It is a tautology that a user's reciprocal follows in the United States are located in the United States.

1380. Meta executives have acknowledged that users' social connections are typically focused on the country in which the user lives. *See* PX6093, Backstrom (Meta) Dep. Tr., at 100:22-100:24 (testifying that "people's friend connections tend to live near them"); PX6006, Cox (Meta) IH Tr., at 137:11-16 (testifying that "most people are mostly connected to people in their country").

Meta Response: Disputed in part. Undisputed that the cited testimony contains the quoted language. Disputed that Mr. Backstrom's use of "near them" referred to proximity on a country-wide basis rather than some other geographical unit because his testimony does not provide further context on the meaning of "near" as he used it. *See* PX6093 at 100:22-24 (Backstrom Dep. Tr.).

1381. Meta makes "People You May Know" suggestions for Facebook users based in part on the country of the user. *See* PX0325 at -002, *People You May Know*, Facebook Help Ctr., https://www.facebook.com/help/336320879782850 (last visited July 7, 2023) ("Friend suggestions come from things like: . . . [y]our networks, such as your current city, school or work . . . .").

Meta Response: Undisputed.

1382. Meta has also recognized that "[l]ocalised network effects may also explain why not all major social media platforms are equally popular in all countries" as "Facebook users who are located in a specific region may want to connect mostly with other users located in that region, with a more limited interest in connecting with users who are located in an altogether different region." PX3009, Meta document: "Facebook Ireland Limited's Response to the Competition and Markets Authority's Request for Information of 18 July 2019[:] Tranche 2: submission of 13 September 13 2019" (Sept. 13, 2019), FB_FTC_CID_00050115, at -194-95.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the FTC cites the correct page of the document. *Compare* PX3009 at -194-195 (the FTC's citation), *with id.* at -081. Further disputed that this quotation creates a genuine dispute of material fact, including because the FTC omits context. The quoted language occurs in the context of "a series of interviews in June 2019 to explore user experience with Fortnite and one of the key findings from this research was that many users started to use Fortnite because either their friends or their family members were active on the platform." *Id.* ("users interested in gaming may want to connect mostly with users who share this interest (e.g. on Fortnite), rather than users who have a preference for non-gaming specific activities"). The document clarifies that "localized network effects can take place at a number of levels" – not just "geographic" – including "interest-based perspectives." *Id.* The document concludes that "these effects are not exclusive to Facebook and can be replicated by other platforms, including new entrants." *Id.*

1383. Third parties recognize that network effects are typically felt at the country level.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the materials cited below do not support the statement in this paragraph. Further disputed because the statement does not define "network effects" – a broad term in economics – or explain how they apply to the facts at issue.

a. [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Levenson provided the quoted testimony. Disputed that Mr. Levenson was testifying about network effects; he was testifying about Snapchat's growth strategy.

b. Bradley Horowitz, formerly Vice President of Product Management at Alphabet, explained that the majority of content shared on Google+ likely was shared between users in the same country, as "the majority of your social graph is local for most people." PX6148, Horowitz (Google) Dep. Tr., at 15:8-15, 112:21-113:10.

Meta Response: Disputed in part. Undisputed that Mr. Horowitz provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including because the statement omits context from the quotation.

Mr. Horowitz stated he "would have to go look at the data" to confirm (or not) the statement. PX6148 at 113:2-3 (Horowitz (Google) Dep. Tr.).

b) Meta tailors its offerings by country.

1384. Meta tailors its product offerings by country, as Mark Zuckerberg explained: "[w]e vary country by country in terms of adoption of the products. You know, the competitive set varies by country, and, you know, the dynamics are different." PX6029, Zuckerberg (Meta) IH Tr., at 40:5-8.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact because no cited record material contests that most of the features of Meta's services are common everywhere the apps are used; the cited testimony does not provide information on differences between countries.

1385. Meta launched Instagram Reels in some countries earlier than in others. PX3012, Meta presentation: "Family Reels and Video Competitive Landscape" (Sept. 27, 2021), FTC-META-000005921, at -922 ("IG Reels launched in Jul'20 . . . FB Reels has been launched in IN and MX for over a year, recently launched in CA, and US is launching 9/29 . . . ").

Meta Response: Undisputed.

1386. Meta [redacted]. PX9000, Hemphill Report at ¶ 607 Exhibits 35-37 ([redacted]) (relying on data from FB_FTC_CID_12190654 and FTC-META-011921400). Further, Meta [redacted]. *See* PX15429 at -019,

Meta presentation: "Ad load 101" (Jan. 21, 2022), FTC-META-004963140 ([redacted]).

Meta Response: Undisputed.

1387. Meta conducts advertising campaigns at the country level, and the ads that users see vary by country on both Facebook and Instagram. *See* PX0326 at -001, *Use location targeting*, Meta Bus. Help Ctr., https://www.facebook.com/business/help/365561350785642?id=176276233019487 (last visited Apr. 4, 2024) ("Reach people based on locations such as country, region or city."); PX0320 at -002, *Reaching Your Customers on Instagram*, Instagram Bus. Blog, https://business.instagram.com/blog/targeting-instagram-ads (last updated Nov. 14, 2021) ("[Y]ou have the opportunity to target your ads to a specific audience. This audience can be based on location . . . ").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that this statement creates a genuine dispute of material fact because the cited documents do not support the stated proposition. The cited documents discuss that third-party advertisers – which conduct ad campaigns on Facebook and Instagram – have the option of targeting advertising by location (this is not required). The cited documents are not about Meta's own ad campaigns.

c) PSN services track various metrics at the country level.

1388. Meta has historically tracked growth statistics at the national level. PX3011, Meta email chain: N. Gleit to M. Zuckerberg re: "Summary about US growth" (Aug. 15, 2008), FB_FTC_CID_06226813, at -813 (conveying summary of US-specific growth statistics).

Meta Response: Undisputed.

1389. Meta has evaluated average revenue per user ("ARPU") for "top markets" (or "key markets"), which are defined at the country level and include the United States. PX3010, Meta email chain: [redacted] to [redacted], et al. re: "Roadshow script - Ads piece" (Feb. 29, 2012), FB_FTC_CID_03703821, at -822.

Meta Response: Undisputed.

1390. Meta commonly measures reach at the national level. *See* PX6008, Cunningham (Meta) IH Tr., at 34:9-34:12 ("Q. Okay. And what are some of the common metrics that Facebook uses to – to measure reach? A. For example, monthly active Facebook users divided by the population of a country."); PX6017, Olivan (Meta) IH Tr., at 96:4-98:8.

Meta Response: Undisputed.

1391. Meta [redacted]. *See* PX3013 at -006-7, -009, -012, -034, Meta presentation: "Relative Metrics 2020H1 Update" (Jan. 31, 2020), FTC-META-002472348.

Meta Response: Undisputed.

1392. Third parties offering PSN services also track various metrics at the country level:

Meta Response: Disputed in part. Undisputed for the reasons stated in Meta's responses to the subparagraphs below. Disputed that the below-referenced services are personal social networking services for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. When it was active, Google+ broke out different countries in its analysis on a regular basis. PX6148, Horowitz (Google) Dep. Tr., at 109:15-110:5 (describing it as a "common practice for product managers to understand regional and country-specific usage").

Meta Response: Undisputed.

b. Snap tracks usage statistics at the country level. [redacted]

Meta Response: Undisputed.

c. When Snap is approaching international entry, it begins its evaluation at the country level. [redacted]

Meta Response: Undisputed.

B. Meta Has a Dominant Share of the U.S. Market for PSN Services, which is Protected by Significant Entry Barriers.

1393. Professor Hemphill identified the following as current providers of PSNS within the United States: Meta, Snapchat, MeWe, and BeReal. *See* PX9000, Hemphill Report at ¶¶ 237-238, 313, 627-628, Exhibit 40, Appendix C.3.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the paraphrased opinion. The FTC's use of "PSNS" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1394. Professor Hemphill identified the following as defunct services that formerly offered PSNS within the United States: Friendster, Google+, Myspace, Orkut, Path, and PicPlz. PX9000, Hemphill Report at ¶¶ 330, 627-628, 874, Exhibit 40, Appendix C.3.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the paraphrased opinion. The FTC's use of "PSNS" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1395. Professor Hemphill identified the following as services that primarily offer (or offered) PSNS outside of the United States but that appear to have a minimal presence among users in the United States: KakaoStory, LINE, LiveJournal, Mixi, Pengyou, Qzone, Renren, StudiVZ, Tuenti, VKontakte, WeChat, and Weibo. PX9000, Hemphill Report at ¶¶ 328-329, 627-628, 973-974, Exhibit 40, Appendix C.3; *see also* PX9007, Hemphill Rebuttal Report at ¶ 692 (stating that Asian OTT mobile messengers pivoted into the market for PSN services in Asia).

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the paraphrased opinions. The FTC's use of "PSNS" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1. Meta's shares in the market for PSN services have been greater than 60% at all times since 2011.

1396. At a minimum, Meta has held a share of the market for PSN services exceeding 60% throughout the period between 2011 and 2022. PX9000, Hemphill Report at ¶ 612; PX9007, Hemphill Rebuttal Report at ¶ 32.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact given the lack of evidence to support an alleged "market for PSN services." *See*, *e.g.*, Meta SMF ¶¶ 633-635 (Professor Hemphill admitting there is no quantitative evidence of substitution), ¶¶ 636-639 (Professor Hemphill admitting that competition is at the margin for time spent), ¶¶ 640-642 (Professor Hemphill admitting there is no evidence of "price discrimination" against friends and family sharing demand). Further

disputed that Professor Hemphill demonstrated the FTC's alleged PSNS market or Meta's share of a relevant market. Professor Hemphill excluded from his market share calculations many services that are closer substitutes for Facebook and Instagram than Snapchat, such as TikTok, YouTube, and Twitter. [redacted], ¶¶ 533-566 (Meta's experts' empirical substitution data). [redacted]; *see also* Ex. 2 at ¶¶ 93-101 & tbls. 14-16, pp. 277-82 & tbls. 36-38 (Carlton Rep.). Professor Hemphill also improperly excludes messaging apps (among others) in this calculation. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1397. During the period between 2011 and 2022, Meta had a market share ranging between 62% and 100% in the relevant market. PX9000, Hemphill Report at ¶ 660.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1396. Further disputed because the statement is vague and ambiguous by failing to identify the market at issue or what metric it is measuring.

a) Professor Hemphill's market share calculations, from multiple sources, all show Meta's dominant position.

1398. Professor Hemphill collected data from three types of sources to support his market share calculations: (1) first-party data provided in discovery by market participants; (2) data provided in discovery by Comscore and data.ai, data analytics companies that Meta sources data from in the ordinary course of business, and Onavo, Meta's former in-house

data source for third-party app usage data; and (3) data the FTC licensed from Comscore, outside of the discovery process. PX9000, Hemphill Report at ¶ 614; *see also id*. at Appendix C.3 (providing additional details about the data).

Meta Response: Disputed in part. Undisputed that Professor Hemphill used some data collected from Meta, [redacted], Comscore, and data.ai. Disputed that the statement creates a genuine dispute of material fact regarding the soundness of Professor Hemphill's market share calculations, which the statement does not explain or validate. Further disputed for the reasons stated above in Meta's response to paragraph 1396.

1399. Professor Hemphill's market participants for his market share calculations include PSN apps based outside the United States, but their inclusion makes little difference to the calculations. PX9000, Hemphill Report at ¶ 613.

Meta Response: Disputed in part. Undisputed that Professor Hemphill included firms outside the United States when calculating shares of the FTC's alleged PSNS market in the United States. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1396. The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1400. Professor Hemphill calculated the shares of market participants measured at the app level based on a variety of metrics relied upon by Meta and other market participants in the ordinary course of business—daily active users, monthly active users, time spent, and number of broadcast posts produced by users—all of which showed Meta's market share has exceeded 62% throughout the period between 2011 and 2022. *See* PX9000, Hemphill Report at ¶¶ 612, 215-20; PX9007, Hemphill Rebuttal Report at ¶ 32; *see also*

PX9000 Hemphill Report at ¶¶ 269-71 (explaining how the "assessment of competitive significance through the measurement of market shares" at the app level captures the "intentional intermingling of use cases").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1396. Further disputed that market participants calculate shares based on broadcast posts produced by users, a claim for which the FTC cites no evidence.

a. *Time spent*. Meta's minimum time spent market share over time across all available months was [redacted] or higher from March 2012 through June 2022. PX9000, Hemphill Report at ¶ 636, Exhibit 44.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1396 and 1400. [redacted]; Ex. 2 at ¶¶ 93-101 & tbl. 16, pp. 281-82, tbl. 38 (time spent) (Carlton Rep.).

[redacted]

b. *Broadcast posts*. Meta's market share based on number of broadcast posts made by users on a PSN app (excluding reshare posts) was [redacted] in 2020 (October through December), [redacted] in 2021, and [redacted] in 2022 (January through June). PX9000, Hemphill Report at ¶¶ 642-643, Exhibit 47.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1396 and 1400. Further disputed that "broadcast posts" is an appropriate metric for measuring market shares. Meta does not monetize based on number of broadcasts posts. *See* Meta SMF ¶ 5 (users do not have to pay to use Meta's services). Meta generates most of its revenues by selling advertising on Facebook and Instagram, *see id.* at ¶ 133, and Meta in turn competes for users' time and attention, *see id.* at ¶ 142 (FTC's proffered expert's explanation that "to monetize eyeballs, you have to retain those eyeballs" (quoting

Ex. 287 at 69:15-70:3 & errata (Aral Dep. Tr.)). The FTC's proffered experts have admitted that competition is for user time and attention, not posts. *See id.* at ¶ 142 (quoting Ex. 287 at 66:1-15 & errata (Aral Dep. Tr.)), ¶¶ 636-638 (quoting Ex. 283 (Hemphill Dep. Tr.)). Measuring broadcast posts does not account for time spent, such as passively watching video content in Feed, Reels, or on Facebook Watch – whether that non-posting time is consuming content from friends or public sources – all of which is time spent the FTC includes in its alleged PSNS market. *See id.* at ¶¶ 15-16 (citing Ex. 3 at p. 13, tbl. II-1 (List Rep.) (showing that [redacted])), ¶ 582 (citing Ex. 405 (MetaFTC-DX-997, FTC's Resp. to Meta's List of Features or Activities (Sept. 12, 2022)) (showing FTC's classification of features on Facebook and Instagram)). The FTC's use of "PSN app" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. *DAU*. Meta's minimum daily active users ("DAU") market share over time across all available months was [redacted] or higher from March 2012 through June 2022. PX9000, Hemphill Report at ¶ 623, Exhibit 38.

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1396 and 1400. Further disputed on the ground that, when calculating shares based on "daily active users" (or "DAU"), Professor Hemphill claims to be reporting DAU shares for *Meta*, but what he is actually doing is calculating total users for Facebook and Instagram separately, summing them together, and then calculating shares based on that sum. *See* Ex. 2 at ¶ 95

(Carlton Rep.). That double counts the large number of users that use both Facebook and Instagram. *See id.* [redacted]; Ex. 2 at ¶¶ 93-101 & tbl. 15, pp. 277-78, tbl. 36 (DAU) (Carlton Rep.).

d. *MAU*. Meta's minimum monthly active users ("MAU") market share over time across all available months was [redacted] or higher from March 2012 through June 2022. PX9000, Hemphill Report at ¶ 630, Exhibit 41.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1396 and 1400 and subparagraph 1400(c) because, when calculating shares based on "monthly active users" (or "MAU"), Professor Hemphill claims to be reporting MAU shares for *Meta*, but what he is actually doing is calculating total users for Facebook and Instagram separately, summing them together, and then calculating shares based on that sum – repeating the above-described error. *See* Ex. 2 at ¶ 95 (Carlton Rep.).

1401. Recent data shows Meta had even higher shares than the minimum shares Professor Hemphill calculated at the app level during the period data was available: in 2022, Meta captured [redacted] of DAUs, [redacted] of MAUs, [redacted] of time spent, and, from January through June 2022, Meta captured [redacted] of posts produced. PX9007, Hemphill Rebuttal Report at Exs. A-5, A-9, A-13; PX9000, Hemphill Report at ¶ 643.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1396 and 1400 and subparagraphs 1400(b)-(d).

1402. In addition to calculating market shares at the app level, Professor Hemphill calculated market shares based on "the parts of PSN apps that are most directly related to broadcast sharing with friends and family," PX9000, Hemphill Report at ¶ 648, in order to ensure that consumers' overall use of Meta's apps did not overstate Meta's dominance within friends-and-family sharing. *See* PX9000, Hemphill Report at ¶ 644 (noting that consumers' usage of PSN apps for purposes other than directly interacting with family and friends does "not bear on the question of market participation," but might "have potential relevance for the measurement of market shares").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact because the FTC cites no support for the statement that Professor Hemphill's sub-app calculations – limited to the Feed and Stories features on Facebook and Instagram, plus Snapchat Stories – measure market shares for "friends-and-family sharing." Not all time users spend on Feed and Stories is related to friends and family. *See* Ex. 2 at ¶¶ 69, 72-74 (Carlton Rep.); *see* Meta SMF ¶¶ 11-16, 56-66. For example, [redacted] of time spent on Facebook Feed is engaging with content from friends, as opposed to from celebrities, influencers, organizations, businesses, or other public or unconnected sources. *See* Meta SMF ¶ 11 (citing Ex. 2 at p. 68, tbl. 10 (Carlton Rep.)). Similarly, [redacted] of time spent on Instagram Feed is spent engaging with content from non-creator reciprocal follows, as opposed to from celebrities, influencers, organizations, businesses, or other public or unconnected sources. *See id.* at ¶ 56 (citing Ex. 2 at p. 72,

tbl. 12 (Carlton Rep.)). Contrary to Professor Hemphill's assertion that Feed and Stories are friends and family sharing features primarily (a claim made without actual usage data), Professor List's pricing experiment shows that users cut back on Feed and Stories usage (to substitute to apps outside the alleged PSNS market) just as frequently as with other features on Facebook and Instagram. *See id.* at ¶¶ 537-547; Ex. 3 at ¶¶ 176-180 (List Rep.); Ex. 2 at ¶ 7 (Carlton Rep.). Further, Professor Hemphill acknowledged [redacted] (quoting Ex. 283 at 92:16-21 (Hemphill Dep. Tr.)), but [redacted]. Similarly, Professor Hemphill acknowledged that iMessage is used for friends and family sharing, but excluded iMessage from his calculations. *See* Ex. 283 at 109:12-110:1 ("I would agree that to communicate with real world friends or real world family under particular circumstances messaging is an alternative to which they might turn."). The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1403. Professor Hemphill measured market shares based on activity that take place on the parts of PSN apps—also referred to as surfaces—that are most directly related to broadcast sharing with friends and family: Facebook Feed, Facebook Stories, Instagram Feed, Instagram Stories, and Snapchat Stories. PX9000, Hemphill Report ¶ at 648.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1396, 1400, and 1402. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1404. Professor Hemphill calculated market shares using the sub-app approach for time spent, MAU, and DAU and, under each of these measures, Meta has a persistently dominant share of at least [redacted]. PX9000, Hemphill Report at ¶ 649.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1396, 1400, and 1402 and in Meta's responses to the subparagraphs below.

a. *Time spent*. Meta's share of time spent among the relevant surfaces on Facebook, Instagram, and Snapchat was [redacted], based on Meta data from February 2022 through June 2022 and Snap data from September 2022 to January 2023. PX9000, Hemphill Report at ¶¶ 651-652, Exhibit 48. Excluding time spent watching video on Facebook Feed from that same data, Meta's share of time spent among the relevant surfaces was still [redacted]. PX9000, Hemphill Report at ¶ 653, Exhibit 48.

Meta Response: Disputed for the reasons stated above in Meta's responses to paragraphs 1396, 1400, and 1402.

b. Professor Hemphill explained that an analysis of user-level data provided in discovery provides evidence that, in fact, [redacted] of Facebook and Instagram users make the respective Feed or Stories surfaces part of their daily diet. PX9000, Hemphill Report at ¶¶ 655-658. During the most recent time period of the data provided (among sampled users that spent time on Facebook on a particular day), on average [redacted] of users spent time on Feed or Stories. PX9000, Hemphill Report at ¶ 656.

Meta Response: Disputed in part. Undisputed that Professor Hemphill found that, on average, [redacted] of users spent some amount of time on Feed or Stories on Facebook and Instagram. Disputed for the reasons stated above in Meta's responses to paragraphs 1396, 1400, and 1402. Further disputed because the vast majority of time spent on Facebook and Instagram is not associated with sharing with friends and family, *see* Meta SMF ¶¶ 11, 56 (recent Facebook and Instagram usage data showing only a minority of time spent on Facebook and Instagram is associated with sharing with friends and family), and not all time spent on Facebook and Instagram's Feed and Stories features is related to sharing with friends and family. *See* Ex. 2 at ¶¶ 69, 72-74 (Carlton Rep.). For example, [redacted] of time spent on Facebook is engaging with Stories. *See* Meta SMF ¶ 11 (citing Ex. 2 at p. 68, tbl. 10 (Carlton Rep.)). And while more time spent on Instagram is engaging with Stories – [redacted] – [redacted] of that time is engaging with Stories from non-creator reciprocal follows (i.e., the Instagram equivalent of "friends" even broadly defined). *See id.* at ¶ 56 (citing Ex. 2 at p. 72, tbl. 12 (Carlton Rep.)).

c. *DAU and MAU*. During the time period in 2022 for which data was available from Meta and Snap, Meta's share exceeded [redacted] of DAU and [redacted] of MAU under the sub-app approach, even making conservative assumptions and excluding certain Meta users who spent little time on the relevant surfaces (Feed and Stories). *See* PX9000, Hemphill Report at ¶ 659, Exhibit 49.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1396, 1400, and 1402 and subparagraph 1404(b).

1405. Professor Hemphill calculated market shares pro-rated based on the reported uses that relate to friends and family in a survey conducted by the FTC's expert Mr. Malkiewicz, ordinary course surveys conducted by Meta and TikTok, and a publicly available survey conducted by Audience Project. PX9007, Hemphill Rebuttal Report at ¶¶ 480-81 (noting that while "non-PSN apps are not adequate substitutes for users seeking PSN services[,] [e]ven if one were to credit reporting of incidental friend-related usage on these non PSN-apps . . . as competitively significant, a proration of my shares based on the reported uses that relate to friends and family sharing still shows Meta with a dominant share."). Meta's minimum pro-rated market share for DAU, MAU, and time spent based on any of these surveys is 69.3%. PX9007, Hemphill Rebuttal Report at ¶ 481, Exhibit 34.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact because the cited material does not demonstrate the propriety of calculating market share in the FTC's alleged PSNS market based on Mr. Malkiewicz's survey or other surveys, including because those surveys do not measure usage or time spent. (Professor Hemphill's methodology was to multiply actual "DAU, MAU, and time spent by the share of users who report using [an] app for PSN purposes" based on Professor Hemphill's subjective designation of some responses as "PSN" like, which included "sharing life updates".) *See* PX9007 at ¶ 481 (Hemphill Rebuttal Rep.). Mr. Malkiewicz testified that his survey does not measure or calculate time spent. *See* Meta SMF ¶ 652 (quoting Ex. 301 at 85:10-20 (Malkiewicz Dep. Tr.)). The FTC's use of "PSN" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b) Meta's economic expert conceded that if Professor Hemphill identified the correct set of market participants, then Professor Hemphill properly calculated market shares.

1406. Professor Carlton agreed that Professor Hemphill's market share calculations based on time spent are accurate if Professor Hemphill identified the correct set of market participants. PX6179, Carlton (Meta) Dep. Tr., at 258:6-11 ("Q. And assuming, for the sake of argument, that Professor Hemphill's list of market participants is correct, you did not contest Professor Hemphill's estimates of Meta's time spent share; correct? A. I think that's fair.").

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including because the quoted testimony is incomplete and misleading. Immediately prior, Professor Carlton testified that Professor Hemphill improperly excluded apps from his market share calculations, refuting the assumption in the question quoted. *See* PX6179 at 258:1-5 (Carlton Dep. Tr.) ("Q. And the lower percent is because you added additional firms to the candidate market; correct? A. I added additional firms based on substitution, the evidence on substitution."). Further disputed that Professor Hemphill demonstrated the FTC's alleged PSNS market or Meta's share of a relevant market for the reasons stated above in Meta's responses to paragraphs 1396 and 1400.

1407. Professor Carlton agreed that Professor Hemphill's market share calculations based on broadcast posts are accurate if Professor Hemphill identified the correct set of market participants. PX6179, Carlton (Meta) Dep. Tr., at 258:12-22 ("Q. Okay. And then assuming again for the sake of argument that Professor Hemphill's list of market participants is correct, you did not contest his findings with respect to shares of – based on broadcast posts; correct? A. I did say something about broadcast posts. It was very

unclear why that was a good measure, but I don't believe I – you're asking do I think he did the arithmetic correct. I don't believe I have a claim that he's done any arithmetic error.").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the quoted testimony is incomplete and does not support the statement that Professor Carlton "agreed" that any calculation was "accurate." As the quoted testimony reflects, Professor Carlton explained that it "was very unclear why" broadcast posts "was a good measure" to assess Meta's alleged market share, even if Professor Hemphill had identified the correct services to include in the claimed PSNS market. PX6179 at 258:12-22 (Carlton Dep. Tr.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1396 and 1400 and subparagraph 1400(b).

1408. Professor Carlton agreed that Professor Hemphill's market share calculations based on time spent on sub-app surfaces are accurate if Professor Hemphill identified the correct portions of the apps to include in the calculations. PX6179, Carlton (Meta) Dep. Tr., at 260:13-19 ("Q. You did not contest the accuracy of the calculation by which he was measuring time spent on portions of the apps; correct? A. Yes, I don't – I think that's fair. I don't – to the best of my recollection, I don't contest that he's done a calculation directly on time spent.").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because it does not accurately paraphrase the quoted testimony. Immediately preceding the portion quoted in the statement, Professor Carlton testified about several problems with Professor Hemphill's sub-app time spent calculations:

> Q. . . . [A]ssuming for the sake of argument that Professor Hemphill's market participants are correct, you did not contest Professor Hemphill's calculations of time spent on sub-app surfaces; correct?
>
> A. Well, I talk extensively about sub-app surfaces. . . . I said even he admits that if the sub-app is representing the friends and family usage that he's talking about, . . . that's less than – that's a minority of usage. . . . I do make the point that looking at Feed plus Stories, and assuming that that's all friends – what he would call friends – is wrong, overstates. And . . . as I said earlier, the word 'friends' can be a little misleading. . . . I understand that's a friend on Facebook. So when you're talking about having a place where you can talk to your, you know, family and friends, most people would – I would think about that as talking to my kids and my grandkids and whatever, but that's not what he's talking about. And in particular, if you look at something like – you know, if you just open your Facebook app and look at Instagram or friends, you'll see some people who want to be your friend have, like, thousands of friends. And these people I don't know. They could be my friend. I could friend them, but I wouldn't know them from a hole in the wall.
>
> Q. You did not contest the accuracy of the calculation by which he was measuring time spent on portions of the apps; correct?
>
> A. Yes, I don't – I think that's fair. I don't – to the best of my recollection, I don't contest that he's done a calculation directly on time spent.

PX6179 at 259:1-260:19 (Carlton Dep. Tr.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1396 and 1400 and subparagraph 1400(b).

2. Meta is protected by significant barriers to entry and expansion.

1409. Meta's dominant position is protected by significant barriers to entry and expansion in the form of strong network effects, switching costs, and capital costs. *See infra* CMF at ¶¶ 1411-24; PX9000, Hemphill Report at ¶¶ 662-82; PX9007, Hemphill Rebuttal Report at ¶¶ 483-99.

<u>Meta Response</u>: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because Professor Hemphill's opinion does not support the statement regarding Meta's purported "dominant position" in any market, for the reasons stated above in Meta's response to paragraph 1396. According to Professor Hemphill

and the FTC, other "PSNS" firms entered and expanded following the Instagram acquisition, [redacted]. Professor Hemphill claims that 19 apps have entered as PSNS, most of which remain active. *See* Ex. 2 at ¶ 197 (Carlton Rep.). The shift to mobile computing lowers switching costs for firms and entry costs for developers. [redacted] Professor Hemphill also concedes that TikTok, which rose from nothing in 2018, poses a competitive restraint on Meta. *See* Meta SMF [redacted], [redacted] (Professor Hemphill's testimony that [redacted] (quoting Ex. 283 at 132:8-17 (Hemphill Dep. Tr.))). Multiple services outside the claimed "PSNS" market [redacted]. *See*, *e.g.*, *id.* at ¶¶ 217-225, 237-243 (TikTok), ¶¶ 300, 304-310 (Twitter), ¶¶ 330-341 (Pinterest), [redacted], ¶¶ 401-407 (LinkedIn), ¶¶ 423-432 (iMessage). To the extent the statement incorporates the FTC's statements in paragraphs 1411-1424, Meta incorporates its responses to those statements here.

1410. Failures of other apps to enter and the absence of meaningful entrants in the market for PSN services demonstrate significant barriers to entry. *See infra* CMF at ¶¶ 1425-31.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1409. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent the statement incorporates the FTC's statements in paragraphs 1425-1431, Meta incorporates its responses to those statements here.

a) Facebook and Instagram are protected by significant barriers to entry and expansion including strong network effects, switching costs, and capital costs.

(1) Network effects

1411. Network effects are a substantial barrier to entry or expansion that prevent new PSN entrants from becoming significant competitors in the market for PSN services. *See* PX9000, Hemphill Report at ¶¶ 67, 666-68; PX9007, Hemphill Rebuttal Report at ¶¶ 486-88.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 (evidence of actual entry) and 1410 (regarding "PSN services"). The shift to mobile has made entry easier because new services and apps have ready access to distribution (via app stores) and a user's contacts (via contact importers). *See* Ex. 2 at ¶¶ 193-194 (Carlton Rep.). The evidence shows that switching costs are low, including because consumers can switch between many apps on a smartphone. *See* Meta SMF ¶ 1 (average U.S. adult uses dozens of apps each month (citing Ex. 1 at ¶ 224 (Ghose Rep.) and Ex. 2 at ¶ 299 (Carlton Rep.))). The FTC's use of "PSN" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1412. PSN services exhibit strong network effects, as a larger network size is associated with more value to users. *See* PX9000, Hemphill Report at ¶¶ 61-66.

Meta Response: Disputed in part. Undisputed that larger networks may be valuable to some social network users in some circumstances. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409-1411, and because the materials cited below do not support the statement that network effects for so-called

"PSN services" are "strong." The subparagraphs below rely on outdated material – from 2012 or earlier – pre-dating Snapchat's alleged entry as a supposed PSNS as well as TikTok's rise as a competitor to Meta after 2018, among others. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. A 2012 Meta document containing narratives for Meta's IPO roadshow stated: "Facebook is a strong network effects business . . . [m]eaning the more people use the service the more valuable it becomes." PX14319, Meta document: "road show narratives" (May 15, 2012), FB_FTC_CID_06003438, at -441.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411-1412.

b. A 2010 Google document observed "the value proposition of social networks is inherently dependent on the network effect -- basically, the idea that the usefulness of the service increases geometrically with the number of users on the service[.]" PX7035, Google document: "The Plan for ES Connected Sites" (*Aug. 24, 2010), GOOG-META-01597274, at 275.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411-1412. Further disputed because the quotation is incomplete and does not support the statement in paragraph 1412. The quoted document also states: "By importing or syncing data (contacts, stream items, etc.) from external sites, we help users quickly build up a network of content and

friends that will enhance their initial experience." PX7035 at -275 (GOOG-META-01597274).

c. Bradley Horowitz, an advisor and formerly Vice President of Product Management at Alphabet, testified that "The addition of every user on Facebook makes -- creates value for every existing user on Facebook. So the rich get richer; the more people that join, the more useful the service becomes and the more compelled others are to join, therefore." PX6148, Horowitz (Google) Dep. Tr., at 15:8-15, 61:2-9.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411-1412. Further disputed because the statement lacks context, including that the testimony concerned statements in a document from 2010. *See* PX6148 at 51:15-52:1, 59:13-61:9 (Horowitz (Google) Dep. Tr.).

1413. PSN apps need users to form connections in order to build the social graph and increase the value to users as they establish more connections.

Meta Response: Disputed in part. Undisputed that social network users may form connections and that some users may find forming more connections valuable. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409-1411. Further disputed because the subparagraphs below excerpt statements made outside the context of "PSN services" as the FTC uses that term. The FTC's use of "PSN apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Mark Zuckerberg wrote in 2012 that "[p]erhaps the most valuable thing about Facebook is that it is by [sic] the world's most comprehensive directory of people and their connections." PX2019, Meta messages: M. Zuckerberg to M. Schroepfer, et al. (Apr. 1, 2012), FB_FTC_CID_06205312, at -313.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1413. Further disputed because the statement is incomplete. In the document, Mr. Zuckerberg discussed "mobile messaging" (which is not "PSNS" as the FTC uses that term), and after the quoted language about a directory of people and their connections, he wrote: "[T]oday we're not using it all. You can't search for people who aren't your friends on Messenger. And even if you could, you aren't yet able to have conversations that span multiple non-friends and friends." PX2019 at -312, -315 (FB_FTC_CID_06205312); *see also id.* at -313 ("[W]e're currently not taking advantage of it today at all.").

b. Jacob Andreou, Senior Vice President of Growth at Snap, testified about the challenge Snap faced to "convince [users] to come here and convince [users] to invest in, like, building out your graph." [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1413. Further disputed because the statement is incomplete. The witness clarified regarding friends-sharing on TikTok: "Now, I'm sure as time goes on, they will build ways for people to send content to each other and like try to build DMs and try to get you to add people." PX6119 at 241:5-8 (Andreou (Snap) Dep. Tr.). Further disputed that the experience a single Snap employee has with TikTok defines that competing service; TikTok has multiple features for friends and family sharing. *See* Meta SMF ¶¶ 217-225.

c. Mr. Horowitz testified regarding an email chain about Emerald Sea—the project that later became Google+—that "what Vic is stressing is until we have a social graph of consequence we can't expect success, and that we need to keep focused on connecting people to people; in other words, building that social graph." PX6148, Horowitz (Google) Dep. Tr., at 64:18-19, 65:20-66:16 (testifying regarding PX11304, Google email chain: B. Horowitz to V. Gundotra re: "Emerald Sea: Today's presentation and next steps..." (May 16, 2010), GOOG-META-00577035, at -036-37).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1413.

d. Mr. Horowitz testified: "If I want to share something, that is not a single-player phenomenon. It involves having the recipients -- the intended recipients of that sharing gesture present on the service. So, by definition, because sharing is social, it involves either the presence of those people or soliciting the presence of those people to receive it. And so social networks depend on the network effect." PX6148, Horowitz (Google) Dep. Tr., at 56:7-15.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1413.

e. Andrew Tomkins, lead engineer on the project that later became Google+, PX6148, Horowitz (Google) Dep. Tr., at 64:15-21, wrote in 2010 that "[a]s users, we've all invested a few heady years watching groups of friends from past jobs, college, high school, daycare, or whatever, emerge and self-organize on FB. The result is massive global investment in a single network through which everyone shares social information." PX11304, Google email chain: A. Tomkins to D. Dulitz, et al. re: "Emerald Sea: Today's presentation and next steps..." (May 16, 2010), GOOG-META-00577035, at -037.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1413.

f. Reddit wrote in a 2020 submission to the European Commission that "functionalities that suggest private profile(s) of other users, that the user can 'add'" were an important feature for personal social networks because "[e]ven if a

user uploads its contacts, its friends may not have public profiles. It is important for the user to be able to find these friends." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1413. Further disputed that the quoted language refers to "personal social networks," as the FTC uses that term. The quoted language refers to Reddit's description of literature and scholarship about "social networking." PX13218 at -042 (Reddit-FTC-00000042). The same document states that "it is helpful to attract celebrities and users to follow them," and "[c]elebrities usually have the highest followings and fans often join to engage with them." *Id.* The document also states: "More recently Facebook has rebranded itself as creating groups of communities for Facebook users that have shared interests, which more explicitly resembles the purposes for use of Reddit." *Id.* at -049. And regarding entry, the submission explains that users can "upload[] personal information such as the contacts in their address book," which "allows the social network to grow dramatically with each upload." *Id.* at -050. The FTC's use of "personal social networks" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1414. Meta recognizes Facebook and Instagram benefit from network effects.

Meta Response: Disputed in part. Undisputed for the reasons stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and

its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

a. Jocelyn Goldfein, a member of Meta's Facebook Camera team, opined in a 2011 email regarding Facebook's photo feature that "I really don't want to rest on our laurels here and say because we're the biggest we can't be toppled and don't have to improve. But realistically: distribution to our social graph is a killer app for facebook photos. Even with a mediocre product, all else being equal, users would keep sharing on facebook until and unless a major environmental shift occurs to change that." PX12411, Meta email chain: J. Goldfein to D. Stoop and [redacted] re: "Thanks" (Dec. 12, 2011), FTC-META-004322528, at -528.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

b. A 2012 Meta document prepared for potential investors recognized that Facebook's "brand and network effects provide [a] real competitive moat." PX3184, Meta document: "Top Investor Questions" (Apr. 26, 2012), FB_FTC_CID_06067350, at -351 ("Our brand and network effects provide real competitive moat. Every time a person connects with a friend or shares a photo or story, that action improves the experience for all the other people who can interact with and enjoy that photo or story.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

c. The same 2012 Meta document prepared for potential investors stated, regarding potential user migration to Google+, "[w]e do not believe there has any been real migration to date . . . . Your friends are here, with over 900M MAUs and over 125 billion friendships on Facebook, the network effects are powerful." PX3184, Meta document: "Top Investor Questions" (Apr. 26, 2012), FB_FTC_CID_06067350 at -351.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

d. A 2018 Meta document recognized that "earlier social networks were not able to coexist with Facebook (e.g. MySpace, Friendster, Hi5)" and that it is unlikely that three sharing apps would be able to coexist in a particular country. PX1182, Meta document: "Possible End States for the Family of Apps" (Oct. 9, 2018), FB_FTC_CID_02444215, at -216-18.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

e. When describing the network effects associated with social networking platforms, including Facebook, in his book The Voltage Effect, Meta's economic expert Professor List stated: "But if lots of people are on these services, then benefits are far greater. This type of voltage gain is called *parabolic growth*. And as a network scales, the benefits to its members get bigger and bigger and bigger—often to the point of what is known as 'lock-in,' which means members are almost

shackled to using these platforms." PX15517, John A. List, The Voltage Effect: How to Make Good Ideas Great and Great Ideas Scale, 104 (2022); *see also* PX6178, List (Meta) Dep. Tr., at 132:8-133:13 (testifying that the passage quoted from PX15517 accurately describes network effects); *id*. at 137:8-138:12 (describing "lock-in" as having a "sticky customer" and noting that a "network externality" is one of "many different ways to convince your consumers to stick with you").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement lacks context. When the FTC asked Professor List about this passage, he testified:

> Q. The idea here with regard to the network externality that you're discussing in this paragraph and lock-in is that as a network grows larger, the benefits scale with the number of users and it becomes hard for those users to go to other platforms; correct?
>
> A. Potentially. Again, this is one slice of the vector that might make a person want to keep consuming is how much utility do you get from consuming on this particular platform. It's up to the person's preferences how they're going to weight that. Just like the Lyft example, right. Lyft is green, but if that feature is not that important when people are making choices then that's not going to be an important element of economic substitution. It's possible that this is an important element, and I'm giving advice that if you want to think about a scalable idea, that could be a possible way to lead to parabolic growth.

PX6178 at 139:1-22 (List Dep. Tr.).

1415. Professor List agreed that Instagram is a social network that exhibits network effects. PX6178, List (Meta) Dep. Tr., at 149:3-10 ("Q. Instagram is also a social network; correct? A. Correct. Q. And because Instagram is a social network, it exhibits similar

types of network effects; correct? [redacted]”). As such, Professor List agreed that Instagram could exhibit lock-in, like other social networks or network products. PX6178, List (Meta) Dep. Tr., at 149:11-21 (“Q. And like other social networks or network products, Instagram could exhibit lock-in as well; correct? A. One element of keeping people under the tent is to provide services that they like today and people want to come back for. So in the dimension of the types of characteristics that people might want to come back for, if that makes the experience more appealing to you as a user, then you’ll be more likely to come back.”).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta’s responses to paragraphs 1409 and 1411. Further disputed that any of the above-quoted testimony supports the claim that Professor List agreed Instagram could “exhibit lock-in.” The quoted testimony makes clear that Professor List testified customers would “come back” to a service they find “more appealing.” PX6178 at 149:11-21 (List Dep. Tr.).

1416. Meta recognizes that network effects make it difficult for new PSN apps to enter and expand.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta’s responses to paragraphs 1409 and 1411. Further disputed because nearly all the materials cited in the subparagraphs below pre-date TikTok’s rise as a competitor to Meta after 2018, among other more recent developments. The FTC’s use of “PSN

apps" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Mark Zuckerberg wrote in 2012, while discussing a potential acquisition of Instagram or Path, that "there are network effects around social products and a finite number of different social mechanics to invent. Once someone wins at a specific mechanic, it's difficult for others to supplant them without doing something different." PX1136, Meta email chain: M. Zuckerberg to D. Ebersman re: "null" (Feb. 28, 2012), FB_FTC_CID_01543961, at -961.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

b. Mark Zuckerberg opined in a 2008 email to other Meta executives that "the answer to your question of why it is better to buy than compete is network effects. This decision doesn't reflect a lack of confidence in our product or anything like that. It's just that once someone has saturated a demographic somewhere, it's harder to compete with them. We see this even when the incumbent's product is way less efficient than our own." PX1901, Meta email chain: M. Zuckerberg to C. Cox, et al. re: "assembling the people who apparently didn't say the things in my memories" (June 22, 2008), FB_FTC_CID_05992062, at -062.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed that the statement is material to any legal issue. The quotation is from a document about a contemplated acquisition

of a company in Germany, not in the United States (the FTC's alleged geographic market), in 2008. *See* PX1901 at -065 (FB_FTC_CID_05992062).

c. Alex Schultz, then Meta's Vice President of Analytics, opined in a 2016 email that "[g]enerally I think network effects are hard to beat. After 4 years of watching eBay try to kill itself from the inside I was incredibly impressed at how hard it was to kill something with real network effects. Similarly with Facebook's competitors (VK, StudiVZ, Tuenti, Orkut, etc...) who gained network effects it was super super hard to disrupt them even with a superior product." PX11086, Meta email chain: J. Koum and M. Imam re: "Telegram Growth" (May 18, 2016), FB_FTC_CID_08748934, at -936.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the quotation is incomplete, lacks context, and does not support the FTC's statement in paragraph 1416. In the next line of the quoted document, Mr. Schultz stated: "Sometimes we won, sometimes we didn't." PX11086 at -936 (FB_FTC_CID_08748936). Moreover, the cited email concerns a discussion about a potential acquisition of IMO Messenger – a messaging service that was popular in foreign markets and that the FTC omits from its claimed market – and in the same email thread, Mr. Schultz stated that IMO had "massive growth" and had grown big "especially driven from being social" notwithstanding Facebook's "awesome equivalent product." *Id.* at -936, -937.

d. Mubarik Imam, former Director for Growth and Business Development at WhatsApp, PX6130, Imam (Meta/WhatsApp) Dep. Tr., at 20:12-18, noted in a 2016 email that it is "[h]ard to reverse a network that's tipped . . . . [O]nce network effects get established its hard to displace even when we have product parity." PX15200, Meta email chain: M. Imam to J. Koum and A. Schultz re: "Telegram growth" (May 25, 2016), FB_FTC_CID_05352858, at -858.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411 and subparagraph 1416(c), which cites an earlier iteration of the email thread cited in this subparagraph. Further disputed because the quotation is incomplete, lacks context, and does not support the statement in paragraph 1416. Mr. Imam noted that his comment referred to "network effects" in "Eastern Europe" and other foreign countries, and he also noted the possibility that "[u]sers may eventually use IMO for more than video chat if they end up using the product frequently and with those they care about most (family)." PX15200 at -858 (FB_FTC_CID_05352858).

e. Meta expert Catherine Tucker acknowledges that firms can derive market power from network effects, thus making it more difficult for smaller competitors to attract users. PX0547, Catherine Tucker, *Digital Data, Platforms and the Usual [Antitrust] Suspects: Network Effects, Switching Costs, Essential Facility,* 54 Rev. Indus. Org. 683, 683 (2019) ("Firms can derive market power from network effects because they imply increasing returns to firm size. This makes it hard for smaller competitors to attract users.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

1417. Third parties recognize that network effects make it difficult for new PSN apps to enter and expand.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. A 2010 Google document outlining the social network strategy for Google+ recognized that "the value proposition of social networks is inherently dependent on the network effect." PX7035, Google document: "The Plan for ES Connected Sites" (*Aug. 24, 2010), GOOG-META-01597274, at -275 ([redacted]); *see also* PX6148, Horowitz (Google) Dep. Tr., at 35:19-36:2 ([redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411, and because the document cited in this statement is from 2010 and therefore pre-dates the emergence of Snapchat as an alleged PSNS (in 2013 according to the FTC), the rise of TikTok, and other more recent events. Further disputed because the statement is incomplete. Immediately after the quoted language, the document refers to overcoming this "network effect" by "importing or syncing data (contacts, stream items, etc.) from external sites, we help users quickly build up a network of content and friends that will enhance their initial experience." PX7035 at -275 (GOOG-META-01597275).

b. A 2020 Snap document observed that "[a]nyone looking to bootstrap a new social networking service faces a chicken-and-egg problem. New services must attract users to populate its social graph, but social networks are not very useful without an existing social graph of sufficient density." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

c. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because insertion of "in a new market" into the quote is misleading, and the quotation taken in context is not material to any legal issue. The witness provided the quoted testimony in response to a question asking "why" Snap "might not be popular or might be unpopular" in "international markets." PX6131 at 133:18-134:8 (Levenson (Snap) Dep. Tr.); *see also id.* at 136:5-8 (testifying that "Snap's network effects vary country by country").

d. Keith Coleman, Vice President of Products at Twitter, testified that, "if you're starting a new product . . . and there's an existing product that has a strong network, that's a barrier to competing." PX6145, Coleman (Twitter) Dep. Tr., at 16:15-16, 514:12-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement is incomplete, as the two ensuing sentences of the witness's testimony make clear: "There are ways to compete. You can try to build a network off contact lists, for example." PX6145 at 514:19-21 (K. Coleman (Twitter) Dep. Tr.).

e. In a 2020 written response [redacted], Pinterest wrote that obtaining a critical mass of users is "essential"

for a social network, and that "[t]he critical mass necessary to start this positive feedback loop may vary depending on the nature of the service. A private social network that aims to connect you to all of your friends, family, and colleagues all over the world (like Facebook) needs to hit a higher critical mass -- probably in the tens of millions. A private social network that only aims to connect neighbors to one another, like Nextdoor, may need only a handful." PX7036, Pinterest document: [redacted], PIN - FTC 0000001042, at -053-54.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement is incomplete. The [redacted] states that the difficulty of "[g]aining a critical mass" depends "on how people use an existing network, whether it's important for the existing data on that network to be available to users on the new social network, and how easy it is for users to transfer that data," explaining that "[r]eplicating" connections "on a new network . . . could be easy if the user were able to import lists of connections from another social network." PX7036 at -054 (PIN - FTC - 0000001042).

f. A 2011 email exchange between Google employees discussing their "social strategy" included the following statement: "The hardest part of launching a social networking site is getting off the ground. There's a huge 'chicken or the egg' problem at the beginning. (No one wants to contribute social content because there's no one there to see it. And there's no one there to see it because

no one is contributing social content, etc.)." PX7056, Google email chain: M. Cassidy to N. Arora, et al. re: "follow up from Twitter OC deal discussion and explanation of implicit social graph" (Apr. 4, 2011), GOOG-META-00582471, at -471-72.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement lacks context. In the same quoted message, the Google employee explained that Google created

[redacted]

g. Mark Weinstein, founder of MeWe and former CEO of its parent corporation, Sgrouples, PX6109, Weinstein (MeWe) Dep. Tr., at 17:20-19:20, stated in a declaration that while MeWe has seen occasional spikes in user growth, "[n]o matter the size of the of the spike in growth, it was never sufficient to trigger a sustained network effect" because users' "networks of friends and family members did not join them, instead remaining on Facebook." PX8006, Declaration of Mark Weinstein (MeWe) (Apr. 24, 2023), at ¶ 10. Mr. Weinstein further stated that he believes most users who joined MeWe during growth spikes

"eventually moved back to Facebook due to Facebook's overwhelming network effect[s]." *Id.* at ¶ 10. Mr. Weinstein testified that MeWe "could generate some modest growth . . . [b]ut we could not break the barrier of the network effect." PX6109, Weinstein (MeWe) Dep. Tr., at 190:22-191:4.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement lacks context. [redacted]; *see also* Meta SMF [redacted]; *id.* at [redacted].

h. In a 2020 written response to a Request for Information from the European Commission, TikTok, responding to a question asking about the main reasons users decide to use Facebook and/or Instagram instead of another social network, wrote: "Facebook and Instagram's considerable market penetration means that it

benefits from network effects; the higher visibility and widespread penetration of these platforms increases the likelihood of a high presence of friends and acquaintances which also use Facebook and Instagram." PX13581, TikTok document: "ByteDance Response to European Commission Request for Information" (*June 12, 2020), TIK-00000001, at -018. TikTok also noted that Facebook and Instagram's network effects—and thus their greater ability to attract users compared to smaller platforms—are barriers to potential entrants. *Id.* at -020 [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

i. Daniel Liss, CEO of Dispo, testified that the social graphs of Facebook and Instagram create barriers to competing with Facebook and Instagram. PX6074, Liss (Dispo) Dep. Tr., at 9:11-14, 155:8-156:10 ([redacted]).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

(2) Switching costs

1418. Switching costs are a substantial barrier to entry that prevent new PSN entrants from becoming significant competitors in the market for PSN services. PX9000, Hemphill Report at ¶¶ 70, 669-71; PX9007, Hemphill Rebuttal Report at ¶¶ 489-90.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. The FTC's use of "PSN" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1419. PSN services exhibit high switching costs, as users of PSN apps invest in their social graphs and accumulate a history of photos, posts, and other content that they contribute over time. PX9000, Hemphill Report at ¶¶ 71-72, Ex. 6.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. The FTC's use of "PSN" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. A 2012 Meta document containing "narratives" for Meta's IPO roadshow recognized that "your Timeline on Facebook is more than a conversation. It's the complete story of your life on a single page: The photos you are tagged in, your thoughts on the op-ed you just read." PX14319, Meta document: "road show narratives" (May 15, 2012), FB_FTC_CID_06003438, at -440.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

b. Amin Zoufonoun, formerly Meta's Vice President of Corporate Development, PX6103, Zoufonoun (Meta) Dep. Tr., at 6:9-11, wrote in a 2012 message to Mark Zuckerberg that "photos . . . is perhaps one of the most important ways we can make switching costs very high for users . . . [it] will be very tough for a user to switch if they can't take those photos and associated data/comments with them." PX1155, Meta messages: A. Zoufonoun to M. Zuckerberg, et al. (Jan. 26, 2012), FB_FTC_CID_02423158, at -159.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement is incomplete. The quotation referred to "photos (along with comprehensive/smart contacts and unified messaging) . . . *if* we are where all users' photos reside because the uploading (mobile and web), editing, organizing, and sharing features are *best in class*." PX1155 at -159 (FB_FTC_CID_02423158) (emphases added).

c. Former Meta CFO David Ebersman wrote in a 2014 email that investors like how users' use of Facebook, Instagram, and similar services is "sticky": that "after you have invested hours and hours in your friend graph or interest graph or follower graph, you are less likely to leave for a new or different service that offers similar functionality." PX1265, Meta email chain: D. Ebersman to A. Zoufonoun, et al. re: "Quick question," (Feb. 15, 2014), FB_FTC_CID_00002270, at -270-71.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement does not

concern alleged "PSN services," as the FTC uses that term; Mr. Ebersman's email concerned "Facebook, Instagram, Twitter, Pinterest, etc." PX1265 at -270 (FB_FTC_CID_00002270).

d. A 2018 Meta document recognized that when users start using an app, there is a cost, such as "learning how it works [and] adding friends—but you only have to pay that cost once." PX2738, Meta document: "Ratchet Effects in App Growth" (June 25, 2018), FB_FTC_CID_06461200, at -200 ("Why would we see a ratchet effect? This can be caused by some combination of sunk costs and network effects. When you start using an app you have to pay some cost—learning how it works, adding your friends—but you only have to pay that cost once, i.e. the cost is *sunk*. This implies a ratchet effect: the app has to be pretty good for you to pay that cost, but once you've paid it you'll stick with it even if the relative quality declines. Sunk costs can exist independently of network effects, and independently of competition between apps . . . .").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

e. A 2018 Meta document observed that "[o]nce someone starts using an app, they tend to keep using it." PX2296, Meta document: "Demand for Apps" (Sept. 20, 2018), FB_FTC_CID_08245770, at -770 (referring to the phenomenon as "ratchet effect" or "sunk costs").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

f. A 2020 Snap document recognized that "[t]he burden of reestablishing friend connections on a new service means high switching cost for new users and locks them into existing services. Facebook's social graph creates strong lock-in, as users become dependent on the service to reach their family and friends."

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

g. Bradley Horowitz, an advisor and formerly Vice President of Product Management at Alphabet, affirmed in deposition testimony the existence of switching costs associated with reproducing a user's collection of connections, testifying that "[t]he amount of energy to reestablish those connections in a new service is very, very high without an ability to leverage my previous investment." PX6148, Horowitz (Google) Dep. Tr., at 15:8-15, 75:3-13 (noting additionally a switching cost associated with reproducing a user's connections created over the years on Facebook).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

1420. Meta recognizes users' investments in their social graphs and history on a particular PSN app create switching costs for users considering switching to an alternate PSN app, making it difficult for new PSN apps to enter and expand.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because all the materials cited in the subparagraphs below pre-date TikTok's rise as a competitor to Meta after 2018, among other recent developments. The FTC's use of "PSN app" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. A 2012 Meta document prepared for Meta's IPO roadshow described how Facebook's "competitive moats are deep. We are hard to compete with, our network effects are substantial, your friends are all here, you have made a big investment in your Facebook identity and network and that's hard to leave behind, and furthermore, every day, our users increase that investment in Facebook." PX3184, Meta document: "Top Investor Questions" (Apr. 26, 2012), FB_FTC_CID_06067350, at
-351.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1420.

b. Mike Krieger, co-founder of Instagram, testified that "if you jump to a new platform and there's nobody on there yet, you know, it's not a very interesting

place. Now, you've got to, like, get your photos over there, get your friends over there. They have to be posting. So it's not as good an experience as the platform you were already on." PX6015, Krieger (Meta/Instagram) IH Tr., at 12:6-13:15, 215:3-11. On the likelihood of whether another photo sharing app could grow as large as Instagram, Mr. Krieger testified that he "could see Snapchat getting there" but "didn't think there was really room for another app with the same exact dynamics as Instagram, mostly because once your friends and your interests are in Instagram, like, there is some switching costs there." *Id.* at 214:19-215:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1420.

c. A 2018 Meta document noted that "once you get a user on your app it's hard to lose them"—a phenomenon the document referred to as the "ratchet effect." PX2738, Meta document: "Ratchet Effects in App Growth" (June 25, 2018), FB_FTC_CID_06461200, at -200.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1420.

d. A 2018 Meta document recognized—in light of the ratchet effect—the value in "invest[ing] early in a market . . . because it can confer a permanent advantage." PX2738, Meta document: "Ratchet Effects in App Growth" (June 25, 2018), FB_FTC_CID_06461200, at -203.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1420.

e. A 2011 email, which summarized research findings and was sent to Meta executives, reported that "[t]here is little need to visit Google+ multiple times a day (now) because there is rarely anything new to see" since "[p]eople who are big fans of G+ are having a hard time convincing their friends to participate" given high switching costs "due to friend density on Facebook." PX2042, Meta email chain: [redacted] to M. Zuckerberg, et al. re: "Google+ Qualitative Findings," (Dec. 14, 2011), FB_FTC_CID_01529491, at --491.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1420. Further disputed because the statement is incomplete; the same document states that Google+ was attracting users because Google was "perceived as trusted, creative and good at everything that they do." PX2042 at -492 (FB_FTC_CID_01529491).

f. Javier Olivan, Meta's COO, testified regarding German users switching from StudiVZ to Facebook that "the only reason why you would want to shift to Facebook is if Facebook is significantly better than StudiVZ. It doesn't – it doesn't matter if it is just as good. It has to be significantly better for you to be willing to shift and convince your friends to move over." PX6017, Olivan (Meta) IH Tr., at 153:3-154:4 (noting also that, where Facebook entered countries with "an existing kind of clone" already present, Facebook needed to compete and

innovate "so that users were willing to move *and* bring along their friends" (emphasis added)).

Meta Response: Disputed in part. Undisputed that Mr. Olivan provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1420, and because Mr. Olivan's testimony regarding Germany (not the alleged U.S. geographic market) is not material to any legal issue. Further disputed because the statement is incomplete and misleading. Mr. Olivan also testified that "having a – an existing kind of clone made it harder, *not impossible, as evidenced by the fact that we ended up still growing in some of those countries*." PX6017 at 153:20-23 (emphasis added); *see also id.* at 155:22-23 ("A better service can attract and make people shift.").

1421. Third parties recognize that users' investments in their social graphs and history on a particular PSN app create switching costs for users considering switching to an alternate PSN app, making it difficult for new PSN apps to enter and expand.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. The FTC's use of "PSN app" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. A 2010 Google document recognized that users may be reluctant to start using a new social network and leave behind the investment they have made on existing social networks. PX7035, Google document: "The Plan for ES Connected Sites" (*Aug. 24, 2010), GOOG-META-01597274, at -275 [redacted]

[redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement is incomplete. In the next sentence, the document states: [redacted] PX7035 at -275 (GOOG-META-01597274).

b. In a 2010 Google email exchange regarding a proposal for adding social features to Google, one executive wrote, "I love your story but I don't see how it's going to happen. I.e., if I'm already on FB then that's 'how you decide to express yourself to the world.'" PX7037, Google email chain: U. Hoelzle to V. Gundotra, et al. re: "draft social strategy," (Mar. 22, 2010), GOOG-META-00575169, at -169.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the statement is incomplete and lacks context; the proponent of the proposal explained why she believed

Google was [redacted] PX7037 at -171 (GOOG-META-00575169).

c. Mark Weinstein, founder and former CEO of MeWe, testified that "in the case of a switching cost for a user coming without either their data or their social graph, I mean, clearly the equation doesn't work to switch." PX6110, Weinstein (MeWe) Dep. Tr., at 340:18-341:11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411 and subparagraph 1417(g).

d. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Snapchat entered as a "PSNS" – according to the FTC – and [redacted] after the acquisitions at issue. *See* Meta SMF [redacted].

e. Jacob Andreou, Senior Vice President of Growth at Snap, testified that Snapchat identified the challenge presented by the size of Facebook's and Instagram's

social graphs "pretty early," and that users "build[ing] out a whole new social graph from scratch" would be a "tough proposition." PX6119, Andreou (Snap) Dep. Tr., at 17:2-9, 290:18-292:4. He further testified that Instagram users being able to have Stories on Instagram on top of the existing Instagram social graph "added another barrier" in getting people to use Snapchat Stories. *Id*. at 297:9-298:10 [redacted].

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411 and subparagraph 1421(d). Further disputed because the statement is incomplete; the witness also testified that Facebook "had led" Snapchat "to integrate" to "try to help people find friends on Snapchat" and that

Snapchat did not need to "build out a whole new social graph from scratch." PX6119 at 291:12-16 (Andreou (Snap) Dep. Tr.).

f. In a 2020 written response [redacted], Pinterest noted that replicating users' connections on a new social network can be "very laborious." PX7036, Pinterest document: [redacted], PIN - FTC – 0000001042, at -053 [redacted]. Pinterest also observed that it could be "very difficult" for users to move thousands of posts, pictures, videos, or other content critical to the use of a social network to a new social network. *Id*. at -053 [redacted]

[redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411 and subparagraph 1417(e).

g. Mr. Horowitz testified that users who wanted to switch from Facebook to Google+, in addition to not being able to bring their social graph with them, "also had the entire history of your experience and interactions on Facebook that wouldn't come over as well." PX6148, Horowitz (Google) Dep. Tr., at 133:16-134:4 [redacted].

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1409 and 1411.

(3) Capital investment

1422. High capital costs are a substantial barrier to entry and expansion in the market for PSN services. PX9000, Hemphill Report at ¶¶ 672-78; PX9007, Hemphill Rebuttal Report at ¶¶ 491-92.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed that capital costs for creating apps are necessarily high. *See* Ex. 1 at ¶ 245-248 (Ghose Rep.) (explaining that "[w]hile some working capital is needed to develop and monetize an app, relative to other industries, the upfront costs of mobile app development is typically

low"). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. There are two primary sources of startup costs for a new PSN entrant: the first is the R&D investment needed to build a new application, which has increased over time; and the second is working capital needed to operate and grow the service for a period of time without offsetting revenues. PX9000, Hemphill Report at ¶¶ 672-74.

Meta Response: Disputed in part. Undisputed that capital is needed to develop an app. Disputed for the reasons stated above in Meta's response to paragraph 1422. Further disputed because the cited passages of Professor Hemphill's report do not show any empirical data that costs have "increased over time." The FTC's use of "PSN" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1423. Building and growing a PSN app requires significant capital investment. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and

1422. Further disputed because [redacted]. The FTC's use of "PSN app" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1424. Meta's dominance acts as a barrier to entry by deterring financial investment in new entrants. *See* PX9000, Hemphill Report at ¶¶ 675-78.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the materials cited in the subparagraphs below do not support the statement in this paragraph. Venture capital investment (not limited to so-called "PSNS" apps) has increased in recent years. *See* Ex. 1 at ¶ 247 (Ghose Rep.). Acquisitions – like the Instagram acquisition – spur outside investment in apps. *See* Ex. 6 at ¶¶ 39-43 (Kaplan Rep.).

a. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted] provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1424. Further disputed because the statement lacks context: Mr. Botha testified that Sequoia has invested in other applications focused on sharing with friends and family. *See* PX6048 at 102:19-103:11 (Botha (Sequoia Capital) Dep. Tr.) (explaining that "Sequoia invested in HalloApp," an app "intended to be a service to communicate with a very close circle of family and friends").

b. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1424, and because the statement [redacted]. The

statement also omits [redacted]

c. [redacted]

<u>Meta Response</u>: Disputed in part. Undisputed that [redacted] Disputed for the reasons stated above in Meta's responses to paragraph 1424 and subparagraph 1424(b). [redacted] Further disputed because this subparagraph is incomplete and omits [redacted]

d. Mark Weinstein, founder of MeWe and former CEO of its parent corporation, Sgrouples, PX6109, Weinstein (MeWe) Dep. Tr., at 17:20-19:20, stated in a

declaration that "Facebook's dominance made it virtually impossible for MeWe to raise money from venture capitalists in Silicon Valley." PX8006, Declaration of Mark Weinstein (MeWe) (Apr. 24, 2023), at ¶ 9.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1424. Further disputed because [redacted]; *see also* Meta SMF [redacted].

e. A recent news article reported that BeReal is currently experiencing difficulty securing investment funding to cover its server costs. PX0680 at -002-03, Elizabeth de Luna, *BeReal has 10 months left before it runs out of money*, Mashable (Mar. 15, 2024), https://mashable.com/article/bereal-growth-acquisition.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1424, because the cited material does not support the statement in paragraph 1424, and because the cited material is inadmissible

hearsay. Further disputed because the news source cited in this subparagraph states that BeReal raised $90 million in venture capital funding in 2022 alone. *See* PX0680 at -003 (Mashable, *BeReal Has 10 months Left Before It Runs Out of Money*). Disputed that the cited materials support the claim "BeReal is currently experiencing difficulty securing investment funding to cover its server costs." More recent public sources reported that a company called Voodoo acquired BeReal for "$537 million." Ex. 513 at 1 (TechCrunch, *Deal Dive: BeReal Got Its Best-Case Scenario Exit*, https://perma.cc/EFV6-LJJ3?type=standard).

b) Failures of other apps to enter and the absence of meaningful entrants in the market for PSN services demonstrate significant barriers to entry.

1425. Barriers to entry have prevented PSN apps other than Facebook and Instagram from achieving meaningful scale. PX9000, Hemphill Report at ¶¶ 679-80; PX9007, Hemphill Rebuttal Report at ¶ 498.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because the FTC claims that Snapchat entered as a PSNS [redacted]. *See* Meta SMF ¶¶ 729-732. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Since 2016, there has been no significant entry into the market for PSN services in the United States and little change in market size and shares. PX9000, Hemphill Report at ¶¶ 150-152.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1425. Further disputed because the statement creates an artificial time period – after 2016, approximately four years after the Instagram acquisition and two years after the WhatsApp acquisition – to produce a pre-determined result by avoiding the entry of MeWe. Further disputed because it omits the post-2016 entry of BeReal – which the FTC's proffered expert has characterized as a PSNS, *see* Meta SMF ¶ 618 – as well as TikTok and others. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Wahi testified that "[b]ased on what [he] know[s], we [Snap] haven't yet had a full calendar year of profitability." PX6157 at 299:4-5 (Wahi (Snap) Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1425. Further disputed that the cited material supports the suggestion in paragraph 1425 that "barriers to entry" are the reason why Snap is unprofitable on an annual basis. *See id.* at 298:7-13 (testifying that Snap's approximate revenue for 2022 was $4.8 billion, and that he did not know "the total annual revenues that it would need to break even"). To the extent this subparagraph incorporates the FTC's statements in Section II.B.1, Meta incorporates its responses to those statements here.

c. [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Weinstein's declaration – which the FTC obtained for this litigation in 2023 – states that, as of April 24, 2023, "MeWe has over 19.5 million total registered users and approximately 1.3 million monthly active users," PX80006 at ¶ 10 (M. Weinstein (MeWe) Decl.), and that Mr. Weinstein testified that MeWe has not been profitable. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1425 and subparagraph 1417(g). Further disputed that the cited material supports the suggestion in paragraph 1425 that "barriers to entry" are the reason for MeWe's number of monthly active users and profitability. *See* PX6110 at 331:3-4 (M. Weinstein (MeWe) Dep. Tr.) ("[W]e never aspired to make outrageous profits."); *see also* Ex. 126 at 103:14-104:2, 190:5-16 (M. Weinstein (MeWe) Dep. Tr.) (testifying that "countless" new "social apps" have emerged since MeWe launched in 2016). Further disputed because the statement is incomplete. Mr. Weinstein also testified that "MeWe was – when I finished my term in 2021, MeWe was nearly at break even," that "the business model was starting to prove out," and that "MeWe could be profitable with its . . . freemium model." Ex. 126 at 329:4-11 (M. Weinstein (MeWe) Dep. Tr.). To the extent this subparagraph incorporates the FTC's statements in Section II.B.1, Meta incorporates its responses to those statements here.

d. After rapid growth in 2022, BeReal experienced a sharp decline in usage in 2023. PX9000, Hemphill Report at ¶¶ 325-26.

Meta Response: Disputed in part. Undisputed that Professor Hemphill asserts that BeReal experienced rapid growth in 2022. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1425, and because Professor Hemphill has not demonstrated that "barriers to entry" are the reason for a supposed decline. Further disputed because the statement is incomplete: Professor Hemphill asserts that BeReal had 10.4 million daily active users in 2023, *see* PX9000 at ¶ 326 & n.665 (Hemphill Rep.), and BeReal reportedly has around 25 million daily active users as of June 2024. *See* Ex. 513 at 1 (TechCrunch, *Deal Dive: BeReal Got Its Best-Case Scenario Exit*, https://perma.cc/EFV6-LJJ3?type=standard).

e. Even if new firms attempt to enter the market for PSN services with a new product, network effects and switching costs also operate to prevent new PSN entrants from expanding and achieving meaningful scale. PX9000, Hemphill Report at ¶¶ 67, 70; *see also* PX9007, Hemphill Rebuttal Report at ¶ 498 (observing that "small entrants . . . such as MeWe and BeReal . . . only reinforce[] the key points in this entry barrier discussion: the primary entry barriers . . . may not prevent startups from offering a new app in the market, but entry barriers prevent these new apps from achieving competitively significant market shares.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1425. The FTC's use of "PSN services"

is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1426. Various services outside the market for PSN services have attempted to add social features but have failed to achieve success.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. Further disputed because "non-PSNS" apps (according to the FTC) offer features that the FTC contends constitute "PSNS" activity, including YouTube and TikTok. *See*, *e.g.*, Meta Resps. to Counter SMF ¶ 1173 (YouTube), ¶ 1195 (TikTok). Further disputed because this statement does not explain what constitutes a "social feature," a vague and ambiguous term. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Bradley Horowitz, an advisor and formerly Vice President of Product Management at Alphabet, testified that the identity and commenting integrations of Google+ with YouTube caused backlash from users. PX6148, Horowitz (Google) Dep. Tr., at 15:8-15, 136:3-12 [redacted]. Google later eliminated the requirement that users needed a Google+ account to comment on YouTube videos. PX6148, Horowitz (Google) Dep. Tr., at 138:2-9 [redacted].

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1426.

b. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony and that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1426. Further disputed because the quotation is incomplete. The same document states that [redacted]

[redacted] *id.* at -783.

c. [redacted]

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1426.

d. Twitch's Pulse project introduced a content feed feature in 2017 but it was not widely adopted by users and quickly deprecated. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1426, and because [redacted]. *See* Meta SMF [redacted].

e. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1426, and because the testimony does not support the statement that Strava does not offer social features. *See* Meta Resp. to Counter SMF ¶ 1165 (evidence of Meta's competition with Strava and its social features).

f. In the last few years, several non-PSN apps which had previously introduced Stories features, including LinkedIn, Twitter, and YouTube, have deprecated those features as a result of low usage. PX9007, Hemphill Rebuttal Report at ¶ 499 n.728.

Meta Response: Disputed in part. Undisputed that LinkedIn, Twitter, and YouTube no longer offer Stories features. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1426. Further disputed because many apps excluded from the FTC's claimed PSNS market offer a Stories features. *See* Meta SMF ¶¶ 117-118 (WhatsApp), ¶ 128 (TikTok); Ex. 1 at ¶ 51 & Ex. A (Ghose Rep.) (Twitter and YouTube); *see also* Ex. 2 at p.42, tbl. 3 (Carlton Rep.) (listing more than a dozen services that have added Stories). The FTC's use of "non-PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1427. Social media apps that serve core use cases other than friends and family sharing would find it difficult to pivot into the market for PSN services.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1409 and 1411. The FTC's use of "core use cases" and "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. The norms of a social media app are "very difficult to change" and "sticky" as "it's the norms at the time the site's established that are often the most predictive of how it's going to be seen as being used because those high-level norms of this is a platform for this purpose are fairly persistent." PX6175, Lampe (FTC) Dep. Tr., at 79:18-80:8, 321:12-322:12.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1427. Further disputed because

Professor Lampe does not dispute that the use of Facebook and Instagram has changed over time to include, increasingly, the consumption of public and unconnected video on services like Reels. *See* Meta SMF ¶ 11-16, 56-66. Professor Lampe testified that, for the users watching Reels on Facebook or Instagram with a motivation of entertainment or passing time due to boredom, "they could also pass time or watch videos on YouTube, yes." *Id.* at ¶ 203 (quoting Ex. 281 at 246:10-18 (Lampe Dep. Tr.)). He also agreed that TikTok is a "[s]ocial [n]etworking [s]ite" that can be used for "personal social networking." *Id.* at ¶ 209; *see also* Ex. 281 at 246:2-9 (Lampe Dep. Tr.) (agreeing that "users that are watching Reels on Facebook or Instagram with a motivation of entertainment or passing time due to boredom . . . could also satisfy those same motivations by watching TikTok"). Further disputed that the opinions of Professor Lampe on "norms" are material; he admitted his analysis has no bearing on economic competition. *See* Meta SMF ¶ 613 (quoting Ex. 281 at 163:4-10 (Lampe Dep. Tr.)). The FTC's use of "personal social networking" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. Given network effects, customer expectations, and the risk of user backlash, it can be difficult for non-PSN apps which serve core use cases other than friends and family sharing to start providing personal social networking services. PX9000, Hemphill Report at ¶¶ 681-82.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1427. The FTC's use of "personal social

networking services" and "core use cases" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1428. TikTok is an entertainment platform that lacks core functionality and use for friends and family sharing and is not a reasonable substitute for PSN services. *See supra* CMF at ¶¶ 1194-216. Consequently, TikTok's emergence is not an example of entry into the market for PSN services. *See id.*

Meta Response: Disputed. Disputed on the ground that the statement cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraphs 1194-1216, Meta incorporates its responses to those statements here. The FTC's use of "core functionality" and "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1409 and 1411 and subparagraph 1427(a). Professor Hemphill admitted that consumers can use TikTok "as a place to engage in [a] distinct demand for maintaining relationships and sharing experiences with friends, family, and social acquaintances in a shared social space." Meta SMF ¶ 627 (quoting Ex. 283 at 56:2-7, 56:22-57:7 (Hemphill Dep. Tr.)). He also admitted that Meta adding Reels to Instagram was a reflection of competition with TikTok. *See id.* at ¶¶ 262, 628, 631-632; *see also* Meta Resp. to Counter SMF ¶ 1195 (evidence of Meta's competition with TikTok and its social features).

1429. The emergence of other non-PSN apps that lack core functionality and use for friends and family sharing and are not reasonable substitutes for PSN services are not examples of entry into the market for PSN services. *See supra* CMF at § II.A.5.

Meta Response: Disputed. Disputed on the ground that the statement cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section II.A.5, Meta incorporates its responses to those statements here. The FTC's use of "core functionality" and "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1429.

1430. Single-platform messaging apps like iMessage and Google Messages are unlikely to enter the market for PSN services. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 679-82. Ronak Shah, Director of Product Marketing for Internet Technologies and User Privacy at Apple, testified that iMessage is [redacted] available only on Apple devices [redacted]. PX6106, Shah (Apple) Dep. Tr., at 13:16-14:19, 192:20-22 [redacted].

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact because the FTC proffers no evidence to support the implication that messaging apps such as iMessage and Google Message, are not already reasonable substitutes for Facebook and Instagram. The FTC defines "PSN apps" to include all activities on apps that the FTC includes in the alleged PSNS market, including sending messages on Facebook and Facebook Chat and Instagram Direct. *See* Meta SMF ¶¶ 580-584. Equivalent activities are available on messaging apps. *See id.* at ¶¶ 431-432, 439-447. Mobile messaging exists on Instagram Direct, Facebook Chat, Messenger, WhatsApp, Snapchat, TikTok, Twitter, LinkedIn, [redacted], Pinterest, iMessage, Discord, among other apps. *See id.* at ¶¶ 79-80, 93, 115, 237, 300, 423, [redacted], 437; Ex. 69 at 149:11-16 (Pattabiraman (LinkedIn) Tr.); [redacted]; Ex. 45 at 131:12-132:1 14 (Roberts (Pinterest) Depo Tr.). The evidence shows that "one-to-one and one-to-few communications" account for significant use of alleged "PSNS" applications. *See*, *e.g.*, Meta SMF ¶ 440 (Mr. Mosseri testifying that Instagram is "more of a messaging app than a broadcast-sharing app at this point." (quoting Ex. 143 at 206:2-4 (Mosseri Dep. Tr.)), ¶¶ 492-493 (showing that [redacted] of the time spent on Snapchat is on the "Chat" feature, which allows users to send one-to-one or group messages), [redacted] (Professor Lampe opining that [redacted] (quoting Ex. 290 at ¶ 182 (Lampe Rep.)). Empirical substitution patterns show that users switch from Facebook and Instagram to messaging apps more than to Snapchat, which the FTC asserts is a PSN app. *See id.* at ¶¶ 536-566; *see also* Meta Resp. to Counter SMF [redacted]

[redacted]. The FTC's use of "PSN" and "personal social networking service" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1431. Other messaging apps are unlikely to enter the market for PSN services. *See infra* CMF at § III.C.2(c)(3).

Meta Response: Disputed. Disputed on the ground that the statement cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section III.C.2(c)(3), Meta incorporates its responses to those statements here. Further disputed because this paragraph fails to identify the "[o]ther messaging apps" it references. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1409, 1411, and 1430. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

C. Direct Evidence Indicates that Meta Exercises Monopoly Power Over PSN Services in the United States

1432. Direct evidence indicates that Meta exercises monopoly power over PSN services in the United States. This direct evidence includes: Meta's sustained high profits; its profitable increase of the quality-adjusted price of Facebook and Instagram; its exploitation of inelastic user demand, including through price discrimination; and its ability to exclude competitors. *Infra* CMF at §§ II.C.1-7*; see also* PX9000, Hemphill Report at § 3.3; PX9007, Hemphill Rebuttal Report at § 2.1.

Meta Response: Disputed. Disputed that this conclusory and argumentative statement – which cites dozens of paragraphs of reports without context or explanation – creates a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Sections II.C.1-7, Meta incorporates its responses to those statements here. Regarding profits, there is no evidence in the record tying Meta's profits to power over users (or advertisers) – indeed, Meta earns revenue by showing advertising to consumers who use Facebook and Instagram, and most of the time spent by those users is consuming public or non-friends content for which Meta faces conceded competition. *See* Meta SMF ¶¶ 11-16, 56-66. Regarding quality, the FTC's principal proffered expert concedes that there is no net measure of quality in the record against which to measure Meta's services, *see id.* at ¶ 129 (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)), and that Meta has improved the quality of its services by innovating new features in response to competition, *see id.* at ¶ 127 (quoting Ex. 283 at 229:17-19, 231:10-19, 231:20-232:4, 263:17-264:4 (Hemphill Dep. Tr.)). Regarding "price discrimination," there is no evidence that Meta shows more advertising to (or otherwise discriminates against) users satisfying a demand for so-called friends and family sharing. *See id.* at ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)); Meta Resp. to Counter SMF ¶ 1504. Regarding exclusion, other firms – including so-called "PSNS" firms – have entered and expanded following the acquisitions at issue. *See* Meta SMF ¶¶ 729-732. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1. Meta exercises monopoly power over PSN services in the United States despite charging users of Facebook and Instagram a monetary price of zero.

1433. Market power manifests not only in higher prices, but also in the form of lower quality, service, and innovation. *See* PX9000, Hemphill Report at ¶ 155; *see also* PX15346, U.S. Dep't of Justice & Fed. Trade Comm'n, Horizontal Merger Guidelines § 1 (2010) ("Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service, or diminished innovation. Such non-price effects may coexist with price effects, or can arise in their absence."); PX15347, U.S. Dep't of Justice & Federal Trade Commission, Merger Guidelines § 4.3.B (2023) ("A SSNIPT may entail worsening terms along any dimension of competition, including price (SSNIP), but also other terms (broadly defined) such as quality, service, capacity investment, choice of product variety or features, or innovative effort.").

Meta Response: Disputed in part. Undisputed that the Merger Guidelines contain the quoted language. Disputed that this statement creates a genuine dispute of material fact, including because the above quotes are generic statements without application to the facts here. Further disputed on the basis that the impact of competition on quality – unlike the impact of competition on price – depends on multiple factors. *See* Ex. 2 at ¶ 126 (Carlton Rep.) ("Theory alone cannot answer what happens to ad load as competition increases even if ad load is (incorrectly) treated as a quality attribute of a product in a one-sided industry. It is well known in the economics literature that the quality of products in such an industry can increase, decrease, or remain the same as competition increases in a market."), ¶¶ 127-128 (same); *see also* Meta Resp. to Counter SMF ¶ 1434.

1434. Professor Carlton concedes that market power can manifest in non-price terms. PX6179, Carlton (Meta) Dep. Tr., at 35:10-18 ("Q. So the 2010 Horizontal Merger Guidelines state, and I'm quoting here, 'Enhanced market power can also be manifested in non-price terms and conditions that adversely affect customers, including reduced product quality, reduced product variety, reduced service and diminished innovation.' Do you agree with that statement? A. Yes.").

Meta Response: Disputed in part. Undisputed that Professor Carlton agreed with the statement as read to him from the 2010 Horizontal Merger Guidelines. Disputed that this statement creates a genuine dispute of material fact, including because the above quotation is missing context. Professor Carlton's answer was: "Yes. I would add that when – we can also say they're harming consumers by providing too much quality. It's not the quality level that you want that's optimal, then you're harming society by producing the wrong product. . . . In other words, I can produce a high-quality product and charge a high price, or I can produce a lower quality product and produce it at a lower price. It's quite possible the monopolist might choose the high price, high-quality when everybody would be better off with a lower price and lower quality." PX6179 at 35:18-36:8 (Carlton Dep. Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 1433.

1435. Even when it charges a monetary price of zero for a product, a monopolist can harm consumers by offering below-competitive product quality in the absence of competitive constraints. PX9000, Hemphill Report at ¶ 181. In other words, a monopolist can profitably increase a product's "quality adjusted price[]"—a way to define the price of a

product that accounts for quality dimensions—despite maintaining a monetary price of zero for the product. *See id.*

Meta Response: Disputed in part. Undisputed that the above statement accurately identifies a theoretical possibility. Disputed that this statement creates a genuine dispute of material fact, including because the generic statement lacks any application to the facts of this case. Further disputed for the reasons stated above in Meta's responses to paragraphs 1433-1434. Further disputed on the ground that citing conclusory assertions from Professor Hemphill's report does not provide factual support for the proposition, as Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h) require.

1436. Professor Carlton concedes that a firm charging a non-monetary price to users could exercise market power over them. PX6179, Carlton (Meta) Dep. Tr., at 37:11-38:8.

Meta Response: Disputed in part. Undisputed that Professor Carlton stated in the passage cited – notwithstanding the FTC's omission of any quotations or context – that "if it's not an ambiguous quality level" then "there could be market power that results in the quality on the user side, assuming there is such an index being different than what it would be [with] competition," "[t]hat's certainly possible." PX6179 at 38:3-8 (Carlton Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, including because the generic statement regarding theoretical possibilities lacks any reference to the facts of this case. Further disputed for the reasons stated above in Meta's responses to paragraphs 1433-1434.

1437. Meta generally charges users a monetary price of zero for PSN services, but it does not provide the service to consumers with no strings attached. *See* PX9000, Hemphill Report at ¶ 73.

Meta Response: Disputed. Disputed that the statement in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1432. Further disputed that Meta provides its free services with "strings attached," a vague and ambiguous term. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because the cited paragraph from Professor Hemphill's report does not create a genuine dispute of material fact; it acknowledges that "Meta does not charge a monetary price to use Facebook and Instagram" but instead "earns revenues through advertising," which "is common to many media products." PX9000 at ¶ 73 (Hemphill Rep.).

a. [redacted] Meta requires users of Facebook and Instagram to view ads. PX6084, Hegeman (Meta) Dep. Tr., at 165:12-20 ("Q. [redacted] Facebook users see ads when using the app, correct? A. I would be surprised if that was not the case. Q. And Meta does not make the appearance of ads on Facebook optional for the user, correct? A. We do not provide a choice about whether you want to see ads.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1437. Further disputed that the cited deposition testimony – which omits context – supports the statement in this subparagraph. Mr. Hegeman testified, as part of the same testimony the FTC cites, that [redacted]

[redacted]

[redacted] PX6084 at 165:2-4 (Hegeman Dep. Tr.). Further disputed that there are no activities one can engage with using Meta's services without viewing advertising, e.g., messaging. Further disputed because users on Facebook and Instagram can skip advertisements to the extent they do not want to engage with that content.

b. Meta also requires users to sacrifice their personal information and have their usage data collected both on Meta's apps and on other apps and websites. PX6084, Hegeman (Meta) Dep. Tr., at 165:21-24 ("Q. Meta also collects information about users as a condition of using Facebook, correct? A. There is certain data that is collected as part of providing our services."); *id.* at 166:11-168:10; *cf.* PX9007, Hemphill Rebuttal Report at ¶ 727 & n.1141 (describing Meta's recent moves to provide a subscription option in Europe in response to regulatory changes).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1437. Disputed that users providing data to Meta so that it can improve its services and user experiences is equivalent to Meta requiring a "sacrifice" of any "personal information," or that Meta requires any "sacrifice" of "personal information" as part of using its services. Disputed that the material cited supports the statement about a "require[ment]" as to "other apps and websites." In the above-cited passage of Mr. Hegeman's deposition testimony, he stated: "Q. And submitting to this tracking is a condition of people using Facebook Blue, correct? A. I believe there is – well, so there's a control that

would allow people to opt out of having that data used to personalize their ads." PX6084 at 168:6-10 (Hegeman Dep. Tr.). Further disputed because the FTC uses vague and ambiguous terms, including "personal information."

1438. Meta profits through its provision of PSN services to users of Facebook and Instagram through the ads that it requires users to watch and the data it collects from users for targeted advertising. *See* PX9000, Hemphill Report at ¶¶ 73-75.

Meta Response: Disputed in part. Undisputed that Meta generates revenue (and is profitable) from the sale of advertisements shown on Facebook and Instagram, among other revenue streams. *See* Meta SMF ¶ 132 (quoting Ex. 325 at 7 (Meta 2023 Form 10-K)). Disputed that the statement creates a genuine dispute of material fact, including because there is no evidence Meta "requires" consumers to watch advertising; they can skip past ads. The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed that Meta provides "PSN services" as a type of service or app; Meta provides consumers free access to Facebook, Instagram, and WhatsApp, which are services for consuming entertaining content, connecting with contacts and other users the consumer might not know personally, and engaging in many other activities. *See* Meta SMF § I.A.1.a (describing Facebook), § I.A.1.b (describing Instagram), § I.A.1.d (describing WhatsApp); *see also id.* at ¶¶ 582-584 (listing activities available on Facebook and Instagram). Further disputed to the extent the statement suggests that Meta separately profits through data collection independent of showing users relevant and high-quality advertisements; the statement cites no evidence to support that claim.

1439. Substantially all of Meta's revenues and profits come from the ads its serves to users of Facebook and Instagram. PX9000, Hemphill Report at ¶ 76; *see also* PX9007, Hemphill Rebuttal Report at ¶¶ 164-66.

Meta Response: Undisputed.

a. Meta earns almost all of its revenue from advertising on its Family of Apps. PX6185, Li (Meta) Dep. Tr., at 212:25-213:3 ("Q. Currently Meta generates substantially all of its revenues from selling advertising placements on Facebook and Instagram, right? A. Yes, that's right."); PX9000, Hemphill Report at ¶ 57, Ex. 1 (summarizing financial information from Meta's 10-K filings from 2012 through 2022 and Meta's Form S-1, filed February 1, 2012); PX9007, Hemphill Rebuttal Report at ¶ 70.

Meta Response: Undisputed.

b. Meta's Family of Apps includes Facebook, Instagram, Messenger, and WhatsApp. PX6185, Li (Meta) Dep. Tr., at 212:12-16.

Meta Response: Undisputed.

c. Meta earned advertising revenue of $7.0 billion in 2013; $11.5 billion in 2014; $17.1 billion in 2015; $26.9 billion in 2016; $39.9 billion in 2017; $55.0 billion in 2018; $69.7 billion in 2019; $84.2 billion in 2020; $114.9 billion in 2021; and $55.2 billion in the first half of 2022. PX9000, Hemphill Report at ¶ 76, Ex. 7 (summarizing Meta advertising revenue data from FB_FTC_CID_12190654 and FTC-META-011921400).

Meta Response: Undisputed.

d. Facebook and Instagram have accounted for more than [redacted] of Meta's ad revenue in every year since 2013. *Id.*

<u>Meta Response</u>: Undisputed that this statement is accurate through the first half of 2022.

e. In each year from 2015 through 2022, at least [redacted] of Meta's worldwide advertising revenue came from Facebook and Instagram in the United States. PX9007, Hemphill Rebuttal Report at ¶ 165, Ex. 6 (summarizing Meta advertising revenue data from FTC-META-003310472).

<u>Meta Response</u>: Undisputed.

1440. The percentage of ads served to users as a fraction of total items shown is the "ad load" of an application. PX6187, Li (Meta) IH Tr., at 31:4-17 ("Q. And what do you mean by 'ad load'? A. Ad load refers to the – the sort of percentage of content shown that is ads. Q. Do you know precisely how that's measured? A. It's a little different on each surface because, again, of the different ways that you might count stories or feed. So it's – there's not one general sort of very crisp formula that – that would give you an overall ad load number, but it's roughly in each surface in some way that accounts for the nature of how content is served on that surface, ad content as a percentage of – of overall content.").

<u>Meta Response</u>: Undisputed that this statement accurately describes one measure of "ad load."

1441. Meta is incentivized to maximize profits from its PSN services, which does not entail simply maximizing user engagement. *See* PX9000, Hemphill Report at ¶¶ 710-12.

Meta Response: Disputed in part. Undisputed that, as a general matter, Meta is incentivized to maximize profitability. Disputed that this statement – which is an economic truism unsupported by citation to evidence and with no relationship to the facts of this case – creates a genuine dispute of material fact regarding whether Meta maximizing profits entails maximizing user engagement. The facts show that it does. Meta generates revenue through user engagement with its services and cannot generate advertising revenue on Instagram and Facebook without user engagement with those services. *See* Ex. 2 at ¶ 16 (Carlton Rep.) ("Apps compete to attract user attention by offering attractive features, and many apps then monetize that attention through advertising. Without understanding the linkage between competition for additional minutes of user attention and how those minutes are monetized via advertising – which Prof. Hemphill fails to adequately analyze – one cannot understand the motivation for a firm's conduct. Recognition that firms are concerned about user attention leads to an understanding of why Meta keeps adding and copying features from other apps and *vice versa*, actions that do not make sense in Prof. Hemphill's allegedly monopolized, one-sided user market for friends and family sharing (his 'PSNS' market)."). Professor Hemphill testified when asked about how Facebook and Instagram generate revenues: "A. Yes, I would agree that Facebook and Instagram derive revenues from advertising. I emphasize that throughout my reports. Q. And generally speaking, as usage increases advertising revenues also increase, correct? . . . A. Yes, all else equal, I would agree that usage provides more slots against which advertising can be sold. That's one factor among – among many, but yes." Ex. 283 at 272:5-14 (Hemphill Dep. Tr.); Meta SMF ¶ 142 (FTC's proffered expert, Professor Aral, testified that, "to monetize eyeballs, you

have to retain those eyeballs," and "one of the ways that you retain eyeballs . . . is to keep the content on the platform engaging" (quoting Ex. 287 at 69:15-70:3 & errata (Aral Dep. Tr.))). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Users generally dislike ads, so imposing and raising ad load suppresses user engagement. *Infra* CMF at §§ II.C.3(a)(1)-(2); *see also* PX9000, Hemphill Report at ¶¶ 693, 695-96, 706-13; PX9007, Hemphill Rebuttal Report at ¶ 90.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1432 and 1441. Further disputed that users "generally dislike ads" or that "imposing and raising ad load" necessarily "suppresses user engagement," which the cited materials do not support. To the extent the statement incorporates the FTC's statements in Sections II.C.3(a)(1)-(2), Meta incorporates its responses to those statements here. Professor Hemphill testified that "the amount of disutility from ads would vary across users." Ex. 283 at 246:3-5 (Hemphill Dep. Tr.). Some users engage with advertising and obtain benefits from that engagement. *See* Ex. 2 at ¶¶ 132, 134 (Carlton Rep.). Further disputed because Professor Aral, the FTC's proffered advertising expert, has stated: "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value." Ex. 498 at 3 (MetaFTC-DX-1159).

b. Thus, Meta faces a tradeoff: raising ad load has the potential to increase revenue and profits through the revenue from the increased ad load, but that potential is offset by the reduced user engagement associated with higher ad load. *See*

PX9000, Hemphill Report at ¶¶ 695-96, 706-13; PX9007, Hemphill Rebuttal Report at ¶¶ 61-62, 91-93.

Meta Response: Disputed in part. Undisputed that, in determining ad load, Meta generally considers both incremental ad revenues and impact on engagement, including long-term impacts. Disputed for the reasons stated above in Meta's responses to paragraphs 1432 and 1441 and subparagraph 1441(a). Further disputed to the extent the statement implies that showing ads requires worsening the service for users. Some users engage with (and benefit from) advertising on Facebook and Instagram. *See* Ex. 2 at ¶¶ 132, 134 (Carlton Rep.).

c. Hence, to maximize profits, Meta must decide how much ad load to impose on users, and Meta's ability to impose higher (and higher) ad load on users is materially influenced by the extent to which users have other choices that serve demand for friends and family sharing. *See* PX9000, Hemphill Report at ¶¶ 181-84, 711-12, 1143-59; PX9007, Hemphill Rebuttal Report at ¶¶ 60-62, 73-74, 356-60, 733-35.

Meta Response: Disputed in part. Undisputed that one factor in setting ad load is user preference and "other choices" of services on which users can spend time, and that Meta generates substantially all of its revenue (and profits) from Instagram and Facebook by selling advertisements on those services. Disputed that this competitive constraint is limited only to "other choices that serve demands for friends and family sharing." Regarding whether Meta "[price] discriminates" against an asserted demand for friends and family content by increasing ad load for that asserted demand, Ex. 283 at 253:8-11 (Hemphill Dep.

Tr.), Professor Hemphill testified: "I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." *Id*. at 253:14-17; *see also* Meta SMF ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)). There is no evidence of price discrimination against friends and family sharing in the record. *See* Meta Resp. to Counter SMF ¶ 1504. Further disputed for the reasons stated above in Meta's responses to paragraphs 1432 and 1441 and subparagraphs 1441(a) and 1441(b).

d. Because Meta acquired Instagram (a significant competitor) and WhatsApp (a significant potential competitor), Meta can impose higher ad load on users of Facebook and Instagram with less fear of competitive discipline, as Meta knows consumers have limited options for PSN services. *See* PX9000, Hemphill Report at ¶¶ 181-84, 711-12, 1143-59; PX9007, Hemphill Rebuttal Report at ¶¶ 60-62, 73-74, 356-60, 733-35.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1432 and 1441 and subparagraphs 1441(a) and 1441(c), and because this statement uses vague and conclusory terms, including "significant" in characterizing pre-acquisition actual or potential competition between Facebook and Instagram or WhatsApp. Further disputed that Meta can impose high ad load "with less fear of competitive discipline" because of the Instagram and WhatsApp acquisitions; this statement points to no evidence in support of that claim. In fact, Professor Hemphill conceded both that he did not identify "any competitive benchmark for Meta's level of ad load," Meta SMF ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted]

[redacted] PX9000 at ¶ 716 (Hemphill Rep.). He also testified: "[A]d load being above competitive levels is not the way that I think about it." Ex. 283 at 244:2-4 (Hemphill Dep. Tr.). Moreover, Facebook's and Instagram's ad loads at times have been similar to the ad loads of [redacted] and consistently have been lower than [redacted] ad load. *See* Meta SMF [redacted]. In addition, Professor Hemphill found that [redacted]. *See* PX9000 at ¶ 719, Ex. 54 (Hemphill Rep.). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1442. Similarly, there are multiple other dimensions of quality for serving demand for friends and family sharing—with Meta's profits impacted by how much or how little Meta is willing to invest in those dimensions to improve the user experience. *Infra* CMF at §§ II.C.2, II.C.3(b), II.C.3(c), IV.B.1, IV.B.3, IV.C.1, IV.C.3-6; *see also* PX9000, Hemphill Report at ¶¶ 761, 1070-73; PX9007, Hemphill Rebuttal Report at ¶¶ 61-62, 350, 355-60, 729-39.

Meta Response: Disputed in part. Undisputed that there are multiple dimensions of quality for Meta's services. Disputed that this conclusory statement – which cites entire sections of the Counterstatement and multiple scattered paragraphs from Professor Hemphill's reports, without explanation, elaboration, or reference to record material – creates a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Sections II.C.2, II.C.3(b), II.C.3(c), IV.B.1, IV.B.3, IV.C.1, and IV.C.3-6, Meta incorporates its responses to those statements here. Further disputed that

there is a straightforward or predictable relationship between investment in quality dimensions and profits, and for the reasons stated above in Meta's response to paragraph 1432.

a. These dimensions of quality include, for example, the extent of features that foster friends and family sharing and friend content; privacy, including how much data and information Meta tracks and collects about its users, and whether it breaches users' trust and expectations about how it is using that data; overall ease of use of the apps; and integrity, such as how much abusive content appears on the apps. *Infra* CMF at §§ II.C.3(b), II.C.3(c), IV.B.1, IV.B.3, IV.C.1, IV.C.3-6; *see also* PX9000, Hemphill Report at ¶¶ 761-76, 778, 785-86, 1160-92; PX9007, Hemphill Rebuttal Report at ¶¶ 67-68, 728-38, 755-80.

Meta Response: Disputed in part. Undisputed that the factors described in this statement are among those that might affect the quality of Meta's services for particular users depending on individualized preferences. Disputed that the FTC has defined or measured any of the foregoing quality dimensions or the overall quality of Meta's services (let alone against a competitive benchmark). Professor Hemphill testified regarding the quality of Meta's services: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." Meta SMF ¶ 129 (quoting Ex. 283 at 232:17-233:2 (Hemphill Dep. Tr.)). To the extent the statement incorporates statements in Sections II.C.3(b), II.C.3(c), IV.B.1, IV.B.3, IV.C.1, and IV.C.3-6, Meta

incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 1432.

b. Meta's profits are impacted by how much—or how little—Meta incurs in costs and investment to make these dimensions of quality better for users. *See* PX9000, Hemphill Report at ¶¶ 686, 761, 1127; PX9007, Hemphill Rebuttal Report at ¶¶ 62, 350, 355-60, 729-38.

Meta Response: Disputed in part. Undisputed that costs and investment impact profits. The evidence shows that, to attract and maintain user engagement, Meta has invested massively in the quality of its services. *See* Meta SMF ¶¶ 17, 126, 151-153, 710, 739-747, 755-762. Disputed that the impact of incurring costs or making investments on profits is straightforward or predictable. Further disputed for the reasons stated above in Meta's responses to paragraph 1432 and subparagraph 1442(a).

c. With consumers having limited PSN options, Meta faces relatively inelastic demand for its product with respect to these dimensions of quality. PX9007, Hemphill Rebuttal Report at ¶¶ 344-48. Therefore, Meta can subject users of Facebook and Instagram to reduced quality along these dimensions, thus lowering its costs and increasing profit. *Id.*

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1432. Further disputed that Meta can generate profits by worsening or lessening the quality of its services; the materials cited do not support that proposition. The above-cited five paragraphs from Professor Hemphill's rebuttal report do not themselves cite to any record materials (other

than other expert reports). The FTC has not compared the quality of Meta's services to any competitive level. Regarding app quality, specifically ad load, Professor Hemphill testified: "Q. . . . You don't identify any competitive benchmark for Meta's level of ad load, correct? . . . A. I don't know what you mean by a competitive benchmark for ad load, what that would mean or what purpose that would serve." Meta SMF ¶ 146 (quoting Ex. 283 at 242:13-18 (Hemphill Dep. Tr.)). Professor Hemphill also testified that Meta adding features (like Stories and Reels) was a "quality improvement." *Id*. at ¶ 127 (quoting Ex. 283 at 231:20-232:4 (Hemphill Dep. Tr.)). Professor Hemphill testified regarding the quality of Meta's services: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." *Id*. at ¶ 129 (quoting Ex. 283 at 232:17-233:2 (Hemphill Dep. Tr.)). Further disputed to the extent the above statement implies a separate demand for undefined "friends-and-family sharing" that Meta exploits for profit; there is no evidence to support such a claim. Professor Hemphill testified: "I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." Ex. 283 at 253:14-17 (Hemphill Dep. Tr.); *see also* Meta SMF ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)). There is no evidence of "price discrimination" against friends and family sharing in the record. *See* Meta Resp. to Counter SMF ¶ 1504. Further disputed that Professor Hemphill has measured (or proposed a

way to measure) the elasticity of demand for Meta's services based on changes in quality; when asked, "if I wanted to find quantitative evidence of substitution in response to any change in quality in your report, where would I look," Professor Hemphill testified, among other things, "I have not done an analysis of that kind." Ex. 283 at 143:12-144:4 (Hemphill Dep. Tr.). The FTC's use of "PSN" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1443. Moreover, even the price of "zero" that Meta charges is not necessarily indicative of a "low" price, because with more competition Meta might offer user rewards. *See* PX9000, Hemphill Report at § 4.4.4; PX9007, Hemphill Rebuttal Report at § 3.5.5; *see also* PX0684, *Final Report: Completed acquisition by Facebook, Inc (now Meta Platforms, Inc) of Giphy, Inc.*, Competition and Mkts. Auth., at ¶ 5.151 (Nov. 30, 2021), https://assets.publishing.service.gov.uk/media/61a64a618fa8f5037d67b7b5/Facebook__Meta__GIPHY_-_Final_Report_1221_.pdf ("In addition, as discussed in the Market Study, whilst Facebook's social media services are provided at zero monetary price, it is plausible that the price charged in more competitive circumstances would be negative, with consumers rewarded for their engagement with the service because of the user-level data they provide in so doing.").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because it identifies no service that attracts users by offering engaging content that also provides "rewards" to users simply for engaging with that content; it merely speculates, without evidence, that such "rewards" might have come into being for the first time in response to "more competition"; it relies on entire sections

of Professor Hemphill's reports without elaboration, explanation, or reference to the materials he relies upon; and it references a Competition and Market Authority's report on a putative acquisition not at issue in this case.

a. Meta executives have had internal conversations about [redacted]. PX9000, Hemphill Report at ¶¶ 1191-92; *see also* PX12664, Meta presentation, "[redacted]" (Sept. 15, 2020), FTC-META-002385695, at -725; PX6084, Hegeman (Meta) Dep. Tr., at 197:11-198:17 (admitting that [redacted]); PX12666, Meta email chain: [redacted] to C. Cox, et al. re: "[redacted] Check-in," (Mar. 10, 2021), FTC-META-010014631, at -631 (describing [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that Meta executives have discussed other proposals related to [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1443, and because Meta has rewards programs for professional content creators as part of competition with TikTok, YouTube, and other services. *See* Ex. 2 at § III.C.4 (Carlton Rep.). Further disputed that Meta [redacted]. No app that monetizes user time and attention by selling advertisements has ever implemented such a program. *See id.* at ¶¶ 325-328. The material the FTC cites does not suggest otherwise; PX12664 clarifies that "[redacted]"

would entail a "[redacted]" that "[redacted]" PX12664 at -700 (FTC-META-002385693); *see also id.* at -725 (page the FTC cites above; referring to [redacted]).

b. John Hegeman, Meta's Vice President of Monetization, described discussions at Meta about [redacted] PX6084, Hegeman (Meta) Dep. Tr., at 7:15-16, 195:2-6, 196:11-16.

<u>Meta Response</u>: Disputed in part. Undisputed that Mr. Hegeman provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1443 and subparagraph 1443(a), and because the statement omits important context from Mr. Hegeman's testimony, which was not that [redacted] PX6084 at 195:9-16 (Hegeman Dep. Tr.). Regarding [redacted] *Id.* at 196:19-20.

c. Mr. Hegeman also stated that Meta [redacted]. PX6084, Hegeman (Meta) Dep. Tr., at 197:11-198:17.

Meta Response: Disputed in part. Undisputed that Mr. Hegeman testified: "[redacted]" PX6084 at 197:11-17 (Hegeman Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraph 1443 and subparagraph 1443(a).

1444. Extensive evidence indicates that the elimination of the competitive threats posed by Instagram and WhatsApp has incentivized Meta to raise the quality adjusted price of its PSN offerings to the detriment of consumers, as reflected in declining user sentiment. The higher quality adjusted price is reflected in increased ad load as well as limited investment in other dimensions of quality, both of which raise Meta's profits when it faces reduced PSN competition. *Infra* CMF at §§ II.C.2-7.

Meta Response: Disputed. Disputed that this conclusory statement, which asserts legal conclusions, not facts, creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated above in Meta's response to paragraph 1432. To the extent the statement incorporates the FTC's statements in Sections II.C.2-7, Meta incorporates its responses to those statements here. Further disputed that user sentiment surveys provide a measure of quality; the surveys the FTC references measure brand reputation – which many factors can change – not service quality by any objective

measure. *See* Ex. 2 at ¶¶ 168-171 (Carlton Rep.). Regarding app quality, Professor Hemphill testified regarding the number of advertisements that consumers see on Facebook and Instagram: "Q. . . . You don't identify any competitive benchmark for Meta's level of ad load, correct? . . . A. I don't know what you mean by a competitive benchmark for ad load, what that would mean or what purpose that would serve." Meta SMF ¶ 146 (quoting Ex. 283 at 242:13-18 (Hemphill Dep. Tr.)). Professor Hemphill also testified that Meta adding features to Instagram (like Stories and Reels) was a "quality improvement." *Id*. at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Professor Hemphill testified regarding the quality of Meta's services: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." *Id*. at ¶ 129 (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)). The FTC's use of "PSN" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

2. Meta's sustained high profits are direct evidence of its monopoly power over PSN services in the United States.

1445. Meta's ability to earn high economic profits and sustain those profits over many years reflects Meta's exercise of monopoly power over PSN services in the United States. *Infra* CMF at § II.C.2-7; *see* PX9000, Hemphill Report at ¶¶ 683-789; PX9007, Hemphill Rebuttal Report at § 2.1.6.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432 and 1444, and because the statement makes conclusory assertions, including legal

conclusions regarding the claimed relevant market – for "PSN services" – as well as the presence of monopoly power. To the extent this statement incorporates the FTC's statements in Sections II.C.2-7, Meta incorporates its responses to those statements here. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a) Meta has earned sustained high economic profits for a long period of time, which indicates monopoly power.

1446. Meta has earned high economic profits for many years, which indicates monopoly power. *Infra* CMF at §§ II.C.2(a)-(b).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432 and 1444, and because the statement makes conclusory assertions, including a legal conclusion regarding the claimed presence of monopoly power. To the extent the statement incorporates the FTC's statements in Sections II.C.2(a)-(b), Meta incorporates its responses to those statements here. Meta earns its revenues (and generates profits) from displaying advertising, where it is an innovator. *See* Meta SMF ¶¶ 132-133, 143. Innovation and increasing output can generate profits. *See* Ex. 2 at pp. 130-131, figs. 12 & 13 (Carlton Rep.) (advertising output); Meta SMF ¶¶ 724-725, 729-734 (user-side output is increasing).

1447. A firm is earning positive economic profits if its internal rates of return are above a benchmarked weighted average cost of capital. PX9009, Hearle Rebuttal Report at ¶ 89 ("[W]here IRRs [internal rates of return] are persistently high when benchmarked against WACC [weighted average cost of capital], a firm[] is showing high economic profits."); PX9005, Hearle Report at ¶ 79; PX0566, Franklin M. Fisher & John J. McGowan, *On the*

Misuse of Accounting Rates of Return to Infer Monopoly Profits, 73 Am. Econ. Rev. 82, 82 (1983) ("It is an economic rate of return (after risk adjustment) above the cost of capital that promotes expansion under competition and is produced by output restriction under monopoly," and "it is the economic rate of return that is equalized within an industry in long-run industry competitive equilibrium[.]"); *see also* PX9009, Hearle Rebuttal Report at ¶ 88 ("A firm's own risk-adjusted cost of capital, or WACC, is the appropriate benchmark for gauging whether the firm is earning economic profits.").

Meta Response: Undisputed.

1448. Meta's economic expert, Professor Dennis Carlton, agreed that economic profits are related to "earning an excess rate of return" on capital "above the competitive level." PX6179, Carlton (Meta) Dep. Tr., at 29:21-30:6 ("If you want to define economic profits, you should use the normal rate of return on capital when you calculate the implicit rental price of capital in order to determine whether there's economic profits. So there's a relationship between economic profits and whether you're earning an excess rate of return above the competitive level.").

Meta Response: Undisputed that the witness provided the quoted testimony.

1449. The ability to earn sustained high economic profits over many years, without entry eroding the economic returns, is strong evidence of substantial market power. PX9000, Hemphill Report at ¶ 35.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the terms "high," "many years," and "substantial market power" are vague and undefined, and for the reasons stated above in Meta's responses to paragraphs 1432, 1444, and 1446. Further disputed because the statement omits context

from the cited paragraph of Professor Hemphill's report, which states that such profits "could in principle be the result of market power over users, market power over advertisers, or both." PX9000 at ¶ 35 (Hemphill Rep.).

1450. Indeed, sustained positive economic profits meets Professor Carlton's textbook definition of monopoly power.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they omit important context regarding the distinction between economic and legal definitions of power – as Professor Carlton testified. *See* PX6179 at 155:17-156:14 & errata (Carlton Dep. Tr.) ("[I]n my textbook, . . . I'm fairly certain I'm not using the legal definition of monopoly power. I'm fairly certain I'm using my economic definition of monopoly power. My economic definition of market power is price above marginal cost.").

a. Professor Carlton has authored a textbook with Jeffrey Perloff titled Modern Industrial Organization. PX6179, Carlton (Meta) Dep. Tr., at 12:11-15; *see also* PX15355, Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization (Addison-Wesley, 4th Ed. 2005). Professor Carlton considers his textbook Modern Industrial Organization to be a leading textbook in the field of industrial organization economics. PX6179, Carlton (Meta) Dep. Tr., at 12:16-19.

Meta Response: Undisputed.

b. Professor Carlton testified that economic profits are defined as earnings above a competitive rate of return. PX6179, Carlton (Meta) Dep. Tr., at 27:17-20.

Meta Response: Undisputed.

c. Professor Carlton testified that his textbook Modern Industrial Organization indicates a firm with monopoly power is able to earn positive economic profits in the long run, while a competitive firm is not. PX6179, Carlton (Meta) Dep. Tr., at 28:2-12; *see also* PX15355, Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization, at 119 (Addison-Wesley, 4th Ed. 2005) ("Not all firms that earn profits are monopolies, and not all monopolies earn profits. Just like a competitive firm, a monopoly can make either profits or losses the short run. However, unlike a competitive firm, a monopoly can earn positive profits in the long run.").

Meta Response: Disputed in part. Undisputed that the cited textbook nearly includes the quoted language; the textbook states that "a monopoly can make either profits or losses in the short run" (the FTC omitted "in" from the passage). PX15355 at 119 (Carlton & Perloff, *Modern Industrial Organization*). Disputed for the reasons stated above in Meta's response to paragraph 1450.

1451. Meta's economic expert Professor List also explains that sustained economic profits are evidence of monopoly power in his microeconomics textbook. PX0567, John List et al., Microeconomics 318 (2d ed. 2016) ("As we discussed earlier, in perfectly competitive markets entry causes long-run economic profits to be zero. With a monopoly, economic profits remain. This is because there is no threat of entry from competitors because of barriers to entry. Therefore, there are no new entrants to increase supply and push price down to eliminate economic profits.").

Meta Response: Disputed in part. Undisputed that the cited textbook contains the quoted language. Disputed that the statement creates a genuine dispute of material fact,

including because the paraphrasing of the quotation is inaccurate and missing context. The quoted passage does not refer to "monopoly power."

1452. Meta has earned sustained positive economic profits over many years. Indeed, Meta's average annual rate of return on its investments has substantially exceeded its weighted average cost of capital throughout its life as a company, indicating that Meta has been highly profitable. PX9005, Hearle Report at ¶¶ 75, 93; PX9009, Hearle Rebuttal Report at ¶¶ 88-89.

Meta Response: Disputed in part. Undisputed that Meta has earned positive economic profits over several years. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432, 1444, and 1446.

a. Since its inception, Meta's average annual rate of return on its investments has ranged from [redacted]. PX9005, Hearle Report at ¶¶ 76-77, 85-86, 89-90.

Meta Response: Undisputed that the cited report calculates these figures.

b. The annual weighted average cost of capital for Meta averaged [redacted] between 2004 and 2023. PX9005, Hearle Report at ¶¶ 91-92.

Meta Response: Undisputed that the cited report calculates these figures.

1453. Professor Carlton does not dispute Mr. Hearle's findings that Meta has earned sustained positive economic profits.

Meta Response: Disputed in part. Undisputed that Professor Carlton does not dispute the calculations showing Meta has earned positive economic profits. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material

fact, including for the reasons stated above in Meta's responses to paragraphs 1432, 1444, and 1446, and in Meta's responses to the subparagraphs below.

a. Professor Carlton does not dispute that Meta earns positive economic profits. PX6179, Carlton (Meta) Dep. Tr., at 32:18-33:5 ("Q. And when you say you're not disputing that Meta has high profits, you're not disputing that Meta is earning positive economic profits; correct? A. As I sit here now, I have no intention of disputing that at trial. As I said, I have not done a detailed analysis of their rate of return. It just seems to me that for the opinions I'm going to give I'm not going to say that one way or another.").

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Professor Carlton did not dispute the opinion of Mr. Kevin Hearle that Meta has earned an average annual rate of return substantially in excess of its estimated average cost of capital. *Id.* at 31:12-22.

Meta Response: Disputed in part. Undisputed that Professor Carlton did not dispute the calculations in the FTC's proffered expert report as stated in this paragraph. Disputed that this statement creates a genuine dispute of material fact, including because the FTC's paraphrasing of Professor Carlton's testimony omits context: "Q. In your report you did not dispute that finding of Mr. [Hearle]; correct? A. Right. But I go further. I thought I had said in my report that Facebook has earned very high profits, and that is a reflection together with all the consumer surplus it's generating, the firm is producing a highly valued product. No question about that." PX6179 at 31:20-32:5 & errata (Carlton Dep. Tr.).

Further disputed for the reasons stated above in Meta's responses to paragraphs 1432 and 1444.

c. Professor Carlton does not dispute that Meta has earned an internal rate of rate of return in excess of its weighted average cost of capital since 2004. *Id.* at 32:6-33:12 ("Q. And you likewise did not dispute Mr. Hurl's [sic] calculation that Meta had earned an internal rate of return in excess of its weighted average cost of capital since inception, meaning from 2004; correct? A. I would say I haven't gone through and done a detailed analysis of the internal rate of return of Meta. On the other hand, as I've said, I'm accepting the proposition that Meta has high profits. I'm not planning on disputing that; and as my report says, Meta is a very successful firm and has brought great value to consumers. . . . Q. But you understood that Mr. [Hearle] was doing such an evaluation, and you did not dispute any part of his evaluation; correct? A. That's fair. I am aware that there are other witnesses, Meta witnesses, and they might say something about these calculations, but I'm not planning on it.").

<u>Meta Response</u>: Undisputed that Professor Carlton provided the quoted testimony.

d. Professor Carlton testified that Meta has earned high profits. PX6179, Carlton (Meta) Dep. Tr., at 32:6-17, 33:6-12; *see also* PX9019, Carlton Report at ¶ 122 ("To be clear, I am not contesting, *e.g.*, that Meta has earned high profits.").

<u>Meta Response</u>: Undisputed that Professor Carlton's report contains the quoted language.

1454. To put in perspective the differential between Meta's average annual rate of return and annual weighted average cost of capital, Mr. Hearle stated:

> when grown at an annual rate of [redacted] for ten years, an investment of $1 is worth about [redacted]. If it grows at [redacted] per year for ten years, the $1 would be worth only about [redacted], or about [redacted] less than if it grew at an annual rate of [redacted]. Alternatively, the value of an investment that grows at [redacted] per year doubles in about [redacted] years. At [redacted] this doubling takes around [redacted] years.

PX9005, Hearle Report at ¶ 94 (citations omitted).

<u>Meta Response</u>: Undisputed that Mr. Hearle offered the quoted opinion.

1455. Mr. Hearle also compared Meta's annual rate of rate with average returns experienced in the U.S. stock market to demonstrate Meta's economic profits were high:

> Since 2004 when Meta was incorporated, the S&P 500 Index, a commonly referenced stock market index that tracks the performance of large-cap U.S. equities, has generated an average return of about 9.5% per year. [redacted]

PX9009, Hearle Rebuttal Report at ¶ 92 (citations omitted).

<u>Meta Response</u>: Undisputed that Mr. Hearle offered the quoted opinion.

1456. A research note compiled by Morgan Stanley indicates that, when compared with the largest 3,000 U.S. public companies (excluding the financial and real estate industries), only three firms had higher net operating profits after tax than Meta as of 2022. PX9007, Hemphill Rebuttal Report at ¶ 162.

<u>Meta Response</u>: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because it relies on a statement in Professor Hemphill's expert report that mischaracterizes the referenced Morgan Stanley research note. *See* PX9007 at ¶ 162 n.189 (Hemphill Rebuttal Rep.) (with hyperlink to research note). That research note from Morgan Stanley states that the researchers excluded certain industries and were

missing other data; therefore the study included only 1,600 to 2,100 firms in the Russell 3000 index. The research note nowhere concludes that only three firms had higher net operating profits after tax than Meta as of 2022; instead, the note observes (at p.27) that in 2022, Meta ranked 4th of 34 selected firms in "10-Year Aggregate NOPAT Margin," not in annual net operating profits after tax. The research note also shows (at p. 5) that, between 1990 and 2022, returns on invested capital in the "Internet Software & Services" industry exhibited a much broader "dispersion" between the 20th and 80th percentiles than nearly every other studied industry. Accordingly, "the ability of firms like Meta to generate profits and earn returns above their cost of capital is a widely occurring phenomenon not explained by anticompetitive behavior." PX9021 at ¶ 39 (Fischel Rep.).

1457. The U.K. Competition and Markets Authority published a study in 2020 finding that Meta was considerably more profitable than other publicly traded social media providers, including Snapchat and Twitter. PX9000, Hemphill Report at ¶ 690.

Meta Response: Disputed in part. Undisputed that the cited study found that Meta generated more profits than Twitter and Snap between 2016 and 2019. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432, 1444, and 1449.

1458. From the third quarter of 2017 through the second quarter of 2022, [redacted]. PX9000, Hemphill Report at ¶ 691, Ex. 51 (including chart based on [redacted]).

Meta Response: Undisputed.

1459. Meta's cumulative operating income has totaled more than $200 billion since 2007. PX9000, Hemphill Report at ¶ 57, Ex. 1 (summarizing financial information from Meta's 10-K filings from 2012 through 2022 and Meta's Form S-1, filed February 1, 2012).

Meta Response: Undisputed.

1460. Meta's cumulative gross margin from 2011 to 2022 was [redacted]%. PX9007, Hemphill Rebuttal Report at ¶ 168.

Meta Response: Undisputed.

1461. Meta's cumulative operating profit from 2011 to 2022 was [redacted]%. PX9007, Hemphill Rebuttal Report at ¶ 169.

Meta Response: Undisputed.

1462. Meta's cumulative gross margin is [redacted] from 2011 to 2022 ([redacted]%) than in the period from 2007 to 2010 ([redacted]%). PX9007, Hemphill Rebuttal Report at ¶ 168. Meta's cumulative gross margin is also [redacted] since the WhatsApp acquisition, than in the period before ([redacted]% v. [redacted]%). *Id.*

Meta Response: Undisputed.

1463. Meta's cumulative operating profit is [redacted] from 2011 to 2022 ([redacted]%) than in the period from 2007 to 2010 ([redacted]%). PX9007, Hemphill Rebuttal Report at ¶ 169. This rate is also [redacted] since the WhatsApp acquisition than in the period before ([redacted]% v. [redacted]%). *Id.*

Meta Response: Undisputed.

b) Meta's ability to sustain exceptionally high profits is due to its exercise of monopoly power over users of Facebook and Instagram.

1464. In principle, Meta's economic profits could be the result of market power over users, market power over advertisers, or both. PX9000, Hemphill Report at ¶ 35.

Meta Response: Disputed in part. Undisputed that Meta has earned economic profits. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432, 1444, and 1446.

1465. Although Meta does not charge a monetary price to users of Facebook and Instagram, it earns profits through advertising shown to users of those services. *Supra* CMF at ¶¶ 1437-39; PX9000, Hemphill Report at ¶ 73.

Meta Response: Undisputed.

1466. As with other ad-supported media, customers "pay" for the use of Facebook and Instagram by making themselves available to see advertisements that they otherwise would not seek out and consume. PX9000, Hemphill Report at ¶ 73.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether being shown ads on Facebook or Instagram is akin to a price consumers "pay" to use those services. Unlike paying a monetary price, users can skip past advertisements, and advertising is content with which consumers can engage – benefiting consumer welfare. *See* Ex. 2 at ¶¶ 133-138 (Carlton Rep.); *see also* Ex. 4 at ¶ 49 (Tucker Rep.). Consumers have varied preferences regarding ads, as Professor Hemphill testified: "Q. You'd agree that individuals vary in their receptivity to ads? . . . A. Yes, I think that's – I think that's right. In the discussion of – yes, I think that there's some evidence in the record about differences in user receptivity to ads, yes." Meta SMF ¶ 148 (quoting Ex. 283 at 245:7-13 (Hemphill Dep. Tr.)). He also testified: "Q. . . . Some individuals have a greater disutility associated with seeing ads than other users; is that fair? . . . A. Yes, I would – I would expect that – the amount of disutility from ads would vary across users." *Id.* (quoting Ex. 283 at 245:21-246:5 (Hemphill Dep.

Tr.)). Further disputed because the FTC's proffered advertising expert, Professor Aral, has stated: "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value." Ex. 498 at 3 (MetaFTC-DX-1159).

1467. Meta's imposition of ad load on users shows that Meta's high profits stem in important part from its exercise of market power over users. PX9000, Hemphill Report at ¶¶ 36-39, § 3.3.2; PX9007, Hemphill Rebuttal Report § 2.1.3.

Meta Response: Disputed. Disputed that the fact Meta shows ads and the fact that Meta is profitable together create a genuine dispute of material fact regarding whether Meta has market power over users. Observing theoretical reasons that Meta might generate profit does not create a genuine dispute of material fact, whereas the evidence shows that Meta earns its revenues (and generates profits) from displaying advertising, where it is an innovator. *See* Meta SMF ¶¶ 132-133, 143. Innovation and increasing output can generate profits. *See* Ex. 2 at pp. 130-131, figs. 12 & 13 (Carlton Rep.) (advertising output); Meta SMF ¶¶ 724-725, 729-734 (user-side output). Further disputed on the ground that the FTC does not assert that ad load on Meta's apps is higher than the competitive level; in fact, Professor Hemphill acknowledged that he did not identify "any competitive benchmark for Meta's level of ad load," Meta SMF ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted] PX9000 at ¶ 716 (Hemphill Rep.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1446, and 1466.

1468. Meta's ability to profitably raise ad load on users over time, including its [redacted], shows that

Meta's high profits and their persistence over time are due in important part to Meta's exercise of market power over users of Facebook and Instagram. PX9000, Hemphill Report at ¶ 716; PX9007, Hemphill Rebuttal Report at ¶ 85.

Meta Response: Disputed. Disputed that the fact Meta shows ads and the fact that Meta is profitable together create a genuine dispute of material fact regarding whether Meta has market power over users. Further disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, and 1466-1467. Further disputed that citing two conclusory paragraphs from Professor Hemphill's report – without explanation or context – can create a genuine dispute of material fact. Further disputed that there is any evidence to support the statement that [redacted]." The evidence instead demonstrates that Meta adjusts ad load to reflect user preference, which is pro-competitive. *See* PX6185 at 110:14-111:10 & errata (Li Dep. Tr.) ("[W]e have come to understand that people have vastly different preferences about ads, and depending on whether you are more like me and find ads to be sort of a great part of the experience, you would like to see more – I could probably see more, frankly, than I do – that, you know, means that I'm a good candidate for seeing more ads, and there are people who don't feel that way, and those people are good candidates for seeing fewer ads. And we've adapted the ad system now to try and deliver the right number and the appropriate ads to each person."). Such price discrimination is ubiquitous in competitive markets. Further disputed on the ground that the statement has no relationship to the FTC's claim of power in the relevant market it has alleged. When asked, "[s]o it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing," Professor

Hemphill testified, "I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." Meta SMF ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)). Professor Hemphill did not even measure demand elasticity: "Q. . . . You could measure directly a user's demand for friends and family sharing, yes or no? . . . A. I don't know what you have in mind about directly measuring the demand for friends and family sharing. So at this level of generality I'm not sure whether I could or not." Ex. 283 at 251:11-18 (Hemphill Dep. Tr.). There is no evidence in the record that Meta "price discriminates" against friends and family sharing. *See* Meta Resp. to Counter SMF ¶ 1504.

a. Ads on Facebook and Instagram effectively function as a tax on users. PX6029, Zuckerberg (Meta) IH Tr., at 193:22-23 ("And you've referred to ads as a tax; right? A. I have."); *see also infra* CMF at § II.C.3(a)(1).

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the FTC's characterization of Mr. Zuckerberg's testimony is misleading and incomplete:

> Q. And you've referred to ads as a tax; right?
>
> A. I have. Although, I think it's worth noting that – that I think as the company has made progress on making the ads more relevant, my attitude towards it has shifted, where I think I used to be quite negative on this, and, over time, I view this as an area where we can provide some good experiences. And I do routinely hear from people that they feel like the quality of the ads is – is – are quite relevant and that they find interesting content from creative entrepreneurs and people building interesting products through them.

PX6029 at 193:22-194:9 (Zuckerberg IH Tr.). Later, Mr. Zuckerberg underscored that "[t]he appropriate ad load is some combination, not just of in the number of ads but of the quality of ads," and explained that "as the quality improves, you

can show more ads and actually have it be even less of a tax on the experience, whereas if the ads are very low quality you can show relatively few and they can really bother people. So I don't think ad load by itself is the right – is solely the measure to focus on." *Id.* at 196:2-12.

b. The burden of the ad tax increases with the volume of ads that a user is subjected to as a proportion of total content consumed because consumers generally prefer fewer ads to more ads. PX9000, Hemphill Report at ¶ 73; *see also* PX6008, Cunningham (Meta) IH Tr., at 177:13-178:3 ("Q. Does this mean that advertising load functions similarly to a tax on the user experience? A. I think you'll find, in the economic literature on advertising, there's commonly a formal similarity between the effect of ad load on consumption and the effect of tax rate on revenue raised. Q. Okay. Is another way of saying this that additional advertisements degrade the user experience? A. I think another way of saying that is that, in typical circumstances, showing more ads to users, holding all else equal, will tend to decrease the amount of time the users spend on the app.").

Meta Response: Disputed in part. Undisputed that Mr. Cunningham provided the quoted testimony and that some users prefer fewer ads to more ads. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the FTC's quotation of Mr. Cunningham's testimony also is misleading and inaccurate; Mr. Cunningham *disagreed* "that increased ad load will cause engagement to decline even if high-quality ads are used." PX6008 at 162:12-16 (Cunningham IH Tr.).

c. The revenue that Meta generates from ads is a function of the ad load, the amount of Facebook and Instagram services consumed by a user, and the revenue per ad. PX3374 at -004, Meta presentation: "'Supply' and Monetization Trends on Facebook App" (June 2022), FTC-META-005125484 (showing components of ad revenue as the product of [redacted]); *see also* PX2972, Meta presentation: "Ads Sentiment and Supply" (2019), FB_FTC_CID_10801113, at 117-18 (showing [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the documents support that the components of ad revenue from Facebook and Instagram include the amount of advertising shown to users and the amount of user engagement, and that ad revenue can be expressed as a function of ad load, usage, and revenue per ad as an arithmetic matter. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the FTC's paraphrasing of the documents is incomplete. The documents emphasize that another important factor is "investing in ads quality and delivery personalization," PX3374 at -004 (FTC-META-005125484), to increase "ad engagement" and user engagement, PX2972 at -131 (FB_FTC_CID_10801113); *see also id.* at -114 ("[redacted]").

d. Meta has increased ad load over time. PX9000, Hemphill Report at ¶¶ 718-21; *see also infra* CMF at § II.C.3(a)(3).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the material cited does not support the statement that Meta has increased ad load over time – a vague and conclusory assertion that does not specify the time period or service(s) at issue. For example, the cited material from Professor Hemphill's report shows that [redacted]. *See* PX9000 at ¶ 719 & Ex. 54 (Hemphill Rep.). To the extent this statement incorporates the FTC's statements in Section II.C.3(a)(3), Meta incorporates its responses to those statements here.

e. Increases in ad load have played a central role in increasing Meta's ad revenue over time. PX9000, Hemphill Report at ¶ 722.

Meta Response: Disputed in part. Undisputed that, over the course of Meta's history, increases in ad load have played a role in increasing Meta's ad revenue. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the term "central role" is vague and ambiguous; many factors – including improvements in the quality of advertising, better user personalization of that advertising, and increasing user engagement – also account for increases in ad revenue over time. *See* Ex. 2 at ¶¶ 160-167 (Carlton Rep.); PX9000 at ¶ 713 (Hemphill Rep.) (conceding that "[l]ow ad quality tends to reduce the number of ads served" and that "[redacted]," among other

factors); *see also* PX9000 at ¶ 726 (Hemphill Rep.) (acknowledging evidence "that ad quality has increased over time").

i. Between the third quarter of 2014 and the [redacted], Meta's ad revenue increased [redacted]. PX9000, Hemphill Report at ¶ 723. [redacted]. PX9000, Hemphill Report at ¶ 723.

Meta Response: Disputed in part. Undisputed that Professor Hemphill calculated that Meta's ad revenue increased [redacted] between the third quarter of 2014 and [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the cited material from Professor Hemphill's report does not assert that ad load on Meta's services exceeds the competitive level, and Professor Hemphill does not contest that ad load increases have been accompanied by improvements in the quality of advertising. *See* Ex. 2 at ¶¶ 160-167 (Carlton Rep.); PX9000 at ¶ 713 (Hemphill Rep.) (conceding that "[l]ow ad quality tends to reduce the number of ads served" and that "[redacted]," among other factors); *see also* PX9000 at ¶ 726 (acknowledging evidence "that ad quality has increased over time").

ii. Facebook and Instagram have accounted for more than [redacted] of Meta's ad revenue in every year since 2013. PX9000, Hemphill Report at ¶ 76, Ex. 7.

Meta Response: Disputed in part. Undisputed that the cited report contains the above calculation from 2013 through the first half of 2022. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because that calculation is not current beyond that point, including because it does not incorporate post-2022 revenue from WhatsApp's Paid Messaging and Click-to-WhatsApp products (which monetize WhatsApp without showing display advertisements). *See* Meta SMF ¶¶ 826-832.

iii. Thus, advertisements shown to Facebook and Instagram users account for the vast majority of Meta's profit since 2013. *See* PX9000, Hemphill Report at ¶ 76, Ex. 7.

Meta Response: Undisputed.

f. Meta is able to increase its profits by taking advantage of differences in users' responsiveness to ad load increases: increasing ad load to those who are less likely to diminish usage in response, and keeping ad load relatively low to users that are more sensitive to ad load increases. PX9000, Hemphill Report at ¶ 697; *see also infra* CMF at § II.C.4(b)(1).

Meta Response: Disputed in part. Undisputed to the extent the statement reflects that, in general, Meta shows more advertising to users who engage with advertising than to those who scroll or skip past ads. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the evidence instead demonstrates that Meta adjusts ad load to reflect user preference. Further disputed on the ground that the statement has no

relationship to the FTC's claim of power in the alleged relevant market. As conceded by Professor Hemphill, there is no evidence that Meta varies ad load by demand for friends and family sharing (as opposed to receptivity to and enjoyment of advertising). When asked, "[s]o it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing," Professor Hemphill testified, "I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." Meta SMF ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)); *see also* Ex. 283 at 252:17-253:2 (Hemphill Dep. Tr.) ("Q. . . . I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."); *cf.* Ex. 2 at ¶ 114 (Carlton Rep.) ([redacted]) (emphasis added). To the extent the statement incorporates the FTC's statements in Section II.C.4(b)(1), Meta incorporates its responses to those statements here.

1469. Meta's ability to set the level of ad load to optimize the tradeoff between revenue and engagement, rather than being a price taker, is also evidence that its profits stem in important part from its market power over Facebook and Instagram users. PX9000, Hemphill Report at ¶ 695.

Meta Response: Disputed. Disputed that the statement – which cites only a conclusory assertion from Professor Hemphill – creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because there is no evidence that "optimizing" ad load and user engagement reflects power over users. *See* Ex. 4 at ¶¶ 45-46, 57 (Tucker Rep.) (for several "examples of firms optimizing ad load"). Professor Hemphill testified: "Q. . . . You say here, 'Meta will choose the level of ad load that produces the optimal amount of revenue' . . . . Now, you'd agree that nearly all ad-supported venues regardless of market power do the same thing, right? . . . A. Yes." Ex. 283 at 240:3-12 (Hemphill Dep. Tr.).

1470. Meta's experts do not opine that Meta has market power over advertisers. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 72-77.

Meta Response: Disputed in part. Undisputed that Meta's experts do not opine that Meta faces no competition in selling ads. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they reference the economic definition of "market power" – which product differentiation can provide, having nothing to do with monopoly or the legal definition of monopoly power – as Professor Carlton testified: "Q. And it's your view that Meta lacks market power over advertisers; correct? A. No. I think every firm that has a differentiated product has some market power" – that is, the ability to price "in excess of marginal costs." PX6179 at 49:12-15, 26:21 (Carlton Dep. Tr.); *see also id.* at 48:8-11 ("[M]y view is that just about every firm has some market power. Products are differentiated, and when you have differentiated products, it's likely you have some market power.").

a. Professor Carlton does not opine that Meta has monopoly power over advertisers or that Meta's high profits are attributable to market power over advertisers. *See* PX6179, Carlton (Meta) Dep. Tr., at 52:4-12 ("Q. So you do not render an opinion in your report that Meta has monopoly power over advertisers; correct? A. I do not render that opinion. Q. And you offer no opinion in your report that Meta's high profits are derived from market power over advertisers; correct? A. I don't attempt to investigate its profits, Meta's profits other than what I've done.").

Meta Response: Disputed in part. Undisputed that Professor Carlton provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the FTC's paraphrasing omits appropriate context. Professor Carlton testified:

> Q. . . . [Y]ou offer no opinion in your report that Meta's high profits are derived from market power over advertisers; correct?
>
> A. I don't attempt to investigate its profits, Meta's profits other than what I've done. I'd say as I've explained, I don't understand in a two-sided market if you're earning – well, let me back up.
>
> If you're asking me to apply a legal definition, which is what this bullet is about, if you're asking me if I apply this legal definition, would Meta's share on the users side exceed say 60 percent. Answer, no.
>
> Would Meta's share on the advertising side exceed 60 percent? I have not done a detailed analysis of the advertising and neither has Professor Hemphill, but my understanding is that the share of digital advertising is [redacted].
>
> So if that were the market, that would fail the legal test. That's all I'm saying.

PX6179 at 52:8-53:6 (Carlton Dep. Tr.).

b. Professor Tucker does not opine that Meta has market power in an advertising market (or any other market). PX6169, Tucker (Meta) Dep. Tr., at 25:16-26:3. Indeed, Professor Tucker suggests that Meta faces "intense competition" in advertising. PX9015, Tucker Report at ¶ 30.

Meta Response: Disputed in part. Undisputed that Meta faces "intense competition" in the advertising market, as Professor Tucker explains. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because the FTC's paraphrasing omits appropriate context. Professor Tucker testified that she "didn't opine whether Meta does or doesn't have *monopoly power* in any relevant market." PX6169 at 25:17-18 (Tucker Dep. Tr.) (emphasis added). Professor Tucker has opined that Meta has innovated and improved its advertising features, *see* Meta SMF ¶ 143 – a form of product differentiation; *cf.* PX6179 at 49:12-15 (Carlton Dep. Tr.).

c. Professor Tucker's suggestion that Meta faces intense competition for advertising confirms Professor Hemphill's analysis that the lack of competition Meta faces in PSN services has allowed Meta to exercise market power over users. PX9007, Hemphill Rebuttal Report at ¶¶ 77-80; *see also id.* at ¶ 125 (observing "if this conclusion [that less competition has resulted in higher ad loads] were incorrect, and the restraint on advertising had a powerful effect after all, it would mean that advertisers have likely been harmed by Meta's conduct in addition to users.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1444, 1466, and 1468, and because innovation and

increasing output can generate profits. *See* Ex. 2 at pp. 130-131, figs. 12 & 13 (Carlton Rep.) (advertising output); Meta SMF ¶¶ 724-725, 729-734 (user-side output). Further disputed because Professor Tucker explained that, "if an advertiser can reach a user anywhere, you have to make sure that the attention that that user is giving your platform is both high quality in terms of its engagement, and also that the nature of advertising that that user is seeing and engaging with is also high quality, and that's what Dr. Hemphill misses." PX6169 at 55:2-8 (Tucker Dep. Tr.). The FTC's proffered expert on digital advertising, Professor Aral, gave consistent testimony. *See* Meta SMF ¶ 142 (quoting Ex. 287 at 69:15-70:4 & errata (Aral Dep. Tr.), which stated, "to monetize eyeballs, you have to retain those eyeballs" and "one of the ways that you retain eyeballs . . . is to keep the content on the platform engaging"). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1471. Moreover, Meta earns substantial portions of its revenue and profits from the advertising it serves to users of Facebook and Instagram in the United States.

<u>Meta Response</u>: Undisputed.

a. In each year from 2015 through 2022, at least [redacted] of Meta's profits came from Facebook and Instagram in the United States. PX9007, Hemphill Rebuttal Report at ¶ 165, Ex. 6 (summarizing Meta advertising revenue data from FTC-META-003310472).

<u>Meta Response</u>: Undisputed.

b. Ads on Facebook Mobile Feed, Instagram Feed, and Instagram Stories have accounted for [redacted] of Meta's ad revenue in every year since 2015, in North America and worldwide. PX9000, Hemphill Report at ¶ 701, Ex. 52 (summarizing Meta advertising revenue data [redacted] from FTC-META-011921400, FTC-META-003310472, and FTC-META-005915454).

Meta Response: Undisputed.

1472. Meta's profits from advertising on Facebook and Instagram subsidize WhatsApp's positioning as a competitive moat. PX9000, Hemphill Report at ¶¶ 1113-14. WhatsApp has experienced an [redacted] since Meta acquired it. PX9000, Hemphill Report at ¶ 1115-16, Ex. 78.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that using argumentative terms like "competitive moat" is an example of the FTC improperly extending its briefing into fact statements. Further disputed because no evidence supports the claim that WhatsApp operates as a "competitive moat." Since the acquisition, new messaging apps have entered while existing messaging services have expanded and introduced new features. *See*, *e.g.*, Meta SMF ¶¶ 836-838. New firms the FTC calls "PSNS" have emerged since the WhatsApp acquisition and existing "PSNS" firms expanded output. *See id.* at ¶¶ 724-725, 729-734. Further disputed because the cited portions of Professor Hemphill's report do not support the statement that WhatsApp has experienced an [redacted] since Meta acquired it, including because that calculation extends to only the first half of 2022. *Cf. id.* at ¶¶ 826-832 (explaining WhatsApp's more recent

monetization). Further disputed because that calculation incorrectly assumes that [redacted] of Click-to-WhatsApp revenue should be attributed to WhatsApp. *See* Meta Resps. to Counter SMF ¶¶ 909(b), 1888, 2435.

1473. Meta's profits from advertising on Facebook and Instagram subsidize its investments in offerings outside the market for PSN services such as Reality Labs, its "metaverse" project that lost nearly $14 billion in 2022 alone. PX9007, Hemphill Rebuttal Report at ¶ 742; *see also id*. at Ex. 37 (showing that Meta spent [redacted] on Reality Labs between 2017 and 2021).

Meta Response: Disputed in part. Undisputed that Meta invests profits into research and development, including new product offerings and business segments (including Reality Labs, among others) that the FTC does not include in its alleged "PSN" market. Disputed that the statement creates a genuine dispute of material fact, including because Meta invests billions to improve Facebook and Instagram. *See* Meta SMF ¶¶ 126-127, 710, 739-747, 823, 839-850. Further disputed for the reasons stated above in Meta's responses to paragraphs 1432 and 1444. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

3. Meta has profitably increased the quality-adjusted prices of Facebook and Instagram, which is further direct evidence of its monopoly power over PSN services.

1474. Meta has profitably increased the quality-adjusted price of Facebook and Instagram over time, which is an additional indicator of Meta exercising monopoly power over consumers of PSN services in the United States. PX9000, Hemphill Report at §§ 3.3.2-3; PX9007, Hemphill Rebuttal Report at ¶¶ 65-93.

Meta Response: Disputed. Disputed that this statement – which cites dozens of paragraphs in Professor Hemphill's reports without explanation or context – creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. It instead states improper legal conclusions (regarding "monopoly power" and the validity of the alleged market) without support from record materials. The FTC has no measure of overall quality-adjusted price. *See* Meta SMF ¶ 129 (Professor Hemphill: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)). Professor Hemphill also acknowledged that he did not identify "any competitive benchmark for Meta's level of ad load," *id.* at ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted] PX9000 at ¶ 716 (Hemphill Rep.). Professor Hemphill also agreed that increasing output with stable economic prices – both undisputed facts here – is evidence of decreasing quality-adjusted prices. *See* Meta SMF ¶ 130 (quoting Ex. 283 at 233:3-12, 233:16-22, 234:7-14, 234:15-235:1 (Hemphill Dep. Tr.)). Meta has spent billions investing in its services. *See id.* at ¶ 126. Professor Hemphill conceded that Meta has improved the quality of its services by innovating and releasing new features, like Stories and Reels. *See id.* at ¶ 127 (when asked, "You would agree with me that the addition of Stories to the Instagram and Facebook apps was a quality improvement, correct?," Professor Hemphill testified: "Yes. I would – I would agree with that and indeed emphasize the introduction of Stories by Facebook and Instagram as

a product improving competitive response to the threat posed by Snapchat." (quoting Ex. 283 at 231:10-19 (Hemphill Dep. Tr.))); *see also id.* ("Q. . . . And the addition of Reels was a quality improvement, correct? . . . A. It's a quality improvement, I think I would agree with that, albeit one that is less directly improving of the provision of personal social networking services." Professor Hemphill later added: "Q. . . . And just to be clear, you agree that the addition of Reels was an innovation of Facebook and Instagram's personal social networking services, correct? . . . A. It was an innovation bringing the competition to TikTok in the way that we talked about and which I agree serves to, to some degree, improve the personal social networking offering for all users." (quoting Ex. 283 at 231:20-232:4, 263:17-264:4 (Hemphill Dep. Tr.))). Further disputed for the reasons stated above in Meta's responses to paragraphs 968 and 1432. The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1475. Evidence of Meta's increase in the quality-adjusted price of Facebook and Instagram comes in several forms. PX9000, Hemphill Report at §§ 3.3.2-.3; PX9007, Hemphill Rebuttal Report at ¶¶ 65-93.

Meta Response: Disputed. Disputed that this paragraph and its subparagraphs – which cite dozens of paragraphs in Professor Hemphill's reports and the FTC's Counterstatement without explanation or context – create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1474, in Meta's responses to the subparagraphs below, and in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Despite recognizing that ad load is a tax on user engagement and that users dislike ads, Meta has increased ad load over time. This increase is associated with increased user dissatisfaction with the level of ad load on Facebook and Instagram. *Infra* CMF at § II.C.3(a).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1466, 1468, and 1474. To the extent this statement incorporates the FTC's statements in Section II.C.3(a), Meta incorporates its responses to those statements here.

b. Meta's internal metrics indicate user sentiment has declined over time on numerous other quality dimensions. *Infra* CMF at § II.C.3(b).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 973, 1432, and 1474, and because this statement cites no specific evidence in support of any fact. To the extent this statement incorporates the FTC's statements in Section II.C.3(b), Meta incorporates its responses to those statements here.

c. Meta has raised the quality-adjusted price of Facebook and Instagram by underinvesting in the friends and family sharing use case. *Infra* CMF at § II.C.3(c).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1468, and 1474, and because this statement cites no specific evidence in support of any fact. To the extent this statement incorporates the FTC's statements in Section II.C.3(c), Meta incorporates its responses to those statements here.

1476. Meta's ability to profitably increase its quality-adjusted prices despite declining user sentiment and without attracting entry in the market for PSN services indicates that quality-adjusted prices are higher than they would be in a more competitive market. PX9007, Hemphill Rebuttal Report ¶¶ 60-61.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432 and 1474, and because it cites as support only conclusory statements from Professor Hemphill's rebuttal report. New firms the FTC labels "PSNS" have entered and existing firms the FTC labels "PSNS" have expanded output. *See* Meta SMF ¶¶ 729-732. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a) Despite recognizing that ad load is a tax on user engagement and users dislike ads, Meta has increased ad load over time, to increased user dissatisfaction.

(1) Users of Facebook and Instagram dislike viewing ads and perceive increased ad load as a decrease in product quality.

1477. Users of Facebook and Instagram dislike viewing ads and perceive increased ad load as a decrease in product quality. *Infra* CMF at ¶¶ 1478-83.

Meta Response: Disputed. Disputed that this statement – which cites no record materials for support – creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent the statement incorporates the FTC's statements in paragraphs 1478-1483, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's responses to paragraphs 1466 and 1468.

1478. Meta admitted in this matter "that it delivers ads to its users at the potential cost of engagement of some users with its services." PX10295 at -001, Meta's Supp. Obj. & Resp. to FTC's Interrog. No. 3 (Feb. 21, 2023); *see also* PX10294 at -009, Meta Resp. to the Aug. 27, 2019 Civ. Investigative Demand Issued by the FTC (Sept. 30, 2019) (explaining that "[i]n general, an increase in ad load is predicted to decrease user engagement").

Meta Response: Undisputed that the documents contain the quoted language.

1479. As a March 2021 Meta slide deck explained, ad load is Meta's "[redacted]," but "[t]his monetization lever comes at the cost of product user experience and engagement." PX15447 at -006, Meta presentation: "FoA Ads Engagement Impact Framework" (Mar. 2021), FTC-META-003285915.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement properly characterizes the document, including because the document (PX15447) contains comments indicating it is a draft subject to modification.

1480. In internal communications, Meta executives have repeatedly referred to ad load as a "tax" on the user experience.

Meta Response: Disputed in part. Undisputed for the reasons stated in Meta's responses to the subparagraphs below. Disputed that this statement or any of its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432, 1466, and 1468 and in Meta's responses to the subparagraphs below.

a. In a February 2018 email, Ms. Simo wrote: "[w]e want to make sure we take all the 'taxes' to engagement down to the minimum level needed [on Facebook], and ads is one of them, so we need to know how much engagement . . . we could regain by lowering ad load." PX15112, Meta email chain: F. Simo to [redacted], et al. re: "Position 2," (Feb. 1, 2018), FB_FTC_CID_05394180, at -184.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

b. In a February 2018 email, Mr. Zuckerberg asked, "[a]re there other measures of effective ad load / tax we look at besides ads / stories and engagement displacement?" PX1968, Meta email chain: M. Zuckerberg to S. Li, et al. re: "IG / FB ads vs engagement stats," (Feb. 7, 2018), FB_FTC_CID_06204829, at -829.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

c. In February 2018 talking points for a meeting of Meta's Board of Directors, Mr. Zuckerberg wrote that Facebook "has born a higher ad load tax" than Instagram. PX15129, Meta document: "Board Update" (*Mar. 2, 2018), FB_FTC_CID_10958409, at -409; *see also* PX6127, Zuckerberg (Meta) Dep. Tr., at 114:18-116:1 (acknowledging PX15129 as an update provided to Meta's Board of Directors).

<u>Meta Response</u>: Disputed in part. Undisputed that the document includes the quoted language. Disputed because the FTC omits context. The full sentence quoted above and the one that follows read: "The Facebook app has historically

driven most of Instagram's growth [redacted], and has born a higher ad load tax. This has contributed to a headwind for Facebook in that it sends some of its engagement to Instagram." PX15129 at -409 (FB_FTC_CID_10958409). About that language, Mr. Zuckerberg testified:

> So if you go back, like, ten years ago, showing more ads probably meant that the experience was worse because we were showing a higher percentage of ads. Whereas today, the experience may not actually be much worse to show more ads because we're better at showing ads to people who like seeing ads.
>
> The quality of the ads that we're showing, in a lot of cases, actually is approaching the quality of the organic content because it's improved. So the actual kind of tax on the user experience is minimized, and it is also not directly proportional to the number of ads that we're showing today.

PX6127 at 128:8-21 (Zuckerberg Dep. Tr.).

d. In a September 2018 email exchange, Mr. Mosseri wrote:

> It seems like ad load is a cap based on what we think is a reasonable user experience . . . It's not clear to me why what defines a reasonable tax on the experience would differ from one individual to another . . . In aggregate we have roughly the same tax today [across Facebook and Instagram], but a lower tax for high value users and higher one for low value users because we treat all people equally despite it being less efficient.

PX1154, Meta email chain: A. Mosseri to M. Zuckerberg, et al. re: "Dynamic ad load / IG," (Sept. 27, 2018), FB_FTC_CID_02422067, at -072.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language (but not the FTC's bracketed insertion). Disputed that this statement creates a genuine dispute of material fact, including because it omits context. The discussion is about showing more ads to "high value users," which are those who are most valuable to advertisers – as measured by how much an

advertiser would pay to reach those users – including because those users like to engage with ads. *See* PX1154 at -072-073 (FB_FTC_CID_02422067). The document confirms that the [redacted]

Id. at -071.

e. In a September 2018 email exchange, Ms. Simo wrote: "[i]ncreasing IG ad load uniformly to [redacted] seems like a reasonable starting point. However a large fraction of IG users will pay a higher experience tax without much gain in revenue, which seems worse compared to being selective." PX1154, Meta email chain: F. Simo to M. Zuckerberg, et al. re: "Dynamic ad load / IG," (Sept. 28, 2018), FB_FTC_CID_02422067, at -071.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to subparagraph 1480(d).

f. In a February 2021 email exchange, an Instagram executive wrote Mr. Zuckerberg:

[redacted]

PX12685, Meta email chain: V. Shah to M. Zuckerberg, et al. re: "Ad load update," (Feb. 22, 2021), FTC-META-003896932, at -933.

Meta Response: Undisputed that the document contains the quoted language.

1481. Mr. Zuckerberg agreed that he has referred to ads as a tax. PX6029, Zuckerberg (Meta) IH Tr., at 193:22-23 ("And you've referred to ads as a tax; right? A. I have.").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg agreed that he has, in the past, referred to ads as a tax. Disputed that the statement – which paraphrases Mr. Zuckerberg's testimony without context – creates a genuine dispute of material fact, including because the FTC edits Mr. Zuckerberg's testimony to omit context:

> Q. And you've referred to ads as a tax; right?
>
> A. I have. Although, I think it's worth noting that – that I think as the company has made progress on making the ads more relevant, my attitude towards it has shifted, where I think I used to be quite negative on this, and, over time, I view this as an area where we can provide some good experiences. And I do routinely hear from people that they feel like the quality of the ads is – is – are quite relevant and that they find interesting content from creative entrepreneurs and people building interesting products through them.

PX6029 at 193:22-194:9 (Zuckerberg IH Tr.). Later, Mr. Zuckerberg emphasized that "[t]he appropriate ad load is some combination, not just of in the number of ads but of the quality of ads," and explained that "as the quality improves, you can show more ads and actually have it be even less of a tax on the experience, whereas if the ads are very low quality you can show relatively few and they can really bother people. So I don't think ad load by itself is the right – is solely the measure to focus on." *Id.* at 196:3-12. Further disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474.

1482. Mr. Systrom testified that increased advertising correlates to a decrease in engagement. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 191:7-14 [redacted]

[redacted].

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including because the FTC omits context that Mr. Systrom provided in his testimony. Mr. Systrom later testified that "targeted advertising" provides a "better experience" for users. Ex. 151 at 337:24-338:3 (Systrom Dep. Tr.); *see also* Ex. 284 at 222:12-223:2 (Systrom IH Tr.) (testifying that "it absolutely increased the user experience to have targeted advertising rather than . . . untargeted advertising"). Further disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474.

1483. Meta executives testified that users do not like ads.

Meta Response: Disputed in part. Undisputed for the reasons stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474, and because the FTC's advertising expert agreed that some users like ads. *See*, *e.g.*, Ex. 498 at 3 (MetaFTC-DX-1159) (for the FTC's proffered expert Professor Aral stating, "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value.").

a. Mark Zuckerberg testified that users "are not coming to Facebook primarily to see ads," and "people would still rate seeing ads as not near the top of the list of the things that they're there to do [on Facebook]." *See* PX6029, Zuckerberg (Meta) IH Tr., at 193:13-21 ("Q. For the most part, though, is it fair to say that users see

ads as a kind of tax that they—that they pay in order to access Facebook?

A. I mean, I'm trying to provide context, but I—I think, in general, it is probably fair that most people still, despite all the progress that we've made, you know, are not coming to Facebook primarily to see ads and do not view that as the primary thing that they are there to see."); *see also* PX6127, Zuckerberg (Meta) Dep. Tr., at 137:19-138:18 ("Q. Now, you've previously said that people don't come to Facebook to look at ads. They come to Facebook to connect. Do you believe that's true today? A. I mean, it's interesting. I think that is most likely true for the vast majority of people still. . . . But overall, I would still say that I would expect that the majority of people come to our services to basically connect with people and communicate and find entertaining content and follow the topics they care about and message people and just like all the different things that they do, and I would guess that people would still rate seeing ads as not near the top of the list of things that they're there to do.").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474. Further disputed that the cited testimony supports the FTC's blanket statement that "users do not like ads." Mr. Zuckerberg testified – just before the quoted testimony – that "we've gotten better at showing more relevant ads" and that he is "convinced at this point that, for a lot of people, the ads are – are a valuable part of the experience." PX6029 at 191:6-11 (Zuckerberg IH Tr.). Mr. Zuckerberg also testified that, because "the ads are getting very relevant," "a number of people have told me that they wish

that there were a feature in the app that were just a feed of ads that they could look at." *Id.* at 192:1-5. Also, this subparagraph's quotation of Mr. Zuckerberg's deposition in this matter omits with ellipses Mr. Zuckerberg's contrary testimony, as well as further context that Mr. Zuckerberg provided after the quotation:

> Q. Now, you've previously said that people don't come to Facebook to look at ads. They come to Facebook to connect. Do you believe that's true today?
>
> . . .
>
> THE WITNESS: I mean, it's interesting. I think that is most likely true for the vast majority of people still. I do see more kind of outliers of people who just come to me and say: Wow, the ads have gotten so good that sometimes I go to Facebook or Instagram just because I want to, like, see things that I might want to buy, and you guys are so good at showing ads that are interesting.
>
> So that statement may not be kind of as categorically true today given the improvement in the ads quality as it was when I said that. But overall, I would still say that I would expect that the majority of people come to our services to basically connect with people and communicate and find entertaining content and follow the topics they care about and message people and just like all the different things that they do, and I would guess that people would still rate seeing ads as not near the top of the list of things that they're there to do.
>
> But even that said, I think in looking at how this impacts engagement, you want to look at how people act, not just what they say. So even if people's perception is that they may not like ads or may not want to engage with them, in practice if the ads are valuable and relevant, then I think what our metrics would show is that people, in fact, do engage with them quite a bit and that the gap between that and some of the other organic content has been shrinking over time.

PX6127 at 137:19-139:3 & errata (Zuckerberg Dep. Tr.).

b. Kevin Systrom testified "[i]t's a well-understood fact in the industry that users do not like ads. And through tests, Facebook has shown in holdouts that users

without ads retain at a higher level than users with ads." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 189:22-190:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474. Further disputed that the cited testimony supports the FTC's blanket statement that "users do not like ads." Just after the quoted testimony discussing Instagram's early resistance to monetization, Mr. Systrom testified that his concern with adding ads to Instagram was that ad quality would decline – but in fact "those fears were far overblown":

> My concern was that we had no ads and we were going to in a matter of couple months, start having lots of ads and ads that were far different than the brand ads that we had had before. So instead of seeing a beautiful – I don't know – necklace, jewelry, you would be seeing a direct response ad, which can be, to use a subjective judgment, crummy in quality.
>
> I think, in retrospect, those fears were far overblown from our side.

PX6133 at 190:4-13 (Systrom Dep. Tr.). Mr. Systrom later testified that "targeted advertising" provides a "better experience" for users. Ex. 151 at 337:24-338:3 (Systrom Dep. Tr.).

c. Adam Mosseri testified that "putting in too many ads" would "degrade the [user] experience" and "offput[] people." PX6078, Mosseri (Meta) Dep. Tr., at 273:11-274:2.

Meta Response: Disputed in part. Undisputed that Mr. Mosseri provided the quoted testimony (but not the FTC's bracketed insertions). Disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474.

Further disputed that the cited testimony supports the FTC's blanket statement that "users do not like ads." Mr. Mosseri explained the assumptions underlying the testimony that this subparagraph plucks from its context: "[T]his is correlation, and it's on average. So on average, if you increase ad load and you don't increase ad quality, you will likely see people using the app a little bit less." PX6078 at 276:22-277:1 (Mosseri Dep. Tr.). Mr. Mosseri further testified that "the net effect of ads" on the user experience "is every bit as much due to the relevance of the ads as it is to the prevalence of the ads." *Id.* at 276:9-12. Mr. Mosseri stressed this point:

Id. at 278:4-11.

(2) Meta sets the level of ad load to maximize profits, optimizing the tradeoff between revenue and engagement.

1484. When Meta makes decisions about its products, Meta's aim is to maximize its long-term profitability. PX6169, Tucker (Meta) Dep. Tr., at 61:5-10.

Meta Response: Undisputed.

1485. As Meta's advertising expert admitted, any ad-supported platform, including Facebook and Instagram, is "going to try and ensure ad load optimizes profits." *See* PX6169, Tucker (Meta) Dep. Tr., at 56:14-56:20.

Meta Response: Undisputed that Professor Tucker provided the quoted testimony.

1486. The revenue that Meta generates from ads is a function of ad load, the amount of Facebook and Instagram services consumed by users, and revenue per ad. PX3374 at -004, Meta presentation: "'Supply' and Monetization Trends on Facebook App" (June 2022), FTC-META-005125484 (showing ad revenue as the product of [redacted]).

Meta Response: Disputed in part. This paragraph is nearly identical to the FTC's statement above in paragraph 1468(c), which Meta disputes in part. Meta incorporates its response to that statement here.

1487. Meta [redacted] to determine the [redacted]. *See* PX6084, Hegeman (Meta) Dep. Tr., at 118:19-119:1 [redacted].

Meta Response: Undisputed that the witness provided quoted testimony.

1488. As a March 2021 internal Meta presentation explained, [redacted] PX15447 at -009, Meta presentation: "FoA Ads Engagement Impact Framework" (Mar. 2021), FTC-META-003285915.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement properly characterizes the document, including

because the document (PX15447) contains comments indicating it is a draft subject to modification.

1489. Meta initially set ad load on a "uniform aggregate" basis that did not necessarily account for the impact on engagement. *See* PX6185, Li (Meta) Dep. Tr., at 89:9-90:7 ("The – the sort of history of – of ads on Facebook, both the app and then eventually expanding to encompass the company and, you know, other apps, is one where, again, we started, I think, at an early phase where our understanding was not very sophisticated. Our instrumentation, the frameworks with which we thought about it were not very sophisticated, and so we had these sort of blunter heuristics, a – you know, for example, a uniform aggregate ad load. That's kind of where we started, and you'd increase the ad load gradually over time and measure to the best of our ability the impact as best we could understand it at the time to determine whether we felt like that was a reasonable business decision, all things considered.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact. The quoted testimony does not support the first sentence of this statement; it does not state that Meta "did not necessarily account for the impact on engagement," or anything similar. Further disputed because, "if an advertiser can reach a user anywhere, you have to make sure that the attention that that user is giving your platform is both high quality in terms of its engagement, and also that the nature of advertising that that user is seeing and engaging with is also high quality, and that's what Dr. Hemphill misses." PX6169 at 55:2-8 (Tucker Dep. Tr.). The FTC's proffered expert on digital advertising, Professor Aral, gave consistent testimony. *See* Meta SMF ¶ 142 (quoting Professor Aral, who

stated, "to monetize eyeballs, you have to retain those eyeballs" and "one of the ways that you retain eyeballs . . . is to keep the content on the platform engaging" (quoting Ex. 287 at 69:15-70:4 & errata (Aral Dep. Tr.)). Further disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474.

1490. Meta later set ad load by means of an engagement threshold, which was a maximum level of engagement loss that Meta was willing to tolerate due to a contemplated increase in ad load.

Meta Response: Disputed in part. Undisputed that Meta considers the effect of ad load on user engagement. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474, and in Meta's responses to the subparagraphs below.

a. A February 2014 email from Fidji Simo to Mark Zuckerberg and other senior Meta executives titled "Feed Ads Product Update" described an "engagement threshold" that "allows us to specify the total amount of engagement loss that we will tolerate from putting ads to a given person's feed. For any given person, we predict the amount of engagement that person would generate in a feed without ads and then monitor the amount of engagement that person actually generates. The threshold provides a cap on that difference." PX3376, Meta email: F. Simo to M. Zuckerberg, et al. re: "Feed Ads Product Update (2/9)," (Feb. 9, 2014), FB_FTC_CID_05188748, at -749.

Meta Response: Undisputed that the document contains the quoted language.

b. An August 2017 presentation titled "News Feed Ad Load Trajectory Core App Monetization," which was shared with Mark Zuckerberg and other senior Meta executives, identified the impact of ads on engagement as one of three criteria Meta measured to determine whether to increase ad load: "Ads impact to engagement remains within budget: [redacted]. PX15513, Meta presentation: "News Feed Ad Load Trajectory / Core App Monetization" (Aug. 17, 2017), FTC-META-010526617, at -624.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474, and because the statement omits important context. The document – from August 2017 – states that, as of that time, two additional criteria listed for consideration before increasing ad load were (1) "Increasing ad load does not hurt ad quality"; and (2) "Ad load only increases when there is sufficient demand in the marketplace." PX15513 at -624 (FTC-META-010526617). Further disputed because a prior page of the document shows that [redacted]. *See id.* at -622.

1491. By early 2022, Meta had refined its approach to setting ad load to [redacted].

Meta Response: Disputed. Disputed that this statement – which uses vague and conclusory terminology – creates a genuine dispute of material fact, including for the

reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474 and in Meta's responses to the subparagraphs below. Meta has long taken measures, including for years before 2022, to show users an appropriate quantity and quality of advertising as part of its free services. *See* PX10294 at -007-009 (Response to FTC's Aug. 27, 2019 CID) ("For Facebook to deliver the best experience to its users, it must provide them with some ads, while also not overloading them. If Facebook were to inundate users' feeds with ads, . . . Facebook's long-term success would be at risk.").

a. A March 2021 presentation titled "FoA [Family of Apps] Ads Engagement Impact Framework," explained that Meta would [redacted]. PX15447 at -004, -011-17, Meta presentation: "FoA Ads Engagement Impact Framework" (Mar. 2021), FTC-META-003285915. The same presentation stated: [redacted]

[redacted] *Id.* at -004, -008-09; s*ee also* PX6084, Hegeman (Meta) Dep. Tr., at 128:22-24 (defining FAM as "Facebook app monetization team.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement properly characterizes the document, including because the document (PX15447) contains comments indicating it is a draft subject to modification. Further disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474.

b. An April 2022 presentation titled "FoA Ads Engagement Impact Framework 2022H1 Plan" stated: [redacted]

PX10045 at -005, Meta presentation: "FoA Ads Engagement Impact Framework" (*Apr. 5, 2022), FTC-META-007076491.

Meta Response: Undisputed that the document contains the quoted language.

(3) Over time, Meta has raised ad load significantly on Facebook and Instagram.

1492. Meta has increased ad load on Facebook and Instagram significantly over time.

Meta Response: Disputed. Disputed that the statement in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1466, 1468, and 1474 and in Meta's responses to the subparagraphs below, and because the FTC does not define what amount of increase is "significant." Further disputed that ad load has uniformly increased for all

persons; Meta shows less advertising to users who do not engage with ads than to users who do engage with ads (a proxy for receptivity to and enjoyment of advertising). Further disputed on the ground that Professor Hemphill concedes both that he did not identify "any competitive benchmark for Meta's level of ad load," Meta SMF ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted] PX9000 at ¶ 716 (Hemphill Rep.). Further disputed because Professor Hemphill found that ad load changes varied by service and feature; for example, he calculated that [redacted]. *See id.* at ¶ 719 & Ex. 54.

a. From the third quarter of 2014 through the [redacted], ad load on Facebook Mobile Feed in North America [redacted]. PX9000, Hemphill Report at ¶ 718.

<u>Meta Response</u>: Undisputed that the cited report contains this calculation.

b. Meta [redacted] ad load for Instagram Feed [redacted] between the second quarter of 2015 and the [redacted] and the ad load for Instagram Stories [redacted] between the first quarter of 2017 and [redacted]. PX9000, Hemphill Report at ¶ 719.

<u>Meta Response</u>: Disputed in part. Undisputed that the cited report contains the calculations in this statement. Disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, 1474, and 1492, and because this statement lacks necessary context. Mr. Mosseri – head of Instagram – testified explaining why [redacted]:

[redacted]

PX6078 at 283:19-284:12 (Mosseri Dep. Tr.).

c. This substantial increase in ad load is also recorded in Meta's ordinary course documents.

Meta Response: Disputed in part. Undisputed for the reasons stated in Meta's responses to the subparagraphs below. Disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, 1474, and 1492 and in Meta's responses to the subparagraphs below. Further disputed because the FTC does not define what amount of increase is "substantial."

i. "[redacted]. PX15429 at -013, Meta Presentation: "Ad load 101" (Jan. 21, 2022), FTC-META-004963140.

Meta Response: Undisputed that the document contains these figures.

ii. By August 2017, [redacted]. PX3377, Meta

presentation: "News Feed Ad Load Trajectory / Core App Monetization" (Aug. 17, 2017), FTC-META-010526618, at -648.

Meta Response: Undisputed that the document contains these figures.

iii. Average ad load on the Facebook Mobile Feed in North America [redacted]. PX2974 at -016, Meta spreadsheet: "Q1 2020 Quarterly Metrics Sheets" (Apr. 2020), FB_FTC_CID_12190653; PX2979 at -065, Meta spreadsheet: "Q2 2022 Quarterly Metrics Sheets" (July 2022), FTC-META-011921361.

Meta Response: Disputed in part. Undisputed that the second cited document (PX2979) contains the cited figure for Q2 2022. Disputed because the materials cited do not support the statement. The [redacted] for Q3 2014 does not appear in either cited document. The cited page of PX2974 reports only as far back as Q1 2018; the cited page of PX2979 reports ad load on Facebook Mobile Feed only as far back as Q1 2020.

iv. Average ad load on the Instagram Feed in North America has [redacted]. PX2974 at -016, Meta spreadsheet: "Q1 2020 Quarterly Metrics Sheets" (Apr. 2020), FB_FTC_CID_12190653; PX2979 at -065, Meta spreadsheet: "Q2 2022 Quarterly Metrics Sheets" (July 2022), FTC-META-011921361; PX2811 at -020, Meta spreadsheet: "Q1 2020 Quarterly Metrics Sheets" (Apr. 2020), FB_FTC_CID_12111392.

Meta Response: Disputed in part. Undisputed that the documents contain the above figures. Disputed because this statement omits context, for the reasons stated above in Meta's response to subparagraph 1492(b).

v. Average ad load on Instagram Stories in North America has [redacted]. PX2974 at -016, Meta spreadsheet: "Q1 2020 Quarterly Metrics Sheets" (Apr. 2020), FB_FTC_CID_12190653; PX2979 at -065, Meta spreadsheet: "Q2 2022 Quarterly Metrics Sheets" (July 2022), FTC-META-011921361; PX2979 at -065, Meta spreadsheet: "Q2 2022 Quarterly Metrics Sheets" (July 2022), FTC-META-011921361.

Meta Response: Disputed in part. Undisputed that the second document cited (PX2979) contains the cited figure for Q2 2022. Disputed because the materials cited do not support the statement. The [redacted] figure for Q1 2017 does not appear in either cited document. The cited page of PX2974 reports ad load on Instagram Stories only as far back as Q1 2018; the cited page of PX2979 reports ad load on Instagram Stories only as far back as Q1 2020. Further disputed because this statement omits context, for the reasons stated above in Meta's response to subparagraph 1492(b).

vi. Meta's increased ad load on Facebook and Instagram is associated with increased user dissatisfaction with the level of ad load on both apps, underscoring the increase in quality-adjusted price. *Supra* CMF at § II.C.3(a)(1).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 973, 1432, 1466, 1468, 1474, and 1492, and because the statement cites no evidence in support of any fact. To the extent the statement incorporates the FTC's statements in Section II.C.3(a)(1), Meta incorporates its responses to those statements here. Further disputed to the extent this statement implies there is record material to support a causal relationship between ad load and user sentiment, *see* Ex. 2 at ¶ 307 (Carlton Rep.); the FTC's proffered experts made no such causal showing, which would be contrary to materials the FTC has introduced into the record. *See*, *e.g.*, PX15513 at -622 (FTC-META-010526617) [redacted]; *see also* PX6127 at 138:19-139:3 (Zuckerberg Dep. Tr.) ("[I]n looking at how [ad load] impacts engagement, you want to look at how people act, not just what they say. . . . I think what our metrics would show is that people, in fact, do engage with [ads] quite a bit and that the gap between that and some of the other organic content has been shrinking over time."). Professor Carlton showed there is [redacted]; Professor Hemphill's own calculations show that [redacted]. *See* Ex. 2 at ¶ 307 & fig. 22 (Carlton Rep.). Further disputed because Professor Hemphill found that ad load changes varied by service and feature; for example, he

calculated that [redacted]. *See* PX9000 at ¶ 719 & Ex. 54 (Hemphill Rep.) ("Instagram Feed Ad Load").

d. Users' perception that there are too many ads on Facebook, as measured by Meta's Consumer Tracking Umbrella Survey (CACTUS), [redacted]. PX9000, Hemphill Report at ¶¶ 773-75, Ex. 70.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to subparagraph 1492(c)(vi). Further disputed that the "CACTUS" survey is a reliable measure of user sentiment; [redacted], as explained by Dr. Cobb – Meta's in-house survey expert who serves as Vice President of Research for Monetization, Public Affairs, and Demography and Survey Science, *see* PX6087 at 17:22-25 (Cobb Dep. Tr.), and who is "responsible for managing CACTUS," *id.* at 84:5-10. He testified that [redacted], *see id.* at 85:7-9, 91:20-22. Dr. Cobb testified:

> Take this first [CACTUS] question that you have here, how satisfied or dissatisfied you are with the ads you see on Facebook. [redacted]
>
> Secondly, with respect to this question, [redacted]

[redacted]

Id. at 92:13-93:17.

i. This [redacted] is associated with Meta's [redacted]. PX9007, Hemphill Rebuttal Report at ¶ 93, Ex. 4.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1492 and subparagraphs 1492(c)(vi) and 1492(d). Further disputed to the extent this statement implies there is record material to support a causal relationship between ad load and user sentiment. *See* PX6127 at 138:19-139:3 (Zuckerberg Dep. Tr.) ("[I]n looking at how [ad load] impacts engagement, you want to look at how people act, not just what they say. . . . I think what our metrics would show is that people, in fact, do engage with [ads] quite a bit and that the gap between that and some of the other organic content has been shrinking over time.").

e. Users' perception that there are too many ads on Instagram, as measured by Meta's Instagram Ad Sentiment Survey, [redacted]. PX9000, Hemphill Report at ¶ 776, Ex. 71.

Meta Response: Undisputed that Professor Hemphill's report describes results from Meta's Instagram Ad Sentiment Survey.

i. And this [redacted] is associated with Meta's [redacted]. PX9007, Hemphill Rebuttal Report at ¶ 92, Ex. 3.

Meta Response: Disputed. Disputed that the record shows an [redacted] Professor Hemphill found that ad load changes varied by service and feature; for example, he calculated that [redacted]. *See* PX9000 at ¶ 719 & Ex. 54 (Hemphill Rep.). Further disputed for the reasons stated above in Meta's responses to paragraph 1492 and subparagraphs 1492(c)(vi) and 1492(d).

f. A July 2017 Meta presentation titled "Perceptions of Commerciality" noted that users' responses to the CACTUS question about "too many ads on Facebook" were part of a broader "problem"—a perception that Facebook is becoming "more commercial." PX3506 at -004, -010, Meta presentation: "Perceptions of Commerciality" (July 19, 2017), FB_FTC_CID_03559713.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement omits context. The document reports results from a separate survey studying whether and why users perceive Facebook as "becoming more commercial." The document considered and *rejected* the possibility that increasing ad load could explain that increasing perception of commerciality, including as reflected by CACTUS respondents' reported perceptions of ads: "In fact, actual ad load plays a relatively small role in driving sentiment and perceptions of commerciality." PX3506 at -014 (FB_FTC_CID_03559713). It further stated: "Even large ad load increases result

in negligible impact: experimentally increasing ad load [redacted] has no measurable impact on sentiment." *Id.* The presentation explained that "[m]uch non-advertising content," such as posts from business pages that one follows, "can feel like 'ads'" to users, *see id.* at -015; and that "people often define 'commercial' content in their feed" more "broadly" than just ads, *id.* at -016. Further disputed for the reasons stated above in Meta's responses to paragraph 1492 and subparagraphs 1492(c)(vi) and 1492(d).

g. A 2020 Meta presentation titled "Instagram Ads Consumer Sentiment Report" concluded that [redacted] The presentation's conclusion was based on [redacted]. *See* PX3501 at -003, -011, Meta Presentation: "Instagram Ads Consumer Sentiment Report (2020 H2)" (2020), FTC-META-012244424.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including because a document assessing a trend for a few months in 2020 is not probative of any relevant fact at issue.

1493. The increase in Facebook and Instagram's ad load, in conjunction with the increase in users' perceptions that Meta is serving them too many ads on Facebook and Instagram, underscores that Meta's increased ad load has over time increased the quality-adjusted

price that users have had to bear. *See* PX9007, Hemphill Rebuttal Report at ¶ 93 ("The increase in Facebook and Instagram ad load and the increase in users' perceptions that Meta is serving them too many Facebook and Instagram ads is consistent with an increase in the quality-adjusted prices borne by Facebook and Instagram users over time.").

Meta Response: Disputed. Disputed that this statement – which cites only a conclusory statement from Professor Hemphill's rebuttal report – creates a genuine dispute of material fact. Consumers have varied preferences regarding ads, as Professor Hemphill testified: "Q. You'd agree that individuals vary in their receptivity to ads? . . . A. Yes, I think that's – I think that's right. In the discussion of – yes, I think that there's some evidence in the record about differences in user receptivity to ads, yes." Meta SMF ¶ 148 (quoting Ex. 283 at 245:7-13 (Hemphill Dep. Tr.)). He also testified: "Q. . . . Some individuals have a greater disutility associated with seeing ads than other users; is that fair? . . . A. Yes, I would – I would expect that – the amount of disutility from ads would vary across users." *Id*. (quoting Ex. 283 at 245:21-246:5 (Hemphill Dep. Tr.)). The FTC's proffered advertising expert, Professor Aral, has acknowledged: "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value." Ex. 498 at 3 (MetaFTC-DX-1159). Further disputed because Professor Hemphill found that ad load changes varied by service and feature; for example, he calculated that [redacted]. *See* PX9000 at ¶ 719 & Ex. 54 (Hemphill Rep.) ("Instagram Feed Ad Load"). The FTC has no measure of overall quality-adjusted price with which it can measure whether quality-adjusted price has increased or decreased. *See* Meta SMF ¶ 129 (Professor Hemphill: "Q. . . . It's fair to say that you made no effort to construct any sort of

quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)). Professor Hemphill acknowledged that he did not identify "any competitive benchmark for Meta's level of ad load," *id.* at ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted] PX9000 at ¶ 716 (Hemphill Rep.). Professor Hemphill also agreed that increasing output with stable economic prices – both undisputed facts here – is evidence of decreasing quality adjusted prices. *See* Meta SMF ¶ 130 (quoting Ex. 283 at 233:3-12, 233:16-22, 234:7-14, 234:15-235:1 (Hemphill Dep. Tr.)). Further disputed to the extent this statement implies there is record material to support a causal relationship between ad load and user sentiment, *see* Ex. 2 at ¶ 307 (Carlton Rep.); the FTC's proffered experts made no such causal showing, which would be contrary to materials the FTC has introduced into the record. *See*, *e.g.*, PX15513 at -622 (FTC-META-010526617) [redacted]; *see also* PX6127 at 138:19-139:3 (Zuckerberg Dep. Tr.) ("[I]n looking at how [ad load] impacts engagement, you want to look at how people act, not just what they say. . . . I think what our metrics would show is that people, in fact, do engage with [ads] quite a bit and that the gap between that and some of the other organic content has been shrinking over time."). Professor Carlton showed [redacted]. *See* Ex. 2 at ¶ 307 &

fig. 22 (Carlton Rep.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, 1474, and 1492 and subparagraphs 1492(c)(vi) and 1492(d).

1494. Professor Carlton concedes that, for a user who experiences an increase in ad load as a net disutility, an increase in ad load constitutes an increase in the quality-adjusted price for that user. PX6179, Carlton (Meta) Dep. Tr., at 96:2-97:6.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because it takes Professor Carlton's testimony out of context. Professor Carlton observed that "if you hold everything else constant, undoubtedly there are some consumers who want a lower ad load." PX6179 at 95:21-96:1 (Carlton Dep. Tr.). But the FTC's proffered experts offer no evidence or analysis comparing the effect of ad load with the effects of increased ad quality, increasing demand for digital advertising, improved features for users, or other relevant factors that influence quality. *See*, *e.g.*, Meta SMF ¶ 127 (quoting Professor Hemphill's concession that Stories was "a product improving competitive response" and that Reels was a "quality improvement" on Facebook and Instagram (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.))); Ex. 283 at 241:20-242:10 (Hemphill Dep. Tr.) (confirming that he performed no "quantitative measure of ad quality"). Many factors comprise service quality. Further disputed for the reasons stated above in Meta's response to paragraph 1493.

b) Meta has also raised quality-adjusted price by reducing quality across multiple other product quality dimensions.

1495. Meta's increase in quality-adjusted price is also demonstrated by the declining user sentiment on Facebook and Instagram across multiple dimensions of product quality in addition to ad load, including privacy, reliability, ease of use, and overall satisfaction

with the service. *Infra* CMF at ¶¶ 1495-1500; PX9000, Hemphill Report at ¶¶ 761-72, Exs. 65-68; PX9007, Hemphill Rebuttal Report at ¶¶ 65-68, Exs. 1, 2.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1474 and 1493, and because the FTC has no measure of overall quality-adjusted price. *See* Meta SMF ¶ 129 (Professor Hemphill: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)). As to causation, Professor Hemphill testified that he did not analyze "what caused these observed declines" in sentiment. Ex. 283 at 223:22-224:1 (Hemphill Dep. Tr.). Professor Carlton explained that sentiment surveys measure brand reputation and not objective service quality. *See* Ex. 2 at ¶¶ 168-171, 317 (Carlton Rep.). To the extent the statement incorporates the FTC's statements in paragraphs 1495-1500, Meta incorporates its responses to those statements here.

a. Professor Carlton concedes that users of Facebook and Instagram value privacy and that privacy is a component of Meta's product offerings affecting the quality of the apps for users. PX6179, Carlton (Meta) Dep. Tr., at 62:14-64:17; *see also id.* at 76:6-77:5 (agreeing "generally" that "how well Meta protects the privacy of users of Facebook and Instagram makes up part of the quality of the apps").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1495. Further disputed because the FTC takes Professor

Carlton's deposition testimony out of context. Professor Carlton stated that users' "observed behavior" shows that "differences in privacy don't seem to matter much in driving substitution of consumers from one app to the next." PX6179 at 62:18-21 (Carlton Dep. Tr.). The quotation in the parenthetical is also taken out of context:

> Q. Do you agree that how well Meta protects the privacy of users of Facebook and Instagram makes up part of the quality of the apps?
>
> A. Well, again, I mean, generally yes. But I think it's actually a subtle question. Because the – one of the points of being on Facebook, let's suppose you and I are friends, is so I can communicate with you. Well, if I couldn't use that information, you couldn't use the information that you are my friend and I couldn't get a post from you, that might make it worse for me. On the other hand, if what I'm concerned about is certain information going to an advertiser, you know, if it's an advertiser. Now, I like to play basketball, so he's going to show me ads about basketballs I might like it. On the other hand, he's going to show me ads about something that I find irrelevant, I might not like it. So it all depends.

Id. at 76:6-77:3. Lack of substitution in response to privacy settings can reflect the "privacy paradox," i.e., consumers might state that they highly value "privacy" (however that term is defined) though their actual choices appear unaffected by privacy concerns. Ex. 2 at ¶ 174 (Carlton Rep.).

b. Professor Carlton concedes that ad load, privacy, and innovation are variables through which a social media company could exercise market power over users. PX6179, Carlton (Meta) Dep. Tr., at 45:18-46:2.

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1495. Further disputed because the FTC takes Professor Carlton's deposition testimony out of context:

> Q. . . . Do you agree conceptually that [privacy and innovation] are, in fact, variables in which a social media company could exercise market power over users?
>
> A. Conceptually anything can happen, but I would agree and I talk about in my report that the evolution of features in, say, the introduction of the innovation of new features into your product is important. I have a long discussion of privacy explaining that it does not seem to have been an important element in – among the various platforms to attract eyeballs. It doesn't seem to have been particularly important. But, you know, anything that matters to consumers is something that a firm would want to affect in order to try and attract eyeballs. And the firm is going to pay most attention to those aspects of these products that are most important in attracting eyeballs in competition with rivals.

PX6179 at 44:20-45:17 (Carlton Dep. Tr.). Professor Carlton further explained that "ad load and privacy . . . don't seem to be particularly important elements of competition," while innovation (an "important" element of competition) reflects fierce competition. *Id.* at 46:1-14.

1496. Meta's "Cares About Users" or "CAU" metric has [redacted] for both Facebook and Instagram for several years. PX9000, Hemphill Report at ¶ 767, Exs. 65, 66.

<u>Meta Response</u>: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The terms "[redacted]" and "several years" are vague and undefined, including because the cited exhibits in Professor Hemphill's report show that CAU is [redacted]. *See* PX9000 at pp. 300-301, Exs. 65-66 (Hemphill Rep.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1493, and 1495. The evidence shows that "virtually anything can drive" trends in answers to Meta's brand tracking surveys – from major news events about Meta and "a

changing composition" of Meta's users, to "how users feel" about "things going on in the world generally" or "within tech or media." PX6087 at 79:8-15 (Cobb Dep. Tr.).

a. Meta's CAU metric acts as "the summary metric by which [Meta] understand[s] [its] brand reputation most," and it includes "questions around satisfaction with product use, . . . questions around trustworthiness of the company, [and] questions around usefulness." PX6031, Cobb (Meta) Dep. Tr., at 248:10-248:25, 263:5-263:23. "Cares About Users" was adopted as Meta's main focus of its brand reputation in 2014. *See* PX6031, Cobb (Meta) Dep. Tr., at 262:6-262:18.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Among Facebook users in the United States, Meta's "Cares About Users" metric has [redacted]. PX9000, Hemphill Report, Ex. 65.

Meta Response: Disputed. Disputed because the term "[redacted]" is vague and undefined; the exhibit in Professor Hemphill's report shows that CAU is [redacted]. *See* PX9000 at p. 300, Ex. 65 (Hemphill Rep.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1493, and 1495.

c. Among Instagram users in the United States, Meta's "Cares About Users" metric has [redacted]. PX9000, Hemphill Report at ¶ 767, Exs. 65-66.

Meta Response: Disputed. Disputed because the term "[redacted]" is vague and undefined; the exhibit in Professor Hemphill's report shows that CAU [redacted].

PX9000 at p. 301, Ex. 66 (Hemphill Rep.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1493, and 1495.

1497. Meta's "Good for the World" metric has also [redacted] for both Facebook and Instagram for several years. PX9000, Hemphill Report at ¶ 768, Exs. 67, 68.

Meta Response: Disputed. Disputed because the terms "[redacted]" and "several years" are vague and undefined; the exhibits in Professor Hemphill's report show that the GFW metric is [redacted]. *See* PX9000 at pp. 302-303, Exs. 67-68 (Hemphill Rep.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1493, and 1495.

a. In addition to "Cares About Users," another one of Facebook's five "brand pillars" is a metric known as "Good for the World" or "GFW." PX3378 at -009, Meta document: "Sentiment" (Jan. 2018), FTC-META-005220961.

Meta Response: Undisputed that the document contains the quoted language.

b. "Good for the World" reflects users' perceptions of the extent to which Meta connects people, maintains content integrity, and mitigates divisive content (e.g., hate, politics, bullying). PX3384 at -037, Meta presentation: "GFW ('Is Good For The World')" (Mar. 2017), FB_FTC_CID_12400422; *id.* at -045 ("Connecting people globally, providing information and support for communities and causes is only part of GFW, but not the whole thing."); *id.* at -071("Negative GFW perception is about real-life interactions, content integrity and divisive content (e.g., hate, politics, bullying).").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement establishes that there is an empirical causal relationship between these survey responses and Meta's investments in its integrity systems.

c. The "Good for the World" metric has [redacted]. PX9000, Hemphill Report at ¶ 768, Exs. 67, 68 ("Exhibit 67 and Exhibit 68 show that ["Good for the World"] has also [redacted]").

Meta Response: Disputed. Disputed because the terms "[redacted]" and "[redacted]" are vague and undefined. The exhibits in Professor Hemphill's report show that the GFW metric is [redacted]. *See* PX9000 at pp. 302-303, Exs. 67-68 (Hemphill Rep.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1493, and 1495.

1498. Meta's "Relative Cares About Users" metric, which benchmarks itself against other tech brands, [redacted] Facebook and Instagram [redacted]. PX9000, Hemphill Report at ¶¶ 769-772.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1474, 1493, and 1495. Further disputed because the phrase "[redacted]" is vague and undefined; according to a document that the FTC has introduced into the record,

[redacted]

[redacted], PX3013 at -011 (FTC-META-002472345), and in 2020 [redacted] *id.* at -117; *see also id.* at -119 (reporting that [redacted]). Further disputed because the sources cited in Professor Hemphill's own report [redacted]. *See* PX9000 at ¶ 771(c) (Hemphill Rep.) (relying on a Meta document's statement: [redacted]). Further disputed because Professor Hemphill acknowledged that he did not analyze "what caused these observed declines" in sentiment, Ex. 283 at 223:22-224:1 (Hemphill Dep. Tr.), despite testifying that factors other than product quality affect Meta's brand reputation, *id.* at 217:12-20. Professor Hemphill also testified: "Q. . . . [I]s it your opinion that brand reputation is affected only by quality and not other factors? . . . A. No." *Id.* at 217:12-16. The evidence shows that "virtually anything can drive" trends in answers to Meta's brand tracking surveys – from major news events about Meta or "a changing composition" of Meta's users, to "how users feel" about "things going on in the world generally" or "within tech or media." PX6087 at 79:8-15 (Cobb Dep. Tr.); *see also* Ex. 2 at ¶¶ 168-171 (Carlton Rep.) (observing that Professor Hemphill "provides no methodology" or "quantitative assessment" distinguishing those other factors from any alleged changes in price or quality).

a. Meta measures users' perceptions of its services through a metric known as "Relative Cares About Users" or "RCAU." Meta uses this metric "[redacted]

[redacted] ” and get information on “ [redacted] .” PX6031, Cobb (Meta) Dep. Tr., at 42:24-43:10.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Facebook and Instagram [redacted] on RCAU relative to other tech brands. PX9000, Hemphill Report at ¶¶ 770-71.

Meta Response: Disputed. Disputed for the reasons stated above in Meta’s response to paragraph 1498 (about this metric), and because this statement omits context necessary to understand this measure. The RCAU survey question “asks . . . respondents to rate a randomly chosen brand among the brands they are aware of” in terms of whether they “[c]are[] [a]bout” their users or customers. PX9000 at ¶ 770 (Hemphill Rep.). Professor Hemphill admitted that he did not analyze “what caused these observed declines” in sentiment, Ex. 283 at 223:22-224:1 (Hemphill Dep. Tr.), despite testifying that factors other than product quality affect Meta’s brand reputation, *id.* at 217:12-20. Professor Hemphill testified: “Q. . . . [I]s it your opinion that brand reputation is affected only by quality and not other factors? . . . A. No.” *Id.* at 217:12-16.

c. “Relative Cares About Users” is based on information from Meta’s Relative Metrics survey. [redacted] *See, e.g.*, PX3013 at -006-09, -012, -034, Meta presentation: “Relative Metrics 2021H1 Update” (Jan.

2020), FTC-META-002472348; *see also id.* at -006 ([redacted]); PX6087, Cobb (Meta) Dep. Tr., at 150:8-151:12.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

d. Facebook's and Instagram's RCAU has [redacted]. PX9000, Hemphill Report at ¶ 771.

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1498 and subparagraphs 1498(a)-(c). Further disputed because the FTC omits context from the record. Dr. Cobb – the Meta executive who manages this survey – testified that [redacted] PX6087 at 154:10-155:4 (Cobb Dep. Tr.).

1499. Meta's Main Tracking Survey poses a series of questions that are informative about specific quality attributes of Facebook and Instagram. *See* PX6031, Cobb (Meta) Dep. Tr., at 259:18-260:22. Four of these questions concern Facebook's and Instagram's reliability, ease of use, users' control over personal information, and users' satisfaction with the experience on the app:

<u>Meta Response</u>: Disputed in part. Undisputed that the above-referenced survey asks questions as described in this statement. Disputed that this statement creates a genuine

dispute of material fact, including for the reasons stated above in Meta's responses to subparagraph 1492(c)(vi) and paragraph 1493. Further disputed because the record contains no competitive benchmark for reliability, ease of use, control over personal information, or user satisfaction. Professor Hemphill testified: "Q. . . . [J]ust to get it real clear . . . you didn't look at whether there was a change in user sentiment on Snapchat with respect to control of information, right? . . . A. I would agree that I don't have a head-to-head comparison of that kind, I'm not aware of data of that kind, and the answer to that question would I think not be fruitful in evaluating the direct exercise of monopoly power." Ex. 283 at 225:21-226:9 (Hemphill Dep. Tr.). Further disputed because Professor Hemphill testified: "Q. . . . Did you connect the changes in sentiment there to any events in the real world? . . . A. No." *Id.* at 228:3-7; *see also id.* at 227:15-20 (no opinion that Instagram or Facebook "became less easy to use"), 228:13-229:1 (identifying no competitive benchmark for "ease of use" or reliability). There is no evidence that changes in consumer sentiment about brand reputation reflect objective service quality. *See* Ex. 2 at ¶¶ 168-171 (Carlton Rep.).

a. "How reliably does Facebook [or Instagram] work the way it's supposed to (i.e., without errors, bugs, or delays)?" PX9007, Hemphill Rebuttal Report at ¶ 67.

<u>Meta Response</u>: Undisputed that the quoted language appears in the survey.

b. "How easy or difficult is Facebook [or Instagram] to use?" PX9007, Hemphill Rebuttal Report at ¶ 67.

<u>Meta Response</u>: Undisputed that the quoted language appears in the survey.

c. "How much control do you have over your personal information on Meta's apps or products [or on Instagram]?" PX9007, Hemphill Rebuttal Report at ¶ 67.

Meta Response: Undisputed that the quoted language appears in the survey.

d. "Overall, how satisfied are you with your Facebook [or Instagram] experience?" PX9007, Hemphill Rebuttal Report at ¶ 67.

Meta Response: Undisputed that the quoted language appears in the survey.

1500. Each of the four questions concerning Facebook's and Instagram's reliability, ease of use, users' control over personal information, and users' satisfaction with the experience on the app in Meta's Main Tracking Survey [redacted]. *See* PX9007, Hemphill Rebuttal Report, Ex. 1.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1493 and 1499. Further disputed because referenced survey data does not depict a [redacted] in user sentiment. For example, according to Professor Hemphill's calculations, [redacted]. *See* PX9007 at pp. 19-20, Exs. 1-2 (Hemphill Rebuttal Rep.). Further disputed because Professor Hemphill testified: "Q. . . . Did you connect the changes in sentiment there to any events in the real world? . . . A. No." Ex. 283 at 228:3-7 (Hemphill Dep. Tr.); *see also id.* at 227:15-20 (no opinion that Instagram or Facebook "became less easy to use"); *id.* at 228:13-229:1 (identifying no competitive benchmark for "ease of use" or reliability).

c) Meta has raised quality-adjusted price by underinvesting in friends and family sharing.

1501. Meta has also raised the quality-adjusted price of Facebook and Instagram by underinvesting in friends and family sharing. PX9007, Hemphill Rebuttal Report at ¶¶ 350-64, 728-39.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432 and 1474, and because it cites no evidence of Meta "underinvesting" in any of its services or features relative to some competitive threshold (or otherwise). Further disputed on the ground that Professor Hemphill provided no definition of "friends and family sharing" distinct from "personal social networking" which, he maintains, includes all activities on Facebook and Instagram other than Dating. *See* PX9007 at ¶ 252 (Hemphill Rebuttal Rep.) (indicating that "the friends and family sharing use case" is not "limited to Feed and Stories" but also embraces "Reels, Watch, and other surfaces"); Ex. 283 at 72:1-9 (Hemphill Dep. Tr.) ("Q. . . . 'All of the features, activities identified by Meta for Facebook and Instagram are part of Meta's personal social networking offering except Facebook Dating'; do you see that? A. Yes, I see that sentence. Q. Do you agree with that? A. Yes."). Professor Hemphill provided no quantitative or qualitative way to measure or identify "investment in friends and family sharing." On the contrary, Professor Hemphill testified that Meta innovating to add features to its services (like Stories and Reels; both post-dating the acquisitions at issue) is a "quality improvement." Meta SMF ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Meta has spent billions investing in its services. *See id.* at ¶ 126; Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide

innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:1 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking.").

1502. Meta has underinvested in the friends and family sharing use case on Facebook and Instagram, as it has internally recognized.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below and for the reasons stated above in Meta's response to paragraph 1501.

a. In a 2018 email, Adam Mosseri wrote that, while "connecting with friends and family has remained the most stated reason that people use Facebook," Meta "aggressively grew the part of the ecosystem where people passively consume media at the expense of original sharing and interactions between people." PX3406, Meta email: A. Mosseri to [redacted] re: "# Meaningful Social Interactions," (Feb. 23, 2018), FTC-META-003095912, at -912-13.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501. Further disputed because the document does not state or reflect that Meta "underinvested in the friends and family sharing use case," as the FTC's statement asserts. On the contrary, in the same document – which the

FTC omits from its quotations – Mr. Mosseri attributed Meta's business focus to the "shift to mobile," "explosive growth in video," and "the rise of messaging" as the place for "most personal sharing":

> [W]e've seen a number of paradigm shifts — this shift to mobile, the rise of messaging, explosive growth in video, and others. During these shifts, and in large part because of them, two critical things have happened to News Feed: (1) much of the sharing online has shifted to other media, and (2) we aggressively grew the part of the ecosystem where people passively consume media at the expense of original sharing and interactions between people.
>
> . . .
>
> Through research and experimentation we've learned a lot over the past few years about what works and what doesn't for both empowering people to share and for connecting people with what matters to them with News Feed. . . . [redacted]

PX3406 at -912, -913 (FTC-META-003095912).

b. A 2018 Meta study reported that "[redacted]."

PX3168, Meta document: "[Final] IG Connections – Q3 2018 Roadmap" (*June 11, 2018), FB_FTC_CID_08480004, at -006.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501. Further disputed because this statement takes the quoted language out of context. The document also states: "[redacted]

[redacted]" PX3168 at -80007 (FB_FTC_CID_08480004). Further disputed that [redacted].

c. In a 2021 email from Fidji Simo to Mark Zuckerberg and Chris Cox, Ms. Simo acknowledged that "our core of Sharing/Expression/Give People A Voice has not evolved much across neither FB nor IG since Stores," as "[o]ver the last few years" Meta's "tendency has been to spin up entirely new services in new markets." She further described Meta as having "lost the plot on innovation." PX11996, Meta email chain: F. Simo to M. Zuckerberg & C. Cox re: "Innovation," (Mar. 8, 2021), FTC-META-003889440, at -440-41.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language (although "Stores" should be "Stories"). Disputed that this subparagraph supports the statement that Meta "underinvested in the friends and family sharing use case on Facebook and Instagram," including for the reasons stated above in Meta's responses to paragraphs 1474 and 1501.

d. In a 2021 document created for Tom Alison, within a recommendation for the Facebook app to "[i]nnovate in Friends & Family," one Meta employee observed that "[w]e are the indisputable leader in Friends and Family, especially with extended networks, but we have not innovated on it for a while." PX3567, Meta document: "FB App & Entertainment - Young Adults - Watch 2y Vision" (*Nov. 26, 2021), FTC-META-006751957, at -965.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement supports the contention that Meta "underinvested in the friends and family sharing use case on Facebook and Instagram," which the document does not say or imply. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501.

e. In a 2022 message exchange among Meta executives, John Hegeman expressed [redacted] PX12669, Meta messages: J. Hegeman to M. Zuckerberg, et al. (Feb. 6, 2022), FTC-META-012193710, at -714 [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement supports the contention that Meta "underinvested in the friends and family sharing use case on Facebook and Instagram," which the document does not say or imply. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501.

f. A 2022 Meta slide deck regarding engagement on Facebook recognized that

[redacted] PX3170, Meta presentation: "FB App Engagement Follow-up" (Jan. 27, 2022), FTC-META-006005435, at -471.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language (although the second quotation corrects an apparent misspelling of "Stories" in the original source). Disputed that the statement supports the contention that Meta "underinvested in the friends and family sharing use case on Facebook and Instagram," which the document does not say or imply. Further disputed because Professor Hemphill testified: "Reels is part of personal social networking – part of the personal social networking offering, yes, that's right." Ex. 283 at 175:18-20 (Hemphill Dep. Tr.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501.

g. According to notes from a 2022 dinner meeting, Meta executives recognize that

[redacted] PX12497, Meta document: "PG Leads Dinner 1/19 - Summary of Conversation about Facebook Trends" (Jan. 19, 2022), FTC-META-006283862, at -862.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement supports the contention that Meta "underinvested in the friends and family sharing use case on Facebook and Instagram," which the document does not say or imply. Further disputed because

this statement omits context, including that the document [redacted] PX12497 at -862 (FTC-META-006283862). Further disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501.

h. According to notes from a 2022 dinner meeting, Meta executives recognize that [redacted] PX12497, Meta document: "PG Leads Dinner 1/19 - Summary of Conversation about Facebook Trends" (Jan. 19, 2022), FTC-META-006283862, at -862.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement supports the contention that Meta "underinvested in the friends and family sharing use case on Facebook and Instagram," which the document does not say or imply. Further disputed because this statement omits context, including that the document [redacted]. PX12497 at -862 (FTC-META-006283862). The quoted language states that [redacted].

Id. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501.

i. According to notes from a 2022 dinner meeting, Meta executives recognize that [redacted] PX12497, Meta document: "PG Leads Dinner 1/19 - Summary of Conversation about Facebook Trends" (Jan. 19, 2022), FTC-META-006283862, at -863.

Meta Response: Undisputed that the document contains the quoted language. Disputed that the statement supports the contention that Meta "underinvested in the friends and family sharing use case on Facebook and Instagram," which the document does not say or imply. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1501.

1503. Meta's underinvestment in friends and family sharing has reduced the quality of Facebook and Instagram, as indicated in Meta's ordinary course record showing user frustration with the levels of friends-and-family content. PX9007, Hemphill Rebuttal Report at ¶¶ 729-30.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi), and in Meta's responses to the subparagraphs below.

a. [redacted]

[redacted] PX3173, Meta document: "Preliminary Analysis for FSS Complaint" (Feb. 12, 2020), FTC-META-012516625, at -625 [redacted].

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document identifies no relationship between [redacted]. *See* PX3173 at -625, -628 (FTC-META-012516625) ("[redacted]"). Further disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

b. A 2020 internal analysis of [redacted], and that [redacted]. PX3172, Meta document: [redacted]

[redacted] (Aug. 27, 2020), FTC-META-012246521, at -521.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

c. A 2020 internal analysis of [redacted] PX3172, Meta document: [redacted] (Aug. 27, 2020), FTC-META-012246521, at -531 [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document identifies no relationship between the complaints of some survey respondents and any investment decision by Meta. Further disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

d. A 2021 analysis of results of Meta's Lorax Survey—which [redacted] —described [redacted] PX3174, Meta document: "Lorax H1 2021: FAST pain points" (Oct. 14, 2021), FTC-META-012246537, at -539 [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document identifies no relationship between the complaints of some survey respondents and any investment decision by Meta. Disputed because the FTC statements omit that the document states, [redacted] PX3174 at -539 (FTC-META-012246537). Further disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

e. A 2022 analysis of results of Meta's Lorax Survey—which [redacted] —found that [redacted] PX3405, Meta document: "H1

2022 Lorax: FB Home pain points" (*Aug. 25, 2022), FTC-META-012246467, at -467.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document identifies no relationship between the complaints of some survey respondents and any investment decision by Meta. Further disputed on the ground that the FTC quotation omits that the same document states Meta was [redacted]. *See* PX3405 at -467 (FTC-META-012246467) [redacted]. Further disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

f. Results collected from a 2019 Meta survey [redacted] showed that [redacted]. PX3568, Meta presentation, "Lorax Q3: Top UXR Problems Summer 2019" (*Sept. 30, 2019), FTC-META-012005744, at -773.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document identifies no relationship between the complaints of some survey respondents and any investment decision by Meta. Further disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

g. Results collected from a 2019 Meta survey showed that [redacted]. PX3569, Meta presentation: "Lorax 2.0: Top User Issues" (*June 20, 2019), FB_FTC_CID_08307144, at -164.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document identifies no relationship between the complaints of some survey respondents and any investment decision by Meta. Further disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

h. An August 2022 Meta analysis of [redacted] found that [redacted] PX3570, Meta document, "Facebook and Instagram Feeds need to be explicit to become implicit" (Aug. 2022), FTC-META-014034399 at -403.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document does not attribute any user concerns to Meta's underinvestment. The document instead explains: [redacted]

[redacted] PX3570 at -399 (FTC-META-014034399); *see also id.* at -402 ("[redacted]"). The document also states: "[redacted]" *Id.* at -402. Further disputed for the reasons stated above in Meta's responses to 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi).

i. An August 2022 Meta analysis of "Facebook and Instagram Feeds" found that:

[redacted]

PX3570, Meta document, "Facebook and Instagram Feeds need to be explicit to become implicit" (Aug. 2022), FTC-META-014034399 at -403.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document does not attribute the survey

responses to any investment decision by Meta. Further disputed for the reasons stated above in Meta's responses 1474, 1493, 1499, and 1501 and subparagraph 1492(c)(vi) and 1503(i) (concerning the same document).

4. Inelastic demand and price discrimination are direct evidence of Meta's monopoly power over PSN services.

1504. Evidence of inelastic user demand for Facebook and Instagram, and Meta's exploitation of inelastic user demand through price discrimination, is further direct evidence of Meta's monopoly power over PSN services. *See* PX9000, Hemphill Report at ¶¶ 39, 683, 727-760, 777-786; PX9007, Hemphill Rebuttal Report at ¶¶ 104-21; 340-64, 403-38.

Meta Response: Disputed. Disputed that the statement, which cites more than 100 paragraphs across Professor Hemphill's two reports without explanation or context, creates a genuine dispute of material fact. Further disputed because this statement improperly asserts legal conclusions regarding "evidence" of "monopoly power." Disputed that Meta is a "PSN service[]" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because ad load – the FTC's proxy for price – is not equivalent to price, including because users can skip past advertisements rather than engaging with them, advertising can benefit consumer welfare, and consumers have varied preferences regarding ads, as Professor Hemphill testified. *See* Meta SMF ¶ 148 (quoting Ex. 283 at 245:7-13, 245:21-246:5 (Hemphill Dep. Tr.)); *see also* Ex. 498 at 3 (MetaFTC-DX-1159) (the FTC's proffered expert Professor Aral stating, "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value."). Disputed that Meta engages in "price discrimination" relevant to the FTC's claims of monopoly power in the alleged relevant market because, when asked, "[s]o it's correct to say that you don't have

any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing," Professor Hemphill testified, "I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." Ex. 283 at 253:8-17 (Hemphill Dep. Tr.); *see also id.* at 252:17-253:2 ("Q. . . . I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."). The FTC's own regression analysis, provided by Professor Hemphill, shows that [redacted]. *See* Ex. 2 at ¶¶ 114 & tbl. 20, 118 & tbl. 23 (Carlton Rep.). Disputed that price discrimination is evidence of "monopoly power." As Professor Tucker testified:

> Q. A firm that has market power can exercise market power by exploiting differences among customers in their elasticities of demand setting a higher price for the less elastic customers, correct?
>
> A. Well, certainly, my local pizzeria can offer a coupon to students on Tuesdays, and that would be an example of price discrimination, as you're describing it. But to my mind it's not a useful indicator of market power, just because price discrimination or price segmentation is very, very, very broadly seen as is shown by the example of my local pizzeria.

Ex. 140 at 103:17-104:7 (Tucker Dep. Tr.).

a) Inelastic user demand for Facebook and Instagram indicates monopoly power.

1505. Inelastic demand for a firm's product is evidence that consumers lack close substitutes and that the firm has market power. PX9000, Hemphill Report at ¶¶ 777, 783, 786; PX9007, Hemphill Rebuttal Report at ¶¶ 403-04, 438.

Meta Response: Undisputed.

a. Professor Carlton concedes that whether a firm has market power is determined by its direct price elasticity of demand and that a firm facing less elastic demand has greater market power. PX6179, Carlton (Meta) Dep. Tr., at 54:20-56:6.

Meta Response: Undisputed.

1506. Multiple forms of evidence indicate that user demand for Facebook and Instagram is relatively inelastic and that users lack close substitutes. PX9000, Hemphill Report at ¶¶ 777, 783, 786; PX9007, Hemphill Rebuttal Report at ¶¶ 403-04, 438.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated below in Meta's responses to paragraphs 1507 and 1512. Disputed that there is any evidence of demand elasticity for Facebook and Instagram that would support the statement. As Professor Hemphill testified: "Q. . . . You could measure directly a user's demand for friends and family sharing, yes or no? . . . A. I don't know what you have in mind about directly measuring the demand for friends and family sharing. So at this level of generality I'm not sure whether I could or not." Ex. 283 at 251:11-18 (Hemphill Dep. Tr.). Further disputed that consumers lack close substitutes for Facebook and Instagram. *See*, *e.g.*, Meta SMF ¶¶ 633-635 (Professor Hemphill admitting there is no quantitative evidence of substitution), ¶¶ 636-639 (Professor Hemphill admitting that competition is at the margin for time

spent), ¶¶ 640-642 (Professor Hemphill admitting there is no evidence of "price discrimination" against friends and family sharing demand). Further, many services the FTC omits from the claimed "PSNS" market facilitate friends and family sharing. *See*, *e.g.*, *id.* at ¶¶ 457-460. For example, TikTok has several friends and family sharing features. *See id.* at ¶¶ 212-243. Professor Hemphill acknowledged that he is not sure – following his review of the record – whether there is more friends-related content on Instagram Reels or the TikTok For You page. *See id.* at ¶ 216 (quoting Ex. 283 at 92:16-21 (Hemphill Dep. Tr.)).

(1) Users' response to the Cambridge Analytica scandal shows users' lack of alternatives.

1507. The Cambridge Analytica scandal—including reactions from both Facebook users and Meta itself—provides a demonstration of the inelasticity of Facebook engagement with respect to perceived quality and direct evidence of Facebook's market power. PX9000, Hemphill Report at ¶¶ 782-86; PX9007, Hemphill Rebuttal Report at ¶¶ 149-56.

Meta Response: Disputed. Disputed that this statement and its subparagraph create a genuine dispute of material fact, including because the lack of user reaction to the Cambridge Analytica incident shows that it was not an increase in quality-adjusted price – otherwise, users would have left, even if Meta were a monopolist. *See* Ex. 2 at ¶¶ 172-174 (Carlton Rep.). Further disputed that negative sentiment scores show a decline in objective quality; this is an example of the "privacy paradox," i.e., "whatever people may say about the value they place on 'privacy,' their actual actions in the marketplace reveal that they may value other things more highly." *Id.* at ¶ 174. When asked whether "the quality of privacy or the quality of user control over personal information declined" after Cambridge Analytica, Professor Hemphill testified: "I would agree that I don't have

some specific opinion that there was some specific switch that [Meta] flipped downward and then suddenly saw this drop." Meta SMF ¶ 51 (quoting Ex. 283 at 222:1-15 (Hemphill Dep. Tr.)). Professor Hemphill also confirmed that the FTC has no measure of overall quality-adjusted price. *See id.* at ¶ 129 (Professor Hemphill: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.))). Further disputed because this statement improperly asserts legal conclusions regarding "evidence" of "power."

a. Cambridge Analytica was a data analytics and consulting company that provided voter-profiling and other marketing services. PX0517 at -003, *Cambridge Analytica, LLC*, 168 F.T.C. 713, 729 (2019).

<u>Meta Response</u>: Undisputed that the document – which is not evidence – contains the paraphrased statement.

1508. Through its marketing services, Cambridge Analytica and its affiliates sought to commercialize academic research asserting that Facebook profile information could predict a user's personality. PX0517 at -004, *Cambridge Analytica, LLC*, 168 F.T.C. 713, 729-30 (2019).

<u>Meta Response</u>: Undisputed that the document – which is not evidence – contains the paraphrased statement.

a. Using Facebook's developer tool, Graph API, Cambridge Analytica and affiliates collected profile information from users who interacted with its GSRApp, as well

as from these users' Facebook friends. PX0517 at -004-05, *Cambridge Analytica, LLC*, 168 F.T.C. 713, 730 (2019).

Meta Response: Undisputed that the document – which is not evidence – contains the paraphrased statement.

b. Due to Facebook's policies regarding Graph API, Cambridge Analytica could collect profile information on friends of users who interacted with the GSRApp even if those friends never interacted with the app themselves. PX0517 at -005, *Cambridge Analytica, LLC*, 168 F.T.C. 713, 730 (2019).

Meta Response: Undisputed that the document – which is not evidence – contains the paraphrased statement.

c. Cambridge Analytica harvested Facebook profile information including users' Facebook User ID, gender, birthdate, location, friends lists, and "likes" on public Facebook pages and profiles. PX0517 at -007, *Cambridge Analytica*, LLC, 168 F.T.C. 713, 733 (2019).

Meta Response: Undisputed that the document – which is not evidence – contains the paraphrased statement.

d. Throughout 2014, Cambridge Analytica harvested Facebook profile information from approximately 250,00-270,000 users of the GSRApp located in the U.S., and approximately 50-65 million of those users' friends who never interacted with the GSRApp. PX0517 at -007, *Cambridge Analytica, LLC*, 168 F.T.C. 713, 733 (2019).

Meta Response: Undisputed that the document – which is not evidence – contains some of these figures (but "250,00" should be "250,000").

1509. On March 17, 2018, *The New York Times* and *The Guardian* published reporting on Cambridge Analytica's data collection and related facts, including that over 50 million Facebook users may have been affected. PX0303 at -001, Matthew Rosenberg et al., *How Trump Consultants Exploited the Facebook Data of Millions*, N.Y. Times (Mar. 17, 2018), https://www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html; PX0304 at -001, Carole Cadwalladr & Emma Graham-Harrison, *Revealed: 50 Million Facebook Profiles Harvested for Cambridge Analytica in Major Data Breach*, The Guardian (Mar. 17, 2018), https://www.theguardian.com/news/2018/mar/17/cambridge-analytica-facebook-influence-us-election.

Meta Response: Undisputed that the articles contain the paraphrased language.

1510. On April 4, 2018, Meta announced that the Facebook information of approximately 70 million U.S. users "may have been improperly shared with Cambridge Analytica." PX0305 at -005, Mike Schroepfer, *An Update on Our Plans to Restrict Data Access on Facebook*, Meta Newsroom (Apr. 4, 2018), https://about.fb.com/news/2018/04/restricting-data-access/.

Meta Response: Undisputed that the article contains the quoted language.

1511. Various metrics indicated that user sentiment declined after public revelations regarding Cambridge Analytica.

Meta Response: Disputed in part. Undisputed that various metrics showed user sentiment declined after the Cambridge Analytica incident. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1507.

a. A March 2018 Meta slide deck titled "CA Metrics Update," created for a Meta board meeting, reported that Facebook's Relative CAU ("Cares About Users") score for the United States [redacted] after public revelations regarding Cambridge Analytica, where a score of 0 signals the "worst brand in market" and a score of 100 signals the "best brand in market." PX2576 at -004, -006, Meta presentation: "CA Metrics Update" (Mar. 27, 2018), FB_FTC_CID_10327838 (reporting that "[redacted]").

<u>Meta Response</u>: Undisputed that the document reports the foregoing figures.

b. A March 2018 Meta slide deck, titled "Goodwill Weekly Sentiment Handout," reported that the Cambridge Analytica scandal constituted "the biggest Sentiment event in the history of our metrics." PX12110 at -001, -004, Meta presentation: "Goodwill Weekly Sentiment Handout" (Mar. 2018), FB_FTC_CID_09823972 ("Currently this is the biggest Sentiment event in the history of our metrics. We are roughly double the global CAU impact, and just over the US CAU impact of Messenger Diode- which was previously our largest sentiment event.").

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

c. A 2018 Meta slide deck on "Ads Sentiment" reported that "trust in Facebook to use [personal] information responsibly" declined [redacted], comparing the weeks ending March 13, 2018 and March 27, 2018. PX3016, Meta presentation: "Ads Sentiment: Q1 2018 Review" (*Apr. 2018), FTC-META-007980883, at -883, -896 (reporting CACTUS results in response to the question: "Facebook uses

some of your personal information to show you ads. What is your level of trust in Facebook to use this information responsibility?”).

<u>Meta Response</u>: Undisputed that the document reports these figures.

d. A 2018 Meta slide deck on “Ads Sentiment” reported that “CAU dropped by -[redacted] the week ending in 3/27.” PX3016, Meta presentation: “Ads Sentiment: Q1 2018 Review” (*Apr. 2018), FTC-META-007980883, at -896.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

e. A June 2019 presentation from members of Meta’s Demography and Survey Science team reported that “CAU experienced its largest drop to date” one week after publicization of Cambridge Analytica’s data collection. PX2331, Meta presentation: “Does Sentiment Towards Facebook Affect Revenue and Engagement? Evidence from 5 Empirical Strategies” (June 2018), FB_FTC_CID_06951903, at -903, -915 (“One week after CA (red vertical line [referring to figure in presentation]) CAU experienced its largest drop to date.”).

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

f. A June 2019 presentation from members of Meta’s Demography and Survey Science team referred to publicization of Cambridge Analytica’s data collection as the “most extreme” “shock affecting sentiment towards FB” to date. PX2331, Meta presentation: “Does Sentiment Towards Facebook Affect Revenue and Engagement? Evidence from 5 Empirical Strategies” (June 2018),

FB_FTC_CID_06951903, at -903, -906 ("We leverage Cambridge Analytica (CA) as (most extreme event to date) shock affecting sentiment towards FB.").

Meta Response: Undisputed that the document contains the quoted language.

1512. Despite the negative shock to perceived quality, the Cambridge Analytica scandal had no noticeable effect on aggregate user engagement in the United States. PX9000, Hemphill Report at ¶¶ 783-786, Exs. 72-73 (comparing Facebook user sentiment and daily active users/time spent before and after the Cambridge Analytica scandal).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because it makes argumentative assertions about quality. Further disputed because the cited portions of Professor Hemphill's report "focus[] on the 'Cares About Users' measure of sentiment," PX9000 at ¶ 784 (Hemphill Rep.) – but that metric, which measures responses to the question whether "Facebook cares about its users," *id.* at p. 312, Ex. 73 (Notes), measures brand reputation, not objective or perceived service quality, *see* Ex. 2 at ¶¶ 168-171, 317 (Carlton Rep.). No evidence in the record shows changes in consumer sentiment about brand reputation necessarily reflect objective service quality. *See* Ex. 2 at ¶¶ 168-171 (Carlton Rep.). Dr. Cobb – Meta's in-house survey expert who manages the survey that measures CAU, *see* PX6087 at 48:25-49:9, 52:23-24 (Cobb Dep. Tr.) – identified Cambridge Analytica as an example of an event that damaged Meta's brand but not engagement precisely because it did not affect users' "within-product experience":

> Q. Sitting here today, can you recall any examples where Meta user sentiment dropped but user engagement did not? . . .

> A. Yeah. One big example. . . . Cambridge Analytica. It was a large news story that did not have a corresponding within-product experience for most – the vast majority of people on the platform. We saw our brand reputation drop precipitously but did not experience the same – the same engagement losses as we did with the drop in sentiment. . . .
> [redacted]

Id. at 66:21-69:10 & errata. Further disputed for the reasons stated above in Meta's response to paragraph 1507.

1513. Ordinary course documents and testimony additionally indicate the lack of any sustained, significant impact on Facebook's engagement metrics.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1507 and 1512.

a. Mr. Zuckerberg testified that Meta did not observe a significant increase in users deactivating their accounts after revelations surrounding Cambridge Analytica. PX6127, Zuckerberg (Meta) Dep. Tr., at 120:8-19 ("Q. You were asked when you were testifying in front of Congress on April 11, 2018, the following question: Now, since the revelation surrounding Cambridge Analytica, Facebook has not noticed a significant increase in users deactivating their accounts; is that correct? You responded: Yes. That was a truthful statement as of April 11, 2018; right? A. I assume so. If I gave that answer in Congress under oath, then it would have been what I believed was true at the time.").

Meta Response: Undisputed that Mr. Zuckerberg provided the quoted testimony.

b. Javier Olivan testified that, following the Cambridge Analytica scandal, "the main metric that changed was sentiment towards Facebook," but that any effects on growth were "temporary . . . mean[ing] it lasted for some period of time, but over time it reverted back to normal churn levels." PX6017, Olivan (Meta) IH Tr., at 460:14-18, 460:24-461:8.

Meta Response: Undisputed that Mr. Olivan provided the quoted testimony.

c. A March 2018 Meta slide deck titled "CA Metrics Update," created for a meeting of Meta's Board of Directors, reported that—despite "elevated" deletions and deactivations of Facebook accounts—"core engagement metrics" were not affected after public revelations regarding Cambridge Analytica. PX2576 at -005, Meta presentation: "CA Metrics Update" (Mar. 27, 2018), FB_FTC_CID_10327838 (reporting that "[g]lobally and in the US, no evidence that core engagement metrics are affected: Time Spent, Sessions, Sharing, Likes, Comments, MSI").

Meta Response: Undisputed that the document contains the quoted language.

d. A June 2019 presentation from members of Meta's Demography and Survey Science team reported that publicization of Cambridge Analytica's data collection had no "immediate effect on average user revenue" in contrast "with the large change in CAU after CA." PX2331, Meta presentation: "Does Sentiment Towards Facebook Affect Revenue and Engagement? Evidence from 5 Empirical

Strategies" (June 2018), FB_FTC_CID_06951903, at -903, -916 ("[redacted], we find no statistically or substantively significant difference in revenue per user. . . . This is evidence that CA didn't have an immediate effect on average user revenue, and contrasts with the large change in CAU after CA.").

Meta Response: Undisputed that the document contains the quoted language.

e. A June 2019 presentation from members of Meta's Demography and Survey Science team reported that publicization of Cambridge Analytica's data collection had "no significant effects" on engagement metrics. PX2331, Meta presentation: "Does Sentiment Towards Facebook Affect Revenue and Engagement? Evidence from 5 Empirical Strategies" (June 2018), FB_FTC_CID_06951903, at -903, -917 ("When comparing engagement of users just before CA and just after CA, we observe no significant effects of CA on any metric at the 95% level, though page likes and comments were on a general downward trend in this period.").

Meta Response: Undisputed that the document contains the quoted language.

f. A June 2019 presentation from members of Meta's Demography and Survey Science team recognized that "given the magnitude of CA's effect on sentiment, [redacted]" PX2331, Meta presentation: "Does Sentiment Towards Facebook Affect Revenue and Engagement? Evidence from 5 Empirical Strategies" (June 2018), FB_FTC_CID_06951903, at -903, -915.

Meta Response: Undisputed that the document contains the quoted language.

1514. The lack of substitution in the face of quality shock is evidence of Facebook's market power over users. PX9000, Hemphill Report at ¶ 783; *see also* PX9007, Hemphill Rebuttal Report at ¶¶ 152-53.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1507 and 1512 and in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this is another example of the FTC improperly extending its briefing into a supposed fact statement.

1515. Established economic literature shows that a monopolist may not price on the elastic portion of demand in the short run. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 154-56; *see also* PX6179, Carlton (Meta) Dep. Tr., at 61:18-62:1 & errata (conceding this point).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the FTC's paraphrasing of Professor Carlton's testimony omits context: "Q. . . . [A] monopoly may operate in an inelastic portion of its short run demand curve; correct? A. Yes, but then you would expect to see increasing substitution away from the product in the longer run. . . . And [Professor Hemphill has] not claimed that." PX6179 at 61:18-62:4 & errata (Carlton Dep. Tr.).

(2) Other evidence of inelastic user demand for Facebook and Instagram.

1516. Other evidence also indicates inelastic user demand for Facebook and Instagram. *Infra* CMF at ¶¶ 1517-19.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1517-1519, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 1506.

1517. [redacted] PX3022, Meta document: "Ecosystem DS Review - Brand Sentiment" (Aug. 15, 2022), FTC-META-006248333, at -344 [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the language quoted in the parenthetical (though "[redacted]" should be "[redacted]"). Disputed that this paragraph accurately paraphrases the document, which states – as quoted in the parenthetical – [redacted], which is consistent with sentiment not measuring quality. The document also [redacted] PX3022 at -344, -345 (FTC-META-006248333); *see also id.* at -347

("[redacted]"). Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506-1507, and 1512.

1518. Third parties have similarly observed that Facebook users have concerns about privacy but stay on the app—or leave but then return.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC proffers no evidence that [redacted], is informative about elasticity of demand. [redacted] Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506-1507, and 1512 and in Meta's responses to the subparagraphs below.

a. A 2021 study by TikTok on "[redacted]" concluded that Facebook users stay with the app despite privacy concerns—or leave but then return—because they rely on Facebook to connect with friends and family. *See* PX13746,

[redacted], TIK-00001472, at -472-73; *see also* [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506-1507, 1512, and 1518.

b. The study found that 61% of Facebook users stated that their reliance on the platform "for connecting with people on a personal level" explained why, "in spite of trust concerns, [they] stick with using the platform or ultimately rejoin after taking a break." PX13746, [redacted], TIK-00001472, at -474.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506-1507, 1512, and 1518. Further disputed because [redacted].

c. The study found that 77% of Facebook users who stuck with the service despite losing trust due to privacy violations said one reason was "[i]t's the best or only place I can connect with friends, family or my community." PX13746, [redacted], TIK-00001472, at -481.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506-1507, 1512, and 1518. Further disputed because [redacted].

d. The study found that 58% of Facebook users who rejoined after initially leaving due to privacy violations said one reason was "[i]t's the best or only place I can connect with friends, family or my community." PX13746, [redacted], TIK-00001472, at -481.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506-1507, 1512, and 1518. Further disputed because [redacted].

e. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506-1507, 1512, and 1518.

1519. As detailed above, the data analyses conducted by Professor Carlton and Professor List found that [redacted], which is further evidence of demand inelasticity and Meta's monopoly power over users. *Supra* CMF at § II.A.8(d).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to Section II.A.8(d), and because this paragraph cites no specific evidence in support of any fact.

b) Meta price discriminates against inelastic users in setting ad load and through diminished investment in friends and family sharing.

1520. Meta's price discrimination against inelastic users of Facebook and Instagram is direct evidence of monopoly power over PSN services. PX9000, Hemphill Report at ¶¶ 39, 727-28; PX9007, Hemphill Rebuttal Report at ¶¶ 104-21; 340-64, 403-38.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1504. Further disputed because this statement makes legal claims (including as to "monopoly power" and the alleged relevant market) that are inappropriate for a supposed fact statement. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1521. Meta price discriminates in setting ad load and through its reduced investment in friends and family sharing. *Infra* CMF at §§ II.C.4(b)(1)-(2); PX9000, Hemphill Report at ¶¶ 39, 727-728; PX9007, Hemphill Rebuttal Report at ¶¶ 104-21; 340-64.

Meta Response: Disputed. Disputed that the conclusory statement – which cites dozens of paragraphs in Professor Hemphill's reports without explanation or context – creates a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections II.C.4(b)(1)-(2), Meta incorporates its responses to those statements here. Regarding ad load, disputed for the reasons stated above in Meta's response to paragraph 1504. Regarding investment, disputed for the reasons stated above in Meta's response to paragraph 1501.

1522. Meta's price discrimination has two implications. First, it means that Meta's very high profits are explained in important part by its ability to set higher levels of ad load on users with lower elasticity. Second, Meta's market power has an extra degree of protection against competition for those users most likely to switch to an alternative. PX9000, Hemphill Report at ¶¶ 756-60; *see also* PX9007, Hemphill Rebuttal Report at ¶¶ 348, 352.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1446 and 1504, and in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because Meta adjusts ad load to reflect user preference, i.e., users who engage more with ads see more ads. *See* PX6185 at 110:14-111:7 (Li Dep. Tr.) ("[W]e have come to understand that people have vastly different preferences about ads, and depending on whether you are more like me and find ads to be sort of a great part of the

experience, you would like to see more – I could probably see more, frankly, than I do – that, you know, means that I'm a good candidate for seeing more ads, and there are people who don't feel that way, and those people are good candidates for seeing fewer ads. And we've adapted the ad system now to try and deliver the right number and the appropriate ads to each person.").

(1) Meta imposes higher ad load on users with less elastic demand.

1523. Meta engages in price discrimination by exploiting differences among users of Facebook and Instagram in their elasticities of demand—including the relative impact of increased ad load on their demand for Meta's PSN services—to set a higher quality-adjusted price for less elastic users. PX9000, Hemphill Report at ¶¶ 727-728; PX9007, Hemphill Rebuttal Report at ¶¶ 82, 104-21.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1504 and 1506. The FTC's use of "PSN services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1524. Meta varies ad load for Facebook and Instagram [redacted].

Meta Response: Disputed in part. Undisputed that Meta's systems vary ad load for Facebook and Instagram [redacted]. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the FTC lacks any evidence that Meta varies ad load based on supposed demand for sharing with friends and family. *See* Meta SMF ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)). Disputed that any variance in ad load is evidence of substantial

market power. Broadly, Meta's ad load system considers "users' preferences toward ads" and "advertiser demand":

> Users who indicate that they are receptive to and/or interested in advertisements by engaging with them may receive more advertisements on average, based on this expressed interest in advertisements. . . . Meta's dynamic ad load system thus takes into consideration a user's historic engagement with advertising in determining ad load for a given user, as well as for other users that Meta believes are more or less likely to engage with ads based on [redacted] The dynamic ad load system thus ultimately aims to show more ads to people who enjoy ads more and fewer to users who prefer ads less. This approach optimizes the value that Meta provides for users and advertisers.

PX10295 at 13 (Meta's Suppl. Objs. & Resp. to FTC's Interrog. No. 3 (Feb. 21, 2023)); *see also* PX6185 at 110:14-111:10 (Li Dep. Tr.) ("[W]e have come to understand that people have vastly different preferences about ads, and depending on whether you are more like me and find ads to be sort of a great part of the experience, you would like to see more – I could probably see more, frankly, than I do – that, you know, means that I'm a good candidate for seeing more ads, and there are people who don't feel that way, and those people are good candidates for seeing fewer ads. And we've adapted the ad system now to try and deliver the right number and the appropriate ads to each person."). The subparagraphs below confirm this point. Further disputed for the reasons stated above in Meta's response to paragraph 1504.

a. Meta "determines the ad load for both the Facebook News Feed and the Instagram Feed based on a number of factors, including [redacted]."

PX3009, Meta document: "Facebook Ireland Limited's Response to the

Competition and Markets Authority's Request for Information of July 18, 2019" (Sept. 13, 2019), FB_FTC_CID_00050115, at -126.

Meta Response: Undisputed.

b. Mr. Malhotra, Meta's corporate representative with respect to ad load, testified in his deposition that "there's a personalized ad load system that is trying to find the right balance between revenue and engagement," with such personalization including "where and which ad to show a member." PX6151, Malhotra (Meta) Dep. Tr., at 40:18-23.

Meta Response: Undisputed that the witness provided the quoted testimony.

c. Mr. Hegeman of Meta testified that there are a number of metrics Meta could use to assess the relative impact of ad load on user demand, "ranging from [redacted]." PX6084, Hegeman (Meta) Dep. Tr., at 140:18-141:3.

Meta Response: Undisputed that the witness provided the quoted testimony.

d. Mr. Hegeman of Meta also testified that ad load on Meta's apps currently varies "from user to user" [redacted]. PX6084, Hegeman (Meta) Dep. Tr., at 143:16-144:11 ("[redacted]

[redacted]

[redacted]”).

Meta Response: Undisputed that the witness provided the quoted testimony.

1525. Meta price discriminates between [redacted], decreasing ad load for [redacted] while maintaining or increasing it for [redacted]. PX9000, Hemphill Report at ¶¶ 734-742; PX9007, Hemphill Rebuttal Report at ¶¶ 107-08.

Meta Response: Disputed in part. Undisputed that [redacted]. Professor Hemphill calculated that Meta [redacted] (although he does not make this showing for Instagram). *See* PX9000 at p. 288, Ex. 60 (Hemphill Rep.). However, there are variations, and this relationship is not uniform or stable. *See* Ex. 2 at ¶ 111 & tbl. 17 (Carlton Rep.). For example, Professor Hemphill found that [redacted]. *See* PX9000 at p. 288, Ex. 60 (Hemphill Rep.). Disputed that this statement creates a genuine dispute of material fact because the FTC lacks any evidence that Meta varies ad load based on supposed demand for sharing with friends and family. *See* Meta SMF ¶ 640 (citing Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)). Disputed that any variance in ad load is evidence of substantial market power. Further disputed for the reasons stated above in Meta’s response to paragraph 1504 (regarding “price discrimination”).

a. Empirical analysis of Meta’s data confirms Meta’s use of price discrimination based on [redacted] in setting ad load on Facebook. PX9000, Hemphill Report at ¶¶ 734-742.

Meta Response: Disputed in part. Undisputed that [redacted]. *See*, *e.g.*, PX12501 at -275 (FTC-META-009312275) (Mr. Zuckerberg noting "[redacted]" – that is, based on whether they are "more ads-receptive"). Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

i. An empirical analysis of Meta data furnished in discovery confirms that, between the week of May 31, 2021 and the week of June 14, 2021, Facebook Mobile Feed ad load in the US decreased [redacted] and [redacted], while [redacted] did not see a similar decrease. PX9000, Hemphill Report at ¶ 735, Ex. 59.

Meta Response: Disputed in part. Undisputed that the report contains the stated calculations. Disputed because the FTC proffers no evidence that there is any connection between these data and demand for friends and family sharing.

ii. An empirical analysis of user-level activity data furnished by Meta shows that ad load—measured as ad impressions per hour—increased in 2021 and 2022 for [redacted], while ad load declined in 2021 and 2022 for [redacted]. PX9000, Hemphill Report at ¶ 741, Ex. 60; *see also* PX15429 at -004-07, Meta presentation: "Ad Load 101" (Jan. 21, 2022), FTC-META-004963140, at ([redacted]).

Meta Response: Disputed in part. Undisputed that the report contains the stated calculations. Disputed for the reasons stated above in Meta's response to subparagraph 1525(a)(i).

iii. An empirical analysis of user-level data furnished by Meta shows that, controlling [redacted], ad load for [redacted] was lower than [redacted] by between [redacted] ads per hour in 2022 and for [redacted] by between [redacted] ads per hour—differences significantly larger than in prior years. PX9000, Hemphill Report at ¶ 742.

Meta Response: Disputed in part. Undisputed that the report contains the stated calculations. Disputed for the reasons stated above in Meta's response to subparagraph 1525(a)(i).

b. Ordinary course evidence and testimony further indicates Meta's use of price discrimination based on [redacted] in setting ad load on Facebook.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525. Further disputed including because the FTC proffers no evidence that there is any connection between ad load and demand for friends and family sharing.

i. In an April 2021 email to Mr. Zuckerberg and other Meta executives, [redacted], then-product group lead for Facebook monetization, *see* PX6084, Hegeman (Meta) Dep. Tr., at 25:3-26:4 (testifying that [redacted] was "the engineering lead for the monetization work within the

Facebook app and eventually became the product group lead for that work, along with some adjacent areas."), reported that an analysis of "[redacted]" found that "by reducing ad load by [redacted], we can recover [redacted] and [redacted] respectively." PX12663, Meta email chain: [redacted] to M. Zuckerberg, et al. re: "Recover [redacted] session by reducing ad load" (Apr. 15, 2021), FTC-META-001707592, at -593; *see also* PX6084, Hegeman (Meta) Dep. Tr., at 130:7-16 (discussing PX12663: "[redacted]").

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the quoted testimony. Disputed because the FTC proffers no evidence that there is any connection between these data and demand for friends and family sharing. Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

ii. In an April 2021 email responding to a proposal to reduce ad load for [redacted] to improve their engagement, Mr. Zuckerberg asked: "If we've found that [redacted] are disproportionately [redacted], then there must be [redacted] that are

disproportionately [redacted]. Why wouldn't we consider increasing ad load for [redacted] as part of this?" PX12663, Meta email chain: M. Zuckerberg to [redacted], et al. re: "Recover [redacted] session by reducing ad load" (Apr. 17, 2021), FTC-META-001707592, at -592-93.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

iii. In an April 2021 email exchange with Mr. Zuckerberg and other Meta executives, Mr. Hegeman supported a proposal to reduce ad load for [redacted] respectively and responded that "conceptually it should be possible to make up this loss by being more aggressive on ad load for [redacted] . . . ." PX12663, Meta email chain: J. Hegeman to M. Zuckerberg, et al. re: "Recover [redacted] session by reducing ad load" (Apr. 17, 2021), FTC-META-001707592, at -592.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525. Further disputed because the snipped quotation mischaracterizes the document. The FTC omitted with ellipses the following context from Mr. Hegeman, which shows that Meta was not engaged in this kind of so-called price

discrimination even as of 2021 – almost a decade after the FTC asserts Meta attained monopoly power:

> [C]onceptually it should be possible to make up this loss by being more aggressive on ad load for [redacted]

PX12663 at -592 (FTC-META-001707592). Mr. Hegeman also testified:

[redacted] PX6084 at 146:14-18 & errata (Hegeman Dep. Tr.).

iv. In an April 2021 email exchange, Mr. Zuckerberg approved a proposal to reduce ad load for [redacted] respectively with the goal of increasing engagement. PX12501, Meta email chain: M. Zuckerberg to [redacted], et al. re: "Recover [redacted] session by reducing ad load" (Apr. 25, 2021), FTC-META-009312275, at -277 ("Okay – I'm supportive of doing this now."); *see also id.* at -276 ("Thank you. We will go ahead with the launch."); PX6084, Hegeman (Meta) Dep. Tr., at 149:5-10 (discussing PX12501: "Q. And your recollection is that Meta ultimately did move forward with adjusting ad load for [redacted]

[redacted] as described in this email? A. I believe Meta went forward with something along these lines.").

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

v. In an April 2021 email to Alex Schultz, Meta's Vice President of Analytics and Chief Marketing Officer, a Meta employee "support[ing] the Core Business FAM DS [Facebook App Monetization Data Science] teams" reported "early results of our experiment reducing ad load for [redacted]":

> Earlier this year we looked more closely at the data generated by [redacted]

PX15428, Meta email chain: [redacted] to A. Schultz, et al. re: "[redacted] Motivation & Early Read" (Apr. 29, 2021), FTC-META-004854067, at -067.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

vi. A May 2021 Meta slide deck reported on experimental findings that a reduction in ad load for [redacted] PX15427, at -003, Meta presentation: "FB App [redacted] Ad Load & Engagement" (May 2021), FTC-META-003284537; *see also id.* at -014 ("[redacted] as discussed here.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525. Further disputed because this statement omits context from the document, which points out that [redacted] PX15427 at -006 (FTC-META-003284537).

vii. According to a Meta document titled "Q2'21 Revenue Update," Meta [redacted] PX3386, Meta document: "Q2'21 Revenue Update" (*July 15, 2021), FTC-META-000004873, at -886.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

viii. According to a Meta document titled "Q2'21 Revenue Update," [redacted]. PX3386, Meta document: "Q2'21 Revenue Update" (*July 15, 2021), FTC-META-000004873, at -886.

Meta Response: Disputed in part. Undisputed that the document contains these figures. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525

ix. A Meta document titled "Q3'21 Pre Close Quarterly Earnings," which was used to prepare Meta COO Sheryl Sandberg for an earnings call, stated: "Both [redacted]." PX3385, Meta document: "Q3'21 Pre Close Quarterly Earnings" (Oct. 7, 2021), FTC-META-003617811, at -811.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

1526. [Intentionally Left Blank]

1527. [Intentionally Left Blank]

1528. Meta price discriminates between [redacted]. PX9000, Hemphill Report at ¶¶ 743-54; PX9007, Hemphill Rebuttal Report at ¶¶ 107-08.

Meta Response: Disputed in part. Disputed that this statement creates a genuine dispute of material fact, including because the FTC proffers no evidence that there is any connection between this statement and alleged demand for friends and family sharing. Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525 and in Meta's responses to the subparagraphs below.

a. This includes imposing higher ad load on [redacted] users of Facebook and Instagram.

Meta Response: Disputed. When asked, "[s]o it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing," Professor Hemphill testified, "I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." Meta SMF ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)); *see also* Ex. 283 at 252:17-253:2 (Hemphill Dep. Tr.) ("Q. I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."). Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525 and in Meta's responses to the subparagraphs below.

i. An empirical analysis of user-level data furnished by Meta confirms that, between 2017 and 2022, Facebook ad load was lower for [redacted].

PX9000, Hemphill Report at ¶ 746, Ex. 62.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

ii. An empirical analysis of user-level data furnished by Meta shows that, between 2017 and 2022, Facebook ad load tended to increase [redacted]

[redacted]. PX9000, Hemphill Report at ¶ 747.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

iii. An empirical analysis of user-level data furnished by Meta confirms that, in 2021 and 2022, ad load on Instagram was lower [redacted]. PX9000, Hemphill Report at ¶ 752, Ex. 64; *see also id*. at ¶ 753 (stating that a regression analysis shows the pattern holding after controlling for other factors).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

b. This also includes imposing lower ad load on [redacted] users of Facebook and Instagram—including through variation for what Meta calls [redacted] users. PX9000, Hemphill Report at ¶¶ 743-54.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to subparagraph 1528(a).

i. An empirical analysis of user-level data furnished by Meta confirms that, between 2017 and 2021, Facebook ad load was lower for [redacted] than for [redacted]. PX9000, Hemphill Report at ¶ 745, Ex. 61.

Meta Response: Disputed in part. Undisputed that the cited report contains the stated calculation based on a regression that Professor Hemphill performed and that attempted to [redacted]

[redacted]. Disputed because Professor Hemphill performed his regression by placing Facebook users in arbitrary buckets based on [redacted]. *See* PX9000 at p. 291 & Ex. 61 (Hemphill Rep.). Professor Hemphill did not explain why he selected buckets this way; [redacted]. *See* Ex. 2 at p. 98 & tbl. 18 (Carlton Rep.). Further disputed because [redacted] in Professor Hemphill's own regression – using the same model – shows [redacted]. *See id.* at ¶ 114 & tbl. 20 ([redacted] (emphasis added)).

ii. An empirical analysis of user-level data furnished by Meta confirms that, in 2021 and 2022, ad load on Instagram was lower for [redacted] than for [redacted]. PX9000, Hemphill Report at ¶ 751, Ex. 63; *see also id*. at ¶ 753 (stating that a regression analysis shows the pattern holding after controlling for other factors).

Meta Response: Disputed in part. Undisputed that the cited report contains the stated calculation. Disputed because Professor Hemphill's regression attempting to correlate [redacted] has the same methodological flaws described above in Meta's response to subparagraph 1528(b)(i). The FTC proffers no evidence to show that [redacted], Professor Hemphill's own regression shows that [redacted]. *See* Ex. 2 at ¶ 118 & tbl. 23 (Carlton Rep.) ([redacted]).

iii. For Facebook, a [redacted]. PX6151, Malhotra (Meta) Dep. Tr., at 129:11-20 ("So earlier in the day you asked about the . . . current definition of [redacted]).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1504 and 1506 and subparagraphs 1528(b)(i)-(ii).

iv. According to Meta's response to the FTC's Interrogatory No. 3, [redacted] PX10295 at -015, Meta's Supp. Resp. to FTC's Interrog. No. 3 (Feb. 21, 2023).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504 and 1506 and subparagraphs 1528(b)(i)-(ii).

v. According to Meta's response to the FTC's Interrogatory No. 3, [redacted]. *See* PX10295 at -015, Meta's Supp. Resp. to FTC's Interrog. No. 3 (Feb. 21, 2023) *see also* PX3395, Meta email chain: P. Deng to [redacted], et al. re: "Growth Weekly Planning – Week 6" (Feb. 6, 2014), FB_FTC_CID_02600470, at -470 (defining [redacted]).

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed because the paraphrased description of "[redacted]" is vague as to time and out of date; the cited interrogatory response states that [redacted] PX10295 at 15 (Meta's Suppl. Resp. to FTC's Interrog. No. 3 (Feb. 21, 2023)); *see also* PX3395 at -470 (FB_FTC_CID_02600470) (2014 email proposing criteria for Instagram "[redacted]"); PX6151 at 129:11-20 (Malhotra Dep. Tr.) (stating different criteria for Facebook "[redacted]"). Further disputed because neither cited document states that there are [redacted]. Further disputed for the reasons stated above in Meta's responses to paragraphs 1504 and 1506 and subparagraphs 1528(b)(i)-(ii).

vi. In February 2019, Meta's FB Stories Monetization team reported on [redacted] PX3396, Meta email: [redacted] to FB Stories Monetization HPM re: "[2/15] FB

Stories Monetization HPM," (Feb. 19, 2019), FB_FTC_CID_05155393, at -394.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504 and 1506 and subparagraphs 1528(b)(i)-(ii).

vii. In April 2019, Meta's FB Stories Monetization team reported on [redacted]. PX15424, Meta email: [redacted] to FB Stories Monetization HPM re: "[4/15] FB Stories Monetization HPM," (Apr. 15, 2019), FTC-META-001057548, at -550 ([redacted]

[redacted]) (emphasis omitted).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504 and 1506 and subparagraphs 1528(b)(i)-(ii).

viii. A 2019 Meta slide deck noted that [redacted]. PX1284, Meta presentation: "Ads Sentiment and Supply: Q2 2019 Earnings Prep" (*Sept. 9, 2019), FB_FTC_CID_00054993 at -020 ("[redacted]").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document does not relate to demand for sharing with friends and family as opposed to demand for other activities on Instagram. There is no reference in the document connecting ad load to "PSN services," friends and family sharing, or any activity that [redacted] engage with on Instagram (which has dozens of features and uses). The evidence shows that [redacted] do not engage primarily with friend content. *See* Meta SMF

¶¶ 56-66. Disputed that Instagram is a personal social networking service for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because this statement mischaracterizes the document. The cited slide, reporting that [redacted] *see* PX1284 at -5020 (FB_FTC_CID_00054993), [redacted] and the document does not state – nor does the FTC identify any evidence – that [redacted]. Indeed, Professor Hemphill conceded that he did not measure demand elasticity: "Q. . . . You could measure directly a user's demand for friends and family sharing, yes or no? . . . A. I don't know what you have in mind about directly measuring the demand for friends and family sharing. So at this level of generality I'm not sure whether I could or not." Ex. 283 at 251:11-18 (Hemphill Dep. Tr.). And when asked, "[s]o it's correct to say that you don't have any claim that Meta discriminates in ad load based directly on a user's demand for friends and family sharing," Professor Hemphill testified, "I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." Meta SMF ¶ 640 (quoting Ex. 283 at 253:8-17 (Hemphill Dep. Tr.)). Further disputed for the reasons stated

above in Meta's responses to paragraphs 1504 and 1506 and subparagraphs 1528(b)(i)-(ii). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

ix. A February 2021 Meta document with the file name "Ad load policies.png"—shared with Mr. Zuckerberg and other Meta executives by Susan Li—notes that [redacted]. PX12745, Meta document: "Ad load policies.png," (*Feb. 22, 2021), FTC-META-003895361, at -361; *see also id* at -359 (cover email from S. Li to M. Zuckerberg et al., (Feb. 22, 2021) ("If you're interested in ad load policies, I have a table of the key policy differences (from December so possibly slightly outdated) attached here").

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's responses to paragraphs 1504 and 1506 and subparagraphs 1528(b)(i)-(ii).

1529. Meta price discriminates between [redacted]. PX9000, Hemphill Report at ¶¶ 755-60.

Meta Response: Disputed in part. Undisputed that Meta shows fewer ads to consumers who engage less with ads, a proxy for receptivity to and enjoyment of advertising. *See* PX10295 at 13 (Meta's Suppl. Resp. to FTC's Interrog. No. 3 (Feb. 21,

2023)) ("The dynamic ad load system thus ultimately aims to show more ads to people who enjoy ads more and fewer to users who prefer ads less. This approach optimizes the value that Meta provides for users and advertisers."); PX6185 at 110:14-111:7 (Li Dep. Tr.) ("[W]e have come to understand that people have vastly different preferences about ads, and depending on whether you are more like me and find ads to be sort of a great part of the experience, you would like to see more – I could probably see more, frankly, than I do – that, you know, means that I'm a good candidate for seeing more ads, and there are people who don't feel that way, and those people are good candidates for seeing fewer ads. And we've adapted the ad system now to try and deliver the right number and the appropriate ads to each person."). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525 and subparagraphs 1528(b)(i)-(ii).

a. In a May 2021 email exchange, Mr. Hegeman advocated for [redacted] PX12501, Meta email chain: J. Hegeman to M. Zuckerberg, et al. re: "Recover [redacted] session by reducing ad load," (May 22, 2021), FTC-META-009312275, at -276.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

b. In a May 2021 email exchange, Mr. Zuckerberg responded to Mr. Hegeman's [redacted] PX12501, Meta email chain: M. Zuckerberg to J. Hegeman, et al. re: "Recover [redacted] session by reducing ad load," (May 22, 2021), FTC-META-009312275, at -275.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the quote in this subparagraph omits context; Mr. Zuckerberg wrote:

> I have felt strongly about not doing this historically, [redacted]

PX12501 at -275 (FTC-META-009312275).

c. A February 2021 Meta document regarding ad load policies—shared with Mr. Zuckerberg and other Meta executives by Susan Li—notes that Facebook Mobile Feed, Instagram Feed, and Instagram Explore had each implemented [redacted]. *See* PX12745, Meta

document: "Ad load policies.png" (Feb. 22, 2021), FTC-META-003895361, at -361.

Meta Response: Undisputed that the document contains the quoted language.

d. According to a 2020 Meta document, Meta "[p]ersonalize[s] ad load based on [redacted]. PX15438, Meta document: "Introducing 'SALT' (Smart Ad Load Techniques)" (undated), FTC-META-012336818, at -818.

Meta Response: Undisputed that the document contains the quoted language.

1530. [redacted] PX9007, Hemphill Rebuttal Report at ¶¶ 107-108.

Meta Response: Disputed. Disputed that this conclusory statement creates a genuine dispute of material fact, because it does not proffer any evidence that Meta discriminates against users based on demand for friends and family sharing. Professor Hemphill directly conceded this point that there is no evidence that Meta varies ad load to "discriminate against users who more intensely use Facebook and Instagram for friends and family sharing." *See* Ex. 283 at 253:8-17 (Hemphill Dep. Tr.) ("I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally

calculating, you know, some numerical value of inelasticity and responding with a change in ad load."); *see also id.* at 252:17-253:2 ("Q. I want you to suppose there are two 58-year-old male users of Facebook and they are identical except that one has a higher demand for friends and family sharing than the other. Is there a way to measure that directly? . . . A. I don't know what you have in mind or what need there would be to – to do that."). Professor Hemphill also did not try to measure demand for "friends and family sharing." He testified: "Q. . . . You could measure directly a user's demand for friends and family sharing, yes or no? . . . A. I don't know what you have in mind about directly measuring the demand for friends and family sharing. So at this level of generality I'm not sure whether I could or not." *Id.* at 251:11-18. Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525.

a. [redacted]

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1530. Further disputed because none of the cited materials relates to ad load or any other type of potential "price discrimination."

i. [redacted] PX3389 at -017, Meta presentation: [redacted] (undated), FTC-META-012244890.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because [redacted]. It was possible for Professor Hemphill and the FTC to measure whether [redacted] users engage in more sharing with friends and family relative to overall activity on Facebook and Instagram – but they did not. Further disputed for the reasons stated above in Meta's response to paragraph 1530.

ii. A Meta slide deck from 2022 reported that [redacted]. PX3388, Meta presentation: "Wave 4 Facebook Evolving Use Cases Global Report, H2 2022" (undated), FTC-META-012282156, at -174-75.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement is irrelevant to whether Meta discriminates against users based on demand for sharing with friends and family. On the contrary, the document indicates that [redacted]

[redacted] *See* PX3388 at -175 (FTC-META-012282156). This subparagraph also omits that [redacted], which the FTC excludes from its claimed "PSN" market, [redacted]" *Id.* Further disputed for the reasons stated above in Meta's response to paragraph 1530.

iii. A Meta document from 2022 states that [redacted] PX3387, Meta Workplace Post: [redacted] post to [redacted], (June 22, 2022), FTC-META-011833466, at -466; *see also* PX9019, Carlton Report at ¶ 70 [redacted].

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement is irrelevant to whether Meta discriminates against users based on demand for sharing with friends and family. On the contrary, the FTC's own regression analysis, provided by Professor Hemphill, shows that [redacted]. *See* Ex. 2 at ¶ 114 (Carlton Rep.) ("[redacted]

[redacted] ") (emphasis added)); *see also id.* at ¶ 118 ([redacted]). Further disputed for the reasons stated above in Meta's response to paragraph 1530.

b. [redacted]

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1530. Further disputed because none of the cited materials relates to ad load or any other type of potential "price discrimination."

i. A Meta slide deck reporting 2019 data shows that [redacted]. PX3400 at -010, Meta presentation: [redacted] (*May 14, 2021), FTC-META-012244891. [redacted]

Meta Response: Disputed. Disputed because this statement is irrelevant to whether Meta discriminates based on demand for sharing with friends and family. Further disputed because survey responses do not reflect actual usage. Further disputed for the reasons stated above in Meta's response to paragraph 1530.

ii. A Meta presentation from 2021 shows that [redacted]. PX3401, Meta presentation: "Instagram Intent" (Nov. 16, 2021), FTC-META-012193165, at -178-79.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1530. Further disputed because the document states that [redacted]" PX3401 at -178 (FTC-META-012193165), and that [redacted], *see id.* at -182.

c. A Meta document from 2022 reported that [redacted]

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1530 and in Meta's responses to the subparagraphs below. Further disputed because the document does not [redacted] PX3387 at -466 (FTC-META-011833466). The document also concludes that [redacted] *Id.*

There is no genuine dispute that [redacted]; PX3406 at -912 (FTC-META-003095912) (Mr. Mosseri – head of Instagram – attributing Meta's business focus on unconnected content to the "shift to mobile," "explosive growth in video," and "the rise of messaging" as the place for "most personal sharing," and observing that "much of the sharing online has shifted to other media"). Further disputed because none of the cited materials relates to ad load or any other type of potential "price discrimination."

i. [redacted]

PX3387, Meta Workplace Post: [redacted] post to [redacted], (June 22, 2022), FTC-META-011833466, at -466; *see also* PX9019, Carlton Report at ¶ 70 [redacted].

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document does not identify any relationship between the amount of content available from

one's Facebook friends and that user's propensity to use Facebook for friends and family sharing.

ii. [redacted] PX3387, Meta Workplace Post: [redacted] post to [redacted] (June 22, 2022), FTC-META-011833466, at -466.

Meta Response: Undisputed that the document contains the quoted language.

iii. [redacted]

Meta Response: Undisputed that the document contains the quoted language.

iv. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because neither the quotation nor the rest of the document supports the subparagraph's statement that "[redacted]" – an attempt to paraphrase without support.

1531. Professor Carlton concedes or fails to dispute material portions of the foregoing ad load price discrimination evidence. PX9007, Hemphill Rebuttal Report at ¶¶ 104-05, 107, 110.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. As conceded by Professor Hemphill, there is no evidence that Meta varies ad load based on supposed "inelastic user demand" for friends and family sharing. *See* Meta SMF ¶ 640. Professor Carlton showed, using the FTC's own regression analysis as provided by Professor Hemphill, that [redacted]. *See* Ex. 2 at ¶¶ 114, 118 (Carlton Rep.). Further disputed for the reasons stated above in Meta's responses to subparagraphs 1528(b)(i)-(ii) (explaining Professor Carlton's analyses).

a. In his rebuttal report, Professor Carlton opined that if "Facebook charges a different 'price' to those who rely more on friends and family sharing than those who rely on it less," that fact would be evidence that "Facebook is insulated from competition." PX9019, Carlton Report at ¶ 103.

Meta Response: Disputed in part. Undisputed that Professor Carlton offered the quoted opinion. Disputed because it omits the context necessary to understand Professor Carlton's opinion – which was that neither Professor Hemphill nor the FTC had adduced this necessary evidence:

> There appears to me to be only one way to make sense of what Prof. Hemphill is saying – namely that Facebook is insulated from competition from most other apps when setting the "price" for users of friends and family sharing. This can occur only if Facebook charges a different "price" to those who rely more on friends and family sharing than

> those who rely on it less. Otherwise the competitive forces from other uses, which Prof. Hemphill does not claim Meta has monopoly power over, will constrain what Facebook can do. Therefore his claim is that the "price" that Facebook charges users who use friends and family sharing more intensively is different and higher than for other uses where users have lots of other options. I disagree with Prof. Hemphill's claim (which also contradicts what the FTC has repeatedly told Meta and the court in its discovery responses).
>
> First, product dimensions that Prof. Hemphill relates to quality apply across the entire app. For example, Prof. Hemphill claims that privacy quality might be greater in his but-for world, but privacy policies and data security apply across all uses of the app.
>
> Second, in order for there to be a separate market for friends and family sharing, Prof. Hemphill must show that Meta "prices" friends and family sharing differently. That is, Prof. Hemphill's claim that he can identify a separate product market within the overall app require that Meta engages in "price" discrimination against friends and family sharing. Prof. Hemphill makes no such explicit claim regarding price discrimination when he defines his relevant market. When discussing monopoly power, he claims that Meta discriminates with regard to "price," which he defines as ad load, against users with high friends and family sharing use. . . . [A]d load is not a "price" in the sense that prof. Hemphill claims, and . . . as a matter of economic theory and empirical evidence, more competition on the user side need not result in lower ad loads but can actually result in higher ad loads (or no effect at all). . . . Prof. Hemphill's analysis claiming to show [redacted] is deeply flawed and in fact shows the opposite of what he claims. For much of the time period under discussion Meta [redacted], contrary to Prof. Hemphill's implication.

PX9019 at ¶¶ 103-105 (Carlton Rep.).

b. Professor Carlton concedes that ad load on Facebook and Instagram [redacted]. PX6179, Carlton (Meta) Dep. Tr., at 246:15-247:16.

Meta Response: Disputed. Disputed that this subparagraph accurately paraphrases Professor Carlton's testimony – [redacted]. Professor Carlton testified:

> My understanding is that [redacted], but that is not the relevant question. The relevant question is how that varies holding [redacted] And that's what I do in, say, Table 20. And I refute the argument that [redacted], which would be an implication of what he's saying.

PX6179 at 247:20-248:7 (Carlton Dep. Tr.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525 and subparagraphs 1528(b)(i)-(ii).

c. In his report, Professor Carlton did not dispute Professor Hemphill's showing that [redacted]. PX6179, Carlton (Meta) Dep. Tr., at 249:3-250:17.

Meta Response: Disputed. Disputed because the paraphrased summary takes Professor Carlton's testimony out of context. Professor Carlton testified:

> Q. . . . [Y]ou did not report any results out that [redacted]; correct?
>
> A. I don't recall discussing that in the report, other than making the point, which I made already, that that's not the right question, you know, to be examining. The right question for him to be examining is, all else equal, . . . do you have a higher ad load, systemically, [redacted]?

PX6179 at 250:12-22 (Carlton Dep. Tr.). Further disputed for the reasons stated above in Meta's responses to paragraphs 1504, 1506, and 1525 and subparagraphs 1528(b)(i)-(ii).

d. Professor Carlton concedes that Meta [redacted]. PX6179, Carlton (Meta) Dep. Tr., at 251:1-5.

Meta Response: Undisputed that Professor Carlton stated his "general understanding" of the [redacted].

e. Professor Carlton did not dispute Professor Hemphill's showing that Meta varies ad load based [redacted]. PX9007, Hemphill Rebuttal Report at ¶ 105.

Meta Response: Undisputed that Professor Carlton did not dispute that Meta shows fewer ads to users who like ads less (evidenced by less engagement with ads) compared to users who engage more with ads.

(2) Meta's underinvestment in friends and family is a form of price discrimination.

1532. As detailed above, Meta has underinvested in the friends and family sharing use case, despite harm to user sentiment, effectively raising the quality-adjusted price of Facebook and Instagram. *See supra* CMF at § II.C.3(c).

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section II.C.3(c), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's responses to paragraphs 1501 and 1506.

1533. Meta's underinvestment in friends and family sharing is a form of price discrimination that exploits inelastic demand for friends and family sharing. Meta has avoided costly investments to improve the core friends and family sharing use case on Facebook and Instagram, thereby increasing the quality-adjusted price of Facebook and Instagram for inelastic users with a strong taste for friend and family sharing. PX9007, Hemphill Rebuttal Report at ¶¶ 350-52.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1501 and 1506. There is no evidence of Meta "underinvesting" in any of its services or features relative to a competitive threshold. Meta has spent billions innovating its services, including after the acquisitions. *See* Meta SMF ¶¶ 126, 710, 823.

5. Meta's high profits, increases in quality-adjusted price, and exploitation of inelastic user demand reinforce each other as direct evidence of monopoly power over PSN services.

1534. Meta's high profits, increases in quality-adjusted price, and exploitation of inelastic user demand reinforce each other as direct evidence of Meta's monopoly power over PSN services. *See* PX9000, Hemphill Report at ¶¶ 35, 40-42; *id.* at § 3.3; PX9007, Hemphill Rebuttal Report at ¶¶ 3-14.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1444, 1446, 1468, 1474, 1493, 1501, 1504, and 1506, and because this statement makes conclusory statements and legal conclusions that rest on dozens of paragraphs from expert reports without explanation or elaboration.

As to profits, the FTC has no evidence to tie Meta's profits to any alleged power in the alleged relevant market. Meta earns its revenues (and generates profits) from the

sale of advertising, where it is an innovator. *See* Meta SMF ¶ 143. Innovation and increasing output can generate profits. *See* Ex. 2 at pp. 130-131, figs. 12 & 13 (Carlton Rep.) (advertising output); Meta SMF ¶¶ 724-725, 729-732 (user-side output).

As to quality, the FTC has no measure of quality with which it can measure whether quality-adjusted price has increased or decreased or by which it can compare the quality-adjusted price of Facebook or Instagram to any competitive benchmark. *See id.* at ¶ 129 (Professor Hemphill: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)). Professor Hemphill acknowledged that he did not identify "any competitive benchmark for Meta's level of ad load," *id.* at ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted] PX9000 at ¶ 716 (Hemphill Rep.). Professor Hemphill also agreed that increasing output with stable economic price – both undisputed facts here – is evidence of decreasing quality adjusted prices. *See* Meta SMF ¶ 130 (quoting Ex. 283 at 233:3-12, 233:16-22, 234:7-14, 234:15-235:1 (Hemphill Dep. Tr.)). Meta has spent billions investing in its services. *See id.* at ¶ 126. Professor Hemphill conceded that Meta has improved the quality of its services by innovating and releasing new features, like Stories and Reels. *See id.* at ¶ 127 (when asked, "You would agree with me that the addition of Stories to the Instagram and Facebook apps was a quality improvement, correct?," Professor Hemphill testified: "Yes. I would – I would agree with that and indeed emphasize the introduction of Stories by Facebook and Instagram as a product

improving competitive response to the threat posed by Snapchat." (quoting Ex. 283 at 231:10-19 (Hemphill Dep. Tr.))); *see also id.* ("Q. . . . And the addition of Reels was a quality improvement, correct? . . . A. It's a quality improvement, I think I would agree with that, albeit one that is less directly improving of the provision of personal social networking services." Professor Hemphill later added: "Q. . . . And just to be clear, you agree that the addition of Reels was an innovation of Facebook and Instagram's personal social networking services, correct? . . . A. It was an innovation bringing the competition to TikTok in the way that we talked about and which I agree serves to, to some degree, improve the personal social networking offering for all users." (quoting Ex. 283 at 231:20-232:4, 263:17-264:4 (Hemphill Dep. Tr.))).

As to supposed exploitation of inelastic demand, the FTC has no evidence that Meta price discriminated based on supposed demand for sharing with friends and family. Professor Hemphill testified: "I don't know whether they do or not, but I've not seen evidence of Meta, for example, internally calculating, you know, some numerical value of inelasticity and responding with a change in ad load." Ex. 283 at 253:8-17 (Hemphill Dep. Tr.).

Disputed that Meta or any other firm is a "PSN service[]"; the FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1535. As discussed above, users have perceived a decline in the quality of Facebook and Instagram over time as demonstrated by Meta's own internal surveys and analysis. *See supra* CMF at ¶¶ 1495-1500.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1495-1500, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474 and 1493 and subparagraph 1492(c)(vi).

a. Meta's CAU and GFW metrics have been [redacted]. *See supra* CMF at ¶¶ 1496-97.

Meta Response: Disputed. Disputed because this statement cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1496-1497, Meta incorporates its responses to those statements here.

b. Facebook's Relative CAU metric—benchmarking Facebook user sentiment against users' perceptions of other brands—[redacted] *See* PX3397, Meta presentation: "Sentiment Review 2020H1" (June 26, 2020), FTC-META-010381661, at -671.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because "virtually anything can drive" trends in answers to Meta's brand tracking surveys – from major news events about Meta and "a changing composition" of Meta's users, to "how users feel" about "things going on in the world generally" or "within tech or media." PX6087 at 79:8-15 (Cobb Dep. Tr.); *see also* Ex. 2 at ¶¶ 168-171 (Carlton Rep.) (observing that

Professor Hemphill "provides no methodology" or "quantitative assessment" distinguishing those other factors from any alleged changes in price or quality). Further disputed because it omits context necessary to understand this measure. The RCAU survey question "asks . . . respondents to rate a randomly chosen brand among the brands they are aware of" in terms of whether they "[c]are[] [a]bout" their users or customers. PX9000 at ¶ 770 (Hemphill Rep.). Professor Hemphill admitted that he did not analyze "what caused these observed declines" in sentiment, Ex. 283 at 223:22-224:1 (Hemphill Dep. Tr.), despite testifying that factors other than product quality affect Meta's brand reputation, s*ee id.* at 217:12-20. Professor Hemphill testified: "Q. . . . [I]s it your opinion that brand reputation is affected only by quality and not other factors? . . . A. No." *Id.* at 217:12-16. [redacted]

PX6087 at 154:10-155:4 (Cobb Dep. Tr.).

c. User sentiment regarding ad load on both Facebook and Instagram has declined over time. *See supra* CMF at ¶ 1492.

<u>Meta Response</u>: Disputed. Disputed because this statement cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraph 1492, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 1493.

d. Results from Meta's Main Tracking Survey demonstrate that [redacted]. *See supra* CMF at ¶¶ 1499-1500.

Meta Response: Disputed. Disputed because this statement cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1499-1500, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 1493.

1536. Despite these known points of user frustration, Meta has repeatedly declined to take actions to improve the user experience along these dimensions, recognizing that doing so would hurt its profits. This includes:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1474, 1492, 1493, 1501, and 1534 and for the reasons stated in Meta's responses to the subparagraphs below.

a. Declining to reduce ad load. PX9007, Hemphill Rebuttal Report at ¶¶ 733-35.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1466, 1468, 1474, 1492, 1493, and 1534. Professor Hemphill acknowledged that he did not identify "any competitive benchmark for Meta's level of ad load," Meta SMF ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted] PX9000 at ¶ 716 (Hemphill Rep.). Further disputed because

Professor Hemphill found that ad load changes varied by service and feature; for example, he calculated that [redacted]. *See id.* at ¶ 719 & Ex. 54 ("[redacted]"). Further disputed on the grounds that ad load is not a quality metric capable of creating a genuine dispute of material fact. Consumers have varied preferences regarding ads, as Professor Hemphill testified: "Q. You'd agree that individuals vary in their receptivity to ads? . . . A. Yes, I think that's – I think that's right. In the discussion of – yes, I think that there's some evidence in the record about differences in user receptivity to ads, yes." Meta SMF ¶ 148 (quoting Ex. 283 at 245:7-13 (Hemphill Dep. Tr.)). He also testified: "Q. . . . Some individuals have a greater disutility associated with seeing ads than other users; is that fair? . . . A. Yes, I would – I would expect that – the amount of disutility from ads would vary across users." *Id.* (quoting Ex. 283 at 245:21-246:5 (Hemphill Dep. Tr.)). The FTC's advertising expert, Professor Aral, has acknowledged: "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value." Ex. 498 at 3 (MetaFTC-DX-1159).

b. Declining to reinvest in the quality of friends and family sharing on its apps. *Id.* at ¶¶ 730-32.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1501 and 1534. There is no evidence Meta does not "reinvest" as asserted. Professor Hemphill testified that Meta innovating to add features to its services (like Stories and Reels; both post-dating the acquisitions at issue) is a "quality improvement." Meta SMF ¶ 127 (quoting Ex. 283 at 231:10-

232:4 (Hemphill Dep. Tr.)). Further disputed because the FTC and Professor Hemphill assert that all time spent on Facebook and Instagram (except for Dating) is time spent "personal social networking," *see id.* at ¶ 569, and so Meta cannot have been underinvesting in a particular use case as the statement implies. *See* Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:1 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking.").

c. Declining to provide greater privacy protections, including giving users greater ability to opt out of certain data collection and backing off additional investments in privacy once public scrutiny of the Cambridge Analytica event died down. *Id.* at ¶¶ 736-37.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1507, and 1534. Further disputed because the statement is not supported by any evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The cited material from Professor Hemphill's report does not identify any privacy protection or feature that Meta declined to introduce or scaled back, let alone in any connection to the Cambridge Analytica incident. Meta has released dozens of new privacy and user-data

controls since 2012. *See* Meta SMF ¶ 45 (citing Ex. 1 at § IV.C.2 (Ghose Rep.)). For example, in 2022, Meta released the Privacy Center for its services. *See id.* at ¶ 49 (citing Ex. 1 at ¶ 317 (Ghose Rep.)). Professor Hemphill testified regarding privacy and data control on Meta's services: "Q. But you don't have an opinion that the quality of privacy or the quality of user control over personal information declined [between June 2018 and June 2022], do you? . . . A. I would agree that I don't have some specific opinion that there was some specific switch that they flipped downward and then suddenly saw this drop." *Id.* at ¶ 51 (quoting Ex. 283 at 222:1-9 (Hemphill Dep. Tr.)). There is no evidence in the record of a competitive level of privacy, privacy-related features, or investment in privacy protections.

1537. Meta's evident lack of urgency and pressure to improve quality for users—all while retaining high profits and exploiting inelastic user demand—underscores Meta's lack of competitive constraints in its provision of PSN services. PX9000, Hemphill Report ¶ 686 ("Competition requires firms to innovate, cut profit margins, and invest resources in order to attract and retain customers."); *see also id.* at ¶¶ 35, 761; PX9007, Hemphill Rebuttal Report at ¶¶ 353-60, 739.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because it makes conclusory assertions that rest on conclusory assertions from Professor Hemphill's expert reports without explanation or elaboration. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1501, 1504, 1506, and 1534 and subparagraphs 1536(a)-(c). The FTC's use of "PSN

services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

6. Meta recognizes its ability to exclude PSN competition.

1538. A firm without substantial market power would not profit from costly exclusionary actions and so does not have the incentive and ability to exclude a competitor; conversely, a firm's capacity to take costly actions to exclude a rival in an effective manner constitutes direct evidence of substantial market power. *See* PX9000, Hemphill Report ¶ 787.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1432 and in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this statement is an argumentative generality made without any reference to the facts of this case.

1539. Meta's costly actions to exclude the threats posed by Instagram and WhatsApp—including paying significant premiums and incurring [redacted] operating WhatsApp—would not be profitable for a firm that lacked monopoly power. PX9000, Hemphill Report ¶ 788.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because it is unsupported by evidence, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and constitutes improper argument. Further disputed that Meta overpaid for Instagram and WhatsApp. Regarding Instagram, Meta acquired Instagram for $1 billion, *see* Meta SMF ¶ 701 (citing Ex. 282 at 178:20-179:13 (Systrom IH Tr.)); it has since generated hundreds of billions of dollars in consumer surplus, *see id.* at ¶¶ 711-713, [redacted]

[redacted], *see id.* at ¶ 721 (citing Ex. 2 at ¶ 260 & n.377 (Carlton Rep.)). The FTC's startup acquisition expert could not identify any acquisition of a U.S. mobile app startup that has ever generated more user growth. *See id.* at ¶ 728 (quoting Ex. 310 at 130:20-131:9 (Rim Dep. Tr.)). Regarding WhatsApp, contemporaneous valuations show that Meta acquired WhatsApp at a lower price per user than peer transactions, *see* Ex. 276 at -009, -010 (PX10858, FB_FTC_CID_10650595), and for [redacted] less than the high end of Google's valuation of up to $60 billion, *see* Ex. 23 at -013 (MetaFTC-DX-1085, GOOG-META-00047007). Since the acquisition, Meta has monetized WhatsApp – without showing display ads – by selling business tools and features that already [redacted]. *See* Meta SMF ¶¶ 827-831. The FTC's proffered expert on app monetization and advertising, Professor Aral, could not identify a standalone messaging app that has monetized more successfully than WhatsApp under Meta's ownership. *See id.* at ¶ 832 (quoting Ex. 287 at 139:20-140:2, 315:2-6 (Aral Dep. Tr.)). Further disputed because this statement rests on conclusory assertions as to ultimate legal conclusions (e.g., "monopoly power").

1540. Meta and its experts also admit and openly embrace Meta's power to exclude competition.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, as stated in Meta's responses to the subparagraphs below. Further disputed that Meta hypothetically exercising its legal right not to promote competitors using its own proprietary platform is "direct evidence of Meta's monopoly power." Other firms

the FTC labels "PSNS" entered and expanded capacity without access to Meta's distribution and platform. *See* Meta SMF ¶¶ 729-732.

a. Professor Carlton opined that Instagram may not have successfully competed in the market for PSN services absent the acquisition due to "strong competition from Meta"—or, more specifically, because Meta would have entered "destroy mode" against Instagram. PX9019, Carlton Report at ¶¶ 274-75.

Meta Response: Disputed in part. Undisputed that the cited report contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1540, and because the FTC omits all context from the cited report. The discussion concerns Meta hypothetically exercising its legal right not to promote competitors using its own proprietary platform. The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. Professor Carlton noted that "Instagram has also benefited from cross-promotion on Meta's other apps" and suggested that Meta would have excluded Instagram from such integration absent the acquisition. *See id.* at ¶ 276.

Meta Response: Undisputed that Professor Carlton's report offers the quoted opinion.

c. Professor Kaplan opined that "Mr. Systrom recognized that Meta had the ability to restrict Instagram's distribution of its content on Facebook and access to Facebook users if it perceived Instagram as a significant competitor." PX2023, Kaplan Report at ¶ 116.

Meta Response: Undisputed that Professor Kaplan's report offers the quoted opinion (but the FTC cites the wrong exhibit; it should be PX9023).

d. Professor Kaplan also concluded that Meta's ability to restrict Instagram's access to integrations with Facebook made it "speculative and unlikely" that Instagram would have successfully competed absent the acquisition. *Id.* at ¶ 117.

Meta Response: Undisputed that Professor Kaplan's report offers the quoted opinion.

1541. Meta's ability and incentive to exclude Instagram by sacrificing a profitable source of content through shutting off cross-posting and other integrations constitutes direct evidence of Meta's monopoly power. *See* PX9007, Hemphill Rebuttal Report ¶¶ 158-59.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because it asserts legal conclusions (e.g., regarding "monopoly power" and what constitutes "direct evidence"), and because Meta hypothetically exercising its legal right not to promote competitors using its own proprietary platform is not "direct evidence of Meta's monopoly power." Other firms the FTC labels "PSNS" entered and expanded capacity without access to Meta's distribution and platform. *See* Meta SMF ¶¶ 729-732.

7. Meta's monopoly power over users of Facebook and Instagram suppresses output and harms consumer welfare.

1542. The growth in the size of Facebook and Instagram since 2011 does not undermine a conclusion that Meta is exercising monopoly power or that its acquisitions were anticompetitive. *See, e.g.,* PX9007, Hemphill Rebuttal Report at ¶¶ 350-52, 355-62, 611, 729-39.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. "The relevant question" is whether output "would have increased more in the but-for world." PX6179 at 318:17-19 (Carlton Dep. Tr.). Professor Hemphill confirmed the importance of output – given concededly stable economic prices (zero) for Meta's services – in his deposition testimony: "Q. . . . Now, you would agree with me that, all else equal, if quality-adjusted price declines, usage would increase, correct? . . . A. Yes. I think all else equal, one would expect that to be true. Speaking at a high level of generality and we want to be careful that we're getting it right, but yes, at least – yes, I think as a general matter that's true." Meta SMF ¶ 130 (quoting Ex. 283 at 233:3-12 (Hemphill Dep. Tr.)). He added that "we have a robust finding in economics that as quality improves holding constant price we would expect usage to rise, all else equal, and because we see evidence of usage falling in the face of increases in quality-adjusted price." *Id.* (quoting Ex. 283 at 233:16-22 (Hemphill Dep. Tr.)). Professor Hemphill also testified: "Q. So you'd agree that, all else equal, if the quality of Instagram increases, the quality-adjusted price declines and usage increases, correct? . . . A. Yes. In general terms I would agree that as quality increases, holding price constant, that we would expect usage to increase." *Id.* (quoting Ex. 283 at 234:7-14 (Hemphill Dep. Tr.)). Regarding the relationship between quality and output on Facebook and Instagram, Professor Hemphill testified: "Q. You point to nothing in your report to account for the increase in users and usage other than a reduction in quality-adjusted price? . . . A. I'm not following what you're – it's not – it's not my mission in the reports to observe an increase in usage and then parcel out the sources of that." *Id.* at ¶ 131 (quoting Ex. 283 at 235:16-236:1 (Hemphill Dep. Tr.) and

citing Ex. 283 at 236:7-8 (Hemphill Dep. Tr.) ("The relevant question is what does usage look like relative to a but-for world.")).

a. Professor Carlton concedes that output can increase in a market even where a firm is exercising significant market power or engaging in anticompetitive conduct. PX6179, Carlton (Meta) Dep. Tr., at 318:14-319:3.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that output can increase in a market where a firm is exercising market power. Disputed that the FTC's paraphrasing of Professor Carlton's deposition testimony (which it provides without any quotations) characterizes appropriately all the context of that testimony: "The relevant question in, say, a case like this is whether it would have increased more in the but-for world, and that's the question I address." PX6179 at 318:17-20 (Carlton Dep. Tr.). When the FTC asked, "Q. And output can increase in a market even if a firm is engaging in anticompetitive conduct; correct?" Professor Carlton answered: "A. Yes, you can have growth of output if you're a monopolist." *Id.* at 318:21-319:3. Further disputed for the reasons stated above in Meta's response to paragraph 1542.

b. Professor Carlton concedes that output can increase even as the quality-adjusted prices on Facebook and Instagram are increasing. *Id.* at 88:12-16; *see also id.* at 89:10-15.

Meta Response: Disputed in part. Undisputed that Professor Carlton testified that it is theoretically possible for output to increase even if quality-adjusted prices are increasing. Disputed that the FTC's paraphrasing of Professor Carlton's deposition testimony provides appropriate context to either the FTC's

question or Professor Carlton's answer, which clarified: "That's true. But it would be – I mean, you can say anything you want, but without – and it might be true, but without any evidence, I don't see why one should believe it." PX6179 at 88:12-19 (Carlton Dep. Tr.). He also testified: "Therefore, there's absolutely no basis that I can tell for him, Professor Hemphill's claim, no quantitative basis. I understand at a theoretical level what he's saying, but there's no quantitative basis. On a theoretical level anything could be true." *Id.* at 89:4-9. Regarding the FTC's question about whether population growth could explain an increase in output, Professor Carlton testified: "If you look at per user, the usage, that too has gone up over this decade, the period per user use. Per user use it's going up; that doesn't have to do with population growth, or very little." *Id.* at 89:10-90:1 & errata. Further disputed for the reasons stated above in Meta's response to paragraph 1542.

c. When asserting that the Instagram acquisition expanded output, Professor Carlton did not account for various drivers of Instagram's growth—including the explosive growth of mobile app usage in general as a consequence of the historic transition from desktop to mobile computing—that were unrelated to the acquisition. PX9007, Hemphill Rebuttal Report at ¶¶ 613-617, 799.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1542. Professor Carlton testified: "If you look at per user, the usage, that too has gone up over this decade, the period per user use. Per user use it's going up; that doesn't have to do with population growth, or very little." PX6179 at 89:10-90:1 & errata (Carlton Dep. Tr.). Further disputed as Professor

Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

1543. Meta's increase in the quality-adjusted price of Facebook and Instagram suppresses output for PSN services and harms consumers, consistent with an exercise of monopoly power. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 350-52, 355-362, 729-739, 827-28; *see also id.* at ¶ 611 (explaining that consumer welfare can be lower even with higher output); *supra* CMF at § II.C.3.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1432, 1474, 1466, 1468, 1474, 1493, 1499, 1501, 1504, 1506, and 1542, and because the statement makes conclusory assertions, including legal conclusions regarding the presence of monopoly power and the claimed relevant market for "PSN services." The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent the statement incorporates the FTC's statements in Section II.C.3, Meta incorporates its responses to those statements here. Regarding output, Meta has increased output for both Facebook and Instagram. *Compare* Meta SMF ¶¶ 657-658, *with id.* at ¶ 724 (Instagram growth), ¶ 725 (Facebook growth). Overall output has increased among firms the FTC calls

"PSNS," including non-Meta firms. *See id.* at ¶¶ 729-732. Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." *Id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Regarding quality, the FTC cannot measure net app quality because it did not attempt to do so. *See id.* at ¶ 129 (citing Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)). Further disputed to the extent Professor Hemphill testified about quality-adjusted price: "Q. . . . Now, you would agree with me that, all else equal, if quality-adjusted price declines, usage would increase, correct? . . . A. Yes. I think all else equal, one would expect that to be true. Speaking at a high level of generality and we want to be careful that we're getting it right, but yes, at least – yes, I think as a general matter that's true." *Id.* at ¶ 130 (quoting Ex. 283 at 233:3-12 (Hemphill Dep. Tr.)). He added that "we have a robust finding in economics that as quality improves holding constant price we would expect usage to rise, all else equal, and because we see evidence of usage falling in the face of increases in quality-adjusted price." *Id*. (quoting Ex. 283 at 233:16-22 (Hemphill Dep. Tr.)). Professor Hemphill also testified: "Q. So you'd agree that, all else equal, if the quality of Instagram increases, the quality-adjusted price declines and usage increases, correct? . . . A. Yes. In general terms I would agree that as quality increases, holding price constant, that we would expect usage to increase." *Id*. (quoting Ex. 283 at 234:7-14 (Hemphill Dep. Tr.)).

1544. Meta's suppression of output is apparent in at least two ways. *Supra* CMF at §§ II.C.7(a)-(b).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. To the extent this statement incorporates the FTC's statements in Sections II.C.7(a)-(b), Meta incorporates its responses to those statements here.

a. Meta recognizes that higher ad load reduces user engagement yet has increased ad load on its apps over time.

Meta Response: Disputed. This conclusory statement cites no material – or even any other part of this submission – and therefore fails to create a genuine dispute of material fact.

b. Meta's underinvestment in friends and family sharing also reduces user engagement.

Meta Response: Disputed. This conclusory statement cites no material – or even any other part of this submission – and therefore fails to create a genuine dispute of material fact.

a) Higher ad load reduces user engagement.

1545. Meta's increase in ad load on Facebook and Instagram reduces user engagement. *Infra* CMF at ¶¶ 1545-48; *see also supra* CMF at ¶ 1477-83; CMF at ¶¶ 1492-94.

Meta Response: Disputed. Disputed because this statement cites no specific material in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1545-1548, 1477-1483, and 1492-1494, Meta incorporates its responses to those statements here.

Consumers have varied preferences regarding ads, as Professor Hemphill testified: "Q. You'd agree that individuals vary in their receptivity to ads? . . . A. Yes, I think that's – I think that's right. In the discussion of – yes, I think that there's some evidence in the record about differences in user receptivity to ads, yes." Meta SMF ¶ 148 (quoting Ex. 283 245:7-13 (Hemphill Dep. Tr.)). He also testified: "Q. . . . Some individuals have a greater disutility associated with seeing ads than other users; is that fair? . . . A. Yes, I would – I would expect that – the amount of disutility from ads would vary across users." *Id.* (quoting Ex. 283 at 245:21-246:5 (Hemphill Dep. Tr.)). The FTC's proffered advertising expert agreed that advertising can benefit users. *See*, *e.g.*, Ex. 498 at 3 (MetaFTC-DX-1159) ("Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value.").

1546. Meta executives testified that showing more ads to users tends to decrease the amount of time users spend on the app and that users don't like ads.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the materials cited in the subparagraphs below do not support the statement in this paragraph. Further disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1466, 1468, 1474, 1504, 1506, and 1542 and in Meta's responses to the subparagraphs below.

a. Tom Cunningham, a former research scientist at Meta, testified that "showing more ads to users, holding all else equal, will tend to decrease the amount of time the users spend on the app." PX6008, Cunningham (Meta) IH Tr., at 22:6-8, 177:25-178:3.

Meta Response: Disputed in part. Undisputed that Mr. Cunningham provided the quoted testimony. Disputed that the cited testimony supports the FTC's blanket statement that "users don't like ads." The FTC's quotation of Mr. Cunningham's testimony is misleading and incomplete; Mr. Cunningham *disagreed* "that increased ad load will cause engagement to decline even if high-quality ads are used." PX6008 at 162:12-16 (Cunningham IH Tr.) ("Q. . . . Based on your analysis, do you believe that increased ad load will cause engagement to decline even if high-quality ads are used? A. No."). The evidence shows that Meta is an innovator in advertising and has implemented technologies to improve ad quality over time. *See* Meta SMF ¶ 143.

b. Mr. Mosseri testified that "we [Meta] want to make sure that we're a business that is profitable and can continue to invest in M&A, but we also want to make sure that we don't degrade the experience by putting in too many ads and offputting people . . . ." PX6078, Mosseri (Meta) Dep. Tr., at 273:17-22.

Meta Response: Disputed in part. Undisputed that Mr. Mosseri provided the quoted testimony. Disputed that the cited testimony supports the FTC's blanket statement that "users don't like ads." Mr. Mosseri explained regarding the testimony that the statement quotes: "[T]his is correlation, and it's on average. So on average, if you increase ad load and you don't increase ad quality, you will likely see people using the app a little bit less." PX6078 at 276:22-277:2 (Mosseri Dep. Tr.). Mr. Mosseri further testified that "the net effect of ads" on the user experience "is every bit as much due to the relevance of the ads as it is to the prevalence of the ads." *Id.* at 276:9-12. Mr. Mosseri also testified:

Id. at 278:4-11.

1547. Professor Hemphill's analysis confirmed that .

Meta Response: Disputed in part. Undisputed that Professor Hemphill found that .

Disputed that this statement creates a genuine dispute of material fact, including because the FTC omits context from the findings of this study. As Professor Carlton explained: "If ad load were an important component of competition between the apps in Prof. Hemphill's claimed market, however, we would expect that when ad load increased on Facebook, not only would time on Facebook decrease, but time on Facebook's alleged competitors, *e.g.*, Instagram, would increase as users switched from one app to the other. Ex. 2 at ¶ 145 (Carlton Rep.) (emphases in

original). Further disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1466, 1468, 1474, 1504, 1506, and 1542.

a. [redacted]. PX9000, Hemphill Report ¶ 708, Ex. C-49.

Meta Response: Disputed in part. Undisputed that Professor Hemphill found that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1547.

b. [redacted] *Id.* at ¶ 708, Ex. C-50.

Meta Response: Disputed in part. Undisputed that Professor Hemphill found that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1547.

1548. Meta increased Instagram's average ad load in North America from [redacted] between 2015 and 2016, negatively impacting Instagram user engagement. PX9000, Hemphill Report at ¶¶ 1151-1152.

Meta Response: Disputed in part. Undisputed that the cited report contains the above calculations, which reflect the period beginning Q2 2015 and ending Q2 2016. Disputed that this statement creates a genuine dispute of material fact. Professor Hemphill's own calculations show that user engagement on Instagram – however measured – increased dramatically during this period. *See* PX9000 at Exs. C-26 (time spent), C-31 (monthly active users), C-36 (daily active users) (Hemphill Rep.). Further disputed because the paragraph omits context. In 2015, Meta brought Instagram onto Meta's self-serve advertising platform, cutting Instagram's cost of providing ads, thereby growing ad supply and quality, in addition to dramatically increasing Instagram's revenues. *See* Meta SMF ¶¶ 716-721; Ex. 4 at ¶ 87 & Ex. 5 (Tucker Rep.); *see also* PX15239 at -885 (FTC-META-009150884) (Instagram co-founder Mr. Systrom writing "100% agree" in response to the statement, "more ads begets higher quality ads"). Reducing the marginal cost of providing an advertisement can result in an increase in ad load, *see* Ex. 2 at ¶ 257 (Carlton Rep.); as Professor Hemphill has acknowledged, "[t]he level of ad load is not determined only by market conditions on the user side," PX9000 at ¶ 713 (Hemphill Rep.). Regarding user reactions, Professor Carlton found that user "X-Outs" (i.e., user actions to hide or report ads) plummeted after Instagram transitioned to Meta's self-serve advertising platform, reflecting users' improved reaction to ads. *See* Ex. 2 at ¶ 258 & fig. 19 (Carlton Rep.). Further disputed because the FTC's proffered experts offer no evidence or analysis comparing the effect of ad load with the effects of increased ad

quality, increasing demand for digital advertising, improved features for users, or other relevant factors that influence quality. *See*, *e.g.*, Meta SMF ¶ 127 (Professor Hemphill's concession that Stories was "a product improving competitive response" and that Reels was a "quality improvement" on Facebook and Instagram (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.))); Ex. 283 at 241:20-242:10 (Hemphill Dep. Tr.) (confirming that he performed no "quantitative measure of ad quality"). Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. A 2017 internal newsletter discussing continued increases in ad load referenced "early 2016" when Instagram experienced "4 straight quarters of sharp decline" in DAP (daily active person) and Time Spent "as we started ramping up on self-serve ad load." PX2981, Meta Workplace Post: [redacted] post to Instagram Business Platform Dev (Oct. 18, 2017), FB_FTC_CID_07868007, at -007.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the quotation from the document is incomplete and out of context. As to engagement, the document reported that "DAP and Time Spent gap against [redacted] QoQ [quarter over quarter] has remained somewhat constant for 6 quarters in a row." PX2981 at -8007 (FB_FTC_CID_07868007). The document notes that "[t]his is significant if you recall" the quotation in the statement (concerning "tense moments"). Thus, according to the document cited, any perceived "sharp decline[s]" from "early 2016" had resolved during the quarters preceding 1Q 2017. Mr. Systrom explained that he "understood and got the tradeoffs," regarding Instagram's shift to programmatic advertising through Facebook, "and we got to work on making

this new strategy work the best possible way we could. And it ended up being very, very successful." PX6027 at 215:3-6 (Systrom IH Tr.); *see also id.* at 218:1-9 (testifying that Instagram "obviously kept growing very quickly," any engagement effect was "not to the point where it made it not worth it," and "net-net . . . it was a positive thing . . . that fit, overall, the company").

b. Mr. Systrom testified that he was concerned in 2015 that Meta executives were paying too little attention to the adverse effects of increased ad load on Instagram user sentiment and engagement. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 194:25-195:5 [redacted].

Meta Response: Disputed. Disputed that this statement – which paraphrases Mr. Systrom's testimony without context and concerns a document that pre-dates the period when, according to the parent paragraph, Meta began increasing ad load on Instagram – creates a genuine dispute of material fact. In the document, Mr. Systrom advised other Meta executives to reassure his team of their focus on "delivering consumers a great advertising experience":

> I'm hoping to give you [] guys the keys to success with a team [at Instagram] that is deeply afraid we'll mess something up along the way with the consumer experience. I think it's an easy win for all of us to mention how we're paying attention to it, how we're going to measure it, and how we'll react to it if necessary. Even if we all are thinking this on the inside, I believe the team's conservative approach comes form [sic] not hearing enough concern over sentiment, engagement, etc from this group as they are asked to do increasingly aggressive things.

> We've all sat with this worry, and we know how this feels, so my hope is we can create a context where the team doesn't feel concerned about moving forward at 1,000mph.

PX15239 at -885 (FTC-META-009150884). Elsewhere, Mr. Systrom addressed the prospect of increasing ad load, endorsing the statement that "more ads begets higher quality ads," *see id.* at -885 ("100% agree"), and explaining that "we don't necessarily have the issue of quality because so many of these ads have already been optimized for FB and the competition that FB drove has meant that these ads will likely be much higher quality than if we were starting from scratch," *id.*

b) Meta's underinvestment reduces user engagement.

1549. As discussed above, Meta recognizes that users of Facebook and Instagram highly value and demand friend content, yet Meta has underinvested in the friends and family sharing use case. *See supra* § CMF at § II.C.3(c).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. To the extent this statement incorporates the FTC's statements in Section II.C.3(c), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1501, and 1542. Meta has spent billions investing in its services. *See* Meta SMF ¶ 126. The FTC and Professor Hemphill assert that all time spent on Facebook and Instagram (except for Dating) is time spent "personal social networking," *see id.* at ¶ 569, and so Meta cannot have been "underinvesting" in a particular use case as this paragraph asserts, *see* Ex. 283 at 173:18-22 (Hemphill Dep. Tr.).

a. Meta's survey research indicates that Facebook users perceive a decline in the quality and quantity of friends and family sharing on Facebook News Feed. *See supra* CMF at ¶ 1503.

Meta Response: Disputed. Disputed because this statement cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statement in paragraph 1503, Meta incorporates its response to that statement here. Further disputed for the reasons stated above in Meta's responses to paragraphs 1493 and 1499 and subparagraph 1492(c)(vi).

b. Meta has underinvested in the friends and family sharing use case across its PSN apps. *See supra* CMF at ¶ 1502.

Meta Response: Disputed. Disputed because this statement cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statement in paragraph 1502, Meta incorporates its response to that statement here. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1501, and 1542. The FTC's use of "PSN apps" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1550. Evidence also indicates that Meta's underinvestment reduces user engagement. *Infra* CMF at ¶¶ 1551-56.

Meta Response: Disputed. Disputed because this statement cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1551-1556,

Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's responses to paragraphs 1474, 1501, and 1542. Meta has spent billions investing in its services. *See* Meta SMF ¶ 126. Regarding engagement, Meta has increased output for both Facebook and Instagram by every measure of engagement. *Compare id.* at ¶¶ 657-658, *with id.* at ¶ 724 (Instagram growth), ¶ 725 (Facebook growth). Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." *Id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

1551. Meta recognizes that it has underinvested in key drivers of user engagement on Facebook and Instagram.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and for the reasons stated above in Meta's responses to paragraphs 1474, 1501, and 1542.

a. A 2018 Meta study reported that [redacted]. PX3168, Meta document: "[Final] IG Connections – Q3 2018 Roadmap" (*June 11, 2018), FB_FTC_CID_08480004, at -008 [redacted]

[redacted]; *id*. at -006 [redacted].

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement takes the quoted language out of context. The document and study show Meta investing in improving "[n]etwork [h]ealth" by making sure Instagram users have an enjoyable and engaging experience on the service. *See* PX3168 at -80005 (FB_FTC_CID_08480004). The study states that Meta has an entire [redacted] *Id.* The document also describes efforts like [redacted] *Id.* The document states the opposite of the FTC's statement, finding that [redacted] *Id.* at -80006. The document adds that the study found users [redacted] *Id.* at -80009 ([redacted]). Further disputed because the FTC and Professor Hemphill assert that all time spent on Facebook and Instagram (except for Dating)

is time spent "personal social networking," *see* Meta SMF ¶ 569, and so Meta cannot have been "underinvesting" in "PSNS" by allocating resources to other "PSN" features, *see* Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."). Further disputed that a product team's planning to direct additional resources to fostering reciprocal follows constitutes or reflects an underinvestment.

b. A 2018 Meta document acknowledged that [redacted] PX3391, Meta document: "Sentiment and Overall Sharing Participation are Correlated" (*Oct. 5, 2018), FB_FTC_CID_08241067, at -067.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement omits context; on the very same page of the document, it states that [redacted]. PX3391 at -067 (FB_FTC_CID_08241067) (emphasis in original). Further disputed that the above-quoted material supports the FTC's claim of underinvestment or that the [redacted].

c. According to notes from a 2022 dinner meeting, Meta executives recognize that [redacted] PX12497, Meta document: "PG Leads Dinner 1/19 – Summary of Conversation about Facebook Trends" (*Jan. 19, 2022), FTC-META-006283862, at -862.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement omits the context in which the quoted language appears. The document [redacted]. PX12497 at -862 (FTC-META-006283862).

1552. Meta's lack of action to improve declining user sentiment (e.g., by not reducing ad load or investing more in friends and family sharing) also reinforces a negative effect on engagement because Meta's ordinary course evidence indicates that [redacted]. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 729-30, 733.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. Further disputed to the extent this statement implies there is record material showing a causal relationship between [redacted], *see* Ex. 2 at ¶ 307 (Carlton Rep.); the FTC's proffered experts made

no such causal showing, which would be contrary to materials the FTC has introduced into the record, *see*, *e.g.*, PX15513 at -622 (FTC-META-010526617) ("[redacted]). Professor Carlton showed [redacted]; Professor Hemphill's own calculations show that [redacted]. *See* Ex. 2 at ¶ 307 (Carlton Rep.). Further disputed because Professor Hemphill found that [redacted]. *See* PX9000 at ¶ 719 & Ex. 54 (Hemphill Rep.). Meta has spent billions investing in its services, *see* Meta SMF ¶ 126, and that marketwide output expanded after both acquisitions, *see id.* at ¶¶ 724-725, 729-732. No FTC proffered expert opines that output would have been higher in the but-for world. *See id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Further disputed because the FTC and Professor Hemphill assert that all time spent on Facebook and Instagram (except for Dating) is time spent "personal social networking," *see id.* at ¶ 569, and so Meta cannot have been "underinvesting" in a particular use case as the statement in this paragraph asserts. *See* Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:1 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking."). Further disputed for the reasons stated above in Meta's responses

to paragraphs 1432, 1466, 1468, 1474, 1492, 1493, 1499, 1501, and 1542 and subparagraph 1942(c)(vi).

a. A 2018 Meta document acknowledged that [redacted] PX3391, Meta document: "[redacted]" (*Oct. 5, 2018), FB_FTC_CID_08241067, at -067.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement omits the context; on the very same page of the document, it states that [redacted]. PX3391 at -067 (FB_FTC_CID_08241067) (emphasis in original). Further disputed that the above-quoted material [redacted].

1553. Meta's underinvestment in friends and family sharing also reinforces a negative effect on engagement because content produced by friends and connections on Facebook and Instagram is distinctly valuable in promoting user engagement and retention. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 253, 730.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because marketwide output – i.e., usage and engagement on alleged "PSN" services, including Facebook and Instagram – expanded after the challenged acquisitions, *see* Meta SMF ¶¶ 724-725, 729-732

(including FTC Responses), and no FTC proffered expert opines that output would have been higher in the but-for world. Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." *Id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Further disputed because the FTC and Professor Hemphill assert that all time spent on Facebook and Instagram (except for Dating) is time spent "personal social networking," *see* Meta SMF ¶ 569, and so Meta cannot have been "underinvesting" in "PSNS" by allocating resources to other "PSN" features or content formats, *see* Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:1 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking."). Further disputed for the reasons stated above in Meta's responses to paragraphs 1432, 1466, 1468, 1474, 1492, 1493, 1499, 1501, and 1542 and subparagraph 1942(c)(vi).

a. Tom Alison testified that friend posts in Facebook News Feed are "one of the most valuable types of content" because "people both want to see the content in

their feed, and they also often comment or interact with friend content with other friends which also is a reason for those people to come and use Facebook." PX6069, Alison (Meta) Dep. Tr., at 122:14-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that a Meta employee describing friend posts in feed as "*one of* the most valuable types of content" means that those posts are "*distinctly* valuable in promoting user engagement and retention," as this statement asserts (emphases added).

b. An internal Meta study in 2018 reported that [redacted] with a notable impact on [redacted] PX3168, Meta document: "[Final] IG Connections – Q3 2018 Roadmap" (*June 11, 2018), FB_FTC_CID_08480004, at -008.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement takes the quoted language out of context, for the reasons stated above in Meta's response to subparagraph 1551(a).

c. An internal Meta study in 2018 recognized that [redacted] PX3168, Meta document: "[Final] IG Connections – Q3 2018 Roadmap" (*June 11, 2018), FB_FTC_CID_08480004, at -006.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement takes the quoted language out

of context, for the reasons stated above in Meta's response to subparagraph 1551(a).

d. An internal Meta study in 2018 [redacted] PX3168, Meta document: "[Final] IG Connections – Q3 2018 Roadmap" (*June 11, 2018), FB_FTC_CID_08480004, at -008 [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement takes the quoted language out of context, for the reasons stated above in Meta's response to subparagraph 1551(a).

e. A Meta slide deck regarding Instagram recognized that [redacted] reporting that [redacted] and that [redacted] PX3169 at

-032-34, Meta presentation: "[redacted]" (*Apr. 16, 2019), FTC-META-004968222.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the document shows [redacted]. *See* PX3169 at -011 (FTC-META-004968222) ("Graph Health").

f. A 2020 Meta slide deck regarding Instagram's Feed stated that "[redacted]" noting that, [redacted] PX3175, Meta presentation: "IG Feed's State of the Union" (*Apr. 14, 2020), FTC-META-011756134, at -159.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement lacks context. The document observes: [redacted] PX3175 at -154 (FTC-META-011756134).

g. A 2021 Meta presentation reported that [redacted] PX3008 at -039, Meta presentation: "Feed & Ecosystems XFN" (Oct. 4, 2021), FTC-META-006751948.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language indicating that [redacted] and that this document suggests [redacted]. Disputed because this statement is missing context. It omits that the same slide of the cited presentation describes [redacted] PX3008 at -039 (FTC-META-006751948). On the next slide, the presentation states that, [redacted] *Id.* at -040. Elsewhere, the document observes that [redacted] *Id.* at -012-013; *see also id.* at -013 [redacted].

h. A 2022 Meta slide deck reported that [redacted] PX3390 at -062, -074, Meta presentation:

"Feed & Ecosystems XFN: Metrics Overview" (Oct. 7, 2022), FTC-META-012437313.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language (but not the FTC's bracketed insertions). Disputed because [redacted] *Cf.* Ex. 146 at 223:17-224:1 (Alison Dep. Tr.). Further disputed because the selective quotation in the subparagraph omits necessary context. The cited slide of the presentation states: [redacted] PX3390 at -062 (FTC-META-012437313) (emphasis in original); *see also id.* at -072 [redacted]. Elsewhere, the presentation states: [redacted]. *Id.* at -030.

i. A 2022 Meta slide deck regarding engagement on Facebook recognized that [redacted] PX3170, Meta presentation: "FB App Engagement Follow-up" (Jan. 27, 2022), FTC-META-006005434, at -526 ([redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because this statement omits context. The cited slide deck cites [redacted]. PX3170 at -439 (FTC-META-006005434); *see also id.* at -440 ([redacted]). The slide deck also states: [redacted] *Id.* at -483.

1554. Friend inventory—and friends and family sharing generally—is also correlated with user sentiment. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 253, 729-730, 733.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. Disputed to the extent the statement implies there is record material to support a causal relationship between user sentiment and "friends and family sharing," *see* Ex. 2 at ¶ 317 (Carlton Rep.); the FTC's proffered experts made no such causal showing, which would be contrary to materials that the FTC has introduced into the record, *see*, *e.g.*, PX3391 at -067 (FB_FTC_CID_08241067) ([redacted]); PX9007 at ¶ 359 & n.525 (Hemphill Rebuttal Rep.) ([redacted]). The evidence shows that, [redacted]

[redacted]

[redacted]. *See* Ex. 2 at ¶ 70 & tbl. 11 (Carlton Rep.).

a. An internal Meta study in 2015 found that feed inventory and, specifically, friend inventory showed a "high and persistent correlation with CAU while controlling for tenure." PX3167, Meta email chain: [redacted] to A. Schultz, et al. re: "Feed inventory shows strong and positive correlation with CAU!" (May 18, 2015), FB_FTC_CID_03828382, at -382-83 ("Feed inventory is by far the only feature AFAIK that showed such a high and persistent correlation with CAU while controlling for tenure. CAU strictly and consistently increases with increase in feed inventory (both total and friend inventory) . . . .").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because subsequent research – which the FTC introduced into the record – does not show that there is a causal relationship between user sentiment and engagement, *see*, *e.g.*, PX3391 at -067 (FB_FTC_CID_08241067) ([redacted] (emphasis in original)). There is no record material showing a causal relationship. *See* PX9007 at ¶ 359 & n.525 (Hemphill Rebuttal Rep.) ([redacted]). Further disputed because the document shows that the identified correlations – (1) between one measure of user sentiment and friend inventory, and (2) between that user-sentiment measure and total content inventory – are of similar magnitude and also weakened substantially over time

through 2014, the last studied year. *See* PX3167 at -383, -384 (FB_FTC_CID_03828382).

b. A 2021 Meta slide deck reported [redacted] PX3008 at -039, Meta presentation: "Feed & Ecosystems XFN" (Oct. 4, 2021), FTC-META-006751948.

<u>Meta Response</u>: Disputed. Disputed because the quoted language [redacted] Further disputed for the reasons stated above in Meta's response to paragraph 1553(g).

c. A 2021 Meta slide deck reported that [redacted] PX3008 at -042, Meta presentation: "Feed & Ecosystems XFN" (Oct. 4, 2021), FTC-META-006751948.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reason stated above in Meta's response to paragraph 1553(g).

1555. Meta's underinvestment in friends and family sharing has contributed to correlated declines in user sentiment and engagement. PX9007, Hemphill Rebuttal Report at ¶¶ 358-59.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's responses to paragraphs 1432, 1474, 1499, 1501, and 1542 and subparagraph 1492(c)(vi). Meta has spent billions investing in its services. *See* Meta SMF ¶ 126. Marketwide output and engagement expanded after both acquisitions, *see id.* at ¶¶ 724-725, 729-734, and no FTC proffered expert opines that output would have been higher in the but-for world. Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Further disputed because the FTC and Professor Hemphill assert that all time spent on Facebook and Instagram (except for Dating) is time spent "personal social networking," *see id.* at ¶ 569, and so Meta cannot have been "underinvesting" in a particular use case as the statement asserts, *see* Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:1 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the

personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking."). Further disputed to the extent the statement implies there is record material to support a causal relationship between user sentiment, engagement, and "friends and family sharing," *see* Ex. 2 at ¶ 317 (Carlton Rep.); the FTC's proffered experts made no such causal showing, which would be contrary to materials that the FTC has introduced into the record, *see*, *e.g.*, PX3391 at -067 (FB_FTC_CID_08241067) ([redacted] (emphases in original)); PX9007 at ¶ 359 & n.525 (Hemphill Rebuttal Rep.) ([redacted]). Further disputed because the statement of "declines in user sentiment" is vague as to time. According to Professor Hemphill's calculations, [redacted]. *See* PX9000 at pp. 300-303 & figs. 65-68 (Hemphill Rep.).

1556. The combination of declining sentiment and hampered friends and family sharing are indicative of Meta exploiting monopoly power with respect to the friends and family use case. *Id.* at ¶ 359.

<u>Meta Response</u>: Disputed. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1555 and in Meta's Introduction to its Response to the FTC's Counterstatement. This statement asserts a legal conclusion as to the presence of monopoly power and is copied verbatim

from Professor Hemphill's rebuttal report in this matter, which offers no evidence to support the conclusory statement. No evidence in the record shows changes in consumer sentiment about brand reputation necessarily reflect objective service quality. *See* Ex. 2 at ¶¶ 168-171 (Carlton Rep.). Nor is there evidence that Meta reduced "friends and family sharing" or "underinvested" in "PSN" features relative to some competitive threshold. On the contrary, Professor Hemphill testified that Meta's innovating to add features to its services – like Stories and Reels, which postdate the acquisitions at issue and constitute "PSN" features, according to the FTC, *see*, *e.g.*, Ex. 283 at 175:15-176:2 (Hemphill Dep. Tr.)) – is a "quality improvement," Meta SMF ¶ 127 (quoting Ex. 283 at 229:17-19, 231:10-19, 231:20-232:4, 63:17-264:4 (Hemphill Dep. Tr.)).

III. Meta's Acquisitions of Instagram and WhatsApp Constitute Exclusionary Conduct

A. The Shift to Mobile Opened a Rare Window of Vulnerability for Facebook

1557. The first version of the Facebook website ("Facebook") was launched in February 2004. PX6029, Zuckerberg (Meta) IH Tr., at 76:9-10.

Meta Response: Undisputed.

1558. Facebook was initially launched at Harvard University for Harvard students, and was subsequently made available to students at other colleges in the United States. PX6029, Zuckerberg (Meta) IH Tr., at 81:8-83:10.

Meta Response: Undisputed.

1559. Facebook gained popularity at a number of colleges in the United States, and in September 2006 moved beyond the college-student population and opened account registration to non-college-student United States users. PX0289 at -001, *Company Timeline*, Facebook, (Wayback Machine image dated Feb. 28, 2008), https://web.archive.org/web/20080228004941/http://www.facebook.com/press/info.php?t

imeline (noting that in September 2006 "Facebook expands registration so anyone can join").

Meta Response: Undisputed.

1560. Facebook grew rapidly: by 2009, Facebook surpassed Myspace to become the most widely used online social networking service in the United States. PX2690, Facebook document: "Anderson Analytics, Social Network Service (SNS) Attitude & Usage Profiler For Facebook" (July 14, 2009), FB_FTC_CID_03882182, at -183, -246 (Anderson Analytics study prepared for Facebook concluded that based on users "who accessed the site within the past 30 days. . . . Facebook (77 million) and MySpace (67 million) are the most popular US [Social Networking Services] sites").

Meta Response: Undisputed.

1561. By the end of 2009, Facebook had achieved more than 112 million monthly active users in the U.S. and Canada and 360 million worldwide, and it continued its rapid growth in 2010 and 2011. PX0292 at -008, -051, Meta SEC Form S-1, dated Feb. 1, 2012.

Meta Response: Undisputed.

1562. The Facebook website was created principally by Mark Zuckerberg, who founded the resulting company (now known as Meta) and has remained its "ultimate decision-maker": he acts as Chief Executive Officer and chairman of the board of directors, controls a majority of the company's voting shares, and testified that he could not recall ever being overruled by the board. PX6029, Zuckerberg (Meta) IH Tr., at 23:11-23, 24:22-24, 25:6-13.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg created Facebook, founded Meta, is CEO and Chairman of the Board at Meta, and controls a majority of the

company's voting shares. Disputed that the statement accurately characterizes Mr. Zuckerberg's testimony. He testified: "Q. Is it fair to say you're the ultimate decision-maker at Facebook? A. I – I think that that characterization is generally accurate. Q. Are there exceptions to that characterization? A. Well, there are a lot of decisions that I don't make, either that I delegate or that I am simply unaware of." PX6029 at 23:11-19 (Zuckerberg IH Tr.). He also testified: "Q. Has the board ever overruled a decision you've made? A. I can't think of any examples." *Id.* at 24:22-24.

1563. "Facebook was initially designed for a desktop environment." PX2618, Meta White Paper, "Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -371.

Meta Response: Undisputed.

1564. Facebook achieved its initial success during a period in which consumers primarily used desktop computers to access internet applications. PX6027, Systrom (Meta/Instagram) IH Tr., at 43:24-45:3; PX6029, Zuckerberg (Meta) IH Tr., at 244:13-15, 19-21.

Meta Response: Undisputed.

1. The shift to mobile began in earnest in late 2010 as smartphones began to gain wide adoption.

1565. In the late 2000s and early 2010s many consumers increased their use of smartphones, moved from web browsers to mobile-native applications, a transition referred to as the "shift to mobile" by Meta executives. PX2971, Meta email chain: M. Zuckerberg to [redacted] distribution list, et al. re: "CONFIDENTIAL," (July 27, 2012), FB_FTC_CID_10090890, at -891.

Meta Response: Undisputed.

1566. Mr. Zuckerberg testified that "in, say, 2008, 2009 . . . the vast majority of people used our services in desktop and web," whereas by 2012 "phones were just starting to become the primary computing devices we used and that most people carried around smartphones all the time . . . by 2012 or 2013 mobile had become kind of more used than desktop." PX6029, Zuckerberg (Meta) IH Tr., at 244:13-15, 19-21; *id.* at 108:11-16.

Meta Response: Undisputed that the witness provided the quoted testimony.

1567. The release of the iPhone 4 in mid-2010 was an inflection point for the shift to mobile. *See* PX0557, Apple Press Release, *Apple Presents iPhone 4*, Apple (June 7, 2010), https://www.apple.com/newsroom/2010/06/07Apple-Presents-iPhone-4/. The iPhone 4's camera was significantly improved over the cameras of previous phones. PX6015, Krieger (Meta/Instagram) IH Tr., at 29:23-30:5, 39:19-21 ("Around the time we launched Instagram [October 2010], the iPhone 4 came out, and I remember that was the first iPhone where Apple really leaned into the camera as a differentiator in the announcement."); PX6027, Systrom (Meta/Instagram) IH Tr., at 84:14-85:10 ("The – the iPhone – I think it was called the iPhone 3, 3G, 3GS, as I recall, had a pretty mediocre camera, and the iPhone 4 had a camera that actually worked pretty good.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed on the ground that "inflection point" is vague and undefined.

1568. As Kevin Systrom explained:

> [B]y the time the iPhone 4 arrived, it was clear that mobile phones were going to be extremely high-quality computing devices and lots of people would own them. So that was really the window where, if you started a mobile company, you know, in 2009, 2010, 2011, there were lots of opportunities to recreate experiences people used to have on the desktop that now they were going to have on mobile because those desktop companies had not made the shift quickly enough.

PX6027, Systrom (Meta/Instagram) IH Tr., at 83:11-84:3.

Meta Response: Undisputed that the witness provided the quoted testimony.

2. The shift to mobile presented a rare opportunity for entrants and a major threat to Meta.

1569. The shift to mobile presented Facebook, which "had originally been designed for the desktop" with "challenges in adapting to the mobile environment. . . ." including "a difficult engineering and design challenge." PX15545 at -014, Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 4, 5, and 7 (Nov. 30, 2022) (Facebook "had originally been designed for the desktop and it had faced challenges in adapting to the mobile environment. Distilling the rich set of features available on the desktop version of Facebook Blue into an app for mobile devices (with their distinct operating systems, small screens, and limited internet connectivity) presented a difficult engineering and design challenge.").

Meta Response: Undisputed.

1570. The shift to mobile presented Facebook, a "legacy product from the old platform of web," with enormous disadvantages that were not shared by "mobile first" upstarts that were "designed in mobile terms and built from the ground up on mobile terms." PX6028, Zoufonoun (Meta) IH Tr., at 153:19-154:15.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the phrase "enormous disadvantages" is an accurate characterization of Mr. Zoufonoun's testimony, including because the phrase is vague and undefined.

1571. Mobile-first apps were better positioned than Facebook to enable and capitalize on "new use cases that were being created on phones that didn't make sense on computers." PX6029, Zuckerberg (Meta) IH Tr., at 108:11-23.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the cited testimony does not support the statement. Mr. Zuckerberg gave the above-quoted testimony in response to the following question: "How would you have described Instagram at the time Facebook purchased it?" PX6029 at 107:24-25 (Zuckerberg IH Tr.). His answer did not address Facebook's ability to enable and capitalize on new use cases.

1572. The danger to Facebook presented by the shift to mobile was compounded by "performance problems" that plagued Facebook's mobile app. PX6029, Zuckerberg (Meta) IH Tr., at 245:13-16.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the cited testimony does not support the statement. Mr. Zuckerberg was asked whether Facebook's mobile app had performance problems before 2012. PX6029 at 245:13-14 (Zuckerberg IH Tr.) ("Q. Does the Facebook Mobile app – prior to 2012, did it have performance problems? A. Yes . . . ."). He did not testify that these problems "compounded" any "danger to Facebook presented by the shift to mobile."

1573. As Mr. Zuckerberg testified, "[w]e were certainly in the middle of this very dangerous platform transition, where we were very vulnerable, and that, historically, a lot of companies had not been able to make that leap. But a lot of people used our app. They

just weren't having the experience at the quality level that we wanted to provide." PX6029, Zuckerberg (Meta) IH Tr., at 241:23-242:4.

Meta Response: Undisputed that the witness provided the quoted testimony.

1574. For the above-stated reasons, *see supra* at § III.A.2, the shift to mobile represented a rare opportunity for entrants and a major threat to Meta.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.A.2, Meta incorporates its responses to those statements here. Further disputed that the cross-referenced statements support the assertion that opportunities for entrants have been "rare"; on the contrary, there has been rapid entry and continuing growth of competitors throughout Meta's history as a company. *See*, *e.g.*, Meta SMF ¶¶ 729-732.

3. Meta stumbled in its attempts to adapt to the shift to mobile.

1575. The Facebook mobile website launched in 2007, the iOS app 2008, and the initial Android app in 2009, and each has consistently allowed users to post photos from their phones.

Meta Response: Undisputed.

a. Facebook mobile website (2007)

i. Meta launched its first mobile website for Facebook on January 10, 2007. PX0290, Mark Slee, *Facebook Your Phone*, Facebook Blog (Jan. 10, 2007) (Wayback Machine image dated Jan. 17, 2007), https://web.archive.org/web/20070117061124/http://blog.facebook.com/blog.php?post=2228532130.

Meta Response: Disputed. Disputed because evidence indicates Facebook launched its first mobile website for Facebook in 2006. *See* Ex. 2 at ¶ 294 & n.443 (Carlton Rep.). Further disputed that the statement is material to the resolution of either party's motion.

ii. This first version of the Facebook mobile website allowed users to upload images from their mobile phones to Facebook. *Id.* at -001 ("Mobile Uploads lets you send photos and notes to Facebook when you're out and about.").

Meta Response: Undisputed.

b. Facebook iOS App (2008)

i. Meta has offered Facebook as an application on iOS since July 10, 2008. PX0291, Joe Hewitt, *Facebook for iPhone*, The Facebook Blog (July 10, 2008) (Wayback Machine image dated Sept. 6, 2008), https://web.archive.org/web/20080906134944/http://blog.facebook.com/blog.php?post=22389032130 ("Today, Apple has opened the doors to its App Store which features a new application we've created: Facebook for iPhone.").

Meta Response: Undisputed.

ii. Since July 10, 2008, the Facebook application for iOS has allowed users to view and share photos from their mobile phone. *Id.* ("[W]ith the native application you can take photos with the iPhone's camera and upload them instantly to your Mobile Uploads album on Facebook.").

Meta Response: Undisputed.

iii. The announcement for the Facebook app on iOS included an image of the application's "home" screen, showing, among other things, how an image appeared in a user's home feed:

Id.

<u>Meta Response</u>: Undisputed.

c. Facebook for Android (2009)

i. Facebook has been available on Android since at least September 2009. PX0293, *Facebook for Android*, Facebook, (Wayback Machine image dated Sept. 19, 2009), https://web.archive.org/web/20090919004950/http://www.facebook.com/apps/application.php?id=74769995908; *see also* PX6044, Fetterman (Meta) Dep. Tr., at 82:19-20 ("We did ship Android in 2009").

<u>Meta Response</u>: Undisputed.

ii. Since 2009, Facebook for Android has allowed users to view and share photos from their Android mobile phone. PX0297, Info, *Facebook for Android*, (Wayback Machine image dated Oct. 8, 2009),

https://web.archive.org/web/20091008224722/http://www.facebook.com/apps/application.php?id=74769995908&v=info ("Facebook for Android makes it easy to stay connected and share information with friends . . . Share photos from your phone").

Meta Response: Undisputed.

iii. Meta did not write the initial Facebook app for Android. *Id.* ("The first version of the officially approved Facebook Application for the Android TM operating system. . . . Information . . . This application was not developed by Facebook").

Meta Response: Disputed. Disputed that the statement is material to the resolution of either party's motion. Further disputed because evidence indicates that Meta wrote the first version of Facebook for Android. *See* PX6044 at 46:12-17 (Fetterman Dep. Tr.) ("Q. Who wrote the first version of Facebook for Android? Facebook for Android was written by a small team that reported to me. I can say for sure a guy named [redacted] was the lead engineer on that."); *id.* at 96:1-13 ("Q. Did Facebook agree to have Google manage the development of the Facebook Blue app for Google – for Android? Sorry. A. I don't believe so. … The Facebook for Android that we shipped was developed in-house.").

iv. Meta did not take over development of Facebook for Android from Google until mid-2010. PX11278, Meta email chain: D. Rose to [redacted] distribution list, et al. re: "[[redacted]] PPPMF – drose *A/C Priv*" (Apr. 25, 2010), FB_FTC_CID_08752318, at -318 ("Android. Google launched

v1.2 of the FB app for Android and will preload it on many devices around the world; Fetterman is taking over future development of the app going forward."); *see also* PX10498, Meta email chain: [redacted] to [redacted], et al. re: "[mobile-eng] Mobile Business Weekly Update" (July 23, 2010), FB_FTC_CID_10499767, at -767 ("Android: next version of the app is in testing. This version has been developed by facebook (product and engineering) and this completes the transition of the app from Google's team to ours.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to subparagraph 1575(c)(iii).

1576. By August 2011, however, Meta recognized that the Facebook mobile application's "[o]verall iPhone app quality" rating had sunk from "4 stars to a low 2 stars . . . ." PX10504, Meta email chain: M. Schroepfer to D. Fetterman re: "Review for pre-read," (Aug. 26, 2011), FB_FTC_CID_02945359, at -361 ("Overall iPhone app quality has sunk from an[] all-time-high review rating of 4 stars to a low 2 stars with the 3.4.3 release."); *id.* (" = = Very Concerned = = * Quality of iPhone app has languished to a all-time low of 2 star reviews for 3.4.3").

Meta Response: Undisputed that the document contains the quoted language.

1577. David Fetterman, an engineering manager responsible for Facebook's mobile application, explained the 2011 decline in user reviews for the Facebook iPhone app as follows: "the general consensus was that, again, the bugginess, low scrollability, and sometimes

slowness of the iPhone app . . . had just – they had all gotten worse." PX6044, Fetterman (Meta) Dep. Tr., at 200:10-18 (addressing decline in user reviews discussed in PX10504).

Meta Response: Undisputed that the witness provided the quoted testimony.

1578. Dirk Stoop, who led Meta's effort to develop a new stand-alone mobile photos application, testified that in 2011 the Facebook mobile app had "poor code quality leading to an app that was prone to giving long delays in the user experience or crashes or otherwise not performing as a user could reasonably expect," and the app was "architected by somebody who was actively avoiding the design patterns that Apple prescribed in the native application developments." PX6079, Stoop (Meta) Dep. Tr., at 67:6-68:17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed to the extent the statement characterizes Mr. Stoop's role as leading the development of a standalone mobile photos application, as it was always intended that the features of the mobile photos application would be integrated into the Facebook app. *See* Meta Resps. to Counter SMF ¶¶ 1675, 1686, 1850; *see also* PX6079 at 73:24-74:19 (Stoop Dep. Tr.).

1579. By the beginning of 2012, the majority of Meta's users were accessing Facebook on mobile devices despite the company's own assessment that its mobile apps offered poor quality.

Meta Response: Disputed. Disputed because none of the statements in the subparagraphs below support the vague and undefined assertion that the mobile apps "offered poor quality" in 2012.

a. Mr. Zuckerberg testified that by 2012 "mobile had started to basically overtake desktop as the primary thing that people were – were using . . . ." PX6029, Zuckerberg (Meta) IH Tr., at 244:19-21.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. By December 2011 more than half of Meta's 845 million monthly active users were already accessing the service through mobile devices. PX0559 at -007, Meta SEC Form Amendment No. 2 to Form S-1, dated Mar. 7, 2012, (noting "[w]e had 845 Million MAUs as of December 31, 2011" and "[w]e had 432 million MAUs who used Facebook mobile products in December 2011 . . . .").

Meta Response: Undisputed.

c. A December 2011 presentation reports that Meta had "approaching 100% saturation of the iPhone userbase," despite also noting that "app quality remains poor." PX10505, Meta email chain: [redacted] to [redacted] et al. re: "Mobile EOY Review" (Dec. 13, 2011), FTC-META-004245418, at -421, -425 (iPhone: "Decent growth (approaching 100% saturation of iPhone userbase; 80M -> 98M y/y). . . . However, overall app quality remains poor.").

Meta Response: Undisputed that the document contains the quoted language.

1580. Mr. Zuckerberg stated the Facebook app's photos features compared unfavorably to the photos offerings of mobile-first applications: in January 2012, Mr. Zuckerberg wrote to other Meta employees: "[w]hen you look at Instagram and Path then go back to our [newsfeed], it looks like ours was built in the stone age. It's crazy how small the photos are. It just screams that this is not a serious app for sharing photos." PX12201, Meta

Workplace Post: M. Zuckerberg post to [redacted] (Jan. 21, 2012), FB_FTC_CID_12302566, at -566.

Meta Response: Undisputed that the document contains the quoted language.

1581. January 2012, Mr. Zuckerberg wrote to other Meta employees that the Facebook mobile application's integrated photos features compared unfavorably to the mobile application's previously implemented integrated messaging features, writing that "the integrated [photos] experience is so bad . . . ." in contrast to Meta's earlier integrated messaging features, which were "totally functional and not nearly as broken as integrated photos is now." PX12201, Meta Workplace Post: M. Zuckerberg post to [redacted] (Jan. 21, 2012), FB_FTC_CID_12302566, at -567.

Meta Response: Undisputed that the document contains the quoted language.

1582. Meta has admitted that by 2012 Facebook's mobile apps were "widely criticized as slow, unreliable, unduly complex, and ill-suited to a mobile environment." PX15544, Meta's Objs. & Resps. to FTC's Second Set of Requests for Admission, Request No. 19, at 8; *see also* PX2618, Meta White Paper, "Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -371.

Meta Response: Undisputed that the document contains the quoted language.

1583. By early 2012, Mr. Zuckerberg "made it the company's top priority to develop a compelling mobile experience. As explained by Mr. Zuckerberg in a confidential 'all hands' presentation to Facebook personnel in January [of 2012], the company's top priority for 2012 [was] to pivot to a 'mobile first' strategy." PX2618, Meta White Paper,

"Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -375.

Meta Response: Undisputed that the document contains the quoted language.

1584. As Mr. Zuckerberg bluntly informed Meta employees in April 2012 (prior to the acquisition of Instagram), "it's not a secret that our current iPhone app is not that awesome" and that compared to Instagram "right now, we're like, really, we're behind. It's probably a fair thing to say that people tolerate the Facebook mobile experience because they like using the Facebook network primarily on their desktop." PX15180, Meta video clip: "Open Q&A with Mark – April 6, 2012" (Apr. 6, 2012), FB_FTC_CID_01528077, at 0:43-1:12 (video of presentation by Mark Zuckerberg at April 6, 2012 internal Meta meeting); PX3348, Meta email chain: [redacted] to [redacted] distribution list re: "[FYI (Company Announcements)] Open Q&A with Mark — April 6, 2012," (Apr. 9, 2012), FTC-META-005162967, at -967 (meeting took place April 6, 2012).

Meta Response: Undisputed that the document contains the quoted language.

1585. Due to the weaknesses of the Facebook mobile app, and the advantages enjoyed by mobile-first applications, Meta executives recognized that the shift to mobile resulted in an "extremely important platform transition" and a "very vulnerable and dangerous time" for Meta, which Meta executives described as "scary." PX6029, Zuckerberg (Meta) IH Tr,. at 101:23-103:2; PX6022, Sandberg (Meta) IH Tr., at 221:19-222:7.

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed that the quoted language supports the statement's paraphrasing provided without context. Mr. Zuckerberg testified that the shift from desktop to mobile

was "extremely important" for Meta, explaining generally that "these kinds of platform transitions" are "typically a very vulnerable and dangerous time for companies." PX6029 at 101:23-102:7 (Zuckerberg IH Tr.). Neither Mr. Zuckerberg nor Ms. Sandberg testified that Meta viewed the transition to mobile as important or scary "[d]ue to" the "advantages enjoyed by mobile-first applications" as this statement asserts without support.

1586. As Mr. Zuckerberg testified, it was "not guaranteed that [Meta would] even survive through that period." PX6029, Zuckerberg (Meta) IH Tr., at 101:23-103:2.

Meta Response: Undisputed that the witness provided the quoted testimony.

4. To address the Facebook's application's shortcomings in mobile, Facebook was forced to focus on re-writing its code from scratch for approximately 18 months in 2011 and 2012.

1587. Compounding the problems it faced during the shift to mobile, Meta made a major technical mistake when it decided in late 2010 to write its mobile applications to rely on HTML5 programming, rather than writing mobile applications in code native to iOS (the operating system relevant to Apple's iPhone) or/and Android (the operating system relevant to most smartphones).

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact.

1588. "Faceweb" was the name that Meta internally used to refer to its effort to rely on HTML5 rather than applications programmed in native iOS or Android. PX6029, Zuckerberg (Meta) IH Tr., at 236:23-241:16.

Meta Response: Undisputed.

1589. Facebook made the choice to write its mobile applications to rely on HTML5 programming rather than native iOS and Android due in part to the fact that its engineers, "more than a thousand engineers already, at the time" had expertise in HTML5, which worked well in a desktop "web" environment. PX6029, Zuckerberg (Meta) IH Tr., at 238:3-15. In contrast, Meta's engineers had considerably less expertise in iOS or Android programming. PX6044, Fetterman (Meta) Dep. Tr., at 109:10-111:4 (noting that "[c]ompared to the engineers who knew or learned the languages for web development, there were considerably fewer ready to build for iOS or Android").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because its characterization of the testimony uses the vague and ambiguous phrase "considerably less expertise," which the cited testimony does not support.

1590. Mr. Zuckerberg publicly stated in September 2012: "the biggest mistake that we made as a company is betting too much on HTML5 as opposed to native . . . ." PX15183, TechCrunch, *Fireside Chat with Facebook Founder and CEO Mark Zuckerberg*, YouTube (Sept. 11, 2012), at 10:59-11:10, https://www.youtube.com/watch?v=o2wPzjH2xwA&list=PLHRxVckaE8daTWvm6ZJcP9nPYCKd1NY5p&index=8.

Meta Response: Undisputed that Mr. Zuckerberg made the quoted statement.

1591. As Mr. Zuckerberg further explained in September 2012, beginning in approximately September 2010, "we built this internal framework that we called Faceweb . . . and just were never able to get the quality that we wanted . . . so it took us [] six to eight months to build Faceweb and get that [] approach going, another four months or so to decide that

it wasn't going to do it . . . and then we had to start over and start re-writing everything to be native . . . we burnt two years; that's really painful, and I think probably we will look back on [that] saying that it was one of the biggest mistakes if not the biggest strategic mistake that we've made." *Id.* at 11:29-12:16, https://www.youtube.com/watch?v=o2wPzjH2xwA&list=PLHRxVckaE8daTWvm6ZJcP9nPYCKd1NY5p&index=8; *see also* PX6044, Fetterman (Meta) Dep. Tr., at 225:9-11 ("Yeah, the Facebook -- Faceweb did produce poor user experiences for many iPhone users.").

Meta Response: Undisputed that Mr. Zuckerberg made the quoted statement.

1592. As a result of its decision to rely on HTML5 rather than program mobile applications in native iOS or Android, from approximately late 2010 until late 2012, Meta was forced to launch a "multiyear journey of rewriting all of [its] code from scratch [to] work on mobile." PX6029, Zuckerberg (Meta) IH Tr., at 238:23-25; PX15183, *TechCrunch Fireside Chat with Facebook Founder and CEO Mark Zuckerberg*, YouTube (Sept. 11, 2012), at 11:20-13:54, https://www.youtube.com/watch?v=o2wPzjH2xwA&list=PLHRxVckaE8daTWvm6ZJcP9nPYCKd1NY5p&index=8 (as of September 2012, Facebook had released applications programmed natively for iOS, but not yet for Android).

Meta Response: Undisputed that Mr. Zuckerberg provided the quoted testimony.

1593. As part of this journey, during a critical period of platform transition, Meta was forced to "basically stop feature development and just focus on rewriting [its] apps for mobile for 18 months . . . ." PX6029, Zuckerberg (Meta) IH Tr., at 240:2-9.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because it omits context limiting the quoted testimony, in which Mr. Zuckerberg explained that this "rule" applied "for a large portion of the engineering team" – not the entire company as the above characterization implies. PX6029 at 240:5-9 (Zuckerberg IH Tr.). The testimony also clarifies that the "feature development" at issue included advertising. Mr. Zuckerberg testified immediately following the above-quoted statement: "one of the side effects of that was that I basically needed to make a call to focus on improving the consumer experience rather than working on ads, which is what created the stock issue that I was talking about before . . . I had made this call that we – for the long-term survival and sustainability of what we were doing, we needed to focus on landing this rewrite and not trying to focus on – on creating another feature." *Id.* at 240:10-22; *see also id.* at 241:1-2 ("We eventually got the ads business to work. And we added a lot of new use cases.").

1594. This effort of "having to rewrite [Facebook's code for mobile applications] from scratch" was, according to Mr. Zuckerberg, a "major technical risk," and "very dangerous." *Id.* at 239:9-10, 239:18-19.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because it omits context, in which Mr. Zuckerberg explained: "And – and it's pretty well known in technology history that these platform shifts and having to do a full rewrite are very dangerous. And you need to – and so, very famously, Netscape, you

know, had to do a full rewrite of their browser, and that was around the time that they just got – basically lost to Internet Explorer." PX6029 at 239:17-23 (Zuckerberg IH Tr.).

B. Meta's Acquisition of Instagram Eliminated a Significant Competitor and Protected its Monopoly Power

1. Instagram Was Well-Positioned to Threaten Facebook's Dominance in Personal Social Networking Services, And Was Already Doing So

a) Instagram launched as a mobile personal social network with a focus on photos.

1595. Instagram launched as a mobile personal social network with a focus on photos. *See infra* CMF at ¶¶ 1595(a)-1606.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. Further disputed that Instagram is a "personal social network" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Mr. Systrom, one of the Instagram founders, testified that pre-acquisition Instagram was not a "general social network." Meta SMF ¶ 671 (quoting PX6027 at 149:25-150:6 (Systrom IH Tr.)); *see also id.* at ¶ 678 (citing Ex. 279 at ¶ 115 (Hemphill Rep.)). At the time, Instagram had a photo-sharing feature. *See id.* at ¶ 672. Users could share photos with known or unknown contacts "who shared interests." *Id.* at ¶ 673 (quoting Ex. 302 at 42:14-43:7 (Krieger IH Tr.)). Contrasting pre-acquisition Instagram with pre-acquisition Facebook, Mr. Systrom testified that Instagram "was not just about people you know but about people you know and people you don't know." PX6027 at 162:24-163:4 (Systrom IH Tr.). To the extent the paragraph incorporates the FTC's statements in paragraphs 1595(a)-1606, Meta incorporates its responses to those statements here.

a. Instagram launched as a "photo social network that let you post your photos to your friends." PX6027, Systrom (Meta/Instagram) IH Tr., at 68:21-70:16 ("[W]e were a photo social network that let you post your photos to your friends, and we also wanted to make it easy to post elsewhere if that was a value to you.").

Meta Response: Undisputed that the witness provided the quoted testimony.

b. People used Instagram to share their daily lives with their friends and family. PX6027, Systrom (Meta/Instagram) IH Tr., at 73:21-74:3 ("Q. And what did people generally use personal accounts to do on Instagram? A. People used personal accounts to share their daily lives. Q. Who were they sharing their daily lives with? A. I believe, primarily with their friends and family."); *see also* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 14:16-25 ("[M]ost of the time, people were sharing photos that they took out on the go. Some of those included having a new child, getting married, birthdays . . . . [I]t was certainly used to share more than just pretty photos. It was also used to share photos about things in your life.").

Meta Response: Disputed in part. Undisputed that the Mr. Systrom provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's quotation of Mr. Systrom's testimony is incomplete and omits context. When asked: "In the early days of Instagram, did . . . users use it to share updates about their lives with their friends and family?" Mr. Systrom responded, "[*I*]*t's hard to say exactly*, because most of the time, people were sharing photos that they took out on the go. Some of those included having a new child, getting married, birthdays. *But it was primarily*

visual." PX6133 at 14:13-20 (Systrom Dep. Tr.) (emphases added to indicate omitted words).

c. Instagram offered a social graph built on connections with a users' friends and family "immediately" upon its launch. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 14:8-12 ("Q. At what point would you say Instagram had a social graph? A. Immediately. Because people were able to follow their friends and others from the second we launched the app."); PX6027, Systrom (Meta/Instagram) IH Tr., at 73:21-74:3 (users used Instagram to share their daily lives "primarily with their friends and family").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because it is incomplete and omits context. Mr. Systrom testified that his "sense" was "that most people would follow accounts that they found interesting. And if their friends happen to use the platform, they would also follow their friends." PX6133 at 13:8-14 (Systrom Dep. Tr.). He did not know "whether most users had connections with people they knew in real life on Instagram." *Id.* at 13:15-18.

1596. The Instagram application was created by co-founders Kevin Systrom, who served as Chief Executive Officer, and Mike Krieger, his technical co-founder. PX6027, Systrom (Meta/Instagram) IH Tr., at 15:9-10; PX6015, Krieger (Meta/Instagram) IH Tr., at 12:15-21.

Meta Response: Undisputed.

1597. The predecessor to Instagram was a photo-sharing app called Burbn, which Mr. Krieger and Mr. Systrom aimed to develop as a personal social networking services offering.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1595. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Mr. Krieger and Mr. Systrom started working on the predecessor to Instagram, an app called Burbn, in May 2010. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 210:12-15. Mr. Krieger and Mr. Systrom had received a seed round of $500,000 from venture capital firms Andreessen Horowitz and Baseline Ventures earlier in 2010. PX6015, Krieger (Meta/Instagram) IH Tr., at 57:11-16.

Meta Response: Undisputed.

b. Burbn was "a free downloadable photo filtering and sharing application" available on iPhone, and it "aim[ed] to develop a complete social networking service with access to all social network platforms and mobile devices." PX1187, Meta document: "SVB Analytics, Valuation for Burbn, Inc." (May 31, 2011), FB_FTC_CID_02992619, at -624. Burbn's tagline on its website was "[a] new way to communicate and share in the real world." PX6015, Krieger (Meta/Instagram) IH Tr., at 26:15-19.

Meta Response: Undisputed that the document contains the quoted language and that the witness provided the quoted testimony.

1598. Mr. Krieger and Mr. Systrom began to convert Burbn into a new app, Instagram, in the summer of 2010. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 210:16-18. It took Mr. Krieger and Mr. Systrom "between two and three months" "to build Instagram from Burbn." *Id.* at 211:1-5.

Meta Response: Undisputed.

1599. On August 31, 2010, Mr. Systrom wrote venture-capital investors Marc Andreesen and [redacted] and explained the pivot from Burbn to Instagram. In his email, Mr. Systrom noted that the challenge that he and Mr. Krieger faced with Burbn was not getting users to sign up for Burbn, but "getting them to continue to use the app." PX3338, Instagram email: K. Systrom (Instagram) to M. Andreesen, et al. (a16z) re: "Burbn Update," (Aug. 31, 2010), FB_FTC_CID_08723161, at -161. Mr. Systrom explained: "We looked around and realized everyone who loves burbn loves posting photos of what they were doing . . . We decided to focus on this experience, and . . . prototype the best possible native sharing app focused on photos. We dubbed the prototype 'instagram'." *Id.*

Meta Response: Undisputed that the document contains the quoted language.

1600. Instagram's development was in line with its founders' recognition that personal social networking services would become primarily mobile.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1595, and because speculation about potential technological developments is not relevant to actual effects; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth

– in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734. The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. As Mr. Systrom explained: "[B]y the time the iPhone 4 arrived, it was clear that mobile phones were going to be extremely high-quality computing devices and lots of people would own them. So that was really the window where, if you started a mobile company, you know, in 2009, 2010, 2011, there were lots of opportunities to recreate experiences people used to have on the desktop that now they were going to have on mobile because those desktop companies had not made the shift quickly enough." PX6027, Systrom (Meta/Instagram) IH Tr., at 83:18-84:3.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Mr. Systrom further explained: "I just remember thinking that Instagram could be . . . the mobile social network, because all social networks were primarily focused on . . . the desktop." *Id.* at 44:11-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1600 and because the statement is incomplete and omits context. Mr. Systrom identified Path, Foursquare, and Color – which the FTC omits from its claimed market – as contemporaneous such social networks. PX6027 at 100:4-101:9 (Systrom IH Tr.). Further disputed to the extent Mr. Systrom's testimony quoted in this statement was not a continuation of the testimony quoted in the

previous subparagraph, as the FTC's characterization of Mr. Systrom as "further explain[ing]" implies. Mr. Systrom provided the quoted testimony in this statement in response to a separate question, to which he responded: "[T]here was a lot of excitement around social media at the time because there were a bunch of different forms of social media. And I just remember thinking that Instagram could be, one, the mobile social network, because all social networks were primarily focused on – on the desktop, and, two, I believe that photos were – photos were something I was always very excited about." *Id.* at 44:6-23.

1601. Instagram's development was in line with its founders' recognition that the shift to mobile would make photo sharing a more significant component of personal social networking services.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1595 and 1600.

a. Instagram's founders recognized that "photo sharing was a core way that people could share and interact on mobile[.]" PX6015, Krieger (Meta/Instagram) IH Tr., at 22:14-19.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Instagram's pitch to investors was that it "had created a mobile-first network focused on photos; [and] that was going to be the category [Instagram's founders] thought would grow most quickly on mobile." PX6027, Systrom (Meta/Instagram) IH Tr., at 100:4-9.

Meta Response: Undisputed that the witness provided the quoted testimony.

1602. The Instagram app launched on the Apple App Store on October 6, 2010. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 71:5-6.

Meta Response: Undisputed.

1603. Instagram, unlike Facebook, was designed specifically to take advantage of the shift to mobile. PX6027, Systrom (Meta/Instagram) IH Tr., at 79:22-80:10, 82:5-83:5.

Meta Response: Undisputed.

a. "Unlike Meta, Instagram had been developed specifically to operate on mobile devices. Its small team had developed a mobile product that was simple, elegant, fast, and engaging." PX15545 at -014, Meta's Supp. Resp. to FTC's Interrog. No. 5 (Meta's Supp. Objs. & Resps. to FTC's Interrogs. Nos. 4, 5, and 7 (Nov. 30, 2022)).

Meta Response: Undisputed.

b. Instagram was designed exclusively as a mobile app, and "[i]n contrast to Facebook's mobile apps, Instagram . . . from the outset [was] praised as exemplifying the speed, reliability, and simplicity necessary to succeed in the mobile environment." PX2618, Meta White Paper, "Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -372.

Meta Response: Undisputed.

1604. From its launch, Instagram aimed to—and did—satisfy its users' demand for personal social networking services.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

above in Meta's responses to paragraphs 1595 and 1600 and in Meta's responses to the subparagraphs below.

a. Instagram offered a "social network that let you post your photos to your friends." PX6027, Systrom (Meta/Instagram) IH Tr., at 68:21-23.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. From its launch, Instagram's founders differentiated Instagram as a mobile service that was focused on "community" and the ability to "see what your friends are doing." PX2757, Instagram email chain: K. Systrom (Instagram) to [redacted] (VentureBeat) re: "intro: anthony & Instagram," (Oct. 5, 2010), FB_FTC_CID_08714792, at -793.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's quotation from the document is incomplete and misleading. Mr. Systrom was asked in the quoted document what he thought distinguished Instagram specifically from "other photosharing options out there." PX2757 at -793 (FB_FTC_CID_08714792). Mr. Systrom stated that "[p]eople may come for the filters, but they'll stay for the community of their friends *and fans*." *Id.* (emphasis added).

c. In keeping with this focus, Instagram allowed its users to "comment on other people's photos." PX6027, Systrom (Meta/Instagram) IH Tr., at 49:24-50:9.

Meta Response: Undisputed that the witness provided the quoted testimony.

d. Instagram offered a "feed" tab that functioned like Facebook's then-News Feed, showing content posted by friends, family, and others that an Instagram user followed. PX6015, Krieger (Meta/Instagram) Dep. Tr., at 47:3-14. It also

provided updates on "what people were liking and . . . commenting on your photos." PX6027, Systrom (Meta/Instagram) IH Tr., at 50:4-8.

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including because the cited testimony does not support the statement. The cited testimony does not refer a user's friends or family, and Mr. Krieger's testimony did not concern Instagram's "feed" tab; he explained how Instagram's "activity" tab allowed users to find new accounts: "So the first version of the activity ta[b] was just activity to your photos; so people liking or commenting or following you. But we were interested in helping people discover accounts that were worth visiting and realized that the best way to discover new accounts was through the accounts you already followed. So it was a way of sort of helping people find good stuff on Instagram." PX6015 at 47:3-14 (Krieger IH Tr.).

e. Instagram enabled its users to view their personal social networks on the app (both those they were following and those that followed them), and search for and find friends and family. PX6015, Krieger (Meta/Instagram) Dep. Tr., at 37:1-41:4; PX6027 Systrom (Meta/Instagram) IH Tr., at 89:16-90:9.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraphs 1595 and 1600.

1605. Instagram's founders chose to list Instagram in the Photos category of the Apple App Store, even though Instagram met the criteria for the Social category, because it would be easier for Instagram to stand out in the Photos category.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs are material to the resolution of either party's motion.

a. On October 5, 2010—the day before Instagram launched—Mr. Systrom explained to a technology industry journalist that Instagram's social network would differentiate it from other existing photo apps:

> What we've seen is that almost all the top apps in the app store in Photo are not sharing apps (take a look for yourself, you'll see what I mean). Instead, these are all utility apps that let you modify & enhance your photos (hipstamatic, camerabag etc) . . . . What's different about us [Instagram] is the community. We give you everything that something like camerabag might give, but make it an immersive social experience where you can see what your friends are doing at any moment. People may come for the filters, but they'll stay for the community of their friends and fans.

PX2757, Instagram email chain: K. Systrom (Instagram) to [redacted] (VentureBeat) re: "intro: anthony & Instagram," (Oct. 5, 2010), FB_FTC_CID_08714792, at -793.

Meta Response: Undisputed that the document contains the quoted language.

b. In an October 2011 email discussion between Mr. Systrom and [redacted], [redacted] noted that "[I'd] always thought that [you'd] chosen Photography as the category [for Instagram's listing in the Apple App Store] so we could be #1 there (vs. being lower than 1 in [social networking])." PX10765, Instagram email chain: [redacted] (Benchmark Capital) to K. Systrom (Instagram) re: "Instagram feature," (Oct. 4, 2011), FB_FTC_CID_08710021, at -021. Mr. Systrom's reply included that "the relative lack of competition in [the Apple App Store's

"photo+video charts"] [may] allow[] us to be high overall." PX10765, Instagram email chain: K. Systrom (Instagram) to [redacted] (Benchmark Capital) re: "Instagram feature," (Oct. 4, 2011), FB_FTC_CID_08710021, at -021. Though Mr. Systrom noted that "I think it'd position our company way better to be a social networking app than a photo utility app," he also stated that "I'm not sure I want to make a concerted move in stomping around twitter and Fb's territory in the categories. It's more of a signaling thing than anything – but [I] don't want to start any fires before they're needed." *Id.* at -021.

Meta Response: Undisputed that the document contains the quoted language.

c. Assessing reasons why Instagram "didn't have sustained competitors by April of 2012," Mr. Krieger observed that "[w]e were sort of regularly within the sort of top charts . . . the photo section of the App Store. So sort of success begets success. . . . I think maybe it felt like – maybe more daunting to come in and go up against Instagram given how we were growing well." PX6015, Krieger (Meta/Instagram) IH Tr., at 85:19-86:17.

Meta Response: Undisputed that the witness provided the quoted testimony.

1606. Instagram differentiated itself by offering users:

a. A stable and fast mobile platform, in contrast to "Facebook, you know, not only was the app slow, it was difficult to use." PX6027, Systrom (Meta/Instagram) IH Tr., at 79:22-81:25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement in this subparagraph creates a

genuine dispute of material fact, including because the statement cites no material indicating that Instagram was "stable and fast." Evidence shows that pre-acquisition Instagram experienced many problems with the speed and stability of its service, including because of problems with its infrastructure. *See* Meta SMF ¶¶ 685-694.

b. Personal social network functionality. [redacted] ("there was the potential for [Instagram] to build their own alternative to other social graphs"); *see also id.* at [redacted] ("Users generate a social graph that overlaps with but is unique from their Facebook / Twitter network"); [redacted].

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1595.

c. A simple but compelling user interface. PX6127, Zuckerberg (Meta) Dep. Tr., at 52:13-14; *see also* PX6028, Zoufonoun (Meta) IH Tr., at 193:13-14; PX6022, Sandberg (Meta) IH Tr., at 225:16-18, 241:23-25.

<u>Meta Response</u>: Undisputed.

d. Popular photo filters. [redacted]; *see also* PX6029, Zuckerberg (Meta) IH Tr., at 109:1-5, 112:1- 2, 250:19-22; PX6028, Zoufonoun (Meta) IH Tr., at 166:15-24; PX6134, Systrom (Meta/Instagram) Dep. Tr., at 383:4-5.

<u>Meta Response</u>: Undisputed.

b) Instagram achieved immediate and sustained success from its launch through its acquisition.

1607. Instagram achieved immediate and sustained success from its launch through its acquisition. *See infra* CMF at ¶¶ 1608-18.

Meta Response: Disputed in part. Undisputed that Instagram was growing from launch to the time of the acquisition. Disputed that this statement and the cross-referenced statements create a genuine dispute of material fact, including because they are not relevant to actual effects from the acquisition; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734. To the extent the statement incorporates the FTC's statements in paragraphs 1608-1618, Meta incorporates its responses to those statements here.

1608. Instagram enjoyed immediate popularity upon its launch: although it was initially launched only on Apple devices, it acquired 25,000 registered users on its first day, one million users in its first three months, and approximately 35 million users when Meta agreed to acquire Instagram on April 8, 2012. PX6015, Krieger (Meta/Instagram) IH Tr., at 60:25-61:6 ("We had about 25,000 sign-ups on the first day, about 100,000 within the first week, and I think we hit a million sign-ups within about three months."); PX2501, Meta company announcement board posting, "Open Q&A with Mark," (Apr. 13, 2012), FB_FTC_CID_01527429, at -429. ("They had 36 million users when we signed the agreement [to acquire Instagram]"); PX2618, Meta White Paper, "Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -372-73 ("By the time the transaction was signed on April 8, 2012, Instagram had approximately 35 million users."); *see also* PX2980,

Instagram email chain: K. Systrom (Instagram) to [redacted] (TechCrunch) re: "Growth in the first week," (Oct. 11, 2010), FB_FTC_CID_08714859, at -860 ("I think we've grown faster than many of our peers in the social networking category. In less than one week; we will have grown to 100K users (we're probably going to cross this sometime in the next 24-48 hours). We're getting one picture taken every two seconds from places all over the world.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the cited statistics are not specific to the United States, which is the alleged relevant geographic market.

1609. In December 2011, Instagram reported figures listing 14 million registered users, 400 million photos uploaded, and a "growth rate" of "1 sign-up per second (~2.6 Million sign-ups/month)." PX10568, Meta email chain: A. Cole (Meta/Instagram) to [redacted] re: "431 Jesse - Instagram info," attaching "Instagram – Company Overview," (Dec. 7, 2011), FB_FTC_CID_02991044, at -045.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the cited statistics are not specific to the United States, which is the alleged relevant geographic market.

1610. Sequoia Capital described Instagram's growth as of February 23, 2012, noting that "Instagram has emerged as a leading mobile photo network, roughly doubling its registered users base from 12.2 mm to 24.5mm in the past three months." [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the cited statistics are not specific to the United States, which is the alleged relevant geographic market.

1611. [redacted]

Meta Response: Disputed in part. Undisputed that the document includes the chart. Disputed that the statement creates a genuine dispute of material fact, including because

the chart is not specific to the United States, which is the alleged relevant geographic market.

1612. By early 2012, Instagram mobile photo sharing was growing faster than the Facebook application's mobile photo sharing. PX6127, Zuckerberg (Meta) Dep. Tr., at 91:6-10 ("Q. One of the reasons that Meta acquired Instagram was that its mobile photo sharing was growing faster than the Facebook application's mobile photo sharing; right?
A. I think that is probably right, yeah.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because it is not relevant to actual effects; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734

1613. On April 3, 2012, before it was acquired by Meta, Instagram launched its Android app, and achieved over a million new user signups within twelve hours and 30 million new users in under five months. PX6015, Krieger (Meta/Instagram) IH Tr., at 105:20-106:9 ("We had a million [Instagram] sign-ups in 12 hours when we launched on Android."); *see also* PX10023, Instagram email chain: S. Sweeney to D. Toffey re: "Happy 100 million users," (Aug. 29, 2012), FTC-META-003148243, at -243 ("To give even more perspective on how incredible growth has been, in less than 5 months we [Instagram] have had over 30 million Android users sign up.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the statement creates a genuine dispute of material fact, including the reasons stated above in Meta's response to paragraph 1612 and because the

cited statistics are not specific to the United States, which is the alleged relevant geographic market.

1614. In the four months following its release on Android, Instagram gained approximately 50 million registered users, growing "to over 80 million registered users who ha[d] shared nearly 4 billion photos." PX10031, *The Instagram Community Hits 80 Million Users*, Instagram Blog, (Aug. 5, 2012), https://web.archive.org/web/20120805022353/http://blog.instagram.com/post/28067043504/the-instagram-community-hits-80-million-users; *see also* PX6037, Toffey (Meta) Dep. Tr., at 82:12-15 ("Q. Then is it true that between April of 2012 and August 2012, Instagram gained approximately 50 million users? A. That would appear to be the case.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1612, and because the cited statistics are not specific to the United States, which is the alleged relevant geographic market.

1615. Between the announcement of the Instagram acquisition and its closing in September 2012, Instagram added approximately 70 million new users. PX6037, Toffey (Meta) Dep. Tr., at 61:11-14, 84:14-85:15 (testifying that Instagram had 30 million users in April 2012 and 100 million as of August 29, 2012).

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1612 and

because the cited statistics are not specific to the United States, which is the alleged relevant geographic market.

1616. On August 29, 2012, two days before the Instagram acquisition closed, Instagram passed 100 million registered users. PX10023, Instagram email chain: S. Sweeney (Instagram) to D. Toffey (Instagram) re: "Happy 100 million users," (Aug. 29, 2012), FTC-META-003148243, at -243; PX15544 at -008-09, Meta's Objs. & Resps. to FTC's Req. for Admis. No. 18 (Meta's Objs. & Resps. to FTC's Second Set of Req. for Admis. (May 5, 2023)) (admitting that "Facebook's acquisition of Instagram closed on August 31, 2012").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1612 and because the cited statistics are not specific to the United States, which is the alleged relevant geographic market.

1617. Prior to the acquisition, Instagram's users were already highly engaged and regarded the app highly.

Meta Response: Disputed in part. Undisputed to the extent stated in the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in the subparagraphs below, and because the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734.

a. Instagram consistently received 5-star reviews in the Apple App Store. PX10080, Sequoia Capital investment memo: "Instagram" (Feb. 23, 2012), SCO_00000282, at -283 ("Instagram's app has been rated 5-stars by users in the App Store and it was named 'App of the Year' in 2011").

Meta Response: Undisputed.

b. Apple named Instagram the App of the Year for 2011. PX6047, Cole (Meta/Instagram) Dep. Tr., at 77:23-25; PX10080, Sequoia Capital investment memo: "Instagram" (Feb. 23, 2012), SCO_00000282, at -283 ("Instagram's app has been rated 5-stars by users in the App Store and it was named 'App of the Year' in 2011").

Meta Response: Undisputed.

c. Instagram's users were more highly engaged than Facebook's users. PX6022, Sandberg (Meta) IH Tr., at 247:14-18 ("They were getting almost as many likes per day as Facebook on a fourth of the content. That means that they had a very engaging product. So it was small, but it was good.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the subparagraph creates a genuine dispute of material fact, including because the cited material does not support the assertions in paragraph 1617 and this subparagraph. Ms. Sandberg was testifying about a comparison of engagement metrics between Instagram and Facebook's iPhone app, *see* PX6022 at 245:25-246:2, 246:12-21 (Sandberg IH Tr.) (discussing PX2514), and, at the time of the Instagram acquisition, Facebook users engaged with the platform about equally through desktop and mobile devices, *see* PX9000

at ¶ 98 & n.133 (Hemphill Rep.). Moreover, the document about which Ms. Sandberg was testifying shows that users engaged with the Facebook iPhone app more than Instagram. *See* PX2514 at -716 (FB_FTC_CID_06148711) (comparing 5 million+ daily photo uploads on Instagram to 20 million on Facebook's iPhone app and 7 million daily comments on Instagram to 54 million daily photo comments on Facebook's iPhone app).

d. In February 2012, Instagram exhibited a DAU/MAU ratio – a common measure of user engagement – of 62%. PX9014, Rim Rebuttal Report at ¶¶ 54-57 & Ex. 1.

Meta Response: Undisputed that Professor Rim offered the paraphrased opinion.

e. By the time the acquisition closed in September 2012, over five billion photos had been posted on Instagram. PX0558, *Instagram and Facebook: Looking Ahead*, Instagram Blog, (Sept. 8, 2012), https://web.archive.org/web/20120908231224/http://blog.instagram.com:80/post/30996220545/instagram-and-facebook-looking-ahead-this-is-an.

Meta Response: Undisputed, except that the acquisition closed on August 31, 2012. *See* PX15544 at 7 (Meta's Objs. & Resps. to FTC's Second Set of Reqs. for Admis. (May 5, 2023)).

1618. Absent its acquisition by Meta, Instagram would have added even more features to support friends-and-family sharing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because there is no evidence that Instagram would have achieved higher growth or that output would be

higher if Meta had not acquired Instagram. *See* Meta SMF ¶ 734. Further disputed because the statement is not supported by evidence. Mr. Systrom testified that, before the acquisition, Instagram "didn't know, like, were we going to become a general social network or were we always going to be focused on photos or would we go into video. We didn't know, right?" Ex. 284 at 148:6-17 (Systrom IH Tr.). Instagram's growth was dependent on distribution across other platforms, including Meta's propriety platform. *See* Meta SMF ¶¶ 659-669. The FTC admitted it has no evidence of how Instagram would have fared or developed but for the acquisition and access to Meta's distribution platform. *See id.* at ¶ 738. The FTC's acquisition expert testified: "Q. . . . Do you know one way or the other whether there's any evidence in the record simulating how personal social networking consumers would have been in the counterfactual without Meta acquiring Instagram? . . . A. . . . I do not know if there is any kind of evidence what you're mentioning." *Id.* at ¶ 733 (quoting Ex. 310 at 122:16-123:10 (Rim Dep. Tr.)). Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." *Id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Mr. Systrom, one of the Instagram founders, testified: "Q. . . . Did Facebook pay for Instagram to develop new features? . . . [A.] Of course. Q. . . . And did that drive user growth? A. Of course." *Id.* at ¶ 747 (quoting Ex. 151 at 304:12-18 (Systrom Dep. Tr.)). He also testified regarding Instagram pre-acquisition: "I wish I had more time to spend on the product at that time,

but . . . Mike [Krieger] and I were spending most of our time keeping the servers running," and Instagram "[l]ikely" had to "prioritize building infrastructure readiness and strength over feature development." *Id.* at ¶ 694 (quoting Ex. 151 at 219:20-23 (Systrom Dep. Tr.)).

a. Before the acquisition, Instagram's founders were already contemplating expansion beyond its focus on photos into other forms of media. PX12704, Meta email chain: K. Systrom (Instagram) to M. Zuckerberg (Meta), re: "(no subject)" (Mar. 20, 2012), FB_FTC_CID_01527881, at -883 (describing the founders' intention not to "limit[] the scope of Instagram to just photos – but to explore other mediums as well which support the original vision of Burbn being to improve the way we communicate and share in the real world.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraphs 1595 and 1618. Further disputed because Mr. Systrom testified, "we were pretty clear we were focused on photos at the time," and that he "didn't know" whether Instagram "would . . . go into video." Ex. 284 at 148:11-14, 149:21-150:6 (Systrom IH Tr.).

b. Instagram would have added video absent the acquisition. PX3221, Instagram email: K. Systrom (Instagram) to "all" (Instagram) re: "Board Slides Jan 10, 2012," attaching "Instagram Board Meeting, Jan 10 2012," (Jan. 10, 2012), FB_FTC_CID_02978434, at -444. ("Video is the next big opportunity to transform the world around us: . . . We believe if done correctly, this can transform Instagram into a hugely important cultural company in the long run.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraphs 1595 and 1618. The evidence cited in the subparagraph supports the claim that Instagram viewed video as a "big opportunity," not that it would have launched (or been successful). Further disputed because the FTC misquotes the document – it says "capture the world" not "transform the world."

c. Instagram would have added direct messaging absent the acquisition. *See* PX6015, Krieger (Meta/Instagram) IH Tr., at 188:17-189:5 ("Q. So direct messaging is a feature that Instagram would have pursued without input from Facebook? A. Yeah.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraphs 1595 and 1618. Further disputed because Mr. Krieger testified that before the acquisition, Instagram had not "talked about" developing Instagram Direct. PX6015 at 188:9-16 (Krieger IH Tr.).

c) Instagram was well-funded and had access to industry expertise.

1619. In early 2010, Instagram raised a seed round of $500,000 from venture capital firms Andreesen Horowitz and Baseline Ventures. PX6015, Krieger (Meta/Instagram) IH Tr., at 57:11-16.

Meta Response: Undisputed.

1620. In October 2010, shortly after launch, Instagram began to raise Series A funding to support its rapid growth. Instagram raised about $8 million, valuing the firm at $20-$30 million. PX6015, Krieger (Meta/Instagram) IH Tr., at 64:18-65:7.

Meta Response: Undisputed.

1621. Between late 2010 and early 2012, Instagram received overtures from at least 12 major investors:

Meta Response: Disputed in part. Undisputed that some potential investors contacted Instagram to express interest in potentially investing in Instagram between late 2010 and early 2012. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including to the extent the statement implies that at least 12 investors offered to invest in Instagram because the cited evidence in the paragraph and its subparagraphs does not support the statement. Many of the documents cited in the subparagraphs show only that the investors contacted Instagram, not that they offered to invest. Mr. Systrom testified that Instagram had "very little venture capital funding" before being acquired by Meta. Ex. 151 at 232:21-233:1 (Systrom Dep. Tr.). Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because Instagram's historical fundraising is not relevant to actual effects; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734.

a. Benchmark Capital. PX3344, Instagram email chain: [redacted] (Benchmark) to K. Systrom (Instagram) re: "did you guys raise a venture round?" (Nov. 1, 2010), FB_FTC_CID_08723360 at -364 ([redacted] interested in meeting with Instagram again to discuss more seriously a venture round). In another email, Mr. Systrom explained:

> Just got off the phone with [redacted] [(Benchmark)] – they're really excited about us. He basically said the other partners want to get to know us, so we'll meet them Monday early AM. KPCB wants us to drop by that day as well, and

> [redacted] wants to say hi. [I]t's great there's lots of interest from the top guys.).

PX3340, Instagram email chain: K. Systrom (Instagram) to [redacted] (Baseline) re: "qq re: advisors," (Nov. 4, 2010), FB_FTC_CID_08712484, at -484.

<u>Meta Response</u>: Undisputed, except that the FTC omits language from the quote without using an ellipsis.

b. [redacted]. PX3339, Instagram email chain: [redacted] (ZONG) to K. Systrom (Instagram) re: "Potential angel investment in Burbn / Instagram," (Oct. 15, 2010), FB_FTC_CID_08712252, at -252 (expressing interest in meeting and "explor[ing] whether there's a way I can help you guys build a kickass company").

<u>Meta Response</u>: Disputed in part. Undisputed that [redacted] contacted Instagram to express interest in potentially investing in Instagram between late 2010 and early 2012. Disputed to the extent the FTC's statement implies Instagram received an offer to invest from [redacted]. The cited evidence does not support that statement.

c. Docomo Capital. PX3341, Instagram email chain: [redacted] (Docomo) to K. Systrom (Instagram) re: "Meeting with docomo capital on Nov 22 or 23," (Nov. 17, 2010), FB_FTC_CID_08712799, at -799 ("Docomo capital wants to meet you and talk about potential investment opportunities.").

<u>Meta Response</u>: Disputed in part. Undisputed that Docomo Capital contacted Instagram to express interest in potentially investing in Instagram between late 2010 and early 2012. Disputed to the extent the FTC's statement implies

Instagram received an offer to invest from Docomo Capital. The cited evidence does not support that statement.

d. General Catalyst Partners. PX3343, Instagram email chain: [redacted] (General Catalyst) to K. Systrom (Instagram) re: "[redacted] / Introduction," (Oct. 12, 2010), FB_FTC_CID_08723319, at -319 (introducing himself and requesting a meeting given that [redacted] "think[s] there's an amazing amount of value that our team could bring to the table. I'd be very interested to hear about your vison and any thoughts you have on bringing in an outside partner to help grow the business.").

Meta Response: Disputed in part. Undisputed that General Catalyst Partners contacted Instagram to express interest in potentially investing in Instagram between late 2010 and early 2012. Disputed to the extent the statement implies Instagram received an offer to invest from General Catalyst Partners. The cited evidence does not support that statement.

e. Google Ventures. *See* PX3342, Instagram email chain: [redacted] (Google Ventures) to K. Systrom (Instagram) re: "yo," (Feb. 3, 2011), FB_FTC_CID_08721966, at -966 ("make sure you give us a call when you're next looking for dough before going to strangers . . . . There's a lot of resources we bring to bear to the portfolio that no other VC can offer and lots of free goodies – google style").

Meta Response: Disputed in part. Undisputed that Google Ventures contacted Instagram to express interest in potentially investing in Instagram between late 2010 and early 2012. Disputed to the extent the FTC's statement implies

Instagram received an offer to invest from Google Ventures. The cited evidence does not support that statement.

f. Greylock Partners. As Kevin Systrom explained in an email:

> Just got off the phone with [redacted] – they're really excited about us. He basically said the other partners want to get to know us, so we'll meet them Monday early AM. KPCB wants us to drop by that day as well, and [redacted] [Greylock] wants to say hi. [I]t's great there's lots of interest from the top guys.

PX3340, Instagram email chain: K. Systrom (Instagram) to [redacted] (Baseline) re: "qq re: advisors," (Nov. 4, 2010), FB_FTC_CID_08712484, at -484; *see also* PX6026, Reid Hoffman, LinkedIn resume, https://www.linkedin.com/in/reidhoffman (last visited May 16, 2024) (noting that Hoffman has been a Partner at Greylock since 2009).

<u>Meta Response</u>: Undisputed, except that the FTC omits language from the quote without using an ellipsis (and PX6026 is the wrong exhibit).

g. Kleiner Perkins. As Kevin Systrom explained in an email:

> Just got off the phone with [redacted] – they're really excited about us. He basically said the other partners want to get to know us, so we'll meet them Monday early AM. KPCB [Kleiner Perkins Caulfield & Byers] wants us to drop by that day as well, and [redacted] wants to say hi. [I]t's great there's lots of interest from the top guys.

PX3340, Instagram email chain: K. Systrom (Instagram) to [redacted] (Baseline) re: "qq re: advisors," (Nov. 4, 2010), FB_FTC_CID_08712484, at -484; *see also* PX6048, Botha (Sequoia Capital) Dep. Tr., at 71:18-20 (confirming that "KPCB" refers to Kleiner Perkins).

<u>Meta Response</u>: Disputed in part. Undisputed that Kleiner Perkins contacted Instagram to express interest in potentially investing in Instagram between late

2010 and early 2012. Disputed to the extent the FTC's statement implies Instagram received an offer to invest from Kleiner Perkins. The cited evidence does not support that statement. Mr. Systrom testified that he "pitched them in every round, but [Kleiner Perkins] passed every round." Ex. 284 at 102:10-13 (Systrom IH Tr.).

h. Redpoint Ventures. *See* PX3345, Instagram email chain: [redacted] (Redpoint) to K. Systrom (Instagram) re: "Offer to consider from Redpoint," (Oct. 15, 2010), FB_FTC_CID_08711416, at -416 (expressing a desire to meet every 6-8 weeks to catch up "in the hopes of working together soon"), -417 (outlining terms of investment offer).

<u>Meta Response</u>: Undisputed.

i. Sequoia Capital. *See, e.g.*, PX3346, Instagram email chain: K. Systrom (Instagram) to [redacted] (Sequoia Capital) re: "[redacted] meet kevin," (Nov. 29, 2010), FB_FTC_CID_08712960, at -960 ([redacted] (SV Angel) introduces Kevin Systrom (Instagram) to [redacted] (Sequoia Capital), as [redacted] was "looking to connect;" [redacted] asks Systrom for a meetup as he is "[d]igging Instagram," and Systrom notes he also received outreach from one of [redacted]'s colleagues at Sequoia Capital); PX10082, Instagram email chain: [redacted] (Sequoia Capital) to K. Systrom (Instagram) re: sequoia follow up," (Feb. 17, 2012), FB_FTC_CID_08718365, at -366 ([redacted] indicates "[I] understand you [Instagram] don't plan to raise funds for some time" but expresses the hope that "we can convince you that we would be a good business partner for you, complementing benchmark"); [redacted]

[redacted]

Meta Response: Undisputed.

j. SoftBank Capital. *See* PX3347, Instagram email: [redacted] (SoftBank) to K. Systrom (Instagram) and M. Krieger (Instagram) re: "Instagram in Japan," (Oct. 23, 2010), FB_FTC_CID_08712214, at -214 (noting that SoftBank "make[s] lead as well as much smaller strategic investments in rounds led by other investors. Whether or not you're considering raising capital at this point, I'd be interested in connecting at your convenience.").

Meta Response: Disputed in part. Undisputed that SoftBank contacted Instagram to express interest in potentially investing in Instagram between late 2010 and early 2012. Disputed to the extent the statement implies Instagram received an offer to invest from SoftBank Capital. The cited evidence does not support that statement.

k. Spark Capital. *See* PX3350, Instagram email chain: [redacted] (Spark) to K. Systrom (Instagram) re: "hey," (Nov. 2, 2010), FB_FTC_CID_08721591, at -592 (noting that he has "been giving some thoughts about what an offer from Spark might look like" and that he "will work tirelessly to help you in any way that I can.").

Meta Response: Disputed in part. Undisputed that Spark Capital contacted Instagram to express interest in potentially investing in Instagram between late

2010 and early 2012. Disputed to the extent the FTC's statement implies Instagram received an offer to invest from Spark Capital. The cited evidence does not support that statement.

l. SV Angel. *See, e.g.*, PX3349, Instagram email chain: [redacted] (SV Angel) to K. Systrom (Instagram) re: "just my weekly badgering...," (Dec. 13-21, 2010), FB_FTC_CID_08713397, at -398 ([redacted] tells Systrom to "lmk if we can help with anything . . ."); *id.* at -397 ("congrats on 1mm users!").

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including because the cited material does not support the assertion. SV Angel did not bring up investing in Instagram in the cited document – no evidence suggests that the statement "lmk if we can help with anything" referred to investing in Instagram. PX3349 at -398 (FB_FTC_CID_08713397). Mr. Systrom did not refer to investing in Instagram in his response to [redacted]'s email. *Id.* at -397.

1622. In early 2012, Instagram raised a $50 million Series B round to continue growing Instagram, valuing the company at $500 million.

Meta Response: Disputed in part. Undisputed that Instagram raised a $50 million Series B round. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1621.

a. Instagram raised $50 million, based on a valuation of $500 million for the company, in a 2012 Series B funding round that closed before Meta agreed to

acquire Instagram. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 20:15-21; PX6133, Systrom (Meta/Instagram) Dep. Tr., at 15:23-16:6.

Meta Response: Undisputed.

b. Instagram raised its Series B funding to help Instagram continue growing. PX6027, Systrom (Meta/Instagram) IH Tr., at 107:23-108:7; PX6015, Krieger (Meta/Instagram) IH Tr., at 67:25-68:14.

Meta Response: Undisputed.

c. Mr. Systrom's pitch to Series B investors "was primarily about the rapid increase in engagement usage and scale of Instagram and showing those stats to investors and explaining how we were going to continue growing." PX6027, Systrom (Meta/Instagram) IH Tr., at 110:16-21.

Meta Response: Undisputed that the witness provided the quoted testimony.

d. Instagram founders planned to use this $50 million in funding to hire more employees and continue scaling Instagram's infrastructure. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 20:22-21:9; PX6027, Systrom (Meta/Instagram) IH Tr., at 108:21-109:4; PX6048, Botha (Sequoia Capital) Dep. Tr., at 94:3-7 ("Q. [D]o you know what Instagram planned to use the funds from Sequoia's investment for? A. Paying for infrastructure and paying salaries as they grew the team.").

Meta Response: Undisputed that the witness provided the quoted testimony.

1623. Instagram generated tremendous interest from investors for its Series B round and was able to pick its preferred investing partners, ultimately choosing the experienced Sequoia Capital, which had an impressive track record of expertise and know-how.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed because the assertion that Instagram generated "tremendous interest from investors" is vague and undefined. Further disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's response to paragraph 1621 above and in Meta's responses to the subparagraphs below, and because evidence does not support that Instagram was "able to pick its preferred investing partners." Some potential investors decided not to invest. *See* PX6027 at 102:10-13, 111:15-19 (Systrom IH Tr.).

a. When Instagram raised its Series B, Mr. Systrom testified he felt that "leverage [was] on [Instagram's] side to be able to raise capital to be able to grow." PX6027, Systrom (Meta/Instagram) IH Tr., at 107:23-108:20 ("[I]t was a very unique moment and the leverage is on our side to be able to raise capital to be able to grow.").

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Interest from investors in the Series B was so high that Instagram was able to pick its preferred partners. *See, e.g.*, PX10082, Instagram email chain: K. Systrom (Instagram) to [redacted] (Sequoia Capital) re: "sequoia follow up," (Feb. 20, 2012), FB_FTC_CID_08718365, at -366 (noting that Instagram had "started talking with a small group of people at the end of last week," and had "received a term sheet over the weekend and will likely see more this week."); [redacted]

[redacted]; PX6027, Systrom (Meta/Instagram) IH Tr., at 111:2-3 ("other than Kleiner Perkins, almost every other firm attempted to win that deal"); PX10764, Instagram email chain: K. Systrom to [redacted] re: "VC list draft," (Sept. 2, 2011), FB_FTC_CID_08709936, at -936 (email from Systrom to [redacted] listing the many VCs that had reached out with interest in investing, noting that the list is "way too long" and they would need to "edit down."); PX2664, Instagram email chain: K. Systrom (Instagram) to [redacted] (Baseline) re: "Thoughts," (Feb. 25, 2012), FB_FTC_CID_03002183, at -183 (noting that Instagram had "two term sheets" for its Series B "and a bunch of folks waiting in the wings").

Meta Response: Disputed in part. Undisputed that Instagram chose which investors it would partner with for its Series B fundraising round. Disputed to the extent the statement implies that the ability to choose which investors to partner with was rare. [redacted]. Further disputed to the extent the statement implies that the investors referenced in the cited documents offered to invest in Instagram, because the cited evidence does not support that statement. The list of VC's Mr. Systrom put together in PX10764 included any "[p]eople who have reached out." PX10764 at -936 (FB_FTC_CID_08709936).

c. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the statement omits context for the testimony. When asked if he "[c]ould [] have raised 70 [million] if [he] had wanted to" instead of $50 million, Mr. Systrom answered, "It would be speculating. I don't know." Ex. 151 at 38:20-24 (Systrom Dep. Tr.). One of Instagram's seed funders, Andreessen Horowitz, "stopped investing after their initial seed investment," and Benchmark Capital invested only "a very small amount," "tak[ing] advantage of their pro rata rights, and that's about it." *See* PX6027 at 111:7-112:1 (Systrom IH Tr.). Other potential investors Instagram solicited declined to invest, like Kleiner Perkins. *See id.* at 102:10-13.

d. Instagram's founders chose Sequoia Capital to be the lead investor in its Series B funding round. Sequoia had a track record of providing its portfolio firms with its expertise and know-how in technology, personnel recruiting, and financing and

business strategy. [redacted]

Meta Response: Undisputed.

e. [redacted]

Meta Response: Undisputed that the witness provided the quoted testimony.

1624. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1621 and 1623 and in Meta's responses to the subparagraphs below, and because an investor's speculation about the potential success of Instagram as an independent company is not relevant to actual effects; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734.

[redacted]

[redacted]

a. In February 2012, Mr. Botha thought Instagram had a "very high" possibility of turning into a good business. PX6048, Botha (Sequoia Capital) Dep. Tr., at 37:1-38:11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1624.

b. Mr. Botha expected Sequoia Capital would have been able to help Instagram scale because "we have . . . helped similar companies scale in the past." PX6048, Botha (Sequoia Capital) Dep. Tr., at 42:15-22; *see also id.* at 91:6-12 ("Q. So was it your understanding that Sequoia could help Instagram build an independent business? A. I think so. I mean, 27 percent of the Nasdaq is comprised of companies that we backed when they were private. So I think we seem to have a track record of doing that.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1624.

c. [redacted]

Meta Response: Undisputed.

d. [redacted]. Instagram beat that target by reaching more than 200 million MAU in 2014, before migrating to Meta infrastructure. *See infra* CMF at ¶ 2283 (Instagram passed 200M MAU before migrating off AWS above or below).

<u>Meta Response</u>: Disputed in part. Undisputed that [redacted] Disputed for the reasons stated above in Meta's response to paragraph 1624. To the extent the statement incorporates the FTC's statement in paragraph 2283, Meta incorporates its response to that statement here.

e. Mr. Botha expected Sequoia Capital could help Instagram scale. PX6048, Botha (Sequoia Capital) Dep. Tr., at 122:18-21 ("Q. When Sequoia invested in Instagram in February 2012, did you expect Sequoia could help Instagram scale? A. I did.").

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1624.

f. Mr. Botha expected Sequoia Capital could help Instagram build a successful business. PX6048, Botha (Sequoia Capital) Dep. Tr., at 122:14-17.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1624.

1625. In addition to Mr. Botha and Sequoia Capital, Instagram had access to industry expertise and technical know-how.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1595 and 1624.

a. Investors in Instagram's Series A round included Twitter founder Jack Dorsey and early Facebook employees [redacted] and [redacted]. PX6015, Krieger (Meta/Instagram) IH Tr., at 62:10-19; PX6027, Systrom (Meta/Instagram) IH Tr., at 106:1-11.

Meta Response: Undisputed.

b. [redacted] and [redacted] were both early Facebook employees with significant technical and management expertise and broad networks in Silicon Valley. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 25:4-18 ("We consulted with [redacted] who had been CTO at Facebook prior and at the time was already working on Quora. He was an investor in our, I think, Series A. And we consulted with him on some database and scaling questions."). As Mr. Systrom explained:

> [[redacted] and [redacted]] influenced the ability – the understanding of how to both build the infrastructure to support it and then also the company to build around it and how to organize yourself, so what positions you should be

> hiring for, the types of people you should tap to come work for you. Like, I didn't have a very large network in Silicon Valley, but someone like [redacted] did, so it was easy to tap the right types of VPs of engineering or leads of design or – the list goes on.

PX6027, Systrom (Meta/Instagram) IH Tr., at 106:1-11; *see also id.* at 105:17 ("[redacted] was a valuable resource."); *id.* at 106:21-25 ("It was mostly technical advice on what technologies to adopt, how to configure them, and how to troubleshoot specific issues we were having with the technologies that we adopted scaling."); PX6048, Botha (Sequoia Capital) Dep. Tr., at 19:21-20:1 ("Q. and does Sequoia help the companies in which it invests with hiring? A. Yes, amongst other things.").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1595 and 1624.

c. [redacted] routinely discussed "[h]iring, raising money, employees, strategy, [and] general company operations" with Mr. Systrom. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 18:13-19:5.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1595, 1624, and 1625.

d. According to Meta board member and Instagram investor Marc Andreessen, "Instagram ha[d] a legion of advisors, angel investors, and hangers-on, including current and former Googlers." PX3409, Meta email chain: M. Andreessen (Board) to D. Graham (Board) re: "on HSR and insurance" (Apr. 19, 2012), FB_FTC_CID_11531186, at -188.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1595 and 1624.

e. Instagram had access to, and took advantage of, free advice from other experts. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 25:19-26:2 (Instagram sought and received input from a co-creator of Redis, [redacted]); *id.* at 26:17-27:1 ("Q. Before the acquisition, if you wanted advice on a problem, did you feel like you could get it?" . . . A. I think broadly yes, we could. We had, you know, people that we would – we would reach out to. Q. Were you able to consult for instance with infrastructure engineers? A. I was.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, except "infrastructure engineers" should be "infrastructure experience." Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1595 and 1624, and because the cited testimony does not support that advice was "free."

1626. With plenty of money, and the ability to raise more if needed, Instagram faced no pressure to monetize and could instead prioritize growth:

> Q. Could you have raised additional funds after the Series B if you needed it as an independent company?
>
> A. Absolutely.
>
> Q. Would Instagram needed to have become profitable prior to doing another round of funding?
>
> A. Not at all.
>
> Q. And why not?

> A. We had so much momentum, and we were one of very few companies with that type of growth; that if history shows us anything, all the companies that have been able to grow like that are not required to monetize for some time. They can raise venture money to grow and figure it out in the meantime.
>
> PX6027, Systrom (Meta/Instagram) IH Tr., at 203:14-204:6.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1595 and 1624, because evidence shows that – like all companies – Instagram would need to monetize, *see* Ex. 6 at ¶¶ 68, 70 (Kaplan Rep.), and because speculation about potential investments Instagram could attract as an independent company is not relevant to actual effects; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734. [redacted]. *See id*. at [redacted]

Further disputed that the cited evidence supports that Instagram had "plenty of money" and "the ability to raise more if needed." Pre-acquisition Instagram had nearly zero revenue. *See* Meta SMF ¶ 654. When asked if he "[c]ould . . . have raised 70 [million] if [he] had wanted to" from venture capitalists, Mr. Systrom acknowledged: "It would be speculating. I don't know." Ex. 151 at 38:20-24 (Systrom Dep. Tr.).

d) Instagram's founders understood that they were in competition with Facebook.

1627. Mr. Systrom and Mr. Krieger each testified that they perceived Instagram as being in competition with Facebook.

Meta Response: Disputed in part as stated in Meta's responses to the subparagraphs below.

a. Mr. Systrom testified that Instagram was "clearly competitive" with Facebook. PX6027, Systrom (Meta/Instagram) IH Tr., at 140:10-11; *id.* at 165:2-4 ("[W]e were clearly in a similar space, and we would have clearly come up against each other in certain areas.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's characterization of the testimony is incomplete. When asked who he considered to be Instagram's competition pre-acquisition, Mr. Systrom testified that Instagram was "doing something so completely different than what we thought [Twitter and Facebook] were doing" that he "didn't think about them as competitive in the sense that they were going to eat our lunch." PX6027 at 140:2-8 (Systrom IH Tr.). Contrasting with Facebook, Mr. Systrom identified Treehouse, Hipstamatic, PicPlz, and Path as Instagram's "direct competitors." *Id.* at 139:16-140:1.

b. Mr. Systrom observed that he thought "it was inevitable for Mark [Zuckerberg] to think that we were in conflict if [Instagram] remained independent." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 37:6-8.

Meta Response: Undisputed that the witness provided the quoted testimony.

c. Mr. Systrom observed that "it [would be] inevitable that Instagram would be in conflict with Facebook" if Instagram "turned [Mark Zuckerberg's] interest down[.]" *Id.* at 39:18-23.

Meta Response: Undisputed that the witness provided the quoted testimony.

d. Mr. Systrom noted that after Instagram's Series B funding round:

> [I]t became clear we were playing in a different league, and I think the question was going to be: Would we be as big as Twitter some day? Would we be as big as Facebook was at that time? I think we – we shifted our focus away from the smaller players to thinking more about how we related to these larger players, and it was very clear by that time those larger players were very focused on us. So the narrative changed a bit.

PX6027, Systrom (Meta/Instagram) IH Tr., at 145:11-20.

Meta Response: Undisputed that the witness provided the quoted testimony.

e. In Mr. Krieger's investigational hearing, Mr. Krieger was asked whether, "looking back after working at Facebook after the acquisition, do you think Instagram was a threat to Facebook Blue in any way?" PX6015, Krieger (Meta/Instagram) IH Tr., at 95:11-13. Mr. Krieger replied:

> I think our continued growth posed a challenge to them . . . less in the direct use case and more in the fact that, like, it became, for people who used Instagram heavily, a primary way in which they kept up with their friends and family potentially, and that is also a use case that Facebook has.

Id. at 95:14-20.

Meta Response: Undisputed that the witness provided the quoted testimony.

1628. In September 2011, Mr. Systrom discussed with [redacted] his concern that Facebook would come to view Instagram as something that it wanted to "squash." *See* PX2658, Instagram email: [redacted] (Benchmark) to K. Systrom re: "Instagram on Facebook mobile?" (Sept. 30, 2011), FB_FTC_CID_02981755, at -055; PX6027, Systrom (Meta/Instagram) IH Tr., at 148:20-21 (noting Zuckerberg's "reputation for being very competitor-focused").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the evidence cited does not support the characterization of Mr. Systrom's communications with [redacted]. Mr. Systrom's email states, "I don't consider fb a competitor, I'm just curious that they've signaled that they want to make a strong move in our direction (from what I've heard, not from what [I]'ve seen). Not sure if there's a way, but I wish they'd see us as a good ecosystem partner and not necessarily something they want to squash. [T]hat being said I don't think everyone feels that way there . . . ." PX2658 at -755 (FB_FTC_CID_02981755).

1629. Messrs. Systrom and [redacted] shared a concern that Mr. Zuckerberg would "go into destroy mode" if Instagram spurned Meta's advances regarding an acquisition. PX2759, Instagram messages: [redacted] (Benchmark) to K. Systrom (Feb. 13, 2012), FB_FTC_CID_08721020, at -020. Mr. Systrom understood "destroy mode" to mean that Mr. Zuckerberg would "focus[] all his energy on competing with" Instagram:

> Q. Did – did you know anything more about what "destroy mode" referred to?
>
> A. When I said "destroy mode" here, I think it's referring to the common conception that when Mark [Zuckerberg] is competitive, he's extremely competitive, and he focuses all his energy on competing with an entity.
>
> Q. And had you seen what you think of as 'destroy mode' previously?
>
> A. I had heard stories about what Facebook, at the time, Facebook the company – we'll say Meta – had done in reaction to Google's announcement of Google Plus and how they pivoted the entire company to go into this mode to make sure that they would be successful.
>
> Q. Okay. So 'destroy mode' here mean[s] putting that focus on Instagram?
>
> A. That's right.

PX6133, Systrom (Meta/Instagram) Dep. Tr., at 22:5-23:2.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1628.

1630. Mr. Systrom expressed concerns that Facebook's mobile photo application would affect Instagram's valuation during Instagram's Series B funding round. *See* PX2664, Instagram email: K. Systrom to [redacted] (Baseline) re: "Thoughts," (Feb. 25, 2012), FB_FTC_CID_03002183, at -183 (expressing concern that "[t]he risk of a photo product launch by facebook increases by the hour").

Meta Response: Undisputed that the document contains the quoted language.

e) Instagram was an attractive acquisition target for a large, established technology company seeking to enter into the market for personal social networking services.

1631. At the time of the acquisition, Instagram's founders and employees were highly regarded by major players in Silicon Valley.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because what "major players" might have thought of Instagram as an independent company is not relevant to actual effects; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734.

a. Mr. Zuckerberg testified that he perceived Mr. Systrom and Mr. Krieger as "very talented product leaders doing something impressive." PX6029, Zuckerberg

(Meta) IH Tr., at 250:5-6. Looking back on the acquisition, Mr. Zuckerberg testified that "in retrospect, I probably underestimated the value and insight that we would get from Kevin's perspective. He is a very thoughtful product thinker." *Id*. at 281:9-16.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Twitter executives, including Evan Williams and Jack Dorsey, described Mr. Systrom as a "perfectionist" and "disciplined and diligent," and Mr. Systrom and Mr. Krieger as "talented," shortly after Instagram launched. PX14131, Twitter document: "Instagram Background" (undated), TWTR-FB00019928, at -930-31 ("Kevin Systrom is a perfectionist and will learn exactly what's needed to make his work stellar. He's disciplined and diligent and has a great eye towards sparse design and user experience . . . They're clearly a talented team, with a great UX.").

Meta Response: Undisputed that the document contains the quoted language.

c. Mr. Zuckerberg reported that Apple's CEO, Tim Cook, referred to the Instagram team as "one of the best iOS developers" and "some of the best folks to work with out of the new class of startups." PX3153, Meta messages: M. Zuckerberg to M-Team, (July 15, 2012), FB_FTC_CID_10636807, at -807 ("I asked how he thought about us buying Instagram. He said he thought it was smart and he thought we might do it and was impressed when we did. He also said that he thought they were one of the best iOS developers and were some of the best folks to work with out of the new class of startups.").

Meta Response: Undisputed that the document contains the quoted language.

1632. Meta executives and employees expressed concerns that Google, Twitter, or Apple could acquire Instagram and use it as a foothold to enhance their own personal social networking services offerings or enter the personal social networking services market.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because speculation about hypothetical transactions is not relevant to actual effects; the FTC provides no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶¶ 733-734. Further disputed for the reasons stated above in Meta's response to paragraph 1595 and Meta's responses to the subparagraphs below. The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. In September 2011, Mr. Zuckerberg noted with concern that "[i]f Instagram continues to kick ass on mobile or if Google buys them, then over the next few years they could easily add pieces of their service that copy what we're doing now, and if they have a growing number of people's photos then that's a real issue for us." PX1180, Meta email: M. Zuckerberg to J. Shaffer, et al. re: "photos team & snap," (Sept. 11, 2011), FB_FTC_CID_02945837, at -837.

Meta Response: Undisputed that the document contains the quoted language.

b. In February 2012, Mr. Zuckerberg asked Instagram board member [redacted] "if anybody else has tried to buy Instagram." PX2759, Instagram messages: [redacted] (Benchmark) to K. Systrom, (Feb. 13, 2012), FB_FTC_CID_08721020, at -023. [redacted] took away from the conversation that what Mr. Zuckerberg was "really worried about is twitter. If twitter and instagram became one company it would make life more difficult for facebook . . . . and instagram is a more natural fit for twitter as a product." *Id.* at -021.

Meta Response: Undisputed that the document contains the quoted language.

c. On April 5, 2012, Meta engineer [redacted] wrote to Mr. Zuckerberg, in response to a question, "[if] you could buy one of either Instagram, Foursquare or Pinterest, which would you buy?": "I think Instagram might end up being more compelling than Foursquare from a defense perspective because of the potential for someone like Apple to use them as a foothold." PX1202, Meta messages: [redacted] to M. Zuckerberg, (Apr. 5, 2012), FB_FTC_CID_06290875, at -875.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's quotation of the document omits context. [redacted] discussed the "pros/cons" of acquiring each of Instagram, Foursquare, and Pinterest, including stating that his "first instinct is Foursquare as [he] think[s] that's the most compelling of the products in a way that would be harder for us to easily replicate" and that "Pinterest has the potential for the widest appeal." PX1202 at -875 (FB_FTC_CID_06290875).

1633. Meta executives became aware by March 2012 that Twitter actually was exploring an acquisition of Instagram. On March 9, 2012, Mark Zuckerberg messaged Mike Schroepfer that Twitter had been courting Instagram aggressively; per Mr. Zuckerberg, "we need to think about what the world would be like if Twitter bought [Instagram]." Mr. Schroepfer replied: "that would be bad." PX1137, Meta messages: M. Zuckerberg to M. Schroepfer, (Mar. 9, 2012), FB_FTC_CID_01543914, at -914-15.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1632.

1634. Twitter did, in fact, make serious overtures to Instagram about an acquisition in 2012.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1632 and in Meta's responses to the subparagraphs below.

a. In his investigational hearing, Mr. Systrom described Twitter as Instagram's "most significant" non-Meta interested acquirer. PX6027, Systrom (Meta/Instagram) IH Tr., at 288:25-289:1, 289:14-15. Mr. Systrom noted "on the order of six or seven in-person meetings" between him and Twitter executives. *Id.* at 289:15-17. Those meetings took place "in the year or so before we sold to Facebook." *Id.* at 292:10-14.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the cited material supports the statement to the extent the statement implies that Twitter discussed acquiring Instagram or

extended an offer to acquire Instagram during the referenced meetings. [redacted]; PX6027 at 289:14-19 (Systrom IH Tr.).

b. Mr. Systrom described serious meetings with Twitter. PX6027, Systrom (Meta/Instagram) IH Tr., at 292:23-293:1 ("started off pretty junior" and then "got increasingly intense"); *id.* at 293:5-7 (building to a "crescendo"); *id.* at 289:20-24 (Twitter "interested . . . to the point where we had to decide whether or not we wanted to continue conversation with them or go raise . . . the Series B"). "[I]t was very clear" to Mr. Systrom" "that they"—meaning Twitter—"were serious about" acquiring Instagram. *Id.* at 290:1-2.

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

c. Instagram's 2012 meetings with Twitter included:

i. Drinks with Mike Brown and Jessica Verrilli, who at that time was part of Twitter's corporate development team. PX7042, Twitter email from M. Brown to D. Costolo et al. re: "Meeting tonight with Kevin of Instagram," (Feb. 14, 2012), TWTR-META00071179, at -179; PX6027, Systrom (Meta/Instagram) IH Tr., at 292:18-22.

<u>Meta Response</u>: Undisputed.

ii. A meeting with Jack Dorsey, who had been an Instagram investor. PX7041, Twitter email chain from J. Dorsey to E. Gil et al. re:

"Kevin/Instagram," (Feb. 14, 2012), TWTR-META00069903, at -905; PX6027, Systrom (Meta/Instagram) IH Tr., at 292:15-16.

Meta Response: Undisputed.

iii. Meetings with [redacted] and with [redacted], who eventually became Instagram's head of product. PX6027, Systrom (Meta/Instagram) IH Tr., at 292:16-18, 293:9-19.

Meta Response: Undisputed.

iv. "[A] sushi dinner with [redacted] and [redacted] to talk about: Would it make sense to ever combine these companies?" *Id.* at 293:2-4. The dinner included "a bunch of time talking about what our vision was for Instagram, how that might or might not make sense inside of Twitter." *Id.* at 294:18-21.

Meta Response: Undisputed that the witness provided the quoted testimony.

2. Meta Recognized the Competitive Threat that Instagram Posed to Facebook's Monopoly Power in Personal Social Networking Services.

1635. Instagram's network posed a threat to Facebook's dominance in personal social networking services. *See infra* CMF at ¶¶ 1635(a)-52.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the material cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). None of the cited material refers to or establishes that Instagram posed a "threat" to Facebook's alleged "dominance in personal social networking services." To the extent the statement

incorporates the FTC's statements in paragraphs 1635(a)-1652 (the entirety of Section III.B.2), Meta incorporates its responses to those statements here. The FTC's use of "personal social networking services" in the statements in this paragraph and its subparagraphs is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. Instagram launched as a mobile personal social network with a focus on photos. *See supra* CMF at § III.B.1(a).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.B.1(a), Meta incorporates its responses to those statements here.

b. As Instagram grew, Meta recognized the threat posed by Instagram's network. *See infra* CMF at ¶¶ 1635(c)-52.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1635(c)-1652 (the entire remainder of Section III.B.2), Meta incorporates its responses to those statements here.

c. As Mr. Zuckerberg testified "[t]o some degree, as Instagram grew, the balance could shift. I think we were starting to see: Hey well, some people might just

share on Instagram now." PX6127, Zuckerberg (Meta) Dep. Tr., at 59:8-60:15 (noting also that "sharing that happened on Instagram is sharing on the Instagram network, and sharing that was done from Instagram back to Facebook is . . . on the Facebook network. But there's clearly overlap between these.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the cited material does not support the assertions above that "Instagram's network posed a threat to Facebook's dominance in personal social networking services," and that "[a]s Instagram grew, Meta recognized the threat posed by Instagram's network," and because the quotations are incomplete and misleading. In the cited testimony, Mr. Zuckerberg stated that "in practice, when a lot fewer people were on Instagram, if [photos] were shared in both places, then they were primarily viewed and interacted with on Facebook or Twitter or other places outside of Instagram. To some degree, as Instagram grew, the balance could shift." PX6127 at 59:18-24 (Zuckerberg Dep. Tr.). The fuller excerpt of Mr. Zuckerberg's testimony clarifies that he referred to how the "balance" between photo sharing on Instagram, Facebook, Twitter (an app the FTC alleges is not "PSNS"), and "other places outside of Instagram"– "could shift." Mr. Zuckerberg did not refer to "personal social networking services" or friends-and family-sharing, let alone in the way the FTC uses those terms, nor did Mr. Zuckerberg describe a supposed threat by Instagram to any alleged "dominance" by Meta in any market. On the contrary, just before the testimony cited in the statement, the FTC asked Mr. Zuckerberg whether, in 2012, "Instagram users had the option to follow on the Instagram App friends that they

knew in real life." *Id.* at 55:8-10. Mr. Zuckerberg testified, "I think the Instagram App encouraged you to follow public figures or, like, a few featured accounts more than your friends . . . . I remember that one of the first things that we did after we bought Instagram was making it a lot easier to share with your actual friends and to connect with your actual friends because we thought that was something that Instagram was relatively bad at at the time." *Id.* at 55:12-21.

d. Similarly, on March 26, 2012, Mr. Zuckerberg observed that Instagram was "trying to build [a] parallel network[]." PX1580, Meta email chain: M. Zuckerberg to [redacted], et al. re: "(no subject)" (Mar. 26, 2012), FB_FTC_CID_01543773, at -773 ("Arguably, if you look at the incentives in the market, Twitter and perhaps Instagram (if they keep going) will never prioritize having the perfect FB integration since they're trying to build parallel networks."); *see also* PX6127, Zuckerberg (Meta) Dep. Tr., at 71:18-73:4; 74:3-11.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because it does not support the assertions above that "Instagram's network posed a threat to Facebook's dominance in personal social networking services," and that "[a]s Instagram grew, Meta recognized the threat posed by Instagram's network," and because the quoted material is incomplete and misleading. In the cited email, Mr. Zuckerberg discussed improving integrations with other apps. Mr. Zuckerberg did not refer to Instagram as a "threat," let alone to any supposed "dominance" in any market or in "personal

social networking services" as the FTC uses that term. On the contrary, in the quoted language, Mr. Zuckerberg discussed optimizing integrations with Twitter (which is not a PSNS according to the FTC) and "perhaps" Instagram (and only "if they keep going"). PX1580 at -773 (FB_FTC_CID_01543773). He referred to these apps as "partners" in the context of these contemplated integrations. *Id.* Moreover, the statement omits that in the cited email exchange about integrations, Mr. Zuckerberg and his colleagues discussed improving integration with the networks of many other apps besides Instagram, including Pinterest, Foursquare, Spotify, Tumblr, and Dropbox, none of which is a "PSNS" app according to the FTC. *See id.* at -776 ("These companies are currently uncertain about whether they want to do this fully linking with us."). Indeed, Mr. Zuckerberg wrote, "I'm starting to think we should just build something like this out for all top tier partners," – referring to Mr. Vernal's discussion of building "a few 'bridge' apps" for partner apps "similar to what we did with the Phabricator + Diffusion apps." *Id.* at -773. The email thus contradicts the claim that Instagram's network posed a threat, unique or otherwise, or that the discussion concerned "personal social networking."

e. In an April 13, 2012 discussion with employees after the acquisition announcement, Mr. Zuckerberg stated that Instagram had independently grown into a standalone "mega-network" and was "on the path to win" had Meta not acquired it. PX2501, Meta Workplace Post: [redacted] post to [redacted] (Apr. 13, 2012), FB_FTC_CID_01527429, at -429-30 ("Open Q&A with Mark"). He further described the acquisition noting "the probability of

them getting to 100 million is high and they're a meaningful social product that got built, so it was a no brainer to do this." *Id.* at 429.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated below in Meta's responses to paragraph 1706, and because the FTC's summary of the evidence is incomplete and misleading, and the cited material does not support the statement. Mr. Zuckerberg did not say that Instagram "had independently grown into a standalone 'mega-network.'" On the contrary, distribution on the Facebook platform was essential for Instagram pre-acquisition, and Instagram's growth would have been significantly limited had Meta ended that support. *See* Meta SMF ¶¶ 657-669. The cited document, a summary of an "Open Q&A" with Mark Zuckerberg from April 13, 2012, is consistent with that evidence and states that Instagram wanted to sell to Meta because of how Meta "worked with them on their growth and their Open Graph implementation" pre-acquisition. PX2501 at -429 (FB_FTC_CID_01527429).

The material cited also does not support the assertion that Mr. Zuckerberg stated that, had Meta not acquired it, Instagram was on a path to "win" against Meta. The document refers to Mr. Zuckerberg's comments in light of the acquisition announcement. *See id.* at -429 ("We want to do even more together now once the acquisition is final."; "[T]ogether we can do so much more."). This is consistent with evidence that Meta sought to acquire Instagram because of the opportunity to grow it. *See*, *e.g.*, Ex. 473 at 201:22-202:3 (Schroepfer IH Tr.) ("[Q]: Did you want Facebook to acquire Instagram because you thought

Instagram might acquire a strategic position in photos before Facebook Camera was ready to ship? A. I wanted to acquire Instagram because I thought we could built it into something amazing together."). Moreover, the document does not state that Instagram was "on the path to win" anything *against Meta*. On the contrary, Mr. Zuckerberg testified that the context of the Q&A was that, in response to "[a] bunch of employees" asking about the purchase price of Instagram acquisition, he "kind of felt like [he] needed to explain why [he] thought Instagram was going to be valuable in the future." PX6127 at 84:18-24 (Zuckerberg Dep. Tr.). Mr. Zuckerberg explained, "To the extent that I'm making these arguments about, like, look, it's growing so quickly. It will be worth more in the future. . . . [T]he feel I'm getting from the document is that, at the time, people really weren't sure that Instagram was going to be as successful as it ended up being." *Id.* at 84:25-85:8; *see also id.* at 78:11-79:1 ("[Q]: One of the reasons that you purchased Instagram was that they were growing so quickly prior to the time you purchased them. Is that fair? A. Yes, but I think it's worth characterizing further. So sometimes you see a product and you can tell just from using it that there's a lot of good innovation there, even if it hasn't caught on in a big way yet. Other times, the fact that it's receiving a positive market reception is the best way to determine that it's a good product. So I think here a lot of why – I think we thought it was a good product, and that's kind of what I explained here. It has good values for the product and company, and the growth has also been really good.").

a) Photo-sharing features were critical to Facebook's success in friends and family sharing prior to the shift to mobile.

1636. [redacted].

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because it is not supported by the testimony cited, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). [redacted]

1637. In 2005 Facebook introduced photo-sharing features, including the ability for users to "tag" one another in photos. PX3351, Meta email chain: [redacted] to self re: "Afternoon News Clips 07.10.2018," (July 11, 2018), FB_FTC_CID_01464042, at -066 (describing the launch of photos in 2005 along with tagging capabilities: "You post a photo, it goes in an album, you have a set of albums, and then you can tag people in the photos.").

Meta Response: Undisputed.

1638. In 2012, Andrew Bosworth, Meta's future Chief Technology Officer described Facebook's photo "tagging" feature as "the single most important thing we have ever done." PX1208, Meta email chain: A. Bosworth ("Boz") to Engineering Announcements distribution list re: "[[redacted]] CONFIDENTIAL – DO NOT SHARE," (Apr. 10, 2012), FB_FTC_CID_01540471, at -471.

Meta Response: Undisputed that the document contains the quoted language.

1639. By 2007, Facebook claimed to be "the largest photo sharing site" on the Internet. PX2962 at -008, Meta presentation: "Facebook: Facebook Development Platform" (Feb. 27, 2007), FB_FTC_CID_07679527 ("Facebook is the largest photo sharing site."); *see also* PX2946, Meta email chain: [redacted] to D. Morin, re: "any news? (Facebook as an option in workflow in 3.x)," (July 17, 2009), FTC-META-000204034, at -035 ("Facebook is the largest photo sharing site on the Internet"); PX3356, Meta email chain: [redacted] to [redacted], et al. re: "Follow Up to Facebook meeting," (Mar. 7, 2007), FB_FTC_CID_07684202, at -203 ("FB allows you to upload a photo and tell who's in it, and now FB has become the largest photo-sharing site on the Internet."); PX3355, Meta email chain: D. Morin to [redacted], re: "Facebook + Monkey Business Labs," (Jan. 17, 2007), FB_FTC_CID_07682769, at -770 ("Facebook Photos is the largest photo sharing site on the internet."); PX3354, Meta email chain: [redacted] to D. Morin, et al. re: "FB address," (May 20, 2007), FB_FTC_CID_07681702, at -702 (attaching "Facebook Statistics" fact sheet and identifying Facebook as the "[n]umber one photo sharing site on the Internet").

<u>Meta Response</u>: Undisputed that the documents contain the quoted language.

1640. Sean Parker, a Meta shareholder and an executive from 2005 to 2011 who was responsible for Facebook's photos features, wrote in 2012 that:

> photos is the lifeblood of Facebook, propping up the whole network through the usage, interaction, and positive feedback loops it generates, and time on site is directly linked to photo browsing. Going back to 2005, shortly after I launched photos it was generating ~50% of all Facebook page views, a stat which remained fairly steady until the introduction of games on platform.

PX2132, Meta email chain: S. Parker to K. Systrom re: "Thank you," (May 2, 2012), FB_FTC_CID_08711521, at -521.

Meta Response: Undisputed that the document contains the quoted language.

b) Meta recognized that Instagram's network was exerting increasing competitive pressure on Facebook's friends and family sharing offering.

1641. Meta's executives watched with concern as Instagram launched a high-quality, extremely popular product that grew rapidly and established a parallel network that enabled friends and family sharing. *See supra* at ¶¶ 1635(c), (d).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1635(c), (d), Meta incorporates its responses to those statements here.

1642. As early as June 2011, Mr. Zuckerberg recognized that Instagram "appear[ed] to be reaching critical mass as a place you go to share nice photos. . . ." PX12202, Meta Workplace Post: M. Zuckerberg post to [redacted] (June 11, 2011), FB_FTC_CID_12302585, at -585.

Meta Response: Undisputed that the document contains the quoted language.

1643. More than six months prior to the acquisition, in September 2011, Mr. Zuckerberg recognized that Instagram was "growing extremely quickly right now," seemingly "doubl[ing]" their user base "every couple of months or so." PX1180, Meta email chain: M. Zuckerberg to J. Schaffer re: "photos team & snap," (Sept. 11, 2011), FB_FTC_CID_02945837, at -837-38 ("They [Instagram] are growing extremely quickly right now. It seems like they double every couple of months or so, and their base is already ~5-10m[illion] users.").

Meta Response: Undisputed that the document contains the quoted language.

1644. Dirk Stoop testified that "Instagram was the clear leader in user experience and photo sharing. They redefined how polished and fun a mobile app to share photos with could be." PX6079, Stoop (Meta) Dep. Tr., at 85:19-22.

Meta Response: Undisputed that the witness provided the quoted testimony.

1645. As Mr. Zuckerberg testified, Instagram possessed "very talented product leaders." PX6029, Zuckerberg (Meta) IH Tr., at 250:5-6; *id*. at 281:13-16 ("I probably underestimated the value and insight that we would get from Kevin's perspective. He is a very thoughtful product thinker.").

Meta Response: Undisputed that the witness provided the quoted testimony.

1646. In early 2012, Mr. Zuckerberg repeatedly expressed concern regarding Instagram due to its rapid growth and developing network effects.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. In February 2012, Mr. Zuckerberg recognized that the continued growth of Instagram's "network" risked "creat[ing] a huge hole" for Meta. PX1102, Meta Workplace Post: M. Zuckerberg to [redacted] (Feb. 11, 2012), FB_FTC_CID_01548247, at -247 ("For the network piece, one concerning trend is that a huge number of people are using Instagram every day . . . and they're only uploading some of their photos to FB. This creates a huge hole for us and one that I'm [not] sure anything we're going to do . . . will completely solve.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's quotation is incomplete and misleading and does not support the FTC's characterization. Mr. Zuckerberg did

not say he was not sure *anything* Meta was going to do would completely solve the hole. The full quotation is: "I'm sure anything we're going to do *on platform or with social dynamics* will completely solve." PX1102 at -247 (FB_FTC_CID_01548247) (emphasis added to indicate omitted words). Further disputed that the quoted statement supports the FTC's suggestion that Mr. Zuckerberg was concerned about a "hole" in Facebook's "network." In the quoted document, Mr. Zuckerberg described Instagram's "thesis" as follows: "what people want is more take the best photos than to put them on FB"; and he noted that "[s]ometimes *you don't* want to bug all your FB friends with a lot of photos so you put them in in the photo-posting place instead." *Id.* at -247 (emphasis added). In testifying about the quoted document, Mr. Zuckerberg noted that before Meta acquired Instagram, its capabilities for sharing with a user's "actual friends" was limited. He noted that "Instagram was relatively bad at" "shar[ing] with your actual friends and . . . connect[ing] with your actual friends" before Meta acquired it. PX6127 at 55:14-21 (Zuckerberg Dep. Tr.).

b. In February 2012, Mr. Zuckerberg described Meta as "very behind" Instagram, and the prospect of having to catch up as "really scary." *Id.* ("[W]e'd be very behind in both functionality and brand on how one of the core uses of Facebook will evolve in the mobile world, which is really scary and why we might want to consider paying a lot of money for this.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to subparagraph 1646(a) (which cites the same document), and because the

paraphrase of the document is taken out of context and misleading. Mr. Zuckerberg did not "describe Meta as 'very behind' Instagram." The "very behind" language was in the context of a hypothetical: "we'd be very behind" if Instagram's thesis is correct that "what people want is more to take the best photos." PX1102 at -247 (FB_FTC_CID_01548247).

c. In February 2012, Mr. Zuckerberg predicted that Instagram could have 100-200 million registered users in only one to two years. PX3154, Meta Workplace Post: M. Zuckerberg post to [redacted] (Feb. 11, 2012), FB_FTC_CID_01548248, at -249.

Meta Response: Undisputed that in the document, Mr. Zuckerberg speculated that Instagram "might be able to reach 100-200m in the next 1-2 years" if certain frameworks regarding Android and iOS development held true. PX3154 at -249 (FTC_CID_01548248).

1647. A Meta executive observed upon Instagram's launch on Android on April 3, 2012: "today Instagram launched for Android . . . it is troubling if their network/graph translates cross platform on Android . . . if Instagram starts to see substantial growth on Android, I believe this indicates they are hitting escape velocity." PX1219, Meta email chain: R. Armbrust to J. Osofsky, et al. re: "Instagram launches Android," (Apr. 3, 2012), FB_FTC_CID_03335898, at -898-99.

Meta Response: Undisputed that the document contains the quoted language.

1648. On April 3, 2012, Mr. Zuckerberg reviewed data on Instagram's growth and messaged Mr. Schroepfer:

> [Instagram's] growth rate is crazy. 6% weekly is really fast when growing off their current base. . . . What this means for us is that we

> really need to launch something soon. We should push the team to crank and get this out. If we launch soon, we can hopefully get to comparable scale to what they have now relatively quickly. If we take a lot longer then [sic] they may be totally unreachable.

PX2965, Meta messages: M. Zuckerberg to M. Schroepfer (Apr. 3, 2012), FB_FTC_CID_08621082, at -082.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language except for the last sentence quoted, which should read: "If we take a lot longer then [sic] they may really be unreachable." PX2965 at -082 (FB_FTC_CID_08621082). Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated below in Meta's response to paragraph 1689.

1649. On April 5, 2012, Mr. Zuckerberg justified the proposed Instagram acquisition on the basis that "Instagram can hurt us meaningfully" by shifting a "core use case[]"—i.e., photo-sharing with network connections—away from Meta. PX1202, Meta messages: M. Zuckerberg to [redacted], (Apr. 5, 2012), FB_FTC_CID_06290875, at -875-76.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the statement omits context and mischaracterizes the document. The context of the thread shows that Mr. Zuckerberg and [redacted] discussed the relative advantages of acquiring Foursquare, Pinterest, and Instagram. Further disputed because the cited material does not support a claim concerning "network connections." In testifying about the document, Mr. Zuckerberg described the use case as "Mobile photos and this new space around having a mobile camera specifically was the focus." PX6029 at 337:8-9 (Zuckerberg IH Tr.). Further disputed to the extent the statement suggests any threat related to "network connections." The document says the opposite: [redacted]

asked: "What do you think is the threat model for them [Instagram]? Something more than contention for attention/content?" Mr. Zuckerberg replied: "I think it's basically that, but it's pretty major." PX1202 at -875 (FB_FTC_CID_06290875); *see also* Ex. 2 at ¶ 345 (Carlton Rep.) (discussing this document).

1650. On April 6, 2012, Mr. Zuckerberg acknowledged to Meta employees that Instagram was "growing really quickly," had "a lot of momentum," and that it was "kind of going to be tough to dislodge them." PX15180, Meta video clip: "Open Q&A with Mark – April 6, 2012" (Apr. 6, 2012), FB_FTC_CID_01528077, at 0:43-1:12, 4:46-4:51 ("[B]ack to Instagram . . . we need to dig ourselves out of a hole . . . the bad news is that [Instagram is] growing really quickly. They have a lot of momentum, and it's kind of going to be tough to dislodge them."); *see also* PX3348, Meta Workplace Post: [redacted] post to FYI (Company Announcements) (Apr. 9, 2012), FTC-META-005162967, at -967 (indicating that meeting took place April 6, 2012).

Meta Response: Disputed in part. Undisputed that the video contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's response to paragraph 1689 below.

1651. Mr. Zuckerberg testified in his investigational hearing that in early April 2012, Instagram "had a lot of momentum," "millions of users," "fast growth," and that he thought "it would have continued growing quickly for some period" of time absent the acquisition. *See* PX6029, Zuckerberg (Meta) IH Tr., at 264:6-14, 339:5-15.

Meta Response: Disputed in part. Undisputed that the statement quotes parts of Mr. Zuckerberg's testimony. Disputed that the statement creates a genuine dispute of material fact, including because the statement is incomplete and lacks context. Mr.

Zuckerberg also testified that Instagram "would have hit some natural ceilings" and would have faced "a big question about how they handled those and how the competition was going with other companies, including what we would have done, what Google would have done, what Apple would have done, et cetera. But, I mean, I think it's noteworthy that, at the time we did the acquisition, Instagram was having significant issues with spam and significant technical scaling issues, as we've talked about a couple of times, and that's not unique." *See* PX6029 at 339:12-25 (Zuckerberg IH Tr.).

1652. Mr. Zuckerberg and other Meta senior leadership ultimately justified Meta's acquisition of Instagram on the basis of capturing—and neutralizing—Instagram's growth.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to paragraph 1635 above (including its subparagraphs, which rely on some of the same materials cited in the subparagraphs below) and in the subparagraphs below. Further disputed because the material cited in the subparagraphs below does not support the statement. On the contrary, the cited material shows that Mr. Zuckerberg justified the acquisition as an opportunity to grow both Facebook and Instagram: "together we can do so much more." PX2501 at -429, -430 (FB_FTC_CID_01527429). This is consistent with evidence of other "Meta senior leadership" wanting to acquire Instagram to grow it. Mr. Schroepfer testified, "I wanted to acquire Instagram because I thought we could built it into something amazing together." Ex. 473 at 202:1-3 (Schroepfer IH Tr.). And evidence confirms that, far from "neutralizing" Instagram's growth, Meta enhanced Instagram's features, infrastructure, and user base after acquiring

it. *See* Meta SMF ¶¶ 657-658, 721, 724 (growth), ¶ 710 (investment), ¶¶ 711-713 (annual surplus figures), ¶¶ 739-747 (features), ¶¶ 755-762 (infrastructure).

a. Shortly after the acquisition was announced, Mr. Zuckerberg stated in an "Open Q&A" session that Instagram had become a standalone "mega-network" app that had been "on a path to be a big business," noting that "we bought the one that was biggest and on the path to win." PX2501, Meta Workplace Post: [redacted] post to [redacted] (Apr. 15, 2012), FB_FTC_CID_01527429, at -429-430 (Zuckerberg Open Q&A).

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the cited document does not support the claim that Mr. Zuckerberg justified the acquisition on the basis of neutralizing Instagram's growth and for the reasons stated in Meta's response to subparagraph 1635(e) above (which cites the same document).

b. In that "Open Q&A" session, Mr. Zuckerberg further explained that Instagram's

> growth trajectory is immense. They had 36 million users when we signed the agreement, since then they launched Android plus the [trade] press, and are growing at 8 million users a week. They had a higher like rate for photos and we are getting a part of their user base that should be 100 million in a year . . . The probability of them getting to 100 million is high and they're a meaningful social product that got built, so it was a no brainer to do this.

Id.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

c. In an April 2012 email, Amin Zoufonoun observed that "Their [Instagram] growth trajectory [in users] is pretty incredible." He went on to state, as clarified in his investigational hearing, that: "Instagram was doing a great job in mobile. . . Yeah, they're doing a great job in mobile today. And everything, not just social networking, is heading towards mobile." PX6028, Zoufonoun (Meta) IH Tr., at 167:19-168:18; PX1329, Meta email chain: A. Zoufonoun to D. Ebersman re: "Instagram," (Apr. 10, 2012), FB_FTC_CID_01545174, at -174 ("[Instagram has] simply done a great job in one of the main tenets of social networking as we know it today (photos), but where social networking is clearly headed (mobile).").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the cited material does not support the claim that Meta acquired Instagram to "neutralize" its growth. On the contrary, the document notes that "there could also be some interesting monetization angles," such as "allow[ing] brands and ecommerce providers—some of whom already have decent followings on Instagram who simply follow photos posted by these businesses—to hyperlink their photos based on a clickthrough rate." PX1329 at -174 (FTC_CID_01545174). This does not support a claim that Meta acquired Instagram to neutralize any threat related to friends and family sharing.

d. In a January 2013 post, Amin Zoufonoun stated that:

> we [Meta] acquired instagram because we believed they had escape velocity in terms of user traction (growth, engagement) and had/would become a 'core' social, mobile service in a strategically important area for us (photo

> sharing) and in a different but important way (follower graph). a key pillar in our strategy . . . today remains building/buying what we determine to be core, strategically important social experiences in mobile.

PX2375, Meta Workplace Post: A. Zoufonoun post to Dan's Weekly Update (Jan. 23, 2013), FB_FTC_CID_03250616, at -616.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the quotation is taken out of context and does not support the claim that Meta sought to "neutralize" Instagram's growth. On the contrary, when asked in the cited post how the Instagram acquisition qualifies as "a success so far," Mr. Zoufonoun explained that the Instagram acquisition's goals included "user growth, successful integration of the [I]nstagram team and product integrations" and that the acquisition was "very successful when measured against the metrics" for each of those goals. PX2375 at -616 (FB_FTC_CID_03250616); *see also* Ex. 2 at ¶ 249 (Carlton Rep.) (discussing this document and other consistent documents demonstrating that Meta improved Instagram on numerous metrics after acquiring it, including speed and stability).

3. Other Photo-Related Apps and Services Did Not Threaten Facebook the Way Instagram Did.

1653. Although other applications, such as desktop-based photo applications, camera utility apps, and other, smaller personal social network services, existed at the time of the Instagram acquisition, none posed a threat to Facebook the way that Instagram did. PX9000, Hemphill Report at § 4.1.3; *infra* CMF at ¶¶ 1654-66.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because which apps posed "a threat" to Facebook in 2012 relative

to Instagram does not create a genuine dispute as to whether Meta's acquisition of Instagram caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed because all available empirical evidence of substitution shows that, regardless of which apps posed threats to Facebook in 2012 ("PSNS" or not), today, apps like TikTok and YouTube are closer substitutes for Facebook and Instagram than Snapchat, which the FTC maintains is a PSN app. *See* Meta SMF ¶¶ 533-566.

Further disputed because the statement improperly cites an entire section of Professor Hemphill's report, rather than specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. Professor Hemphill ignores evidence that, at the time of the Instagram acquisition and afterwards, Meta executives monitored and worried about competitive threats from several companies, many of which were not "PSNS" as the FTC uses that term, including photo applications and others. *See* Meta SMF ¶¶ 315 (Twitter), ¶¶ 342-345 (Pinterest), ¶ 410 (LinkedIn); Ex. 6 at ¶¶ 201-209 (Kaplan Rep.) (collecting evidence that Meta executives worried about a multitude of competitors, both in photos and other use cases, including Picasa, Path, Google+, Quora, Twitter, and others); PX6006 at 76:25-77:8, 370:18-20, 372:6-11, 372:12-13 (Cox IH Tr.) (testifying that there were "hundreds of ways to connect and share photos with people on the Internet" and there were "dozens, at least" of "other companies who provide a . . . similar service of photo sharing" to Facebook including (among others) Apple, Google, Flickr, Photobucket, Picasa, and oPhoto); PX6029 at 311:25-312:5 (Zuckerberg IH Tr.) (testifying about "innovation in the space" in 2012 from companies including, besides

Instagram, "VSCO Cam, Camera+, Path"); Ex. 2 at ¶¶ 43-45, 204 (Carlton Rep.) (discussing the U.K. Office of Fair Trading's finding in 2012, in reviewing the Instagram acquisition, that Instagram's competitors (and by the FTC's logic, Facebook's) included other photo-sharing apps such as Flickr, Camera Awesome, Camera+, Hipstamatic, Path, and Pixable); Meta SMF ¶¶ 461-462 (citing Ex. 1 at ¶¶ 74-76 & Ex. C (Ghose Rep.)) (describing Professor Ghose's analysis of numerous companies' 2012 annual reports that listed Facebook or Instagram as competitors). To the extent the statement incorporates the FTC's statements in paragraphs 1654 through 1666, Meta incorporates its responses to those statements here.

a) Desktop-based photo applications were not a significant threat to Facebook in 2012.

1654. Facebook was already the dominant provider of personal social networking services by 2012, driven by its dominance on the desktop. *Supra* CMF at §§ II.B, III.A.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections II.B and III.A, Meta incorporates its responses to those statements here. The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1655. Desktop-based applications and services such as Flickr were not a significant competitive threat to Facebook at the time of the Instagram acquisition because they were not mobile-focused, and their principal use cases were unrelated to personal social networking services. PX9000, Hemphill Report at ¶¶ 867-69; *infra* CMF at ¶¶ 1656-66.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1653, and because the cited paragraphs of Professor Hemphill's report do not support the assertion that Flickr or other unspecified services were "not a significant competitive threat" because they had "principal use cases" that "were unrelated to personal social networking services." *See* PX6006 at 76:25-77:8 (Cox IH Tr.) (testifying that "other companies who provide a . . . similar service of photo sharing" included Apple, Google, Flickr, Photobucket, Picasa, and oPhoto, among others); *see also* Ex. 1 at ¶¶ 74-76 & Ex. C (Ghose Rep.) (broad list of companies that listed Meta as a competitor in 2012 Form 10-Ks). The FTC's use of "principal use cases" and "personal social network services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent the statement incorporates the FTC's statements in paragraphs 1656-1666, Meta incorporates its responses to those statements here.

1656. Flickr, for example, is an online image hosting website that was widely used by photographers to store their photos and display them for viewing by other photography enthusiasts. PX8009, Declaration of Philip Dokas (Flickr) (May 22, 2023), at ¶¶ 5, 10, 12, 17 ("Flickr was known for allowing photographers to show off their best work to the world.").

Meta Response: Disputed in part. Undisputed that in 2012, Flickr was an online image hosting website that could be used to store photos and display them to others. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655. Further disputed to the extent the statement suggests Flickr

was used for the limited purpose of photographers displaying photos for viewing by other photography enthusiasts. On the contrary, the cited declaration states that in 2011-2012, "many people" used Flickr and did not limit access to their photos, "instead making them publicly visible." PX8009 at ¶ 12 (Doklas Decl.).

a. Flickr was not focused on creating a mobile app and instead was "focused on being a great desktop company." PX6027, Systrom (Meta/Instagram) IH Tr., at 159:8-23 ("But it was clear that they weren't going to be able to do it [mobile] nearly as well because they were so focused on being a great desktop company. So I – we didn't take the threat very seriously at the time."); *see also* PX6015, Krieger (Meta/Instagram) IH Tr., at 90:15-91:5 ("[W]e viewed Flickr as being more around high-end photography, more around, quote/unquote, serious photographers rather than more amateurs that might have been on Instagram. And we felt the use case . . . of Flickr was very much a desktop one.").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1656, and because the material cited in this section does not support the assertion that Flickr was "not focused on creating a mobile app." The declaration cited above in paragraph 1656 explains that Flickr had a mobile app available on iOS and Windows mobile, and that Flickr took over development and control of its app from its then-owner (Yahoo!) around 2011. PX8009 at ¶ 8 (Dokas Decl.).

b. Flickr was also not a threat to Meta in personal social networking services because it lacked Facebook's core use case of sharing with family friends; instead, it was primarily used for photo storage and interest-based photo sharing

among photo enthusiasts. PX8009, Declaration of Philip Dokas (Flickr) (May 22, 2023), at ¶¶ 17-18 ("From my perspective in 2011-12, Flickr's main competitors were other online photo hosting services. SmugMug is one example of such a service that competed with Flickr. I did not view Facebook and Instagram as competitors. I am generally familiar with the Facebook and Instagram websites and apps . . . I understand Facebook and Instagram to be social networks where people connect and share aspects of their lives with their friends, family, and other people they know. Flickr is not well suited for that kind of sharing."); *see also* PX3357, Meta email chain: J. Olivan to [redacted] re: "Flickr mobile app use of FB CI-A/C Priv," (Nov. 16, 2012), FTC-META-011963444, at -444 (Olivan: "[I] don't think flickr is that big of a deal anyway").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1655 and 1656, and because the cited material does not support that Flickr did not allow users to share photos with friends. The quoted declaration explains that Flickr "allowed users to designate other users as 'contacts,'" and to "send others an email containing a web hyperlink to the user's photos." PX8009 at ¶ 7 (Dokas Decl.). Users could also "access a web page that showed copies of the most current photos taken by the user's contacts." *Id.* Further disputed that the cited material supports the claim that Flickr was not a threat to Meta because it lacked Facebook's so-called "core use case." On the contrary, by 2012, Yahoo! explained in its 2012 Form 10-K that it had redesigned Flickr's mobile application for iPhone and iPod Touch to allow "users to share photos by e-mail, with the Flickr community and via your social network of

choice, including Facebook, Twitter or Tumblr." Ex. 514 at 4 (Yahoo!, Inc. 2012 Form 10-K). The FTC's use of "personal social networking services" and "core use case" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. Flickr had a mobile app that offered some social features, but it was a non-factor competitively: [redacted]. PX3358, [redacted] (May 2012), FTC-META-005183917. A senior Flickr engineer described the Flickr app as "clunky." *See* PX8009, Declaration of Philip Dokas (Flickr) (May 22, 2023), at ¶¶ 1-3, 9 ("The app was clunky and very clearly not made by Flickr.").

Meta Response: Disputed in part. Undisputed that the rounded metrics recited in the statement appear in the cited document, and that the quoted language appears in the cited declaration. Disputed for the reasons stated above in Meta's responses to paragraphs 1655 and 1656.

d. Flickr lacked the characteristics of a personal social network, such as functionality that allowed users to share their photos, allowing users to create a detailed profile; a content feed; or a social graph. PX8009, Declaration of Philip Dokas (Flickr) (May 22, 2023), at ¶¶ 7, 13, 15, 16.

Meta Response: Disputed in part. Undisputed that Flickr did not have a content feed or detailed profiles in 2012. Disputed for the reasons stated above in

Meta's response to paragraph 1656, and because the cited declaration does not support the remainder of the statement. The cited declaration contradicts the statement's assertion that Flickr users could not share photos and that Flickr lacked a social graph. The declaration indicates that users were able to designate other users as "contacts," and to "send others an email containing a web hyperlink to the user's photos." PX8009 at ¶ 7 (Dokas Decl.). Users could also "access a web page that showed copies of the most current photos taken by the user's contacts." *Id.* The FTC's use of "personal social network" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1657. Likewise, other photo-oriented websites and desktop applications did not pose threats for the same reasons; they were not mobile-focused, and they did not have a core use case of friends and family sharing. PX9000, Hemphill Report at ¶ 869.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655, because the statement is not supported by the material cited in this paragraph or its subparagraphs, and for the reasons stated in Meta's responses to the subparagraphs below. None of the material cited in the subparagraphs below demonstrates that the apps listed were not threats to Facebook in 2012. The FTC's use of "personal social networking services" and "core use case" in the statements in this paragraph and its subparagraphs is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Picasa was a photo storage site that did not threaten Meta's personal social networking services dominance because it was desktop-focused and lacked social features. PX6027, Systrom (Meta/Instagram) IH Tr., at 155:23-156:11 (testifying that Picasa was not a competitor to Instagram because it was a desktop-focused application); PX6015, Krieger (Meta/Instagram) IH Tr., 90:8-13 (testifying that Picasa was not a competitor because it was not a "sharing platform").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1657. Further disputed that the statement creates a genuine dispute of material fact, including because the Instagram founders' testimony about their view of Instagram's competition in 2012 before their acquisition by Meta does not support the FTC's claim that Picasa was not a threat to Meta in 2012, or that Meta had "dominance" in any market. On the contrary, an email from 2012, relied upon by Professor Hemphill and the FTC, contradicts the unsupported statement. That email stated that Picasa *was* treated as a "threat," as much or more than Instagram. Referring to photos, the email states: "I view this as both a significant threat (google/picasa/android, Instagram, etc.) and opportunity. [A]necdotal data suggests that [P]icasa being a better mechanism for organizing, editing, and sharing than our photos as THE reason some users prefer g+." PX1155 at -159 (FB_FTC_CID_02423158); *see also* Ex. 2 at ¶ 331 & n.498 (Carlton Rep.) (discussing Professor Hemphill's report, and citing Messages between Mr. Zoufonoun and Mr. Zuckerberg, January 26, 2012, Hemphill Rep. at ¶ 895 (quoting PX1155 at -158 (FB_FTC_CID_02423158)); *id.* at ¶ 87 & App'x D ("[A]lthough Prof. Hemphill cites certain materials as discussing Instagram,

those materials also discuss many other apps, including . . . Picasa."); *accord* Ex. 6 at ¶ 202 (Kaplan Rep.) (discussing the same email and concluding "Mr. Zuckerberg also viewed Picasa (and others, *i.e.*, 'etc.') as a "threat," not just Instagram).

b. Shutterfly was a desktop-based service where users could have their photos printed on physical products, such as books. Shutterfly did not have social features in 2012. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 43:10-22.

Meta Response: Disputed in part. Undisputed that Shutterfly was a service that allowed users to print photos in 2012. Disputed for the reasons stated above in Meta's response to paragraph 1657, and because the cited material does not support the statement in paragraph 1657 that Shutterfly did not pose a threat to Facebook in 2012. On the contrary, Shutterfly's 2012 Form 10-K states that its competition at the time included "Social media companies that host images such as Facebook, Twitter, and Myspace," and "[p]hoto hosting websites that allow users to upload and share images at no cost such as Picasa, Flickr, and Photobucket." Ex. 515 at 8 (Shutterfly, Inc. 2012 Form 10-K).

c. Photobucket is "an online photo and video storage application" that allows users to back up photos and videos on their devices." *See* PX8010, Declaration of Marc Callipari (Photobucket) (May 19, 2023), at ¶ 2. "Photobucket also provides tools for photo editing, as well as third-party hosting capabilities." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1657.

d. Photobucket had attempted to launch a social product, Snapbucket, but it had already proven a failure by the time of the Instagram acquisition. PX3358, [redacted] (May 2012), FTC-META-005183917 (showing the Photobucket app [redacted]).

Meta Response: Disputed in part. Undisputed that the cited material shows [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1657, and because the cited material does not support the statement. The cited material does not say anything about Photobucket's attempts to launch a social product, Snapbucket, or its "failure."

b) Camera utility apps either lacked personal social networking functionality entirely or were little-used for such purposes.

1658. Another set of apps, camera utility apps, in use during this period enabled users to take photos and then modify, enhance, and share them to platforms such as Facebook. Examples of camera utility apps around the time of Instagram's acquisition included Hipstamatic, Camera+, Camera Awesome, DMD Panorama, Pixlr-o-matic, and Snapseed. PX9000, Hemphill Report at ¶¶ 870-73.

Meta Response: Undisputed.

1659. Camera utility apps were not threats to Facebook at the time of the Instagram acquisition because they either lacked social networking functionality, such as an underlying social graph or user activity feed, or had some social features but did not have a core use of friends and family sharing. PX9000, Hemphill Report at ¶¶ 870-73.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

1660. Rather, camera utility apps were a complement, not a competitor, to personal social network services such as Facebook and Instagram. PX6015, Krieger (Meta/Instagram) IH Tr., at 82:13-23 ("Q: Did you consider photography apps that didn't have a social feed as competition to Instagram? A: No. We saw them as – many as complementary. So Hipstamatic had won App of the Year in 2009, I believe, or 2010, basically the year before we won it on the – on the App Store sort of end-of-year awards, and there were people who took Hipstamatic photos and then shared them to Instagram because you could do it from the sort of library import feature."); *see also id.* at 83:7-15 ("Q. Were there other apps like Hipstamatic that you kind of considered as complementary but not competitive within Instagram? A. Camera+ was – a – a sort of third-party camera app for the iPhone that had more advanced features, and they – people, you know, would take photos in Camera+ and then post across to Instagram. CameraBag was another one . . . .").

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Meta did not view camera utility apps as a threat, even in this period of vulnerability during the shift to mobile. Meta evaluated a possible acquisition of

Hipstamatic or Camera+ by Google or Twitter and concluded that these potential acquisitions would "not be a huge concern," in part because the acquisition targets "don't have a strong interest graph" and "are mainly used as photo editing apps." PX11727, Meta email chain: R. Armbrust to A. Zoufonoun, et al. re: "Photo partner update 4/23," (Apr. 23, 2012), FB_FTC_CID_02534601, at 601.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

b. Consistent with Meta's view, Instagram also did not consider these camera utility apps to be competitors. PX6015, Krieger (Meta/Instagram) IH Tr., at 79:20-24 ("Q. Okay. Were there any photo sharing apps that you saw as competitive with Instagram where users could use the photo editing function but they didn't have to share it to that network? A. Not that I recall."); *see also id.* at 82:13-83:15 ("Q: Did you consider photography apps that didn't have a social feed as competition to Instagram? A: No. We saw them as – many as complementary.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655, and because Mr. Systrom's testimony contradicts the statement. When asked "prior to April 2012, who did you consider to be Instagram's competition," Mr. Systrom included Hipstamatic among companies that "we were concerned about . . . eating our lunch." PX6027 at 139:16-140:1 (Systrom IH Tr.).

c) The few other mobile apps that supported friends-and-family sharing in 2012 were not threatening to Facebook because they were relatively small and were not growing rapidly.

1661. Other mobile photo sharing apps with similar functionality and design to personal social networking services like Facebook and Instagram did not pose threats to Meta because of

their lack of scale and growth. PX9000, Hemphill Report at ¶¶ 874-88; *infra* CMF at ¶¶ 1662-66.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this statement incorporates the FTC's statements in paragraphs 1662-1666, Meta incorporates its responses to those paragraphs here.

1662. Prior to the acquisition, Instagram co-founder Mike Krieger identified only three photo-centric apps—Path, PicPlz, and Treehouse—as competitors to Instagram, because they, like Instagram, had social graphs and were focused on sharing photos in a feed. PX6015, Krieger IH Tr., at 75:5-82:12 ("Q. . . . [W]hen you say photo sharing apps, kind of what do you mean by photo sharing apps? A. I would say, like, similar to Instagram, a product where the main activity on the site was sort of taking, editing, and then sharing photos and having that as the - - the main, if not the only, content in your feed. Q. . . . And when you say 'sharing,' [] does that mean that each of these [Path, PicPlz, and Treehouse] had a social feed within them? A. Yes, all of them did.").

Meta Response: Disputed in part. Undisputed that Mr. Krieger provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraphs 1653 and 1655, and because the cited testimony does not support the paraphrase of that testimony in the statement. Mr. Krieger listed Path, PicPlz, and Treehouse as "the ones we followed most

at the time," not the "only" photo-centric apps that were competitors to Instagram. PX6015 at 75:24-25 (Krieger IH Tr.).

1663. Path was a "private photo-sharing network" that failed to achieve significant scale. PX0561 at -002, Jason Kincaid, *After Months Of Buzz, Path Launches: It's Photo Sharing Where You Can Be Yourself*, TechCrunch (Nov. 15, 2010), https://techcrunch.com/2010/11/14/path-photo-sharing.

Meta Response: Disputed in part. Undisputed that Path eventually became defunct. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1653 and because the material cited in the subparagraphs below does not support the statement. On the contrary, the evidence cited in the subparagraphs below is consistent with evidence that Path rapidly grew for a period of time before it eventually ceased operations in 2018. *See* Ex. 6 at ¶ 126 & App'x C ¶¶ 20-26 (Kaplan Rep.) (discussing evidence of Path's growth, including that "Path received favorable publicity early on and grew quickly," and dealt with "scale problems," such as "users . . . reporting too many friend requests, a 'good problem to have' ").

a. [redacted].

Meta Response: Disputed in part. Undisputed that the quoted language appears in [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1663, and because the cited material does not support that Path was a

"personal social network" as the FTC employs the term and for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b. [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1663 and subparagraph 1663(a).

c. Mr. Systrom testified that he regarded Path as a "direct competitor," it was "basically . . . identical to Instagram but without the filters. . . . They were trying to do the same thing. They had the same thesis. . . . The same general idea." PX6027, Systrom (Meta/Instagram) IH Tr., at 141:25-142:22.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the excerpt of Mr. Systrom's testimony is incomplete. Mr. Systrom called Treehouse, Path, and PicPlz "the, quote/unquote, direct competitors." PX6027 at 142:21-22 (Systrom IH Tr.). All of them had "the same thesis" as Instagram. *Id.* at 142:9-10. Further disputed for the reasons stated above in Meta's responses to paragraph 1663 and subparagraph 1663(a).

d. Path by design was focused on photo sharing between close friends and family only, and it did not enable sharing based on interests. PX6015, Krieger (Meta/Instagram) IH Tr., at 81:17-82:5; *see also* PX6029 Zuckerberg (Meta) IH

Tr., at 259:11-15; *see also id.* at 263:9-12 ("Q. Instagram and Path both had social graphs; is that right? A. Path emphasized close friends. So they certainly focused a bit more on that aspect.").

Meta Response: Disputed in part. Undisputed that Path focused on sharing between close friends and family. Disputed that Path focused on photo sharing only. Path expanded by late 2011 to a more general platform for sharing content other than photos. Ex. 6 at ¶ 126 & App'x C ¶ 20 (Kaplan Rep.). Further disputed for the reasons stated above in Meta's responses to paragraph 1663 and subparagraph 1663(a).

e. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's responses to paragraph 1663 and subparagraph 1663(a).

f. Path's growth trajectory and scale were dwarfed by Instagram's. In November 2011, Path had roughly 1 million users compared to Instagram's 10.4 million. PX3359, Meta document: "Facebook Daily News Full Text Afternoon 11.9.11," (Nov. 9, 2011), FB_FTC_CID_04127555, at -560 (Path nearing 1 million users in November 2011); *see also* PX10080, Sequoia Capital investment memorandum re: "Instagram" (Feb. 23, 2012), SCO_00000282, at -286 (reporting that

Instagram had 10.4 million users as of October 2011). By the time Meta's acquisition of Instagram was announced in April 2012, Path had only grown to 2 million users, while Instagram's user base had exploded to 30 million. PX3360, Class Action Complaint: Opperman v. Path, Inc., et al., 13-cv-00453-JST (N.D. Cal. July 3, 2014), FB_FTC_CID_09612697, at 761 (Path had over 2 million users in February 2012.); PX1295, Meta email chain: C. Liang to D. Stoop et al., re: "Photos weekly update 2012-03-31," (Apr. 3, 2012), FB_FTC_CID_02428665, at 665-666 ("In Q1 2012, Instagram in [sic] growing extremely fast: Users doubled: 15M->30M.").

Meta Response: Disputed in part. Undisputed that Path had fewer users in 2011 and 2012 than Instagram. Disputed that PX3360 is competent summary judgment evidence. The cited document, an unverified complaint against Path by nonparties to this case, is inadmissible hearsay. *See* Fed. R. Civ. P. 56(c)(1)(B). Further disputed for the reasons stated above in Meta's responses to paragraph 1663 and subparagraph 1663(a).

g. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's

responses to paragraph 1663 and subparagraph 1663(a). Disputed to the extent the statement concerns [redacted] *Id.*; *see also* Ex. 6 at App'x C ¶¶ 20-26 (Kaplan Rep.) (detailing how Path grew quickly to 5 million daily active users in 2013-2014, how Google tried to acquire it for $100 million in 2011, and how it received funding before stalling). Further disputed that Meta's acquisition of WhatsApp had anything to do with Path's funding – an assertion that is based entirely on [redacted]. *See* Ex. 6 at ¶ 126 (Kaplan Rep.) (describing Path as an example of an app that, after initial success, failed "to achieve projected outcomes" or "monetize effectively"), ¶ 206 (concluding "Path was a failure").

h. [redacted]; PX3361, Meta document: "Detailed App Vignettes" (Sept. 18, 2018), FTC-META-008545493, at -494 (2018 document stating "[i]t was recently announced that Path would shut down.").

<u>Meta Response</u>: Disputed in part. Undisputed that Path was sold in 2015 and shut down in 2018. Disputed for the reasons stated above in Meta's responses to paragraph 1663, subparagraph 1663(a), and subparagraph 1663(g).

1664. Meta did not see Path as a significant competitive threat, relative to the threat Instagram posed.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655, and because there is voluminous other evidence showing that in 2012, Meta viewed Path (among other companies) as a significant competitor. *See* Ex. 6 at ¶¶ 202-208 (Kaplan Rep.) (discussing evidence of Meta's "focus on . . . a wider range" of competitors, including both Path and Instagram in 2012).

a. In January 2012, Meta's Chief Technology Officer, Bret Taylor, wrote to Mr. Zuckerberg, saying: "I don't care as much about Path. I personally worry more about Instagram. . . ." PX3362, Meta email chain: B. Taylor to M. Zuckerberg re: "(no subject)" (Jan. 22, 2012), FB_FTC_CID_01543881, at -881.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1664.

b. A month later, Zuckerberg was dismissive: "Path has a huge amount of hype, but only a million or so people actually use it at all." PX3363, Meta email chain: M. Zuckerberg to M. Andreessen re: "rumors du jour," (Feb. 8, 2012), FB_FTC_CID_06305119, at -119.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1664.

c. Meta's own documents recognize Path as a "Social Platform[] that Failed." PX3364 at -041, Meta presentation: "Understanding Content Anchored Conversations" (May 14, 2024), FB_FTC_CID_11240753.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1664, and because the cited document does not support the statement in paragraph 1664 about how Meta viewed Path as a competitor relative to Instagram. The cited document, labeled 2024, says nothing about Meta's view of competition from Path relative to Instagram in 2012.

1665. PicPlz was a mobile app that allowed users to take, edit, browse, share, browse, and comment on photos. PX0562 at -002, Jason Kincaid, *Picplz Launches Revamped Mobile Apps For iPhone And Android (With Free Effects)*, TechCrunch (Oct. 13, 2010), https://techcrunch.com/2010/10/13/picplz-launches-revamped-mobile-apps-for-iphone-andandroid-with-free-effects.

Meta Response: Disputed in part. Undisputed that PicPlz was a mobile app that allowed users to share photos. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

a. Like Path and Instagram, Picplz "aimed to be a mobile photo sharing service built on its own social graph." PX3365, Meta email chain: [redacted] to D. Ebersman, et al. re: "Business/Finance Press Review – 4/23/12 (a/c priv)," (Apr. 23, 2012), FB_FTC_CID_01545979, at -003.

Meta Response: Disputed in part. Undisputed that PicPlz was a mobile photo sharing service with a social graph. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

b. Like Path, PicPlz failed to grow at anything approaching Instagram's pace. PX6015, Krieger (Meta/Instagram) IH Tr., at 84:11-15 (PicPlz was "not growing particularly well" at the time of Instagram's acquisition.).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

c. It took PicPlz six months in order to reach 100,000 users, whereas Instagram reached 100,000 users within the first week of its launch. PX3365, Meta email chain: [redacted] to D. Ebersman, et al. re: "Business/Finance Press Review – 4/23/12 (a/c priv)," (Apr. 23, 2012), FB_FTC_CID_01545979, at -979.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

d. By contrast, Instagram had 1 million users by the end of 2010—just 10 weeks after it launched—and was averaging 2-3 photos uploaded per second while PicPlz "languished." PX1294, Meta email, C. Liang to Chris Cox re: "Weekly Update on Photos (1/06-1/12)," (Jan. 14, 2011), FB_FTC_CID_02414858, at -858 (showing Instagram hitting 1 million users by December 2010); PX3365, Meta email chain: [redacted] to D. Ebersman, et al. re: "Business/Finance Press Review –

4/23/12 (a/c priv)," (Apr. 23, 2012), FB_FTC_CID_01545979, at -999 (PicPlz "languished.").

Meta Response: Disputed in part. Undisputed that Instagram had 1 million users at the end of 2010. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655, and because the cited material does not support the claim that Instagram averaged 2-3 photos uploaded per second. Further disputed that the cited material supports the claim that PicPlz languished by the end of 2010. The cited document stating that Instagram had 1 million users by the end of 2010 says the opposite about PicPlz as of January 2011: "Picplz: adds speed, polish as the mobile [sic] photo wars rage on." PX1294 at -858 (FB_FTC_CID_02414858).

e. In April 2012, according to AppData, PicPlz had fewer than 500,000 monthly active users, according to Venture Beat, compared to Instagram's more than 12 million, and had fallen far behind even Path. PX0122 at -003, Sienrak, *Path Raising $40M Round Led by Redpoint. No, It Will Not Be the Next Instagram*, Venture Beat (Apr. 16, 2012), https://venturebeat.com/mobile/path-raising-40m-round-led-by-redpoint-no-it-will-not-be-the-nextinstagram ("Path may have 2 million registered users, but how many of them are active? According to AppData, which measures activity on Facebook, and is a strong proxy for measuring user activity, Instagram counts over 12 million monthly active users. Path has less than 500,000. As it stands, Instagram is adding around 1 million users per day. To be fair, Path is doing far better by this calculus than some other Instagram also rans like Hipstamatic and PicPlz.").

Meta Response: Disputed. Disputed that the statement can be supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

f. When Meta had the opportunity to purchase PicPlz in January 2012 for "very cheap ($1-2m)," Meta declined, with Mr. Stoop calling PicPlz "not too interesting." PX3367, Meta email chain: A. Zoufonoun to D. Stoop re: "picplz one-page plus CV," (Jan. 10, 2012), FB_FTC_CID_09631762, at -762; *see also* PX3368, Meta email chain: A. Zoufonoun to [redacted] re: "picplz one-page plus CV," (Jan. 24, 2012), FB_FTC_CID_09631772, at 772 (PicPlz's technology "is not a good fit for us, so we wouldn't be able to come to terms on value there.").

Meta Response: Disputed in part. Undisputed that Meta did not buy PicPlz. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

g. PicPlz ultimately shut down in July 2012, after "pivot[ing] out of photo sharing." PX3369, Meta email: Google Alerts to [redacted] re: "Google Alert – Instagram," (June 4, 2015), FTC-META-000021507, at -508 ("Camera apps scramble for survival in Facebook's shadow, PicPlz bows out first . . . Facebook has acquired Instagram, Lightbox, and released its own camera app. Is there any room left for existing competitors? PicPlz, a former front-running competitor to Instagram, will be bowing out July 3."); PX0563 at-003, Colleen Taylor, *PicPlz Founder Dalton Caldwell: All This Gossip About The Instagram Sale Is 'A Waste Of Time'*, TechCrunch (Apr. 20, 2012),

https://techcrunch.com/2012/04/20/picplz-founder-daltoncaldwell-instagra-andreessen-horowitz.

Meta Response: Disputed in part. Undisputed that PicPlz shut down in July 2012. Disputed for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

1666. Treehouse was a social network based on a friend-based social graph. PX6015, Krieger (Meta/Instagram) IH Tr., at 79:25-80:5. Like Path and PicPlz, Treehouse failed to "reach scale," and it closed down in 2011. *Id.* at 76:24-77:7; 81:6-16, 84:6-11 (Treehouse "launched before [Instagram] did and were already kind of fading out by the time we launched."); PX0564 at -001, MG Siegler, *A Mobile Photo Sharing Casualty, Treehouse Hits the Deadpool; Founder Off To Google*, TechCrunch (Mar. 1, 2011), https://techcrunch.com/2011/03/01/treehousedeadpool.

Meta Response: Disputed in part. Undisputed that the documents contain the paraphrased statement. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1653 and 1655.

4. Meta Initially Attempted to Compete with Instagram.

a) Meta stumbled in its early mobile photo efforts.

1667. From 2007 to 2009, mobile implementation of the Facebook websites, as well as Facebook apps for iOS and Android, launched.

Meta Response: Undisputed.

a. Meta launched its first mobile website for Facebook on January 10, 2007. PX0290 at -001, Mark Slee, *Facebook For Your Phone*, Facebook Blog (Jan. 10, 2007), (Wayback Machine image dated Jan. 17, 2007)

https://web.archive.org/web/20070117061124/http://blog.facebook.com/blog.php?post=2228532130 ("We're now happy to report that Facebook Mobile has services available for every Facebook user with a phone.").

Meta Response: Disputed. Disputed because evidence indicates Facebook launched its first mobile website for Facebook in 2006. *See* Ex. 2 at ¶ 294 & n.443 (Carlton Rep.). Further disputed that the statement is material to the resolution of either party's motion.

b. This first version of the Facebook mobile website allowed users to upload images from their mobile phones to Facebook. PX0290 at -001 Mark Slee, *Facebook For Your Phone*, Facebook Blog (Jan. 10, 2007), (Wayback Machine image dated Jan. 17, 2007) https://web.archive.org/web/20070117061124/http://blog.facebook.com/blog.php?post=2228532130 ("Mobile Uploads lets you send photos and notes to Facebook when you're out and about.").

Meta Response: Undisputed.

c. Meta has offered Facebook as an app on Apple's iOS operating system since July 10, 2008. PX0291, Joe Hewitt, *Facebook for iPhone*, Facebook Blog (July 10, 2008) (Wayback Machine image dated Sept. 6, 2008), https://web.archive.org/web/20080906134944/http://blog.facebook.com/blog.php?post=22389032130 ("Today, Apple has opened the doors to its App Store which features a new application we've created: Facebook for iPhone.").

Meta Response: Undisputed.

d. The Facebook app for iOS allowed users to view and share photos from their mobile phone. PX0291, Joe Hewitt, *Facebook for iPhone*, Facebook Blog (July 10, 2008) (Wayback Machine image dated Sept. 6, 2008), https://web.archive.org/web/20080906134944/http://blog.facebook.com/blog.php?post=22389032130 ("[W]ith the native application you can take photos with the iPhone's camera and upload them instantly to your Mobile Uploads album on Facebook.").

Meta Response: Undisputed.

e. Meta's announcement for the launch of the Facebook app on iOS included a screenshot of the app's "Home" screen, showing, among other things, how an image appeared in a user's Home feed:

PX0291, Joe Hewitt, *Facebook for iPhone*, Facebook Blog (July 10, 2008) (Wayback Machine image dated Sept. 6, 2008), https://web.archive.org/web/20080906134944/http://blog.facebook.com/blog.php?post=22389032130.

Meta Response: Undisputed.

f. Facebook has been available on Android since September 2009. PX0560 at -001, Josh Constine, *Facebook for Android Finally Has More Daily Active Users than Facebook for iPhone,* TechCrunch (Dec. 17, 2011) ("The Android app launched in September 2009 more than a year after its iPhone sister and has been playing catch-up ever since."); *see also* PX6044, Fetterman (Meta) Dep. Tr., at 82:19-20 ("We did ship Android in 2009").

Meta Response: Undisputed that the Facebook Android app has been available since at least September 2009.

g. Since 2009, Facebook for Android has allowed users to view and share photos from their Android mobile phone. PX0297, *Info*, Facebook for Android, (Wayback Machine image dated Oct. 8, 2009), https://web.archive.org/web/20091008224722/http://www.facebook.com/apps/application.php?id=74769995908&v=info. ("Facebook for Android makes it easy to stay connected and share information with friends . . . Share photos from your phone[.]").

Meta Response: Undisputed.

h. Meta did not write the initial Facebook app for Android. PX0297, *Info*, Facebook for Android, (Wayback Machine image dated Oct. 8, 2009), https://web.archive.org/web/20091008224722/http://www.facebook.com/apps/application.php?id=74769995908&v=info ("The first version of the officially approved Facebook Application for the Android operating system. . . . Information . . . This application was **not** developed by Facebook[.]").

Meta Response: Disputed. Disputed that the statement is material to the resolution of either party's motion. Further disputed because evidence indicates that Meta wrote the first version of Facebook for Android. *See* PX6044 at 46:12-17 (Fetterman Dep. Tr.) ("Q. Who wrote the first version of Facebook for Android? Facebook for Android was written by a small team that reported to me. I can say for sure a guy named [redacted] was the lead engineer on that."); *id.* at 96:1-13 ("Q. Did Facebook agree to have Google manage the development of the Facebook Blue app for Google – for Android? Sorry. A. I don't believe so. … The Facebook for Android that we shipped was developed in-house.").

i. Meta did not take over development of Facebook for Android from Google until mid-2010. PX11278, Meta email: D. Rose to [redacted], et al. re: "[[redacted]]PPPMF – drose *A/C Priv*," (Apr. 25, 2010), FB_FTC_CID_08752318, at -318 ("Android. Google launched v1.2 of the FB app for Android and will preload it on many devices around the world. Fetterman is taking over future development of the app going forward."); *see also* PX10498, Meta email chain: [redacted] to J. Olivan, et al. re: "[mobile-eng] Mobile Business Weekly Update," (July 23, 2010), FB_FTC_CID_10499767, at -767 ("Android: next version of the app is in testing. This version has been developed by facebook (product and engineering) and this completes the transition of the app from Google's team to ours.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to subparagraph 1667(h).

1668. Meta's early mobile photo efforts on Facebook's mobile application stumbled.

Meta Response: Disputed in part. Undisputed that, for the reasons stated in the subparagraphs below, Meta's executives were not satisfied with mobile photo-sharing functionality on the Facebook app and sought to improve it. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the single document cited in this statement's subparagraphs does not support the statement, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and because the statements in this paragraph and its subparagraphs are not material to the resolution of either party's motion.

a. While Facebook's mobile application attempted to offer photos features, Mr. Zuckerberg stated that they compared unfavorably to the photos offerings of mobile-first applications. In January 2012, Mr. Zuckerberg wrote to other Meta employees: "[w]hen you look at Instagram and Path then go back to our [newsfeed], it looks like ours was built in the stone age. It's crazy how small the photos are. It just screams that this is not a serious app for sharing photos." PX12201, Meta document: "[redacted]" (Jan. 21, 2012), FB_FTC_CID_12302566, at -566.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1668.

b. In January 2012, Mr. Zuckerberg wrote to other Meta employees that the Facebook mobile application's integrated photos features compared unfavorably to the Facebook mobile application's previously implemented integrated messaging features, writing that "the integrated [photos] experience is so bad," in

contrast to Meta's earlier integrated messaging features, which were "totally functional and not nearly as broken as integrated photos is now." PX12201, Meta document: "[redacted]" (Jan. 21, 2012), FB_FTC_CID_12302566, at -567.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1668.

b) Meta attempted to improve Facebook's deficient photo-sharing features by launching a standalone application, Facebook Camera, to improve Facebook's mobile photo sharing experience as a direct competitive response to Instagram.

1669. Meta executives, during the shift to mobile, were "aware that photo sharing on mobile phones was going to be a really big deal." PX6006, Cox (Meta) IH Tr., at 334:1-3; PX6029, Zuckerberg (Meta) IH Tr., at 248:19-24, 276:10-15, 329:19-21 ("[M]obile cameras were getting created, that seemed like something that we should – that we should try to innovate in and should compete in.").

Meta Response: Undisputed that the witnesses provided the quoted testimony.

1670. On February 8, 2011 – less than four months after Instagram launched – Zuckerberg instructed another top executive, Chris Cox: "Instagram seems like it's growing quickly. In 4 months they're up to 2m users and 300k daily photo uploads. That's a lot. We need to track this closely." PX2892, Meta message: M. Zuckerberg to C. Cox, (Feb. 8, 2011), FB_FTC_CID_02437592, at -592.

Meta Response: Undisputed that the document contains the quoted language.

1671. On February 22, 2011, Cox informed Zuckerberg and other executives: "The photos team is now focused almost exclusively on a new mobile photo app as we gawk at Instagram's simple photo-sharing app taking off . . . watching these guys explode validates our

strategy of de-cluttering our mobile experience and photos products." PX2357, Meta email: C. Cox to [redacted] re: "HPM," (Feb. 22, 2011), FB_FTC_CID_06002211, at -211; *see also* PX6029, Zuckerberg (Meta) IH Tr., at 249:14-19, 310:24-311:10, 312:1-3 ("[P]art of [the reason why Meta started working on a mobile photo app] was after seeing the innovation in the space, of which I think Instagram was one example of that.").

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

1672. On June 11, 2011, Mr. Zuckerberg wrote to other Meta executives in the "[redacted]" internal Facebook group:

> We really need to get our act together quickly on this since Instagram is growing so fast . . . Table stakes for beating them are a standalone mobile app where you can easily upload photos plus filters. That may not be enough since they [Instagram] appear to be reaching critical mass as a place you go to share nice photos which we're not as much, but if we want to have any hope here we need to get this stuff out as quickly as possible.

PX12202, Meta Workplace Post: M. Zuckerberg post to [redacted] (June 11, 2011), FB_FTC_CID_12302585, at -585.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

1673. Meta's effort to develop a new mobile photo app was initially known as "Snap," before being renamed "Facebook Camera." PX6079, Stoop (Meta) Dep. Tr., at 27:4-7 ("Q. While you were at Facebook, did people use the code name Snap to refer to Facebook Camera? A. Yes, they did."); *see also* PX1180, Meta email chain: A. Bosworth to J. Goldfein, et al. re: "photos team & snap," (Sept. 9, 2011), FB_FTC_CID_02945837, at -838 (email thread titled "photos team & snap," referring to "Snap" as Meta's "mobile photos app"); PX6029, Zuckerberg (Meta) IH Tr., at 253:25-254:1 ("We were also going to try to compete with them [Instagram] on building a – the Facebook Camera app.").

Meta Response: Disputed in part. Undisputed that Meta's mobile photo app was known internally as "Snap" at some points. Disputed that Facebook Camera was intended to be a stand-alone mobile photo app. Facebook developed a Facebook Camera app during 2011-2012 to improve photo sharing features for Facebook users. PX6079 at 31:19-34:10 (Stoop Dep. Tr.). The app's improved photo-sharing features were intended to be incorporated into Facebook's mobile app, *see id.* at 73:21-74:3, and they were, *see id.* at 158:6-159:14.

1674. Meta developed Facebook Camera as a specific response to concerns that Meta had about Instagram's competition on mobile photo-sharing with Facebook.

Meta Response: Disputed in part. Undisputed that Meta developed photo sharing features as a response to innovation in the photos space, in which Instagram was one participant. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the evidence cited in the subparagraphs below is consistent with evidence showing that Facebook Camera was developed to improve Meta's photo-sharing offerings for multiple reasons, including because of a host of photo apps that had developed, not as a "specific response" to concerns about Instagram. In discussing one of the email chains cited below, PX1180, Mr. Cox testified that there were "hundreds of ways to connect and share photos with people on the Internet" and there were "dozens, at least" of mobile photo apps at the time, including Apple photos, Google, Flickr, Photobucket, oPHOTO, and possibly Path. PX6006 at 370:18-20, 372:6-11 (Cox IH Tr.); *id*. at 372:12-13 ("I mean, gosh, there were – there were lots of mobile photos apps, if I remember correctly"). Likewise, in testifying about the same document, Mr. Zuckerberg indicated that Meta had worked on

Camera in response to "innovation in the space" from companies including, besides Instagram, "other examples that I mentioned who were competitors: VSCO Cam, Camera+, Path." PX6029 at 311:25-312:5 (Zuckerberg IH Tr.). Mr. Stoop, a product manager for developing Facebook Camera testified, "Our primary goal was to improve the photo-sharing experience on Facebook with an emphasis on the mobile experience . . . . In fact, the original goal was to improve photo-sharing for all Facebook users." PX6079 at 31:19-25 (Stoop Dep. Tr.). He also testified, "We developed [Facebook Camera] because we felt the need to do a lot better on the photo-sharing experience. So I would say our motivation was to markedly improve the photo-sharing experience . . . ." *Id*. at 154:16-24.

a. In September 2011, urging his team to "ship [Facebook Camera—then referred to as "Snap"] soon," Mr. Zuckerberg specifically invoked Instagram's competitive threat in mobile photo-sharing, pointing out that "[i]n the time it has taken us to get out [sic] act together on this Instagram has become a large and viable competitor to us on mobile photos, which will increasingly be the future of photos." PX1180, Meta email chain: M. Zuckerberg to J. Goldfein, et al. re: "photos team & snap," (Sept. 9, 2011), FB_FTC_CID_02945837, at -837.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1674.

b. Mr. Zuckerberg continued, underscoring the point in a follow-up email:

> If Instagram continues to kick ass on mobile or if Google buys them, then over the next few years they could easily add pieces of their service that copy what we're doing now, and if they have a growing number of people's photos then

> that's a real issue for us. They're growing extremely quickly right now. It seems like they double every couple of months or so, and their base is already -5-10m users. As soon as we launch a compelling product a lot of people will use ours more and future Instagram users will find no reason to use them. But at the current rate, literally every couple of months that we waste translates to a double in their growth and a harder position for us to work our way out of.

Id.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1674.

c. Following up on that email exchange, Jocelyn Goldfein observed that "Zuck is anxious for the snap app (mainly motivated by a desire to slow down Instagram's growth)." PX1019, Meta email: J. Goldfein (Meta) to [redacted] distribution list re: "HPM," (Sept. 13, 2011), FB_FTC_CID_02927674, at -674.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1674.

d. Meta executives described Facebook Camera internally as a "direct Instagram competitor." PX1086, Meta email chain: J. Osofsky to [redacted] re: "Dinner Details," (Mar. 29, 2012), FB_FTC_CID_01528576, at -576; PX1180, Meta email chain: M. Zuckerberg to J. Goldfein, et al. re: "photos team & snap," (Sept. 9, 2011), FB_FTC_CID_02945837, at -838 (M. Zuckerberg: "Instagram has become a large and viable competitor to us on mobile photos.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1674.

e. In a January 2012 email reflecting "[n]otes and to-dos from our review with Mark," Dirk Stoop noted that "Instagram is growing quickly, getting Snap 1.0 out the door fast is a huge priority." PX2488, Meta Workplace Post: D. Stoop post to Snap Camera (Jan. 24, 2012), FB_FTC_CID_11291408, at -408; *see also* PX6079, Stoop (Meta) Dep. Tr., at 104:11-105:19 ("The sense of urgency was definitely conveyed very clearly from Mark.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1674, and because the statement omits context showing that Instagram was not the only reason the company wanted to ship the product quickly. In the same part of the deposition quoted, Mr. Stoop testified, "Q. Did you understand that Mark Zuckerberg wanted to get Facebook Camera out the door fast because Instagram was growing quickly? . . . [A]. "I don't know if that was the only reason. There was a general push to do everything as fast as possible at the time." PX6079 at 105:3-10 (Stoop Dep. Tr.).

f. In April 2012, Mr. Zuckerberg noted to Mike Schroepfer:

> [Instagram's] growth rate is crazy. 6% weekly is really fast when growing off their current base. We should expect this to only increase as they just launched their Android app and have an open market there to exploit. What this means for us is that we really need to launch something soon [referring to the Facebook Camera app which was in development]. We should push the team to crank and get this out. If we launch soon, we can hopefully get to a comparable scale to

> what they have now relatively quickly. If we take a lot longer then they may really be unreachable.

PX3352, Meta message: M. Zuckerberg to M. Schroepfer, (Apr. 3, 2012), FB_FTC_CID_12302498, at -507.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except that the document uses the phrase "off of their current base." Disputed for the reasons stated above in Meta's response to paragraph 1674.

g. In his investigational hearing, Mr. Zuckerberg noted that "[w]e were . . . going to try to compete with them [Instagram] on building a – the Facebook Camera app." PX6029, (Zuckerberg (Meta) IH Tr., at 253:25-254:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1674.

c) Facebook Camera was Meta's way of attempting to improve the friends and family sharing experience of Facebook users.

1675. Facebook Camera was developed as a separate app because of problems with the Facebook mobile app that limited Meta's ability to launch new features on the Facebook mobile app, *see supra* CMF at § III.B.4.(b).

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below. To the extent the statement in this paragraph incorporates the FTC's statements in Section III.B.4(b), Meta incorporates its responses to that section here.

a. According to Dirk Stoop, Product Manager for Facebook Camera, a separate stand-alone application was the only viable way to launch the product quickly

because "no matter what we did on the photo production side in the main Facebook app, it would still be a bad overall experience due to the inherent limitations of the [main Facebook] app." PX6079, Stoop (Meta) Dep. Tr., at 67:7-25, 65:2-66:20, 74:4-75:21; *see also* PX12405, Meta email chain: D. Fetterman to D. Stroop, et al. re: "SNAP iOS people and time constraints," (Oct. 12, 2011), FTC-META-004130954, at -956 ("What we want[:] Provide a compelling mobile photos experience on iOS ASAP, without interfering with the bigger task ahead to get to a compelling mobile experience on iOS overall."). Mr. Stoop noted that these "inherent limitations" included "poor code quality leading to an app that was prone to giving long delays in the user experience or crashes or otherwise not performing as a user could reasonably expect." PX6079, Stoop (Meta) Dep. Tr., at 67:18-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed because the quoted testimony is incomplete and lacks context. Mr. Stoop referred to "inherent limitations" of the iOS Facebook app specifically. The FTC's insertion of the phrase "[main Facebook]" is misleading, as this discussion did not concern the Facebook for Android app.

b. Mr. Stoop testified that his team's "original goal was to improve photo-sharing for all Facebook users," and "[t]he only reason there was a [separate] camera app to begin with was because we couldn't work on the Blue app when we started this project." *Id.* at 31:24-32:3. "[N]ot being able to work on the Blue app" was Mr. Stoop's "primary reason" and "circumstance that led me to want to pursue this standalone Camera app." *Id.* at 33:23-34:10.

Meta Response: Undisputed.

c. In recap materials after the launch of Facebook Camera, Dirk Stoop described why Meta chose to develop Facebook Camera, writing: "Photos are the most engaging content on Facebook," "Sharing photos from our mobile apps wasn't fun or fast," "Facebook [Blue] for iPhone was slow and fragile," "Wilde [the native version of Facebook for iOS] did not exist yet," and "there wasn't a good codebase to build new functionality on." PX12409 at -005, Meta presentation: "Facebook Camera Launch Recap" (Sept. 11, 2012), FTC-META-000294208; PX6079, Stoop (Meta) Dep. Tr., at 152:9-19 (testifying in accord with PX12409).

Meta Response: Undisputed.

d. Mr. Stoop's team was "creating the Camera app but doing so in such a way that that code could be reused in Facebook iOS Blue." PX6079, Stoop (Meta) Dep. Tr., at 72:18-23.

Meta Response: Undisputed.

1676. In a January 2012 post to other Meta executives about Meta's mobile apps, Mr. Zuckerberg reported that Meta's Facebook app "already supports every feature we want to support with Snap except for filters (which we're somewhat minimizing in Snap anyway)," but the photos features in the main Blue app "feels really non-obvious to use." PX12201, Meta Workplace Post: M. Zuckerberg post to [redacted] (Jan. 21, 2012), FB_FTC_CID_12302566, at -566.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because it lacks context. In testifying about this document, Mr. Schroepfer

explained that Mr. Zuckerberg and his colleagues (including Mr. Schroepfer) were "discussing whether it makes sense to build a separate stand-alone photo app or integrate or improve a lot of the features in the main news feed and Facebook Blue app instead. That's the conversation that's happening here." PX6075 at 151:6-11 (Schroepfer Dep. Tr.).

1677. Facebook Camera was an integrated part of Facebook's personal social networking service offering.

Meta Response: Disputed in part. Undisputed that Facebook Camera worked with Facebook. The FTC's use of "personal social networking service" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Users logged in to Facebook Camera with their Facebook accounts. PX6079, Stoop (Meta) Dep. Tr., at 109:11-25 ("And when a user logged in to Facebook Camera, did they use their Facebook login? A. Yes, they did.").

Meta Response: Undisputed.

b. Both the Facebook Camera and Facebook apps used the same social graph. PX6029, Zuckerberg (Meta) IH Tr., at 311:11-22; PX6079, Stoop (Meta) Dep. Tr., at 114:14-19 ("There was no distinct Camera friends connection. This was all about your Facebook friends and other Facebook connections."); *id.* at 136:19-22 ("Q. . . . [A]ll of [a] user's friends on Facebook Camera were the same friends they had on Facebook Blue, correct? A. That is correct.").

Meta Response: Undisputed.

c. The Facebook Camera default friends feed showed users photos of the people they followed on Facebook. *Id.* at 110:19-22 ("So you would see photos from people you follow on Facebook."); *id.* at 111:8-15.

Meta Response: Undisputed.

d. Feeds in both the Facebook Camera and Facebook apps drew from the same photo content posted on either app. *Id.* at 114:20-115:2; *see also id.* at 115:19-23 (confirming that "all of the photos available to a user on Facebook Camera were also available to the users on Facebook Blue").

Meta Response: Disputed in part. Undisputed that Mr. Stoop provided the paraphrased testimony. Disputed because the paraphrase of the witness's testimony is incomplete. Mr. Stoop also testified that users "could see a different subset of" photo content on either app (Facebook's main apps and Facebook Camera), depending on each "feed's ranking algorithm." *See* PX6079 at 115:19-116:4 (Stoop Dep. Tr.).

e. Users were not able to post photos "outside of the Facebook platform." *Id.* at 115:3-18.

Meta Response: Undisputed.

f. "Likes" and comments from Facebook Camera users were visible to users of Facebook. *Id.* at 116:20-117:25.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed because the paraphrased testimony is incomplete. The testimony also states that whether a Facebook Camera user's

likes would be visible to users of Facebook depended on which version of Facebook they were using. *See* PX6079 at 116:20-117:25 (Stoop Dep. Tr.).

1678. Facebook Camera used Facebook's existing backend architecture.

Meta Response: Undisputed.

a. "Q. All the photos posted using Facebook Camera were posted through Facebook's service? A. Yes." *Id.* at 137:11-16.

Meta Response: Undisputed.

b. When Facebook Camera users posted albums of multiple photos, "those entities could then also be shown in newsfeeds on any of the Facebook surfaces and inside the [Facebook Camera] app as a post with more than one photo." *Id.* at 119:2-19.

Meta Response: Undisputed.

d) Meta struggled to develop Facebook Camera.

1679. Despite repeated admonitions and urgency from Mark Zuckerberg about the threat that Instagram posed and the need for a competitive response, Meta's Facebook Camera development team struggled to develop Facebook Camera throughout 2011.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg urged faster development of Facebook Camera. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the assertion that Meta "struggled" to develop Facebook Camera prior to launching does not support the FTC's claim that Meta's acquisition of Instagram caused harm to competition or consumers. To the extent the cited material below supports the assertion that Meta's Facebook Camera team "struggled," the evidence shows that Facebook Camera launched and its photo sharing features were incorporated into the main Facebook app, for the

reasons stated in Meta's responses to paragraphs 1673 and 1686. *See* Meta Resps. to Counter SMF ¶¶ 1673, 1686 (Meta planned to integrate Facebook Camera into its main app and did so); *see also* Ex. 473 at 199:20-200:10 (Schroepfer IH Tr.) (testifying that time it took to build Facebook Camera was because "it's really hard to build new things," that Camera was built "pretty fast" for a "brand-new app," and noting that "this is a time when the tool chain was very immature, and we weren't building something we knew how to build" but instead "experimenting with the user experience," and "I think . . . you're seeing my impatience . . . because part of my job is to always push people to go faster").

a. Meta emphasized the importance of launching a mobile photos app to compete with Instagram: for example, by June 2011 – eight months after Instagram's launch – Mr. Zuckerberg wrote to other executives:

> We really need to get our act together quickly on this since Instagram is growing so fast. Carl told me and Chris that Instagram's FB outbound traffic grew by >30% this week alone and that they're now squarely the #3 recipient of traffic from us behind Zynga and YouTube. Anecdotally it seems like they are doing really well too. Table stakes for beating them are a standalone mobile app where you can easily upload photos plus filters. That may not be enough since they appear to be reaching critical mass as a place you go to share nice photos which we're not as much, but if we want to have any hope here we need to get this stuff out as quickly as possible.

PX12202, Meta Workplace Post: M. Zuckerberg post to [redacted] (June 11, 2011), FB_FTC_CID_12302585, at -585.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1679.

b. Yet by July 2011, Meta had not made significant progress in its efforts to compete with Instagram. Mr. Cox asked colleagues: "why is mobile photos app development moving so slowly? We still are getting our ass kicked by Instagram." PX1013, Meta email chain: C. Cox to [redacted], [redacted] re: "Mobile 1H Roadmap Review Preso," (July 11, 2011), FB_FTC_CID_02432384, at -385.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1679.

c. On September 8, 2011, Mr. Zuckerberg again emphasized to Mr. Cox and other top executives the importance of launching Facebook's own mobile photos app due to the threat of Instagram, asking "So when is the app going to ship?" and informing his team "If you're asking whether it's important to ship soon, then the answer is definitely yes. In the time it has taken us to get ou[r] act together on this Instagram has become a large and viable competitor to us on mobile photos, which will increasingly be the future of photos." PX1180, Meta email chain: M. Zuckerberg to J. Goldfein, et al. re: "photos team & snap," (Sept. 9, 2011), FB_FTC_CID_02945837, at -838.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1679.

d. A few days later, on September 11, 2011, Mr. Zuckerberg followed up with the same executives to emphasize the strategic threat posed by Instagram, either standing alone or "if Google buys them," writing:

> [I]t's a really big deal that we ship this photos app [Facebook Camera] quickly. . . I view this as a big strategic risk for us if we don't completely own the photos space. If Instagram continues to kick ass on mobile or if Google buys them, then over the next few years they could easily add pieces of their service that copy what we're doing now, and if they have a growing number of people's photos then that's a real issue for us.
>
> They're growing extremely quickly right now. It seems like they double every couple of months or so, and their base is already ~5-10m users. As soon as we launch a compelling product a lot of people will use ours more and future Instagram users will find no reason to use them. But at the current rate, literally every couple of months that we waste translates to a double in their growth and a harder position for us to work our way out of.

PX1180, Meta email chain: M. Zuckerberg to J. Goldfein, et al. re: "photos team & snap," (Sept. 9, 2011), FB_FTC_CID_02945837, at -837-38.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1679.

e. Meta executives understood the urgency Mr. Zuckerberg communicated, reporting on September 13, 2011 that Mr. Zuckerberg was "cranky" about the "lack of progress" on Facebook Camera and "anxious" about the app, "mainly motivated by a desire to slow down Instagram's growth." PX1019, Meta email: J. Goldfein (Meta) to [redacted] distribution list re: "HPM," (Sept. 13, 2011), FB_FTC_CID_02927674, at -674-75.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1679.

f. As Meta's photos team continued work on the Facebook Camera application, Mr. Zuckerberg personally provided feedback on the application, and referenced Instagram when determining which features Facebook Camera required: for example, in response to an October 2011 meeting on the new photo app, Mr. Zuckerberg wrote: "We should have more than 8 filters when we launch or that is going to seem like a weak spot of our product compared to Instagram. We also need to make sure that the filters are high quality or promoting filters may actually make *more* people go to Instagram." PX12407, Meta email chain: D. Stoop To J. Pottebaum re: "Here's Mark's design feedback," (Oct. 18, 2011), FTC-META-004656867, at -871 (Zuckerberg's comments quoted within Stoop's email); *see also* PX6079, Stoop (Meta) Dep. Tr., at 85:9-86:18 ("Q. You understand Mark to be saying [in PX12407] that people would compare Facebook Camera to Instagram? A. Yeah, I think so."); *id.* at 91:1-17.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided feedback on the Camera application. Disputed for the reasons stated above in Meta's response to paragraph 1679, and because the statement lacks context. When asked about this document during his deposition, Mr. Stoop further answered: "You know, compared to Instagram I don't know that Mark particularly was worried about what would happen when people compared the

two apps.· But again it's possible. So it's just really hard for me to see that that would be the main reason." PX6079 at 87:19-24 (Stoop Dep. Tr.).

g. Mr. Zuckerberg referenced Instagram when conveying a sense of urgency to the Meta employees responsible for developing Facebook Camera. PX6079, Stoop (Meta) Dep. Tr., at 104:11-105:19 ("Q. Did Mark Zuckerberg mention Instagram when conveying the sense of urgency you recall? A: . . . I believe so.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1679, and because the statement lacks context. Mr. Stoop testified in the same exchange: "There was a general push to do everything as fast as possible at the time." PX6079 at 105:9-10 (Stoop Dep. Tr.).

h. Mr. Stoop testified that Facebook Camera needed to be better because of Instagram. PX6079, Stoop (Meta) Dep. Tr., at 91:1-17 ("Q. . . . [D]id the Facebook Camera need to do better because Instagram was doing better[?] . . . A. That makes sense, right? If Instagram is the clear leader and they are the ones doing better, that makes sense . . . that's indeed my position.").

Meta Response: Disputed. Disputed that the quoted language accurately reflects the witness's testimony. Mr. Stoop testified about the "Facebook Camera team," not "Facebook Camera." Further disputed for the reasons stated above in Meta's response to paragraph 1679.

1680. The urgency—and lack of progress—of Facebook Camera's development continued months into 2012.

Meta Response: Disputed in part. Undisputed that Meta urged the Facebook Camera team to develop the app into 2012. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because how fast Meta developed Facebook Camera before launching does not support the FTC's claim that Meta's acquisition of Instagram caused harm to competition or consumers. Further disputed because nothing in the evidence proffered below establishes that there was a "lack of progress" in the development of Facebook Camera in 2012. As the FTC concedes in paragraph 1681 below, Meta launched Facebook Camera in the first half of 2012. *See also* Meta Resps. to Counter SMF ¶¶ 1673, 1686 (Meta planned to integrate Facebook Camera into its main app and did so). Further disputed for the reasons stated above in Meta's responses to paragraph 1679.

a. On January 24, 2012, Meta had not yet launched its mobile photos app. Dirk Stoop, the head of Meta's Facebook Camera project reported to his team, following a "review with Mark" Zuckerberg: "We need to be able to share a release schedule next week . . . Instagram is growing quickly, getting Snap 1.0 [Facebook Camera] out the door fast is a huge priority." PX2488, Meta Workplace Post: D. Stoop post to Snap Camera (Jan. 24, 2012), FB_FTC_CID_11291408, at -408.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1680.

b. Preparing for a one-on-one meeting with Mr. Zuckerberg on April 3, 2012, Mike Schroepfer told subordinates "1) we need to get into ship mode asap. Not sure if

you saw the recent instgram [sic] numbers but we just don't have much time 2) App [Facebook Camera] feels like it is in really rough shape . . . feels very broken right now." PX2481, Meta email chain: M. Schroepfer to [redacted] re: "Quick project status dump on snap?" (Apr. 3, 2012), FB_FTC_CID_03258196, at -196. Mr. Schroepfer's colleague agreed: "Yeah, Instagram stats are scary and we need to ship asap." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1680.

e) After lengthy development struggles, Meta launched Facebook Camera in May 2012.

1681. Though documents indicate Meta planned to release Facebook Camera to the public as early as November or December of 2011, Meta did not actually release Facebook Camera to the public until May 24, 2012. PX12403, Meta email chain: D. Stoop to [redacted], et al. re: "Standalone App Adoption," (Sept. 28, 2011), FTC-META-004310133, at -133 ("[W]e're hoping to do an initial employee launch on Oct 24. Public launch between 2 and 6 weeks after that, close [sic] to 6 weeks than 2[.]"); PX12416 at -001, Dirk Stoop, *Introducing Facebook Camera*, Meta Newsroom (May 24, 2012), https://about.fb.com/news/2012/05/introducing-facebook-camera/ ("Today, we're introducing Camera, a new mobile app that makes using Facebook photos faster and easier."); PX6079, Stoop (Meta) Dep. Tr., at 44:21-45:15 ("Q. [I]t was the photo team's intention to launch Facebook Camera to the public anywhere between two and six weeks after October 24th? A. Yes, it looks like it.").

Meta Response: Disputed in part. Undisputed that Meta released Facebook Camera in May 2012. Disputed that the statement creates a genuine dispute of material fact, including because the statement regarding PX12403 is incomplete and misleading, omitting that Mr. Stoop wrote in the same email: "All of this may slip, of course." Further disputed because the quotation of Mr. Stoop's deposition testimony is also incomplete. When asked about the photo team's planned launch date, he answered also "I don't remember." PX6079 at 44:19 (Stoop Dep. Tr.).

1682. Meta launched Facebook Camera for iOS on May 24, 2012. PX12416 at -001, Dirk Stoop, *Introducing Facebook Camera*, Meta Newsroom (May 24, 2012), https://about.fb.com/news/2012/05/introducing-facebook-camera/ ("Today, we're introducing Camera, a new mobile app that makes using Facebook photos faster and easier."); PX6079, Stoop (Meta) Dep. Tr., at 108:5-9; 108:13-15 (confirming the release date for iOS).

Meta Response: Undisputed.

1683. Mr. Zuckerberg testified that the Facebook Camera app was designed to be very similar to Instagram: he described the app as a "mobile camera app" that was great for taking, editing, and filtering smartphone photos, and that "it also had social tools to be able to share photos with your friends and see the photos that they were sharing." PX6029, Zuckerberg (Meta) IH Tr., at 309:23-310:14 ("It was designed to be a mobile camera app . . . like what we were seeing in Instagram").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the quotation is incomplete and misleading. Mr. Zuckerberg testified

that Facebook Camera was designed to be "like what we were seeing in Instagram and some of the other mobile camera apps that we've talked about – VSCO Cam, et cetera." PX6029 at 310:3-5 (Zuckerberg IH Tr.).

1684. When launched to the public, Facebook Camera's functions included:

a. Facebook Camera users logged into the application using their Facebook credentials. PX6079, Stoop (Meta) Dep. Tr., at 109:20-25 ("Q. And when a user logged in to Facebook Camera, did they use their Facebook login? A. Yes, they did.").

Meta Response: Undisputed.

b. Once inside the Facebook Camera application, the application first displayed a user's "friends" feed because "friends was the surface we actually cared about and where we anticipated users would spend the majority of their time." *Id.* at 114:9-11; 113:4-9.

Meta Response: Undisputed.

c. The Facebook Camera default friends feed showed users photos of the people they followed on Facebook. *Id.* at 110:19-22 ("So you would see photos from people you follow on Facebook."); *id.* at 111:8-15.

Meta Response: Undisputed.

d. Facebook Camera users had several other functions available to them within the application including:

Meta Response: Undisputed that Facebook Camera had the other functions in subparagraphs 1684(e) through (i) below.

e. A "like" function. *Id.* at 116:14-16.

Meta Response: Undisputed.

f. A comment function. *Id.* at 117:17-20.

Meta Response: Undisputed.

g. A camera function to access their phone's camera functions within the Facebook Camera app. *Id.* at 120:16-121:9.

Meta Response: Undisputed.

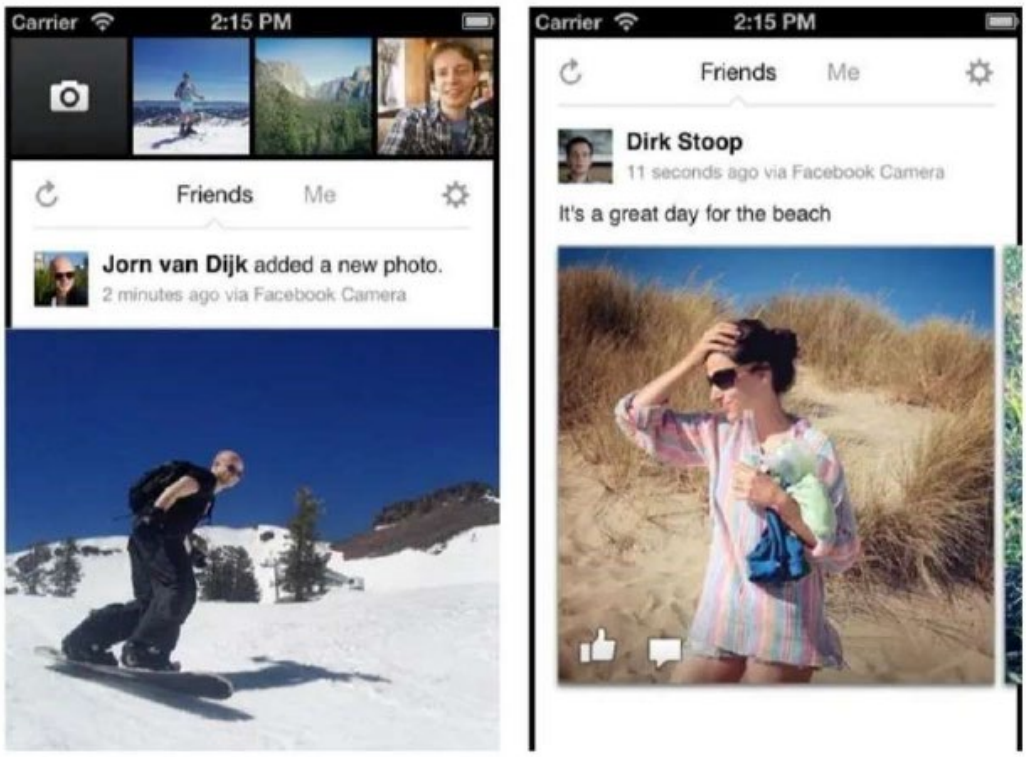
h. An interface to "crop, rotate, or add filters." PX12416 at -002, Dirk Stoop, *Introducing Facebook Camera*, Meta Newsroom (May 24, 2012), https://about.fb.com/news/2012/05/introducing-facebook-camera/.

Meta Response: Undisputed.

i. A multi-picker tool to select and post multiple photos at once. *Id.* at -001 ("Now you can quickly share multiple photos all at once").

Meta Response: Undisputed.

1685. Images from the Facebook Camera launch announcement show several of these features in a mockup of the application interface:



PX12416 at -001, Dirk Stoop, *Introducing Facebook Camera*, Meta Newsroom (May 24, 2012), https://about.fb.com/news/2012/05/introducing-facebook-camera/.

Meta Response: Undisputed.

1686. Had Meta not acquired Instagram, it would have continued to work on Facebook Camera and would have worked to try and make Meta's photo-sharing capabilities "better than Instagram."

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because none of the evidence the FTC proffers in the subparagraphs below supports the implied assertion that Meta did not, in the real world, continue to work on Facebook Camera after the Instagram acquisition and try to improve its photo-sharing capabilities. On the contrary, evidence shows that:

- Meta planned to integrate the improvements to photos developed in Facebook Camera into the Facebook app, not maintain Facebook Camera as a separate app. PX6079 at 31:17-34:10 (Stoop Dep. Tr.) (testimony from then-product manager "for the photos and videos team") (Q: So why did your team port those elements from Facebook Camera into Facebook Blue? A: Our primary goal was to improve the photo-sharing experience on Facebook with an emphasis on the mobile experience, and the audience on the Blue apps was much larger than the audience on the camera app. In fact, the original goal was to improve photo-sharing for all Facebook users. The only reason there was a camera app to begin with was because we couldn't work on the Blue app when we started this project. . . . It was really that circumstance that led me to want to pursue this standalone Camera app."); *id.* at 61:8-14, 71:14-25, 72:21-23 (in October 2011, the "photos team" was "creating the Camera app but doing it in such a way that that code could be reused in Facebook IOS Blue," and the "goal" of the photos team included "spend[ing] some of their energy and thinking in the way they do the work on assuring that . . . areas of functionality would be reusable and to be integrated into the Wilde [updated main Facebook] app as soon as possible"); *id.* at 73:22-74:3 ("[O]ur intent is to build all this in such a way that we can quickly integrate into Wilde [updated main Facebook app] and ship the best possible experience to the largest number of people"); *id.* at 75:2-10 (photos team wrote Facebook Camera a separate app to test code and "hold off" on "prematurely integrat[ing]" before "ready to integrate"). Indeed, the FTC concedes that the reason Meta developed Camera as a stand-alone app was because of the complexity of

working on photo sharing features of the Facebook app. *See* Meta Resp. to Counter SMF ¶ 1675.

- Meta continued to develop Camera after the Instagram acquisition and integrated the improvements to photos developed originally for Camera into Facebook's main apps as planned. *See id.* at 158:6-159:14 (Stoop Dep. Tr.) (describing integration of "Camera's production flow" into "Facebook Blue on Android" and the building of an "Android photos team" as "a very impactful improvement in the Android app"); *id.* at 161:14-162:25 (describing, "nonexhaustively," "Facebook Camera" features that "were incorporated into Facebook Blue on iOS" on a timeline "similar to Android," including "photo selection grids," "photo editing features," "cropping," "filtering," "the tagging experience" that was "actually improved on" in "the main app," the "new full-screen photo-viewing experience and the gesture used to dismiss the full-screen photo-viewer," the "the way photo tags would show up in the full-screen photo view," making "the photos a lot bigger in newsfeeds" where "where photos were presented really large, like the full width of the screen," "the multi-photo post" format, which was a "way of showing photos in the feed" with "a little bit of margin where you could see to the next photo").

None of the material that the FTC proffers in the subparagraphs below, itself speculative, is to the contrary, nor does the material support that consumers would be better off had Meta not acquired Instagram.

a. Mr. Zuckerberg testified that if Meta had not acquired Instagram, "we would have [] continued working on the camera app, continued integrating more of these features into the Facebook app over time" and "we have a track record of being []

relatively effective at building new things and competing." PX6029, Zuckerberg (Meta) IH Tr., at 326:13-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1686, and because the excerpted testimony is incomplete. In the same portion of the deposition cited, Mr. Zuckerberg testified that "it's hard to say in retrospect what would have ended up happening," PX6029 at 326:21-22 (Zuckerberg IH Tr.), and "I think it's really hard to know what would have happened had we not bought Instagram," *id.* at 327:4-5.

b. Mr. Zuckerberg testified that prior to the acquisition, Meta was doing "compelling" product development and "had a good shot of [] innovating faster than – than Instagram" and that he "believed that we would have had to have build something that was better than Instagram in order to have people choose to use it instead." PX6029, Zuckerberg (Meta) IH Tr., at 325:21-326:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, except that the witness's words were "built something better." Disputed for the reasons stated above in Meta's response to paragraph 1686, and because the excerpted testimony is incomplete and misleading. The excerpted testimony came after an exchange in which Mr. Zuckerberg caveated his testimony as follows:

> Q. But by the time Facebook released its product, you felt that Instagram would have grown and you'd be in a harder position to work your way out of?
>
> A. . . . I mean, of course I'm, again, painting, you know, somewhat of a hypothetical future. As things continue to grow, their growth

> rate tends to slow down. And I think, through some of the other examples that we've talked about of companies that were growing quickly, like Path or Foursquare, you know, sometimes growth slows down completely and stops and goes negative.

PX6029 at 325:4-16.

5. Rather than Continuing to Compete with Instagram, Meta Chose to Neutralize the Threat by Buying Instagram.

a) Meta had identified Instagram as a "significant threat" given Meta's weaknesses (and Instagram's corresponding strengths) in mobile and photos.

1687. On January 26, 2012, Director of Corporate Development Amin Zoufonoun suggested to Mr. Zuckerberg that photos "should be a priority for us organically and through m&a especially given competitive dynamics," given that "photos in general and certainly in conjunction with mobile is a weak spot for us, yet represents a large part of many users engagement on" Facebook. PX1155, Meta messages: A. Zoufonoun to M. Zuckerberg, et al. (Jan. 26, 2012), FB_FTC_CID_02423158, at -159.

Meta Response: Undisputed that the document contains the quoted language.

1688. On January 26, 2012, in light of Facebook's weakness in mobile photos, Mr. Zoufonoun identified Instagram as "a significant threat." PX1155, Meta messages: A. Zoufonoun to M. Zuckerberg, et al. (Jan. 26, 2012), FB_FTC_CID_02423158, at -159.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the statement is incomplete and misleading. The document discusses "significant threat . . . and opportunity," when referring to "google/picasa/android, instagram, etc," not just Instagram. PX1155 at -159 (FB_FTC_CID_02423158).

1689. In his investigational hearing, Mr. Zoufonoun described the "rationale for acquiring Instagram," testifying:

> We had the Blue app, Facebook. The world was shifting to mobile at the time. We – even after we signed the acquisition, announced it, and Facebook subsequently went public, got listed on NASDAQ, I recall that our stock price kept going down from even the IPO price.
>
> And most of the tech media pundits were writing about how Facebook will never figure out mobile. We're weak on mobile. We're a web company and there's no indication that we will ever find the business model on mobile, and what have you.
>
> And on mobile, we had the Facebook app, but we had also launched Facebook Camera certainly at the time of the acquisition. We had something called Facebook Camera which had some of the functionality of Instagram. I think the two were somewhat akin, somewhat different.
>
> And I don't – as I – as I recall correctly, none of those apps were – certainly, the Camera app wasn't thriving on mobile wasn't thriving generally. And Instagram was growing nicely. People really, the users liked it. It had nice engagement. It had beautiful features, and it had a feed product. Everything showed up in a feed, everything was shared, which was very akin to Facebook when we basically invented news feed. . . . So my thinking was that if we could find a way to monetize Facebook's feed on mobile and come up with a business model, we should be able to do it with Instagram as well.

PX6028, Zoufonoun (Meta) IH Tr., at 150:5-151:11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because Meta's supposed motivations for acquiring Instagram are not material to whether Meta's acquisition of Instagram caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed because the statement is incomplete and does not present "the" rationale for acquiring Instagram as asserted in this statement.

1690. On February 11, 2012, Zuckerberg suggested to his colleagues that Meta "should consider buying Instagram, even if it costs ~$500m. Right now they seem to have two

things that we don't: a really good camera and a photo-centric sharing network." PX1102, Meta Workplace Post: M. Zuckerberg post to [redacted] (Feb. 11, 2012), FB_FTC_CID_01548247, at -247 ("I wonder if we should consider buying Instagram"); *see also* PX6127, Zuckerberg (Meta) Dep. Tr., at 54:6-55:7 (confirming quotes in PX1102). With respect to camera features, Mr. Zuckerberg expressed concern that "I'm worried we're so far behind that we don't even understand how far behind we are and that this is going to be a huge amount of work . . . I worry that it will take us too long to catch up, if we even will." PX1102, Meta Workplace Post: M. Zuckerberg post to [redacted] (Feb. 11, 2012), FB_FTC_CID_01548247, at -247. "For the network piece, one concerning trend is" Mr. Zuckerberg observed "that a huge number of people are using Instagram every day . . . and they're only uploading some of their photos to FB. This creates a huge hole for us and one that I'm [not] sure anything we're going to do . . . will completely solve." *Id.* Moreover, even if Facebook's hoped-for mobile photo application proved to be "a good first step," "we'd be very behind in both functionality and brand on how one of the core use cases of Facebook will evolve in the mobile world, which is really scary and why we might want to consider paying a lot of money for this." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689.

b) In February 2012, Mr. Zuckerberg reached out to an Instagram board member about acquisition prospects, and he

explained the financial details of and rationale for the acquisition with Meta's then-CFO, David Ebersman.

1691. On February 12, 2012, Mr. Zuckerberg contacted [redacted], a member of Instagram's board of directors and a partner at Benchmark Capital, about acquiring Instagram. PX1135, Meta email chain: M. Zuckerberg to [redacted] re: "(no subject)" (Feb. 12, 2012), FB_FTC_CID_01543939, at -939 ("I've been thinking about whether we should buy Instagram and I'm curious to get your take on it."), -940, -945, -949-50 ("Do you have any sense of expected price?").

Meta Response: Undisputed.

1692. On February 12, 2012, [redacted] promptly informed Mr. Systrom of Mr. Zuckerberg's interest in purchasing Instagram, and reported: "[H]e already told me that he thinks it's bad for anybody else to control posting of photos onto fb at a large scale . . . but [I] think there's more to it [I] suspect that what he's really worried about is twitter. [I]f twitter and Instagram became one company it would make life more difficult for facebook." PX2759, Meta messages: [redacted] to K. Systrom, (Feb. 13, 2012), FB_FTC_CID_08721020, at -020-022.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's response to paragraph 1689.

1693. On February 27, 2012, Mr. Zuckerberg emailed Meta Chief Financial Officer David Ebersman to raise the "business question" of "how much we should be willing to pay to acquire mobile app companies like Instagram and Path that are building networks that are competitive with our own," given that Instagram was "up to about 20m" users and Mr. Zuckerberg's concern that "we're vulnerable in mobile." PX2822, Meta email chain:

D. Ebersman to [redacted] re: "Titan e-mail exchange," (Feb. 27, 2012), FB_FTC_CID_03694681, at -681. According to Mr. Zuckerberg, "the businesses are nascent but the networks are established, the brands are already meaningful and if they grow to a large scale they could be very disruptive to us." *Id.* (Zuckerberg quotation in document).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to paragraph 1689 above and paragraph 1694 below, which contains further quotations from the same document cited in this statement.

1694. In response to Mr. Zuckerberg's email of February 27, 2012, Ebersman inquired as to Mr. Zuckerberg's reasoning, specifically whether the purpose was to "1) neutralize a potential competitor?"; "2) acquire talent?"; "3) integrate their products with ours in order to improve our service?"; or "4) other?" *Id.* Mr. Zuckerberg's response, on February 28, 2012, explained his reasoning:

> It's a combination of (1) and (3). The basic plan would be to buy these companies and leave their products running while over time incorporating the social dynamics they've invented into our core products.
>
> One thing that may make (1) [i.e., neutralizing a potential competitor] more reasonable here is that there are network effects around social products and a finite number of different social mechanics to invent. Once someone wins at a specific mechanic, it's difficult for others to supplant them without doing something different. It's possible someone beats Instagram by building something that is better to the point that they get network migration, but this is harder as long as Instagram keeps running as a product.
>
> (3) is also a factor but in reality we already know these companies' social dynamics and will integrate them over the next 12-24 months anyway. The integration plan involves building their mechanics into

> our products rather than directly integrating their products if that makes sense.
>
> By a combination of (1) and (3), one way of looking at this is that what we're really buying is time. Even if some new competitors spring[] up, buying Instagram, Path, Foursquare, etc now will give us a year or more to integrate their dynamics before anyone can get close to their scale again. Within that time, if we incorporate the social mechanics they were using, those new products won't get much traction since we'll already have their mechanics deployed at scale.

Id. at -682 (Zuckerberg quotation in document).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689 and because the statement is incomplete and misleading. Mr. Zuckerberg also responded: "I didn't mean to imply that we would be buying them to prevent them from competing in any way. Buying them would give us the people and time to incorporate their innovations into our core products, which is how we'd do the integration rather than actually combining the products. I'm mostly excited about what the companies could do together if we worked to build what they've invented into more people's experiences." PX2822 at -682 (FB_FTC_CID_03694681); *see also* PX9019 at ¶ 344 (Carlton Rep.) (pointing out that Professor Hemphill acknowledges that the additional quotation above is contrary to his opinion that the Instagram acquisition was "premised on the avoidance of competition"); PX9000 at n.1659 (Hemphill Rep.) ("About an hour after this exchange, Zuckerberg sent a follow-up note that directly contradicted the 'neutralize a potential competitor' rationale."). Mr. Zuckerberg testified that this message conveyed that "[Meta] thought it would be useful and put our weight behind growing them and making them better than we thought that they could be independently. And I think that the record

shows that – that's what happened . . . I think Instagram is significantly more successful now than it would have been had it remained an independent company with all the challenged that it had there." PX6029 at 256:1-10 (Zuckerberg IH Tr.).

c) Meta's acquisition of Instagram was finalized in April 2012, less than two months after Mr. Zuckerberg's initial outreach to Instagram, because Instagram's continued growth drove Mr. Zuckerberg to close the deal quickly despite the "really expensive" price.

1695. By March 12, 2012, Mr. Zuckerberg and Mr. Systrom began actively discussing Meta's acquisition of Instagram. PX1138, Meta email chain: M. Zuckerberg to [redacted] re: "(no subject)" (Mar. 12, 2012), FB_FTC_CID_01543953, at -953 ("Kevin Systrom called me Thursday night about acquiring Instagram"); PX2951, Meta email from M. Zuckerberg to K. Systrom re: "(no subject)" (Mar. 12, 2012), FB_FTC_CID_01543967, at -967 ("I just wanted to follow up and let you know that we're very interested in making an offer to acquire Instagram along the lines we discussed last week.").

Meta Response: Undisputed that the documents contain the quoted language.

1696. On March 26, 2012, Mr. Zuckerberg observed: "[a]rguably, if you look at the incentives in the market, Twitter and perhaps Instagram (if they keep going) will never prioritize having the perfect FB integration since they're trying to build parallel networks." PX1580, Meta email chain: M. Zuckerberg to M. Vernal, et al. re: "(no subject)" (Mar. 26, 2012), FB_FTC_CID_01543773, at -773; *see also* PX6127, Zuckerberg (Meta) Dep. Tr., at 71:18-73:4, 74:3-11.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689 and because the statement lacks context and is misleading. In the cited email, Mr. Zuckerberg and

others were not discussing the Instagram acquisition. They discussed improving integrations with other apps, including Instagram. PX1580 at -773 (FB_FTC_CID_01543773).

1697. On April 3, 2012, Mr. Zuckerberg reviewed data on Instagram's growth and emailed Mr. Schroepfer:

> [Instagram's] growth rate is crazy. 6% weekly is really fast when growing off their current base. . . . What this means for us is that we really need to launch something soon. We should push the team to crank and get this out. If we launch soon, we can hopefully get to comparable scale to what they have now relatively quickly. If we take a lot longer then [sic] they may be totally unreachable.

PX2965, Meta messages: M. Zuckerberg to M. Schroepfer, (Apr. 3, 2012), FB_FTC_CID_08621082, at -082.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language except for the last sentence, which should read: "If we take a lot longer then [sic] they may really be unreachable." PX2965 at -082 (FB_FTC_CID_08621082). Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689.

1698. On April 3, 2012, Mr. Zuckerberg contacted Instagram board member [redacted] to reiterate his interest in acquiring Instagram. PX2961, Meta messages: M. Zuckerberg to [redacted], FB_FTC_CID_06251535, at -535 (Apr. 3, 2012) ("I'm still interested in discussing this [acquisition] and trying to make this happen.").

Meta Response: Undisputed that the document contains the quoted language.

1699. On April 4, 2012, Chief Operating Officer Sheryl Sandberg and other senior managers were informed that Instagram reported "very strong growth in Q1 2012, including that "[r]egistered users have doubled: 15M -> 30M," and that "Facebook is not that far ahead

[of Instagram] on iPhone. The Likes metric . . . is especially noteworthy – Instagram has almost as many Likes per day as Facebook on [one quarter of] the content." PX2514, Meta email chain: M. Nowak to [redacted], et al. re: "Competition update," (Apr. 4, 2012), FB_FTC_CID_06148711, at -716. Ms. Sandberg forwarded the email to Mr. Zuckerberg, noting: "[t]his makes me want instagram more[.]" PX2514, Meta email chain: S. Sandberg to M. Zuckerberg re: "Competition update," (Apr. 4, 2012), FB_FTC_CID_06148711, at -711.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689.

1700. On April 5, 2012, Mr. Zuckerberg reported to Sheryl Sandberg, "I think we're going to buy Instagram at 1.3% or 1.4% [of Facebook's market capitalization at the time]," and "just want to gut check that this is reasonable. Do you think it's way too much?" to which Ms. Sandberg replied, "yes of course it is way too much . . . but we knew that." PX2522, Meta messages: M. Zuckerberg to S. Sandberg, (Apr. 5, 2012), FB_FTC_CID_09913973, at -973.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689 and because the statement is incomplete and lacks context. Ms. Sandberg testified at her investigative hearing that she "do[es]n't think we did overpay [for Instagram], looking back on it," and that Facebook acquired Instagram "[b]ecause Mark thought it was a great product, and he

thought we could help them grow and do great things. And Mark was right." PX6022 at 230:24-231:3 (Sandberg IH Tr.).

1701. On April 5, 2012, Mr. Zuckerberg expressed his view that Instagram could be worth the "really expensive – probably ~$1 billion" cost because Instagram was "pretty threatening to us," and "Instagram can hurt us meaningfully . . . ." PX1202,, Meta messages: M. Zuckerberg to [redacted], (Apr. 5, 2012), FB_FTC_CID_06290875, at -875-76. Mr. Zuckerberg reasoned that "photos is one of a few core use cases for us." *Id.* at -876. He noted that "gaming is shifting from us to mobile platforms," and that "[i]f another key use case [i.e., photo-sharing] transitioned away, I think that would be pretty bad for us." *Id.*

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689 and because the statement is incomplete and misleading. In the cited document, Mr. Zuckerberg and [redacted] discussed the relative advantages of potentially acquiring Foursquare, Pinterest, and Instagram. Mr. Zuckerberg's full statement about Instagram was, "I think they're pretty threatening to us, but I'm not sure how much so compared to other companies out there." PX1202 at -875 (FB_FTC_CID_06290875).

1702. On April 6, 2012, during an internal presentation at which Mr. Zuckerberg informed Meta employees that "right now we're like, really, we're behind" compared to Instagram, he explained "back to Instagram . . . we need to dig ourselves out of a hole . . . the bad news is that [Instagram is] growing really quickly. They have a lot of momentum, and it's kind of going to be tough to dislodge them." PX15180, Meta video clip: "Open Q&A

with Mark – April 6, 2012" (Apr. 6, 2012), FB_FTC_CID_01528077, at 0:43-1:12, 4:24-4:45, FB_FTC_CID_01528077; PX3348, Meta Workplace Post: [redacted] post to FYI (Company Announcements) (Apr. 9, 2012), FTC-META-005162967, at -967 (indicating meeting took place April 6, 2012).

Meta Response: Disputed in part. Undisputed that the video contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689.

1703. Into the night of April 6, 2012, Ms. Sandberg launched a small deal team to handle the project, writing, "All, we're going to try to buy Instagram . . . Mark will respond to this thread with the details he and Kevin agree to later tonight. This will be expensive – like 1.38%." PX2519, Meta email chain: S. Sandberg re: "TIME SENSITIVE – Project Hurley – a/c privileged," (Apr. 6, 2012), FB_FTC_CID_08905112, at -112; *see also* PX2973, Meta email chain: V. Smith to D. Ebersman re: "TIME-SENSITIVE – Project Hurley – a/c privileged," (Apr. 6, 2012), FB_FTC_CID_11528037, at -037.).

Meta Response: Undisputed that the first cited document contains the quoted language.

1704. Mr. Zuckerberg presented the deal to Meta's Board of Directors on the afternoon of April 8, 2012. PX2373, Meta document: "Minutes of a Special Meeting of the Board of Directors of Facebook, Inc." (Apr. 8, 2012), FB_FTC_CID_01497147, at -147 ("Mr. Zuckerberg reviewed the proposed acquisition of Instagram, Inc.").

Meta Response: Undisputed that the document contains the quoted language.

a. The Board Minutes report that Mr. Zuckerberg "highlighted the importance of photos to sharing and engagement in social media, and noted the success that

Instagram had achieved in generating growth and engagement in its user base through it mobile photo-sharing application." *Id.* at -147-48.

Meta Response: Undisputed that the document contains the quoted language.

b. The Board Minutes indicate that the only possible benefits that might arise from the Instagram transaction that were discussed in the Board Meeting were "the Company's plans to maintain Instagram as a standalone service and to continue the service's links to third-party platforms such as Flicker [sic], Foursquare, Tumblr and Twitter" and "the Company's plans to separately incorporate Instagram's know-how into Facebook mobile and other products in order to improve the user experience with photos and to help drive user engagement." *Id.* at -148.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1689, and because the cited Board minutes do not support the statement that the quoted language reflects the "only possible benefits that might arise."

c. The Board Minutes, *id.*, fail to indicate that Mr. Zuckerberg discussed, or that the Board considered, any of the supposed benefits Meta now claims in its response to FTC's Interrogatory No. 10 that the acquisition provided to Instagram regarding infrastructure, objectionable content, or any other issues. *See infra* CMF at § VII (listing Meta's justifications for its acquisitions of Instagram and WhatsApp).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to subparagraph 1704(b). To the extent the statement incorporates the entirety of the FTC's statements in Section VII, Meta incorporates its responses to those statements here.

d. Meta has stated that it lacks the ability to identify the reasons that Meta's Board of Directors approved the acquisition of Instagram. PX15546 at -005-06, Meta's Obj. and Resp. to FTC's Req. for Admis. No. 2 (Jan. 17, 2023).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to subparagraph 1704(b), and because the cited material does not support the statement. The cited FTC Request for Admission No. 2 asked Meta to "Admit that improving Integrity on WhatsApp did not motivate Meta's Board of Directors to acquire WhatsApp in 2014." PX15546 at -005 (Meta's Obj. and Resp. to FTC's Req. for Admis. (Jan. 17, 2023)). The cited Request for Admission and response thereto did not refer to Instagram in any way. To the extent the FTC intended to refer to the FTC's Request for Admission No. 3, asking Meta to admit that "adding advertising to Instagram did not motivate Meta's Board of Directors to acquire Instagram in 2012," disputed that Meta's response to that interrogatory supports the statement. *Id*. Meta responded by stating that it "lack[ed] information sufficient to admit or deny" because it could not determine "the state of mind of 'Meta's Board of Directors' nearly a decade ago." *Id.* at -006. Meta did not state that it was unable to identify any reasons for the approval of the Instagram transaction.

1705. On April 9, 2012, just days after the close of Instagram's Series B funding round, Meta and Instagram signed an acquisition agreement. PX10763, Meta email chain: [redacted] to A. Zoufonoun, et al. re: "Project Iris – Signing Completed (Confidential)," (Apr. 8, 2012), FB_FTC_CID_01531171, at -172 ("[S]ignatures of all parties have been released and the parties are now under contract."); PX6027, Systrom (Meta/Instagram) IH Tr., at 114:21-115:9 ("Q. Okay. So when did the Series B funding close? A. I think the – it technically closed, like, right before we sold. So it might have been, like, Easter. Right before Easter weekend. . . . [E]arly April, let's call it.").

Meta Response: Undisputed.

d) Meta's executives have acknowledged, both at the time and in the years following, that Meta purchased Instagram to neutralize it as a threat.

1706. In the days directly following the acquisition, Mark Zuckerberg, Andrew Bosworth, and others at Meta acknowledged that Instagram had a clear advantage in mobile photo-sharing to serve demand for friends and family sharing and that Meta had purchased Instagram to neutralize it as a threat.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because Meta's supposed motivation in acquiring Instagram is immaterial to whether Meta's acquisition of Instagram caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. On the contrary, evidence shows that Meta has invested billions of dollars in developing Instagram, placed it on Meta's infrastructure, grown its user base, released dozens of new features, and generated billions of dollars in consumer surplus. *See* Meta SMF ¶¶ 657-658, 721, 724 (growth), ¶ 710 (investment), ¶¶ 711-713 (annual surplus figures), ¶¶ 739-747 (features), ¶¶ 755-

762 (infrastructure); *see also*, *e.g.*, Ex. 151 at 261:9-14 (Systrom Dep. Tr.) (testifying that by being part of Meta, Instagram "g[o]t to do the best of both worlds where we g[o]t to try to grow and, at the same time, advance[d] our development by potential years in some areas"). Further disputed because none of the material cited in the subparagraphs below supports the statement that Meta acquired Instagram to "neutralize it as a threat"; or that Instagram "had a clear advantage in mobile photo-sharing to serve demand for friends and family sharing," as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. On April 9, 2012, following the announcement of the acquisition, Mr. Zuckerberg wrote privately to a colleague: "I remember your internal post about how Instagram was our threat and not Google+. You were basically right. One thing about startups though is you can often acquire them." PX2502, Meta messages: M. Zuckerberg to [redacted], (Apr. 9, 2012), FB_FTC_CID_01544079, at -080.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1706 and because the quoted language is misleading, taken out of context, and it does not support the statement in paragraph 1706. Nothing in this exchange suggests that Meta intended to "neutralize" Instagram.

b. On April 9, 2012, following the announcement of the acquisition, a product manager at Meta congratulated Mr. Zuckerberg, stating: "Well played." PX1141, Meta email chain: [redacted] to M. Zuckerberg re: "Confidential Announcement," (Apr. 9, 2012), FB_FTC_CID_01548343, at -343; PX6018, Zuckerberg (Meta) IH Tr., at 294:11-12 (testifying as to [redacted]' position). Mr. Zuckerberg

responded by comparing the threat once posed by Instagram and to the threat still posed by larger rivals: "One reason people underestimate the importance of watching Google is that we can likely always just buy any competitive startups, but it'll be a while before we can buy Google." PX1141, Meta email chain: M. Zuckerberg to [redacted] re: "Confidential Announcement," (Apr. 9, 2012), FB_FTC_CID_01548343, at -343.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1706 and because the quoted language is misleading, taken out of context, and it does not support the statement in paragraph 1706. [redacted] was responding to an email from Mr. Zuckerberg announcing the Instagram acquisition, which stated, regarding Instagram, that "it's clear we share the same values and vision for the future of mobile photos. We are committed to keeping the Instagram brand and growing their app independently." PX1141 at -343 (FB_FTC_CID_01548343). Nothing in this exchange suggests that Meta intended to "neutralize" Instagram.

c. On April 10, 2012, the day after the Instagram acquisition was announced, [redacted], Nick Shortway's supervisor and a manager of Meta's production engineering team, noted that Instagram was "generating nearly 4x's the photos/user . . . as we are on iOS – that is actually pretty scary when you think about how important photos are to the social and mobile experience," and emphasized the "defensive value" of preventing "any competitors from gaining this traction." PX1208, Meta message board post: [redacted] post to [redacted]

[redacted] (Apr. 10, 2012), FB_FTC_CID_01540471, at -471; PX6055, Shortway (Meta) Dep. Tr., at 34:23-35:12, 254:23 (testifying as to [redacted]'s position).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated in Meta's responses to paragraph 1706 above and subparagraph 1706(d) below, which quote from the same document. Further disputed that the cited document supports the statement in paragraph 1706. The document begins with a post from Mr. Schroepfer regarding the acquisition announcement, which states, "[o]ur primary goal is to help Instagram's continued growth and product development," followed by some questions and answers regarding integration of Instagram and Facebook. PX1208 at -472, -473 (FB_FTC_CID_01540471).

d. On April 10, 2012, Andrew Bosworth—Meta's future Chief Technology Officer—likewise emphasized the importance of mobile photo sharing and observed that prior to the acquisition: "we were getting our ass kicked by this company [i.e., Instagram] in mobile photo sharing. . . . We are not too big to be dethroned just as those before us were not." PX1208, Meta message board post: A. Bosworth post to [redacted] (Apr. 10, 2012), FB_FTC_CID_01540471, at -471; PX6100, Bosworth (Meta) Dep. Tr., at 13:7-9 ("Q. You are currently the chief technology officer of Meta, correct? A. Yes.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1706 and subparagraph 1706(c), which quote from the same document,

and because the statement is incomplete. The following statement is omitted: "I share the concerns of everyone here [regarding integration]. But from the economic side, I'm pretty pumped to have them [Instagram] in our corner." PX1208 at -471 (FB_FTC_CID_01540471).

e. On April 10, 2012, in response to employees' questions about the high valuation Meta placed on Instagram, Mr. Bosworth wrote: "The question of whether or not a company is worth $1B assumes there is an objective valuation. There is not. . . . It isn't that they are worth that much – it is that they can affect how much we are worth by more than that much, if that makes sense." PX1208, Meta message board post: A. Bosworth post to [redacted] (Apr. 10, 2012), FB_FTC_CID_01540471, at -471

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1706 and subparagraphs 1706(c) and (d), which quote from the same document.

f. On April 10, 2012, Mr. Zuckerberg wrote, and later testified, that at the time of the acquisition Instagram was "ahead" of Facebook in mobile photo sharing. PX1127, Meta messages: M. Zuckerberg to A. Zoufonoun, (Apr. 10, 2012), FB_FTC_CID_06214279, at -279 ("WhatsApp is already ahead of us in messaging in the same way Instagram was 'ahead' of us in photos."); PX6127, Zuckerberg (Meta) Dep. Tr., at 97:6-11 ("Instagram had innovated and was ahead on the mobile part of photo sharing[.]"), 98:23-99:12.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1706 above and because the cited material does not support the statement in paragraph 1706. Mr. Zuckerberg also testified that while Instagram had innovated in mobile photo sharing, "having them build on top of [Facebook's] infrastructure helped maintain the growth" and "being on [Facebook's] infrastructure is what enabled them to use a lot of other tools. Like the tools to fight spam, and I believe, you know, other tools like the ability to access kind of coefficient on which of your friends you're more likely to want to connect with and our ad network, and all these different things that enabled it to scale and be both a very – much bigger community and much bigger business." PX6127 at 89:25-90:13 & errata (Zuckerberg Dep. Tr.).

g. In an April 13, 2012 discussion with employees, Mr. Zuckerberg stated that Instagram had independently grown into a standalone "mega-network" and was "on the path to win" had Meta not acquired it. PX2501, Meta Workplace Post: [redacted] post to [redacted] (Apr. 15, 2012), FB_FTC_CID_01527429, at -429-30 (Zuckerberg Open Q&A).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1706 and because the FTC's summary of the evidence is incomplete and misleading, and the cited material does not support the statement. Mr. Zuckerberg did not say that Instagram "had independently grown into a standalone 'mega-network." On the contrary, distribution on the Facebook

platform was essential for Instagram pre-acquisition, and Instagram's growth would have been significantly limited had Meta ended that support. *See* Meta SMF ¶¶ 657-669. The cited document, a summary of an "Open Q&A" with Mark Zuckerberg from April 13, 2012, is consistent with that evidence and states that Instagram wanted to sell to Meta because of how Meta "worked with them on their growth and their Open Graph implementation" pre-acquisition. PX2501 at -429 (FB_FTC_CID_01527429).

The material cited also does not support the assertion that Mr. Zuckerberg stated that, had Meta not acquired it, Instagram was on a path to "win" against Meta. The document refers to Mr. Zuckerberg's comments in light of the acquisition announcement. *See id.* at -429 ("We want to do even more together now once the acquisition is final."; "[T]ogether we can do so much more."). This is consistent with evidence that Meta sought to acquire Instagram because of the opportunity to grow it. *See*, *e.g.*, Ex. 473 at 201:22-202:3 (Schroepfer IH Tr.) ("[Q]: Did you want Facebook to acquire Instagram because you thought Instagram might acquire a strategic position in photos before Facebook Camera was ready to ship? A. I wanted to acquire Instagram because I thought we could built it into something amazing together."). Moreover, the document does not state that Instagram was "on the path to win" anything *against Meta*. On the contrary, Mr. Zuckerberg testified that the context of the Q&A was that, in response to "[a] bunch of employees" asking about the purchase price of Instagram acquisition, he "kind of felt like [he] needed to explain why [he] thought Instagram was going to be valuable in the future." PX6127 at 84:18-24

(Zuckerberg Dep. Tr.). Mr. Zuckerberg explained, "To the extent that I'm making these arguments about, like, look, it's growing so quickly. It will be worth more in the future. . . . [T]he feel I'm getting from the document is that, at the time, people really weren't sure that Instagram was going to be as successful as it ended up being." *Id.* at 84:25-85:8; *see also id.* at 78:11-79:1 ("[Q]: One of the reasons that you purchased Instagram was that they were growing so quickly prior to the time you purchased them. Is that fair? A. Yes, but I think it's worth characterizing further. So sometimes you see a product and you can tell just from using it that there's a lot of good innovation there, even if it hasn't caught on in a big way yet. Other times, the fact that it's receiving a positive market reception is the best way to determine that it's a good product. So I think here a lot of why – I think we thought it was a good product, and that's kind of what I explained here. It has good values for the product and company, and the growth has also been really good.").

1707. Other close observers of Facebook recognized both the importance of photos as part of the friends and family sharing experience on Facebook and the importance of Facebook neutralizing Instagram by acquiring it. For example, on April 12, 2012, Sean Parker, the first president of Facebook and a major Meta shareholder, wrote to Instagram co-founder Kevin Systrom:

> I have been prodding various FB folks, including Zuck, for at least 6 months to do this, do it quickly, and do it at any cost. From my perspective the risk of not buying you guys (and someone like Google snapping you up) was beginning to make me, and a lot of other major shareholders, extremely uncomfortable.
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> ***

> [I]n the last few years [Facebook] allowed [its] core photos product (and its mobile offering) to languish. As a result the photos product never realized its ultimate potential, and worse, it ran the risk of the unthinkable happening – being eclipsed by another network with a "parallel graph". As you know, photos is the lifeblood of Facebook, propping up the whole network through the usage, interaction, and positive feedback loops it generates, and time on site is directly linked to photo browsing. Going back to 2005, shortly after I launched photos it was generating ~50% of all Facebook page views, a stat which remained fairly steady until the introduction of games on platform.

PX2132, Meta email chain: S. Parker to K. Systrom re: "Thank you," (May 2, 2012), FB_FTC_CID_08711521, at -521; PX3351, Meta email chain: [redacted] to self re: "Afternoon News Clips 07.10.2018," (July 11, 2018), FB_FTC_CID_01464042, at -052 (noting Parker as first president of Facebook).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1706, and because the quoted language does not support the asserted premise regarding "friends and family sharing" and "neutralizing" Instagram, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). On the contrary, Mr. Systrom responded to Mr. Parker's message, "I respect the hell out of the facebook team and I think together we're going to do big things." PX2132 at -521 (FB_FTC_CID_08711521).

1708. Internal communications from Mr. Zuckerberg and Mr. Zoufonoun through 2012 and into 2013 confirm that Meta purchased Instagram to neutralize a threat.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1706, and because, as explained in the subparagraphs below, the statement is not supported by any material cited in this

paragraph (or the subparagraphs below), as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. In November 2012, Mr. Zuckerberg again acknowledged that Instagram's threatening growth trajectory was the genuine reason that Meta acquired Instagram, writing to Sheryl Sandberg that "Instagram was growing so much faster than us we had to buy them for $1 billion[.]" PX15138, Meta messages: M. Zuckerberg to S. Sandberg, (Nov. 8. 2012), FTC-META-012281992, at -992.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1706 and because "genuine reason" is vague, undefined, and does not appear in the cited document. Further disputed because the cited document does not support the statement in paragraph 1708. In the cited document, Mr. Zuckerberg discussed various personnel issues with Ms. Sandberg, not the reason for the purchase of Instagram. PX15138 at -992, -993 (FTC-META-012281992).

b. In a January 23, 2013 post, Amin Zoufonoun described the "the high level rationale above for" the Instagram transaction, writing:

> [W]e acquired instagram because we believed they had escape velocity in terms of user traction (growth, engagement) and had/would become a 'core' social, mobile service in a strategically important area for us (photo sharing) and in a different but important way (follower graph). A key pillar in our strategy . . . today remains building/buying what we determine to be core, strategically important social experiences in mobile.

PX2375, Meta Workplace Post: A. Zoufonoun post to Dan's Weekly Update (Jan. 23, 2013), FB_FTC_CID_03250616, at -616; PX6028, Zoufonoun IH Tr., at

188:8-190:6, 192:1-195:17, 199:22-200:4 (explaining the meaning of his 2013 post in PX2375).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1706 and 1652(d) (which cites the same document), and because the subparagraph does not support the statement in paragraph 1708. Mr. Zoufonoun's post and testimony regarding how an acquisition can be successful does not support the assertion that Meta sought to neutralize Instagram.

1709. Mr. Zuckerberg confirmed again in his deposition that Meta acquired Instagram because of Instagram's growth and superior performance in mobile photo sharing.

Meta Response: Disputed in part. Undisputed that Instagram's growth (which Meta helped achieve pre-acquisition) and mobile photo sharing features factored into Meta's decision to acquire Instagram. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1706, and because, as stated in subparagraph 1709(a), Mr. Zuckerberg's cited testimony was regarding "[o]ne of the reasons that Meta acquired Instagram."

a. Mr. Zuckerberg testified that "in the context of mobile photo sharing," Instagram was the leader at the time of the acquisition, and agreed that "[o]ne of the reasons that Meta acquired Instagram was that its mobile photo sharing was growing faster than the Facebook application's mobile photo sharing." PX6127, Zuckerberg (Meta) Dep. Tr., at 90:23-91-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1709.

b. Mr. Zuckerberg testified that he believed the $1 billion purchase price was justified, given how quickly Instagram was growing prior to the acquisition. *Id.* at 85:20-25 ("Q. Regardless of your efforts to instill confidence in Meta employees, you honestly believed at the time that given how quickly Instagram was growing, you thought the acquisition price was probably worth it; right? A. Yes. Or else I wouldn't have offered it.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1709.

e) Consistent with its monopolistic intent, Meta paid a large premium over Instagram's market value.

1710. Meta purchased Instagram for $1 billion—double Instagram's Series B valuation and an "unprecedented" amount for a business of this kind. PX6015, Krieger (Meta/Instagram) IH Tr., at 156:16-158:19 ("[Meta's] offer was very large. It was kind of unprecedented at the time").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement is material to the resolution of either party's motion.

1711. Meta's willingness to pay a large premium was an important reason why Instagram's co-founders agreed to sell. PX6027, Systrom (Meta/Instagram) IH Tr., at 199:17-25 ("[B]ut if someone comes in and says, 'Hey' – like, imagine you are selling your house and

someone doubles the next best offer, I mean, you do some serious thinking. . . . it's life-changing money, not only for me, but also for many of our early employees. It felt like the right thing to do at that time.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement is material to the resolution of either party's motion. Further disputed that the statement creates a genuine dispute of material fact, including because the quoted testimony is incomplete and lacks context. Mr. Systrom testified that there were two reasons to agree to Meta's offer, the other one being that "there were a lot of things that allowed us to get to our vision [for Instagram] more quickly than we would have," by partnering with Meta. PX6027 at 198:20-22 (Systrom IH Tr.).

1712. Sheryl Sandberg testified that she participated in discussions at Meta about whether to acquire Instagram, and that the fact Meta paid so much for Instagram was "probably" due in part to the competitive threat that Instagram posed to Facebook. PX6022, Sandberg (Meta) IH Tr., at 224:20-225:18 ("Q. Did you participate in internal discussions within Facebook about whether Facebook should acquire Instagram? A. I'm sure I would have participated in those."), 235:20-25 ("[Q.] Is part of the reason Facebook paid as much as it did for Instagram because Instagram posed a competitive threat to Facebook Blue? A. I think probably, because a product that was that good it could grow that quickly.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1706. Further disputed that the statement creates a genuine dispute of material fact, including because the quoted testimony is incomplete and misleading. Ms. Sandberg's complete

answer to the question also includes the following testimony: "But I don't think it posed as much of a competitive threat as it looks like it would have today." PX6022 at 236:1-16 (Sandberg IH Tr.).

1713. The premium Meta paid to acquire Instagram is consistent with its motivation to eliminate a competitive threat. *See* PX9000, Hemphill Rep., at ¶¶ 932-33.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1706, and because the statement is not supported by the cited material, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). On the contrary, evidence shows Meta approved the Instagram transaction "in light of valuations of other private companies in the Internet space, the valuation of Facebook and the anticipated value the combination of the two companies would bring to users and to Facebook, that the purchase price was prudent and would be a wise investment by the Company." PX2373 at -148 (FB_FTC_CID_01497147). Further disputed because Professor Hemphill's report ignores that "[i]n M&A, it is common for buyers to pay a premium for a target company, reflecting the value of control of the company as well as the seller's ability to extract value from expected synergies," and that [redacted] Ex. 6 at ¶¶ 159-164 (Kaplan Rep.) (explaining why "Professor Hemphill does not demonstrate that the premium Meta paid was anticompetitive as opposed to reflecting these typical reasons for a premium").

C. Meta's Acquisition of WhatsApp Eliminated a Significant Competitive Threat and Protected its Monopoly Power

1. With the Shift to Mobile, Meta Faced a Threat of Entry into Personal Social Networking Services by Leading Mobile Messaging Apps.

a) Emergence of over-the-top ("OTT") mobile messaging.

1714. OTT mobile messaging apps rely on internet technology rather than traditional telephone infrastructure to provide communication services to users. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 31:4-13.

Meta Response: Undisputed.

1715. OTT mobile messaging apps offered benefits that traditional messaging did not.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. OTT mobile messaging apps offered additional features compared to traditional messaging, including the ability to send longer text messages; larger images, videos, and files; group messages; and characters in non-Latin languages. *See, e.g.*, PX6036, Davenport (Meta) Dep. Tr., at 67:12-68:1; PX6122, [redacted]; PX6076, Olivan (Meta) Dep. Tr., at, 59:21-60:16; PX6009, Acton (Meta/WhatsApp) IH Tr., at 35:6-37:5.

Meta Response: Undisputed.

b. OTT mobile messaging apps offered increased privacy options compared to traditional messaging, such as end-to-end encryption. *See, e.g.*, PX6009, Acton (Meta/WhatsApp) IH Tr., at 41:19-22; PX6041, Endres (Meta) Dep. Tr., at 67:11-14.

Meta Response: Disputed in part. Undisputed that the paraphrased testimony supports the statement that mobile messaging apps are capable of offering

increased privacy options. Disputed on the ground that the cited testimony does not mention "end-to-end encryption," nor does it support the implication that all OTT messaging apps offered end-to-end encryption. For example, WhatsApp – which the FTC labels an "OTT mobile messaging app" – did not release full end-to-end encryption until April 2016 following the Meta acquisition. *See* Meta SMF ¶ 852.

c. OTT mobile messaging applications [redacted] traditional messaging. *See, e.g.*, PX6009, Acton (Meta/WhatsApp) IH Tr., at 37:6-39:23; [redacted].

Meta Response: Disputed in part. Undisputed that the transcript supports the claim that some OTT mobile messaging applications offered lower costs compared to traditional messaging prior to the WhatsApp acquisition. Disputed that the statement creates a genuine dispute of material fact, including because the cost of traditional messaging has declined, as have prices for some OTT mobile messaging applications – including WhatsApp, which Meta made free after the acquisition. *See* Meta SMF ¶ 825; Ex. 142 at 106:5-14 (Zuckerberg Dep. Tr.).

1716. Current Meta Chief Operating Officer Javier Olivan explained that, with "the world shifting from desktop computers into mobile devices," it was a "specially disruptive and a unique point in time." PX6076, Olivan (Meta) Dep. Tr., at 222:14-223:8; *see also id.* at 63:8-10 ("Q. In June 2022 you became chief operating officer at Meta; is that right? A. Yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact,

including because the quotation omits context for the testimony. Mr. Olivan explained that the "shift to mobile happened at different times in different parts of the world," and that "the height of the transition in places like [the] United States" was around 2012 – not 2014 when Meta acquired WhatsApp. PX6076 at 221:3-16 (Olivan Dep. Tr.).

1717. On the rise of OTT messaging applications, Mr. Olivan further explained that:

> Mobile devices [were] offering a complete new set of platform capabilities, push notifications, always on, data, an address book that sits there for every app to basically just tap into with one click. On top of that, you have a pricing this location in the market, because telcos are heavily pushing for the option of 3G and data services, therefore completely misprice[ing] the data relative to their core services, which was voice and texting, namely SMS. So it was the perfect storm for these mobile messaging apps to grow extremely quickly.

PX6076, Olivan (Meta) Dep. Tr., at 222:15-223:8.

Meta Response: Undisputed that the witness provided the quoted testimony.

1718. By January 2011, Meta recognized the need to offer a mobile messaging service in addition to the web offering it was currently operating.

Meta Response: Undisputed that the documents in the subparagraphs contain the quoted language as stated in Meta's responses to the subparagraphs below.

a. On January 10, 2011, Mr. Zuckerberg wrote that it was "amazing how high the interaction quality" was on Beluga, a newly launched OTT mobile messaging app, "compared to [Meta's] web apps." PX2982, Meta document: "M. Zuckerberg posted in [redacted]" (Jan. 10, 2011), FB_FTC_CID_06545675, at -675; *see also* PX10312, Meta email: Facebook to B. Taylor (Meta) re: "Ben Davenport suggested you like Beluga..." (Dec. 24, 2010), FB_FTC_CID_03005884, at -884 (Beluga launched December 24, 2010);

PX6036, Davenport (Meta) Dep. Tr., at 67:12-68:1 (describing choice to make Beluga a mobile messaging app).

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

b. On January 25, 2011, Meta Corporate Development team member [redacted] requested an introduction to one of Beluga's founders "to acquire his company." [redacted] explained that the Beluga app "enable[d] a very fast way to communicate with groups" and was "well designed specifically for the mobile user experience." PX2983, Meta email chain: [redacted] to G. Rajaram & [redacted] re: "You guys know [redacted]? I want to meet him to acquire his company, Beluga," (Jan. 25, 2011), FB_FTC_CID_02455911, at -913-14.

<u>Meta Response</u>: Undisputed that the document contains the quoted language (although it should read "fast way to communicate and share with groups").

c. On January 31, 2011, Meta executives including Mr. Zuckerberg discussed having the Beluga team "build a new app for us based on the design and social mechanics of Beluga." PX1611, Meta email chain: [redacted] to M. Zuckerberg, et al. re: "Beluga," (Jan. 31, 2011), FB_FTC_CID_05993899, at -899-900.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

d. In discussing Meta's product offerings in March 2011, current Meta Chief Technology Officer Andrew Bosworth stated that Meta's messaging system "currently falls short in mobile-mobile case due to uncertain delivery. I know this because I heart Titan but use Beluga on the slopes at [T]ahoe or at concerts."

PX10323, Meta email from A. Bosworth to [redacted] re: "Weekly Team Report – appcomm," (Mar. 10, 2011), FB_FTC_CID_02937956, at -957; PX6036, Davenport (Meta) Dep. Tr., at 97:25-98:4 (describing "Titan" as an "internal code name for the—for the messaging system as a whole. Primarily the back-end services that supported Facebook's overall messaging platform."); PX6100, Bosworth (Meta) Dep. Tr., at 13:7-14:13.

Meta Response: Undisputed that the document and transcript contain the quoted language.

1719. Meta also recognized the need to move quickly to enter the OTT mobile messaging space.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. On January 31, 2011, Mr. Bosworth wrote that the "group messaging space is heating up," but that he believed "none of the existing offerings are, at this point, likely to lock up such a strong advantage that we can't enter a little late and be the strongest player in the market relatively quickly." PX1611, Meta email chain: A. Bosworth to [redacted], et al. re: "Beluga," (Jan. 31, 2011), FB_FTC_CID_05993899, at -899.

Meta Response: Undisputed that the document contains the quoted language.

b. The next day, Meta Product Manager Peter Deng emailed Mr. Zuckerberg noting that the Meta "groups team" would move "as quickly as we can" to launch a "mobile product" in the event the Beluga acquisition did not work out, but that

there's "only so much we can do with 1 engineer." PX2984, Meta email chain: P. Deng to M. Zuckerberg, et al. re: "Beluga," (Feb. 1, 2011), FB_FTC_CID_06004725, at -725; PX6054, Deng (Meta) Dep. Tr., at 19:2-10.

Meta Response: Undisputed that the document contains the quoted language.

c. On February 15, 2011, Mr. Bosworth proposed postponing Meta's introductory bootcamp requirement for Beluga until the Beluga team established a Meta version of its messaging product. PX10316, Meta email chain: A. Bosworth to [redacted], et al. re: "Need input: Modified bootcamp?" (Feb. 15, 2011), FB_FTC_CID_02944906, at -907.

Meta Response: Undisputed.

d. Mr. Bosworth explained: "For Beluga, mobile messaging, the space is just really hot right now and we'd like to get an offering in as quickly as possible. . . . A big part of the reason for that acquisition is to move more quickly than 6-8 weeks." PX10316, Meta email chain: A. Bosworth to [redacted], et al. re: "Need input: Modified bootcamp?" (Feb. 15, 2011), FB_FTC_CID_02944906, at -906.

Meta Response: Undisputed that the document contains the quoted language.

e. On February 18, 2011, Mr. Deng emailed Mr. Zuckerberg and others that the "plan" was for the Beluga team to "be the first members of [Meta's] mobile messaging engineering team" and to "try to launch in 6 weeks" "given the competitive landscape and their momentum." PX2985, Meta email: P. Deng to

M. Zuckerberg, et al. re: "Beluga Integration Plan," (Feb. 18, 2011), FB_FTC_CID_05992366, at -366.

Meta Response: Undisputed that the document contains the quoted language.

f. On February 24, 2011, Mr. Deng reiterated to Mr. Zuckerberg that the Beluga team planned to "quickly ship[] a Facebook Mobile Groups application" after onboarding, given that "moving fast is important." PX10319, Meta email: M. Zuckerberg to B. Taylor, et al. re: "Beluga Integration Update," (Feb. 24, 2011), FB_FTC_CID_06544536, at -537 (forwarding an email from product manager Peter Deng).

Meta Response: Undisputed that the document contains the quoted language.

g. On March 10, 2011, Mr. Bosworth wrote that the "SMS++ app space is heating up . . . and if we don't establish mindshare in that space very soon we risk having to try to later integrate with a closed platform." PX10323, Meta email: A. Bosworth to [redacted] re: "Weekly Team Report – appcomm," (Mar. 10, 2011), FB_FTC_CID_02937956, at -957.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because it omits necessary context, as the material the FTC removes with ellipses illustrates: "The SMS++ app space is heating up (dozens of competitors, millions of active users)." PX10323 at -957 (FB_FTC_CID_02937956).

1720. In February 2011, Meta purchased Beluga and hired its team. PX2969, Meta email chain: A. Bosworth to [redacted] et al. re: "Project Whale: Whale signature pages," (Feb. 28, 2011), FB_FTC_CID_09135894, at -894-96; PX10321, Meta email chain: [redacted] (Meta) to B. Davenport (Beluga) re: "announcement timing," (Feb. 27, 2011), FTC-META-003699934, at -938.

Meta Response: Undisputed.

1721. Meta planned for the Beluga team to launch a standalone Meta mobile messaging app within four to six weeks "[g]iven the competitive landscape and their momentum." *See, e.g.*, PX2985, Meta email: P. Deng to M. Zuckerberg, et al. re: "Beluga Integration Plan," (Feb. 18, 2011), FB_FTC_CID_05992366, at -366; PX10319, Meta email: M. Zuckerberg to B. Taylor, et al. re: "Beluga Integration Update," (Feb. 24, 2011), FB_FTC_CID_06544536, at -537 (forwarding an email from product manager Peter Deng); PX10322, Meta email: A. Bosworth to [redacted], et al. re: "Plans for Beluga acquisition," (Mar. 1, 2011), FB_FTC_CID_05991244, at -244.

Meta Response: Undisputed that the document contains the quoted language.

1722. In August 2011, Meta officially launched its Facebook Messenger product. PX0685 at -001, "Messenger – Facts," https://m.facebook.com/messengerfacts (last visited May 21, 2024) ("Messenger was first released in **August of 2011**").

Meta Response: Undisputed.

b) Other mobile messengers emerged as the leaders in the space, while Meta's solution, Facebook Messenger, struggled to compete.

1723. Facebook Messenger had inferior technical performance compared to other top OTT mobile messengers, including WhatsApp, in 2012 and 2013.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below.

a. In March 2012, Mr. Davenport assessed that Facebook Messenger could be "much slower than WhatsApp and other apps with simpler messaging structures" at sending messages. PX10329, Meta email: B. Davenport to P. Deng re: "WhatsApp / FBM SWOT," (Mar. 14, 2012), FTC-META-003702375, at -376; PX6036, Davenport (Meta) Dep. Tr., at 166:15-25.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this quotation gives full context to the discussion comparing Messenger to WhatsApp, which included noting that WhatsApp was not a significant presence "in [the] US market yet" and "[f]eatures are minimal" including "[s]mall max group size." PX10329 at -375 (FTC-META-003702375).

b. In March 2012, Mr. Davenport wrote that Facebook Messenger was "unreliable in providing push notifications." PX10329, Meta email: B. Davenport to P. Deng re: "WhatsApp / FBM SWOT," (Mar. 14, 2012), FTC-META-003702375, at -376.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to subparagraph 1723(a).

c. In March 2012, Mr. Davenport noted that Facebook Messenger was "not currently seen as a reliable way to reach someone 'right now.'" PX10329, Meta email: B. Davenport to P. Deng re: "WhatsApp / FBM SWOT," (Mar. 14, 2012, FTC-META-003702375, at -376.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to subparagraph 1723(a).

d. Mr. Davenport explained that "not being reliable is not a . . . good quality in a consumer product." PX6036, Davenport (Meta) Dep. Tr., at 171:1-6.

Meta Response: Disputed in part. Undisputed that Mr. Davenport provided the quoted testimony. Disputed that that the statement creates a genuine dispute of material fact, including because the quotation is incomplete and lacks context. Mr. Davenport also testified: "Q. Were other messaging apps like WhatsApp more reliable or seen as more reliable ways to reach someone right now? . . . A. I can't speculate. I mean you could poll people, but, you know, people would tell you various things." PX6036 at 171:7-13 (Davenport Dep. Tr.).

e. Mr. Davenport testified that Facebook Messenger was not "seen as a reliable way to reach someone 'right now'" due to "a combination of factors":

> One would be, you know, the unreliable push notifications, but probably the larger factor is that when you sent a message with Messenger, you had no idea whether the other person had Messenger or how they were receiving that message. They might be receiving it on chat. They might receive it in their in-box two days later. You did not have a reliable expectation that it was going to buzz their phone.

PX6036, Davenport (Meta) Dep. Tr., at 170:14-25.

Meta Response: Undisputed that the witness provided the quoted testimony.

f. On March 16, 2012, Mr. Davenport described latency for Meta's messaging product backend (Titan) as "ridiculously bad in the last week." PX10330, Meta messages: "[Messages – Mobile] Uploaded M2M.pptx" (Mar. 16, 2021), FTC-META-004292911, at -911; PX6036, Davenport (Meta) Dep. Tr., at 98:1-4.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

g. Mr. Davenport testified that in March 2012, other apps like WhatsApp were "probably" more reliable in providing push notifications than Facebook Messenger. PX6036, Davenport (Meta) Dep. Tr., at 169:20-23.

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

h. On April 3, 2012, Raymond Endres, engineering director for Facebook Messenger, wrote: "Reliability and latency are two key issues we have relative to WhatsApp." PX10334, Meta email: R. Endres to [redacted], et al. re: "Messages Eng Lead," (Apr. 3, 2012), FB_FTC_CID_06848385, at -385; PX6041, Endres (Meta) Dep. Tr., at 22:15-23.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

i. Mr. Endres testified that Facebook "definitely had some problems in the early years just given the legacy systems that it created," noting that reliability and performance "was quite bad when [he] started." PX6041, Endres (Meta) Dep. Tr., at 124:17-125:1. Specifically, Mr. Endres explained that:

> When I joined, there were three separate messaging systems that had just been merged together; a realtime chat system, and in-box, and an e-mail system. And it was kind of rushed and didn't work super well. So a lot of times messages would get sent, but they may or may not show up for a period of time. In some cases, they weren't delivered at all. There was no instrumentation for the end-to-end reliability when I arrived. We had to build that. There were problems with the notification services that were used for Apple and Google. So there were quite a range of issues. We worked through most of those over the two years, and I think it was

> reasonable at this point, but I would not say it was best in class in the market.

PX6041, Endres (Meta) Dep. Tr., at 125:12-126:2.

Meta Response: Undisputed that the witness provided the quoted testimony.

j. At his deposition, Mr. Endres explained that some of Facebook Messenger's issues resulted from Facebook Messenger's connection to Facebook, "which was a much larger app and hadn't been optimized for messaging." PX6041, Endres (Meta) Dep. at 126:5-7.

Meta Response: Undisputed that the witness provided the quoted testimony.

k. On February 4, 2013, Meta's [redacted] sent an email to other Meta employees entitled "MediaTek feedback on FB Messenger for Android" that included an email from MediaTek providing "marketing and PM feedback" on Facebook Messenger. PX10457, Meta email chain: [redacted] to P. Deng, et al. re: "MediaTek feedback on FB Messenger for Android," (Feb. 4, 2013), FB_FTC_CID_10718319, at -321.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in each subparagraph below create a genuine dispute of material fact, including because these statements omit the context that MediaTek was evaluating "Facebook messenger" as an option "in emerging market" contexts (where phones are not necessarily high performance). PX10457 at -321 (FB_FTC_CID_10718319).

i. MediaTek reported that "the user experience" on Facebook Messenger is "very bad compared to" apps like "LINE, WHATSAPP, and WeChat." PX10457, Meta email chain: [redacted] to P. Deng, et al. re: "MediaTek

feedback on FB Messenger for Android," (Feb. 4, 2013), FB_FTC_CID_10718319, at -321.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

ii. MediaTek reported that the launch time for Facebook Messenger was 12 seconds on average, compared to an average launch time of 3.3 seconds for LINE, 2.1 seconds for WhatsApp, and 1.8 seconds for WeChat. PX10457, Meta email chain: [redacted] to P. Deng, et al. re: "MediaTek feedback on FB Messenger for Android," (Feb. 4, 2013), FB_FTC_CID_10718319, at -321.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

iii. MediaTek reported that the average time for Facebook Messenger to show a warning icon "if there is something wrong from network" is 10 seconds, compared to an average time of 1-2 seconds for LINE, 2.3 seconds for WhatsApp, and less than 3 seconds for WeChat. PX10457, Meta email chain: [redacted] to P. Deng, et al. re: "MediaTek feedback on FB Messenger for Android," (Feb. 4, 2013), FB_FTC_CID_10718319, at -321.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

l. On February 6, 2013, Mr. Deng described Facebook Messenger's average launch time and average warning notification time compared to WhatsApp, LINE, and

WeChat as "embarrassing." PX10457, Meta email chain: P. Deng to [redacted], et al. re: "MediaTek feedback on FB Messenger for Android," (Feb. 6, 2013), FB_FTC_CID_10718319, at -320.

Meta Response: Undisputed that the document contains the quoted language.

1724. Meta's internal research indicated that users believed WhatsApp, LINE, KakaoTalk, and WeChat to be better products than Facebook Messenger in 2012 and 2013.

Meta Response: Undisputed that the documents cited in the subparagraphs below contain the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the documents do not support the vague statement that users believed the noted apps were "better products" than Facebook Messenger in 2012 and 2013.

a. In June 2012, Mr. Davenport wrote to Mr. Zuckerberg that takeaways from a focus group session with users of "WhatsApp and other messaging apps" included that "Facebook messages are not seen as real-time way to reach someone." PX10336, Meta email chain: B. Davenport to M. Zuckerberg, et al. re: "messenger perceptions," (June 25, 2012), FB_FTC_CID_06308070, at -070.

Meta Response: Undisputed that the document contains the quoted language.

b. In September 2012, Meta employee [redacted] posted "initial takeaways" from "conversations with people who use WhatsApp, Kakao Talk, and LINE" in an internal "Messenger: Growth" group, including:

> People have a vastly cleaner graph within WhatsApp/Kakao/LINE vs. Facebook. . . . these other

> services are seen as extremely fast and always reliable. . . . Past and ongoing experiences with Facebook messages leave people feeling uncertain if their message will be delivered or not. . . . In general, Facebook is not seen as a 'real-time' communication tool.

PX2989, Meta internal post: [redacted] post to Messenger: Growth, (Sept. 27, 2012), FB_FTC_CID_03782798, at -798.

Meta Response: Undisputed that the document contains the quoted language.

c. In May 2013, Mr. Deng sought permission to add another engineer to the Facebook Messenger team because "there's a huge gap in perceived performance of our Messenger app compared to Whatsapp and other competitors." PX10275, Meta email chain: P. Deng to [redacted], et al. re: "[redacted]," (May 6, 2013), FB_FTC_CID_02932212, at -212.

Meta Response: Undisputed that the document contains the quoted language.

1725. By mid-2012, Meta started recognizing a handful of OTT mobile messengers—WhatsApp, LINE, KakaoTalk, and WeChat—as the leaders in the space.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including to the extent the below statements and documents are in the context of global markets and for the reasons stated in Meta's responses to the subparagraphs below.

a. On April 1, 2012, Mr. Zuckerberg messaged Mr. Deng and other members of the Facebook Messenger team that he was "thinking a lot about mobile messaging, WhatsApp and how we should approach this." PX1345, Meta email:

B. Davenport to M. Zuckerberg, et al. re: "Message summary," (Apr. 1, 2012), FB_FTC_CID_06203576, at -576 (Mr. Davenport forwarding Mr. Zuckerberg's message).

Meta Response: Undisputed that the document contains the quoted language.

b. On April 17, 2012, Mike Nowak, a data scientist at Meta, provided an "Industry Update" to Meta executives including Mr. Zuckerberg, explaining: "Mobile messaging has become a significant growth category. Three names to watch here are **WhatsApp** (worldwide), **KakaoTalk** (predominantly in South Korea), and **LINE** (originally Japan, but now > 60% of users in other markets)." PX10592, Meta email: M. Nowak to M. Zuckerberg, et al. re: "Industry update," (Apr. 21, 2012), FB_FTC_CID_01539962, at -963; PX6056, Nowak (Meta) Dep. Tr., at 20:19-20.

Meta Response: Undisputed that the document contains the quoted language.

c. On April 22, 2012, Mr. Zuckerberg wrote that "[i]n addition to WhatsApp, other messaging apps like KakaoTalk, Naver's Line, and Tencent's WeChat are growing quickly and are all already bigger than us at >1b daily mobile messages." PX1116, Meta messages: M. Zuckerberg to M. Schroepfer (Apr. 22, 2012), FB_FTC_CID_06208072, at -072.

Meta Response: Undisputed that the document contains the quoted language.

d. In a June 2012 slide deck entitled "Mobile messengers," Meta employees reported the "user growth" of four apps in addition to "Facebook": WhatsApp, LINE, KakaoTalk, and WeChat. PX10598 at -010, Meta presentation: "Mobile messengers" (June 26, 2012), FB_FTC_CID_04336577.

Meta Response: Undisputed that the document contains the quoted language.

e. In a July 2012 slide deck entitled "Messenger competitive landscape," Meta employees wrote that "Clear competitors have emerged: WhatsApp, LINE, KakaoTalk, WeChat." PX10452 at -004, Meta presentation: "Messenger competitive landscape" (July 30, 2012), FTC-META-003702497.

Meta Response: Undisputed that the document contains the quoted language.

f. In an August 2012 slide deck entitled "Mobile messengers," Meta employees reported the "user growth" of four apps in addition to "Facebook": WhatsApp, LINE, KakaoTalk, and WeChat. PX10607 at -005, Meta presentation: "Mobile messengers" (Aug. 6, 2012), FB_FTC_CID_08493627.

Meta Response: Undisputed that the document contains the quoted language.

g. In October 2012, Meta employees made a chart entitled "Huge threat on messaging front" that reported user data for four apps in addition to "FB mobile Messaging" and "Messenger": WhatsApp, LINE, KakaoTalk, and WeChat. PX10454 at -004, Meta presentation: "Huge threat on messaging front" (Oct. 9, 2012), FTC-META-003699968; *see also* PX10454, Meta email chain: [redacted]

to P. Deng re: "Messenger Growth XFN SWAT," (Oct. 9, 2012), FTC-META-003699968, at -968 (sending the presentation to Peter Deng).

Meta Response: Undisputed that the document contains the quoted language.

h. In January 2013, a Meta mobile messaging growth summary email tracked message sends for four apps in addition to "FB mobile": WhatsApp, LINE, KakaoTalk, and WeChat. PX2988, Meta email: [redacted] to P. Deng, et al. Re: "Mobile messaging growth summary 2013-01-12," (Jan. 14, 2013), FB_FTC_CID_00021080, at -080.

Meta Response: Undisputed that the document contains the quoted language.

i. In a February 2013 presentation to the Meta Board of Directors, Meta presented MAU and message sends data for four apps in addition to "FBM" and "FB, all mobile": WhatsApp, LINE, KakaoTalk, and WeChat. PX1103 at -006-07, Meta presentation: "Mobile messaging" (Feb. 13, 2013), FB_FTC_CID_02546793; PX1103, Meta email chain: P. Deng to M. Schroepfer re: "Final Board Slides," (Feb. 12, 2013), FB_FTC_CID_02546793, at -793 (discussing context for the presentation).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the document reports worldwide figures and because the cited pages refer to "SnapChat" in addition to the above apps. Further disputed because the above quotation does not provide context to the

discussion. The document also states: "These services are growing from the phonebook, an arguably tighter social network than growing from email address book like we did." PX1103 at -795 (FB FTC_ CID 02546793).

1726. Meta generally identified the large OTT mobile messengers as having more messages sent on their messaging applications than Meta did on Facebook Messenger in 2012 and 2013.

Meta Response: Undisputed to the extent stated in Meta's responses to the subparagraphs below.

a. Mr. Nowak identified WhatsApp as facilitating 2 billion messages a day as of February 28, 2012, KakaoTalk as facilitating 1.3 billion messages a day as of March 26, 2012, and Facebook as facilitating 882 million messages a day as of April 16, 2012. PX10592, Meta email: M. Nowak to M. Zuckerberg, et al. re: "Industry update," (Apr. 17, 2012), FB_FTC_CID_01539962, at -963.

Meta Response: Undisputed that the document contains the above figures.

b. On April 26, 2012, Mr. Deng approved the posting of an announcement to the Messages Team stating that Facebook Messenger was behind WhatsApp, KakaoTalk, and WeChat in active users, message sends, and growth. PX10449, Meta email chain: P. Deng to [redacted] re: "Announcement," (Apr. 26, 2012), FB_FTC_CID_06850829, at -829.

Meta Response: Undisputed.

c. In June 2012, Meta estimated that WhatsApp users sent 2.8 billion mobile messages per day, KakaoTalk users sent 1.4 billion mobile messages per day, and Facebook sent 1 billion mobile messages per day. PX10598 at -011, Meta

presentation: "Mobile messengers" (June 26, 2012), FB_FTC_CID_04336577. Information was not provided for WeChat or LINE. *Id.*

Meta Response: Undisputed that the document contains the above global figures.

i. This same data was reported again in an August 2012 Meta presentation. PX10607 at -006, Meta presentation: "Mobile messengers" (Aug. 6, 2012), FB_FTC_CID_08493627.

Meta Response: Undisputed.

d. In July 2012, Meta reported that WhatsApp users sent 2 billion daily messages, KakaoTalk users sent 3 billion daily messages (although Meta suspected KakaoTalk of overcounting), and Facebook Messenger users sent 220 million daily messages. PX10452 at -006, Meta presentation: "Messenger competitive landscape" (July 30, 2012), FTC-META-003702497. Information for LINE and WeChat was "[u]ndisclosed." *Id.*

Meta Response: Undisputed that the document contains the above global figures (but at -005).

e. In February 2013, Meta reported that WhatsApp had 6.3 billion daily message sends, KakaoTalk had 2.5 billion daily message sends, and Facebook Messenger had only 477 million daily message sends. PX1103 at -007, Meta presentation: "Mobile Messaging" (Feb. 13, 2013), FB_FTC_CID_02546795. Information was not provided for WeChat or LINE. *Id.*

Meta Response: Undisputed that the document contains the above global figures.

1727. Prior to its acquisition by Meta, WhatsApp's growth outpaced Facebook Messenger's.

Meta Response: Disputed in part. Undisputed to the extent stated in Meta's responses to the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in the subparagraphs below and because the materials cited below concern WhatsApp's growth as an international service, where it was outpacing Messenger. WhatsApp had a minor U.S. presence at the time and up through the acquisition announcement, when its lead investor estimated that its penetration was between 2% and 4% of the U.S. population. *See* Meta SMF ¶¶ 772-778. Mr. Acton, one of the WhatsApp founders, testified: "Q. And is it true that the United States has never been a core market of WhatsApp? . . . A. In my time from 2009 to 2014 – to 2017, the United States was – was never a core market from a user and growth perspective." *Id.* at ¶ 779 (quoting Ex. 163 at 204:18-24 (Acton Dep. Tr.)). He also testified that WhatsApp was "so small and we had such limited penetration in the U.S. market that we – we ourselves, were not competitive." *Id.*; *see also id.* ("Q. So thinking about the U.S. in particular, what did growth in the U.S. of WhatsApp look like during that time period? A. Growth in the United States was slow." (quoting Ex. 314 at 99:13-16 (Acton IH Tr.))). Mr. Acton also testified: "Q. You did not take any actions specifically to target growth in the United States before you were acquired? A. No." *Id.* at ¶ 781 (quoting Ex. 163 at 213:8-11 (Acton Dep. Tr.)). Mr. Acton testified: "Q. So could WhatsApp have taken actions to target growth in the U.S.? A. I suppose you can always take money, flush it down the toilet, and market with television and radio ads. I wouldn't do it." *Id.*

a. On April 1, 2012, Mr. Zuckerberg wrote to Messrs. Deng, Endres, and other members of the Facebook Messenger team: "WhatsApp sends more mobile messages per day than we do by more than 2x, and they're growing about 3x faster week-over-week. This is a big deal. Unfortunately for us, I don't think there's any way to directly minimize the advantage which is their momentum and growth rate." PX1345, Meta email: B. Davenport to M. Zuckerberg, et al. re: "Message summary," (Apr. 1, 2012), FB_FTC_CID_06203576, at -579 (Mr. Davenport forwarding Mr. Zuckerberg's message).

Meta Response: Undisputed that the document contains the quoted language about global usage.

b. In April 2012, Mr. Zuckerberg described messaging as "a critical strategic point for us," and noted that "[s]ince we bought Instagram . . . . I now feel like we're ahead in photos but falling increasingly behind in messages. In addition to WhatsApp, other messaging apps like KakaoTalk, Naver Line, and Tencent's WeChat are growing quickly and are all already bigger than us at >1b daily mobile messages." PX1116, Meta email: M. Schroepfer to M. Zuckerberg re: "Message summary," (Apr. 22, 2012), FB_FTC_CID_06208072, at -072 (Mr. Schroepfer forwarding Mr. Zuckerberg's message).

Meta Response: Undisputed that the document contains the quoted language about global usage.

c. In August 2012, WhatsApp was handling four billion mobile-to-mobile messages every day compared to "about 200 million" mobile-to-mobile messages and 1.2 billion total messages from mobile for Facebook Messenger. PX10338, Meta

internal post: B. Davenport to Messages (+Chat) Feedback, (Aug. 28, 2012), FTC-META-004295803, at -803.

Meta Response: Undisputed that the document contains the quoted language about global usage.

d. In April 2013, Meta data scientist Mike Nowak explained to then-Head of Growth Javier Olivan: "[s]hort story is that WhatsApp does not appear to be slowing down – if anything, they may be picking up." PX10608, Meta email chain: M. Nowak to J. Olivan re: "WhatsApp," (Apr. 16, 2013), FB_FTC_CID_09079424, at -426; PX6056, Nowak (Meta) Dep. Tr., at 20:19-20; PX6017, Olivan (Meta) IH Tr., at 24:21-25:5.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the statement is misleading and incomplete. Mr. Olivan stated in the same chain: "That said, Whatsapp's impressive growth / engagement data suggests that in market where they beat us they have to be beating us across all tiers – from high end to low end . . . . *US is not one of them*." PX10608 at -424 (FB_FTC_CID_09079424) (emphasis added).

e. In April 2013, Mr. Nowak noted to Mr. Olivan that "[a]t current rates, WhatsApp is positioned to have **more overall message sends than Facebook** by the end of the year – i.e., they would be handling more messages on mobile only than we do on mobile and web put together." PX10608, Meta email chain: M. Nowak to J. Olivan re: "WhatsApp," (Apr. 16, 2013), FB_FTC_CID_09079424, at -426.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language about global usage. Disputed because the statement does not

provide context for the conversation, including that Mr. Olivan stated in the same document: "That said, Whatsapp's impressive growth / engagement data suggests that in market where they beat us they have to be beating us across all tiers – from high end to low end . . . . US is not one of them." PX10608 at -424 (FB_FTC_CID_09079424).

f. In April 2013, Mr. Nowak noted to Mr. Olivan that if WhatsApp's "exponential growth continues while our message-sends stay basically flat (as they have been for the past 2-3 months[)]," WhatsApp could have "more overall message sends than Facebook" "sooner" than the end of the year. PX10608, Meta email chain: M. Nowak to J. Olivan re: "WhatsApp," (Apr. 16, 2013), FB_FTC_CID_09079424, at -426.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to subparagraph 1727(e).

g. In May 2013, Mr. Olivan sent a "messages competition slide" to Messrs. Nowak and Cox that compared mobile messages sent per day on "Facebook" and WhatsApp and which concluded that Facebook was "[n]ot growing as fast as the competition." PX1163, Meta email chain: J. Olivan to C. Cox re: "Messages competition slide," (May 2, 2013), FB_FTC_CID_02455191, at -191.

Meta Response: Undisputed that the document contains the quoted language about global usage.

h. On August 14, 2013, Mr. Nowak noted that "assuming WhatsApp's growth rate has stayed steady, sometime in the last week or so they passed us in terms of

overall daily send volume (mobile + web). Projections have them around 12.2B sends/day vs. our 7-day average of 11.7B." PX1413, Meta email chain: M. Nowak to J. Olivan, et al. re: "WhatsApp/FB sends," (Aug. 14, 2013), FB_FTC_CID_06213795, at -796.

Meta Response: Undisputed that the document contains the quoted language about global usage.

i. On August 28, 2013, Mr. Olivan wrote to Messrs. Zoufonoun and Zuckerberg: "We are definitely not playing in the same field as whatsapp does (as evidenced by the fact that we only have 200M messenger to messenger daily sends as opposed to their 12 B daily sends by now)." PX12127, Meta email chain: J. Olivan to A. Zoufonoun and M. Zuckerberg re: "WhatsApp/FB sends," (Aug. 28, 2013), FB_FTC_CID_06085872, at -872.

Meta Response: Undisputed that the document contains the quoted language about global usage.

j. In December 2013, Mr. Endres shared an internal "H2 review deck" that contained a chart entitled "Way behind on engagement." According to the chart, in 2013, Facebook Messenger was behind WhatsApp in MAUs, Daily Sends / MAU, and Total Sends. PX2474, Meta email chain: R. Endres to M. Schroepfer, et al. re: "Messenger," (Dec. 19, 2013), FB_FTC_CID_02627561, at -561; PX2474 at -016, Meta presentation: "Growth" (Dec. 10, 2013), FB_FTC_CID_02627563.

Meta Response: Undisputed that the document contains the quoted language about global usage.

i. In 2013, WhatsApp had 350 million monthly active users, while Facebook Messenger had only 120 million monthly active users. PX2474 at -106, Meta presentation: "Growth" (Dec. 10, 2013), FB_FTC_CID_02627563.

Meta Response: Undisputed that the document contains these figures about global usage.

ii. In 2013, WhatsApp had 40 to 45 daily sends per monthly active user, while Facebook Messenger had only 10 daily sends per monthly active user. PX2474 at -106, Meta presentation: "Growth" (Dec. 10, 2013), FB_FTC_CID_02627563.

Meta Response: Undisputed that the document contains these figures about global usage.

iii. In 2013, WhatsApp had 15 billion total sends, while Facebook Messenger had only 1.2 billion total sends. PX2474 at -106, Meta presentation: "Growth" (Dec. 10, 2013), FB_FTC_CID_02627563.

Meta Response: Undisputed that the document contains these figures about global usage.

1728. Meta employees recognized that WhatsApp was a better product than Facebook Messenger.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. In March 2012, Mr. Davenport compiled a "Strengths," "Weaknesses," "Opportunities," and "Threats" (referred to as "SWOT") analysis of WhatsApp

and Facebook Messenger. PX10329, Meta email: B. Davenport to P. Deng re: "WhatsApp / FBM SWOT," (Mar. 14, 2012), FTC-META-003702375, at -375.

Meta Response: Undisputed that the document contains the quoted language.

i. Mr. Davenport identified WhatsApp's "Strengths" as including "[r]eliability and speed due to minimal features + store & forward model" and "[c]lean expectations with mobile-only network," among others. PX10329, Meta email: B. Davenport to P. Deng re: "WhatsApp / FBM SWOT," (Mar. 14, 2012), FTC-META-003702375, at -375.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the document omits context about WhatsApp's "weaknesses," including its small presence in the "US market," and that "[f]eatures are minimal" with "[s]mall max group size." PX10329 at -375 (FTC-META-003702375).

ii. Facebook Messenger's "Weaknesses," on the other hand, included "[c]an be much slower than WhatsApp and other apps with similar messaging architecture," "[h]as been unreliable in providing push notifications (past and ongoing)," and "[n]ot currently seen as a reliable way to reach someone right now," among others. PX10329, Meta email: B. Davenport to P. Deng re: "WhatsApp / FBM SWOT," (Mar. 14, 2012), FTC-META-003702375, at -376.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to subparagraph 1728(a)(i).

b. When compared with WhatsApp, Mr. Davenport believed that WhatsApp was perceived as a more reliable way to reach someone immediately than Facebook Messenger was. PX6036, Davenport (Meta) Dep. Tr., at 171:17-24.

Meta Response: Undisputed.

c. Mr. Endres testified that "certainly in performance" there was a big gap between Facebook Messenger and WhatsApp, and agreed that WhatsApp was superior to Facebook Messenger in terms of performance. PX6041, Endres (Meta) Dep. Tr., at 130:23-131:17.

Meta Response: Undisputed that the witness provided the quoted testimony.

d. In a presentation circulated internally by Meta employees on March 22, 2012, Meta noted that "FB messages feel unreliable for interruption; you're not confident the receiver will see it right now . . . Multiple interfaces to a single mailbox make this a difficult thing to achieve w/ technical issues and developing a clear mental model of the product." PX1371 at -010, Meta presentation: "WhatsApp and Facebook's difficulty with M2M traction" (Mar. 22, 2012), FB_FTC_CID_03200983.

Meta Response: Undisputed that the document contains the quoted language.

i. Meta further explained that: "[i]f you're on mobile it's faster to create & send an SMS than FB message (# of taps + slow UI)." PX1371 at -010,

Meta presentation: "WhatsApp and Facebook's difficulty with M2M traction" (Mar. 22, 2012), FB_FTC_CID_03200983.

Meta Response: Undisputed that the document contains the quoted language.

e. Conversely, Meta identified WhatsApp as being "very quick (few taps & responsive UI) to send a message; on par with your native SMS app," and explained that WhatsApp has "[n]o bugs, fast message delivery, and delivery receipts + typing indicators." PX1371 at -011, Meta presentation: "WhatsApp and Facebook's difficulty with M2M traction" (Mar. 22, 2012), FB_FTC_CID_03200983.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the statement is incomplete and omits context from the document. The presentation addressed, "Why are they [WhatsApp] getting adoption outside of the US?" PX1371 at -009 (FB_FTC_CID 03200982).

f. On April 1, 2012, Mr. Zuckerberg called WhatsApp "legitimately a better product for mobile messaging" than Facebook Messenger. According to Mr. Zuckerberg, WhatsApp was "more reliable and faster for sending messages. You get better signal and feedback via read receipts and last seen times." PX1345, Meta email: B. Davenport to M. Zuckerberg, et al. re: "Message summary," (Apr. 1, 2012), FB_FTC_CID_06203576, at -578 (Mr. Davenport forwarding Mr. Zuckerberg's message).

Meta Response: Undisputed that the document contains the quoted language (but at -579).

g. On April 26, 2012, Mr. Deng approved the posting of an announcement to the Messages Team stating that Facebook Messenger was behind WhatsApp, KakaoTalk, WeChat in "both it's [sic] feature set and the performance and reliability of the features we have." PX10449, Meta email chain: P. Deng to [redacted] re: "Announcement," (Apr. 26, 2012), FB_FTC_CID_06850829, at -829.

Meta Response: Undisputed that the document contains the quoted language.

h. At his deposition in this litigation, Meta's current Chief Operating Officer Javier Olivan described WhatsApp before the acquisition as "extremely well executed," "fast," and "reliable." PX6076, Olivan (Meta) Dep. Tr., at 56:9-57:13, 63:8-10.

Meta Response: Undisputed that the witness provided the quoted testimony.

c) By 2012, large mobile messaging apps in Asia had pivoted into personal social networking services.

1729. Kakao successfully launched a personal social networking services application based on the success of its mobile messaging application.

Meta Response: Disputed in part. Undisputed for the reasons stated in Meta's responses to the subparagraphs below. Disputed that Kakao is a "personal social networking services application" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. In March 2012, Kakao, the parent company of KakaoTalk, launched KakaoStory as a standalone application. PX0585 at -003, Kakao presentation: "4th Quarter and FY2015 Results" (Feb. 5, 2016), https://www.kakaocorp.com/upload_

resources/ir/siljeok/siljeok_20160205080506.pdf; PX6182, Rim (FTC) Dep. Tr., at 10:15-17.

Meta Response: Undisputed.

b. KakaoStory is a personal social networking service. PX6182, Rim (FTC) Dep. Tr., at 251:13-14.

Meta Response: Disputed. Disputed that Kakao is a personal social networking service for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

c. In a May 2012 email to Mr. Zuckerberg and others, Mr. Nowak described KakaoStory as a "a full-features mobile social network." PX10594, Meta email chain: M. Nowak to [redacted] re: "Industry update," (May 4, 2012), FB_FTC_CID_02442395, at -399 (describing KakaoStory); *see also* PX2992, Meta email: V. Smith to P. Deng, et al. re: "biz ops discussion around messenger," (June 22, 2012), FB_FTC_CID_02956327, at -327.

Meta Response: Undisputed that the document contains the quoted language.

d. In June 2012, Meta employee Vaughan Smith described KakaoStory as Kakao's "photo sharing SNS." PX2992, Meta email: V. Smith to P. Deng, et al. re: "biz ops discussion around messenger," (June 22, 2012), FB_FTC_CID_02956327, at -327.

Meta Response: Undisputed that the document contains the quoted language.

e. KakaoStory leveraged KakaoTalk's user base to help build its own user base. PX6063, Schultz (Meta) Dep. Tr., at 69:9-13 ("Q. So KakaoStory was able to publicize itself to a large base of potential users by marketing to existing KakaoTalk users? . . . A. I think that's a good summary."); PX10594, Meta email chain: M. Nowak to [redacted] re: "Industry update," (May 4, 2012), FB_FTC_CID_02442395, at -399 ("[KakaoStory] requires a KakaoTalk account – and hence leverages the KakaoTalk social graph.").

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony and the cited document contains the quoted language.

f. In October 2012, Mr. Nowak described KakaoStory to then-CFO David Ebersman as "a true mobile-first social network that leverages KakaoTalk's social graph." PX10595, Meta email chain: M. Nowak to D. Ebersman re: "Mobile panel data," (Oct. 30, 2012), FB_FTC_CID_03703708, at -708; [redacted].

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

g. Within the first four days of its launch, Meta reported that KakaoStory had over 8 million downloads. PX10626, Meta email chain: M. Nowak to [redacted], et al. re: "Industry update," (Apr. 22, 2012), FB_FTC_CID_06085791, at -791.

<u>Meta Response</u>: Undisputed.

h. Within five months of its launch, Meta reported that KakaoStory had 19 million users in South Korea. PX10607 at -008, Meta presentation: "Mobile messengers" (Aug. 6, 2012), FB_FTC_CID_08493627.

Meta Response: Undisputed.

i. Within 11 months of its launch, Meta reported that KakaoStory had 32 million registered users. PX1103 at -025, Meta presentation: "Mobile Messaging" (Feb. 13, 2013), FB_FTC_CID_02546793.

Meta Response: Undisputed.

1730. WeChat successfully launched personal social networking services features based on the success of its mobile messaging application.

Meta Response: Disputed. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. In April 2012, WeChat launched WeChat Moments. PX10594, Meta email chain: M. Nowak to [redacted] re: "Industry update," (May 4, 2012), FB_FTC_CID_02442395, at -398; PX2995, Meta email chain: [redacted] to A. Schultz, et al. re: "chat with WeChat Re: MTG: Re: Introduction(Internet mail)," (June 13, 2013), FB_FTC_CID_03160977, at -977-78.

Meta Response: Undisputed.

b. On April 24, 2012, Mr. Nowak sent an email to Mr. Olivan and others that noted that WeChat Moments included "Instagram-like photo-editing effects," "Path-style photo albums that auto-upload to user timelines," and "controlled social sharing features that closely resemble Google+'s Circles." PX10827, Meta email chain: M. Nowak to J. Olivan, et al. re: "More on WeChat," (Apr. 24, 2012), FTC-META-010410972, at -972-73 (quoting article on WeChat pivot).

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

c. On April 26, 2012, Mr. Deng approved the posting of an announcement to the Messages Team that described WeChat's social networking features to include "profiles, cover photos, [and] easy photo sharing to your 'circle.'" PX10449, Meta email chain: P. Deng to [redacted] re: "Announcement," (Apr. 26, 2012), FB_FTC_CID_06850829, at -829-30.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

d. On May 4, 2012, Mr. Nowak described WeChat as "adding a number of social features, including Google+-style Circles, Instagram-style photo filters, and a Path-style 'photo journal.'" PX10594, Meta email chain: M. Nowakto [redacted] re: "Industry update," (May 4, 2012), FB_FTC_CID_02442395, at -398.

<u>Meta Response</u>: Undisputed that the document contains most of the quoted language (but "adding" should be "added").

e. As of June 2013, Meta employee [redacted] reported that WeChat Moments had "several hundred million views daily." PX2995, Meta email chain: [redacted] to A. Schultz, et al. re: "chat with WeChat Re: MTG: Re: Introduction(Internet mail)," (June 13, 2013), FB_FTC_CID_03160977, at -977-78.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

f. [redacted] recognized that WeChat Moments was able to "buil[d] a sizable social network out of" WeChat's existing user base. PX2995, Meta email chain: [redacted]

to A. Schultz, et al. re: "chat with WeChat Re: MTG: Re: Introduction(Internet mail)," (June 13, 2013), FB_FTC_CID_03160977, at -977-78 (reporting on a discussion with WeChat's [redacted] and noting that WeChat Moments was "built . . . out of WeChat" and that "it is easier to build a social network on top of a messaging product").

Meta Response: Undisputed that the document contains the quoted language.

g. In discussing WeChat's "social network," [redacted] wrote to other Meta employees that "it is easier to build a social network on top of a messaging product." PX2995, Meta email chain: [redacted] to A. Schultz, et al. re: "chat with WeChat Re: MTG: Re: Introduction(Internet mail)," (June 13, 2013), FB_FTC_CID_03160977, at -977-78 (reporting on a discussion with WeChat's [redacted]).

Meta Response: Undisputed that the document contains the quoted language.

1731. LINE successfully launched personal social networking services features based on the success of its mobile messaging application.

Meta Response: Disputed. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. [redacted]

Meta Response: Undisputed.

b. [redacted]

Meta Response: Undisputed that the quoted language appears in the document.

2. WhatsApp Posed a Significant Mobile Messaging Personal Social Networking Pivot Threat to Facebook.

a) WhatsApp was a serious threat to pivot into personal social networking services because it had significant scale, growth, and engagement.

(1) WhatsApp was the global leader in mobile messaging.

1732. WhatsApp launched its OTT mobile messaging app in September 2009. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 25:21-26:1, 26:12-27:9, 31:3-7, 32:4-7.

Meta Response: Undisputed.

1733. WhatsApp is a cross-platform mobile messaging app, meaning that users do not need to own the same type of device in order to send messages to each other within the application. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 55:11-56:21, 135:4-13; PX6036, Davenport (Meta) Dep. Tr., at 48:7-11; PX10227, [redacted].

Meta Response: Undisputed.

1734. WhatsApp quickly gained a significant user base.

Meta Response: Disputed in part. Undisputed that WhatsApp's number of users grew after its launch. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because none of the cited testimony concerns WhatsApp in the United States, the FTC's alleged relevant geographic market. Further disputed because the cited testimony lacks context and is incomplete. Immediately after the testimony cited in the subparagraphs below, Mr. Acton testified that "[g]rowth in the United States was slow." PX6009 at 99:16 (Acton IH Tr.); *see also id.* at 114:17 ("[O]ur growth in the U.S. was quite slow."). Mr. Acton similarly testified that in February 2014, "the U.S. market was a hard market for [WhatsApp] because people were using adjacent messaging products. They were using iMessage. They were using Facebook Messenger. And so our growth in the U.S. was quite slow." *Id.* at 147:7-17; *see also* Ex. 137 at -582 [redacted]. Mr. Acton also testified WhatsApp had not "taken actions specifically targeting growth in the United States prior to February 2014." PX6009 at 145:20-23 (Acton IH Tr.). When asked whether WhatsApp "could have" taken actions to target growth in the United States, he testified that he would not "flush" money "down the toilet" on "a zero [return on investment] proposition," and "[w]e never did that." *Id.* at 146:2-17; *see also* Meta SMF ¶¶ 772-781 (WhatsApp's pre-acquisition growth).

a. Within four months of its launch, WhatsApp had acquired one million users. PX6009, Acton (Meta/WhatsApp) IH Tr., at 98:17-99:8.

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 1734.

b. From mid-January 2010 on, WhatsApp doubled its user base every 6 to 18 months. PX6009, Acton (Meta/WhatsApp) IH Tr., at 98:17-99:8.

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 1734.

1735. Prior to its acquisition by Meta, WhatsApp was a particularly successful OTT messaging application.

Meta Response: Disputed in part. Undisputed that WhatsApp was a successful OTT messaging application in some areas outside of the United States before its acquisition by Meta. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because none of the cited material concerns WhatsApp in the United States, the FTC's alleged relevant geographic market. *See* Meta Resp. to Counter SMF ¶ 1734 (WhatsApp's slow pre-acquisition growth in the U.S.). In fact, the document cited in the subparagraphs below states that WhatsApp was substantially smaller in the United States than described in the subparagraphs below, reaching only 6.9 million MAUs and achieving 2.2 "%Penetration" in the U.S. as of April 2013. PX10232 at 334 (SCO_00000324). Further disputed because "particularly successful" is vague and undefined.

a. In March 2011, WhatsApp had 17 million registered users, 11 million monthly active users, and 7.5 million daily active users, with 100,000 registrations per day. PX10232, Sequoia Capital document re: "WhatsApp" (Jan. 20, 2012),

SCO_00000324, at -339 (describing WhatsApp metrics "at the time of our investment in March last year").

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

b. By January 2012, WhatsApp had 95 million registered users. *Id*.

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

c. By January 2012, WhatsApp was adding 400,000 new registrations per day. *Id.*

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

d. By January 2012, 53% of WhatsApp users were active on a daily basis and 76% of WhatsApp users were active on a monthly basis. *Id.*

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

e. WhatsApp's principal investor, Sequoia Capital, reflected in a January 2012 investor memo that "[w]e know of no other mobile app company today which comes close to WhatsApp's 50%+ daily engagement level." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1735.

f. In January 2012, Sequoia Capital described WhatsApp as the "clear category leader in the SMS replacement category." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1735.

g. In April 2013, Sequoia Capital reported that WhatsApp's network had more than tripled in size in the previous fifteen months. *Id.* at -334.

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

h. By April 2013, WhatsApp had grown to 320 million registered users with 160 million users active on a daily basis. *Id* at -333.

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

i. By April 2013, WhatsApp was adding over 800,000 registered users per day. *Id.* at -334.

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

j. By June 2013, WhatsApp had 360 million registered users, 50% of whom were active on a daily basis. *Id.* at -325.

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

k. By June 2013, WhatsApp was adding 850,000 registered users per day. *Id.*

Meta Response: Disputed in part. Undisputed that the metrics referenced in the statement appear in the cited material. Disputed for the reasons stated above in Meta's response to paragraph 1735.

l. In June 2013, Sequoia Capital reported that "[f]rom a usage perspective, WhatsApp is one of the highest engagement apps we have seen, with a DAU/MAU ratio of 68% versus Facebook at 60%." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1735.

m. In June 2013, Sequoia Capital reported that WhatsApp was "one of the most downloaded apps globally." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1735.

n. According to one of WhatsApp's founders, WhatsApp was the "leading over-the-top" messaging application in the vast majority of countries around the world as of early 2014. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 30:23-31:3; *id.* at

16:1-3 (Acton confirming co-founder role); *see also* PX10227, Morgan Stanley presentation: "WhatsApp Overview January 2014" (Jan. 29, 2014), MS_FTCMETA-00001557, at -562 (describing WhatsApp as "[e]merging as Clear Leader"); *id.* at -561 (showing WhatsApp as the leading mobile messaging app in terms of the total number of users).

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the statement's paraphrasing of Mr. Acton's testimony is misleading and inaccurate. Mr. Acton did not testify about WhatsApp in the "vast majority of countries around the world." He testified that WhatsApp "was the leading . . . over-the-top messaging application available on the market." PX6086 at 30:23-31:3 (Acton Dep. Tr.). None of the cited materials refer to WhatsApp's prevalence or market position "in the vast majority of countries around the world," let alone in the United States – the FTC's alleged relevant geographic market. Further disputed for the reasons stated above in Meta's response to paragraph 1735.

o. Morgan Stanley's Michael Grimes recalls being "stunned" by a January 2014 slide reflecting WhatsApp's growth, identifying it as "vertical so fast, vertical meaning a short number of years to 8 trillion or however many trillions of messages when the other parties, I think, combined were decades or whatever to get to the same level." [redacted] (discussing PX10227-012 and referring to it as the "vertical slide"); PX10227, Morgan Stanley presentation: "WhatsApp Overview January 2014" (Jan. 29, 2014), MS_FTCMETA-00001558, at -568 (slide titled "Message Volume on

WhatsApp Expected to be Greater than All Mobile Operators Combined" comparing the annual messaging volume of SMS and WhatsApp and showing WhatsApp with a projected annual messaging volume of 8 trillion messages in 2013).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1735.

1736. By mid-2011, Meta was monitoring WhatsApp's growth.

Meta Response: Disputed in part. Undisputed that Meta was aware of WhatsApp and its growth in 2011. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the cited material in the subparagraphs below does not concern WhatsApp in the United States, the FTC's alleged relevant geographic market. *See* Meta Resp. to Counter SMF ¶ 1734 (WhatsApp's slow pre-acquisition growth in the U.S.). Further disputed that the subparagraphs and evidence cited therein – which, with one exception, post-date mid-2011 – demonstrates that Meta was "monitoring" WhatsApp's growth by mid-2011.

a. On April 13, 2011, Director of Corporate Development Amin Zoufonoun wrote that WhatsApp was "growing like wildfire with steady growth including internationally." PX2986, Meta email chain: A. Zoufounoun to [redacted], re: "LiveProfile – crazy growth rate," (Apr. 13, 2011), FB_FTC_CID_04021393, at -393; PX6028, Zoufonoun (Meta) IH Tr., at 19:25-20:6.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1736.

b. On October 20, 2011, Mr. Deng wrote that "Whatsapp has 15 million (registered?) users." PX1006, Meta email chain: P. Deng to Facebook PMs re: "[Facebook PMs] We launched Orca worldwide and on Blackberry," (Oct. 20, 2011), FB_FTC_CID_01541181, at -181.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1736.

c. On November 14, 2011, Mr. Deng posted in Meta's "Messages – Mobile" group a quote from an article indicating that WhatsApp was delivering 1 billion messages per day. Above the quote, Mr. Deng wrote: "This concerns me." PX2987, Meta Workplace Post: P. Deng post to Messages - Mobile (Nov. 14, 2011), FTC-META-004297656, at -656.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1736, and because the statement is incomplete and misleading. In the same discussion cited, Mr. Davenport responded that WhatsApp was "positioned as a text-messaging replacement, and focused on the international market where SMS is more expensive." PX2987 at -656 (FTC-META-004297656).

d. In March 2012, Mr. Deng wrote to another Meta employee regarding WhatsApp: "Definitely heard of them. We talk about them all the time. They're a huge

competitor." PX10446, Meta email chain: P. Deng to [redacted], re: "What's app?" (Mar. 2, 2012), FTC-META-004296288, at -288.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1736, and because the statement is incomplete and misleading. In the email thread cited, Mr. Deng responded to a message about "usage of what's app in Spain and France," observing that "SMS is expensive" in Europe. PX10446 at -288 (FTC-META-004296288).

e. In March 2012, Messrs. Davenport and [redacted] were "focused on solving the mobile-to-mobile problem: our difficulty getting traction here [on Facebook Messenger] (and WhatsApp's continued growth) and what we should do." PX10330, Meta Workplace Post: [redacted] post to Messages – Mobile, (Mar. 14, 2012), FTC-META-004292911, at -912.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1736.

1737. Prior to its acquisition of WhatsApp, Meta recognized WhatsApp as a particularly successful OTT messaging application.

Meta Response: Disputed in part. Undisputed that Meta recognized WhatsApp as a successful OTT messaging application. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC proffers no evidence that the cited material concerns WhatsApp in the United States, the FTC's alleged relevant geographic market, *see* Meta Resp. to Counter SMF ¶ 1734

(WhatsApp's slow pre-acquisition growth in the U.S.). On the contrary, in one of the documents cited by the FTC below, PX10608, Mr. Olivan notes that "Whatsapp's impressive growth / engagement data suggests that in markets where they beat us they have to be beating us across all tiers . . . . *US is not one of them* – which is why we don't feel any of the pain here anecdotally." PX10608 at -424 (FB_FTC_CID_09079424) (emphasis added). Further disputed because "particularly successful" is vague and undefined.

a. On April 10, 2012, the day after the announcement of the Instagram acquisition, Mr. Zoufonoun identified four topics to Mr. Zuckerberg, including "are we vulnerable in messaging? should we be watching things like whatsapp?" PX1127, Meta messages: A. Zoufonoun to M. Zuckerberg, (Apr. 10, 2012), FB_FTC_CID_06214279, at -279.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1737.

b. On April 10, 2012, Mr. Zuckerberg responded to Mr. Zoufonoun: "I'm the most worried about messaging, WhatsApp is already ahead of us in messaging in the same way Instagram was 'ahead' of us in photos." PX1127, Meta messages: M. Zuckerberg to A. Zoufonoun, (Apr. 10, 2012), FB_FTC_CID_06214279, at -279; PX6127, Zuckerberg (Meta) Dep. Tr., at 94:3-15; *see also id.* at 97:6-11 ("So just like Instagram had innovated and was ahead on the mobile part of photo sharing, I think WhatsApp had a specific experience for messaging that was focused on mobile and didn't focus on any of the desktop components.");

PX10608, Meta email chain: P. Deng to J. Olivan re: "WhatsApp," (Apr. 17, 2013), FB_FTC_CID_09079424, at -424; PX1116, Meta messages: M. Zuckerberg to M. Schroepfer, (Apr. 22, 2012), FB_FTC_CID_06208072, at -072 (writing that WhatsApp and other messaging apps are "growing quickly and are all already bigger than [Facebook Messenger] at >1b daily mobile messages").

Meta Response: Disputed in part. Undisputed that the materials contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1737 and because the statements lack necessary context. As to Mr. Zuckerberg's deposition testimony, immediately following the cited testimony, Mr. Zuckerberg stated "I don't think it would be right to say that [WhatsApp] were kind of ahead on messaging overall at that time." PX6127 at 97:3-15 (Zuckerberg Dep. Tr.).

c. In April 2012, Mr. Zuckerberg wrote that he would pay $1 billion for WhatsApp "if we could get them." PX1127, Meta messages: M. Zuckerberg to A. Zoufonoun, (Apr. 10, 2012), FB_FTC_CID_06214279, at -297; *see also* PX10608, Meta email chain: J. Olivan to M. Zuckerberg re: "WhatsApp," (Apr. 16, 2013), FB_FTC_CID_09079424, at -425; PX1413, Meta email chain: J. Olivan to M. Zuckerberg re: "WhatsApp/FB sends," (Aug. 28, 2013), FB_FTC_CID_06213795, at -796.

Meta Response: Disputed in part. Undisputed that the first document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1737.

d. In 2013, Mr. Deng described WhatsApp's growth as a "cause for concern." PX10608, Meta email chain: P. Deng to J. Olivan re: "WhatsApp," (Apr. 17, 2013), FB_FTC_CID_09079424, at -424 (Mr. Deng responding that "[t]his is of course cause for concern" after receiving a forwarded email showing WhatsApp's "message-send rates" along with Michael Nowak's comment that "it seems likely that [WhatsApp will] hit 2x their end-of-2012 level sometime in late Q3 or early Q4."); *see also* PX1345, Meta messages: B. Davenport to M. Zuckerberg, (Apr. 1, 2012), FB_FTC_CID_06203576, at -579 (writing that "Whatsapp is legitimately a better product for mobile messaging than even our standalone Messenger app.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1737.

e. In 2013, Mr. Olivan described WhatsApp's trajectory as "scary." PX10608, Meta email chain: J. Olivan to M. Zuckerberg re: "WhatsApp," (Apr. 16, 2013), FB_FTC_CID_09079424, at -425 (Mr. Olivan: "if they stay linear from now on (as we did) the picture is still very scary"); *see also* PX1413, Meta email chain: J. Olivan re: "WhatsApp/FB sends," (Aug. 28, 2013), FB_FTC_CID_06213795, at -796 (responding "this is a scary milestone" to Michael Nowak's email stating that "sometime in the last week or so [WhatsApp] passed [Facebook Messenger] in term of overall daily send volume (mobile +web)").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1737.

1738. LINE, KakaoTalk, and WeChat have largely focused on specific geographic regions. PX1230, Meta email chain: M. Zuckerberg to Don Graham, et al. re: "Board Update," (Feb. 12, 2013), FB_FTC_CID_06377884, at -885 ("Companies like Line and Kakao in Korea and Tencent in China . . . haven't expanded outside of Asia yet."); PX10607 at -003, Meta presentation: "Mobile messengers" (*Aug. 6, 2012), FB_FTC_CID_08493627.

Meta Response: Disputed in part. Undisputed that the first document contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because none of the evidence cited below [redacted], and none of the cited material [redacted]. Further disputed because the material cited [redacted].

a. [redacted]; *see also* PX10607 at -003 Meta presentation: "Mobile messengers" (*Aug. 6, 2012), FB_FTC_CID_08493627.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1738.

b. KakaoTalk's users are largely located in Korea. PX1012, Meta email chain: [redacted] to P. Deng, et al. re: "Messages Weekly Update – April 23," (Apr. 23, 2012), FB_FTC_CID_02422699, at -701.

Meta Response: Disputed in part. Undisputed that the document asserts that KakaoTalk was "largely limited to Korea" as of 2012. Disputed for the reasons stated above in Meta's response to paragraph 1738 and because the cited material lacks context: in the same sentence discussing KakaoTalk, the document states that "WhatsApp has yet to catch on with the mainstream in the United States. As these services expand, they will undoubtedly grow much larger." PX1012 at -701 (FB_FTC_CID_02422699).

c. WeChat's users are predominantly located in China. PX10607 at -003, Meta presentation: "Mobile messengers" (*Aug. 6, 2012), FB_FTC_CID_08493627.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1738 and because the cited material does not make any statement about where WeChat's users "are predominantly located." Nor does the material cited show that WeChat's users are or were "predominantly located" in any particular country at any time other than 2012.

1739. Prior to its acquisition by Meta, WhatsApp maintained a significant presence in most countries outside of Asia. *See* PX10232, Sequoia Capital document re: "WhatsApp Series B – GFV" (June 3, 2013), SCO_00000324, at -326; PX10232, Sequoia Capital document re: "WhatsApp Update" (May 9, 2013), SCO_00000324, at -332; PX10232, Sequoia Capital document re: "WhatsApp - GFV" (Apr. 12, 2013), SCO_00000324, at -334-35; PX10232, Sequoia Capital document re: "WhatsApp" (Jan. 20, 2012),

SCO_00000324, at -339, -341 (showing or discussing WhatsApp's usage rates by country).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the cited material does not concern the market performance of WhatsApp in the United States, the FTC's alleged relevant geographic market. *See* Meta Resp. to Counter SMF ¶ 1734 (WhatsApp's slow pre-acquisition growth in the U.S.). On the contrary, pre-acquisition WhatsApp did not achieve a significant presence in the United States. *See* Meta SMF ¶¶ 772-781. Further disputed because "significant presence," and "outside of Asia" are vague and undefined. None of the material cited states that WhatsApp maintained a "significant presence in most countries outside of Asia."

a. By April 27, 2012, Meta recognized that WhatsApp was the number one paid iTunes app in 100 of 123 country iTunes stores. PX10594 at -025, Meta presentation: "Mobile messengers" (Apr. 27, 2012), FB_FTC_CID_02442388.

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp was the "#1 overall paid iTunes app in 100 of 123 country stores." PX10594 at -402 (FB_FTC_CID_02442388). Disputed for the reasons stated above in Meta's response to paragraph 1739 and because the cited material lacks context. The cited material also refers to WhatsApp's "international user base," and describes WhatsApp as the "#1 overall paid app in 96 out of 123 country iTunes app stores - though, interestingly, *not the US*." *Id.* at -400 (emphasis added); *see also id.* at -402.25 (similar).

b. In 2012, WhatsApp was the number one downloaded app in the Apple app store in "tons of . . . countries in Europe, Asia and LATAM." PX14798, WhatsApp email: N. Arora to [redacted] re: "WhatsApp & BlackBerry," (Dec. 14, 2012), FB_FTC_CID_02588805, at -806.

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp was the "most downloaded app of 2012" in "tons of other countries in Europe, Asia and LATAM." PX14798 at -806 (FB_FTC_CID_02588805). Disputed for the reasons stated above in Meta's response to paragraph 1739 and because this statement does not bear on the popularity of the app in the United States, the FTC's alleged relevant geographic market. *See id*.

c. In 2013, WhatsApp was ranked as a "Top 5 app in ~50% of countries." PX3410, WhatsApp presentation: "WhatsApp Growth & Competition Update" (Oct. 16, 2013), FB_FTC_CID_02584912, at -914.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1739 and because the cited material does not address WhatsApp's ranking in the United States, the FTC's alleged relevant geographic market. Further disputed because the statement lacks context: elsewhere in the cited document, WhatsApp's failure to attain significant growth in the United States is discussed repeatedly. *See* PX3410 at -927 (FB_FTC_CID_02584912) (showing significantly slower growth in the U.S. than nearly every other market shown); *id.* at -929 (showing the U.S. as having the third-slowest daily growth rate as a percentage of smartphone users of the 15 countries shown).

d. In February 2014, WhatsApp was the number [redacted] downloaded messaging app in [redacted] out of [redacted] tracked countries for iOS and [redacted] out of [redacted] tracked countries for Android. PX10279, [redacted] presentation: "Project Message Discussion Materials" (Feb. 2014), [redacted]; *see also* [redacted].

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp was the number [redacted] downloaded messaging app in [redacted] out of [redacted] tracked countries for iOS and [redacted] out of [redacted] tracked countries for Android. Disputed for the reasons stated above in Meta's response to paragraph 1739 and because neither this statement nor the cited material has any bearing on the popularity of the app in the United States, the FTC's alleged relevant geographic market.

(2) WhatsApp was growing in the United States before the acquisition and was well-positioned to keep growing.

1740. Mr. Acton testified that of the over-the-top messengers, WhatsApp was "the most successful in the U.S." PX6009, Acton (Meta/WhatsApp) IH Tr., at 143:21-144:22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the statement lacks context and is incomplete. As part of the same answer excerpted above, Mr. Acton was responding to a question about global messaging in the United States in 2014, and he clarified that he understood "over-the-top

messengers" to be the "telephone number-based," services WhatsApp, LINE, Kakao, and Telegram. PX6009 at 143:21-144:3 (Acton IH Tr.). His answer discounted Facebook Messenger and Skype because those companies "tried" to add telephone-number-based registration in addition to email registration but were "unsuccessful." *Id.* at 144:21-145:15. Immediately prior to the testimony cited, Mr. Acton testified "even in 2014 [WhatsApp] w[as] never top of mind for a lot of U.S. users. A lot of U.S. growth actually happened after 2014, probably from awareness of the acquisition as a – as a – to raise the awareness of the product. The rest of it happened organically and internationally. So in many ways *in 2014 we were too small in the U.S. to have competitors*, but globally we were bigger." *Id.* at 143:11-20 (emphasis added); *see also* Meta SMF ¶¶ 779-781. The statement is also misleading because it omits Mr. Acton's testimony that in the United States prior to the acquisition, there were "a number of alternative systems of communication that were real time, instant messaging based," like WhatsApp. Meta SMF ¶ 782 (collecting testimony from Mr. Acton and related documents [redacted], Kik, Facebook Messenger, Viber, WeChat, Blackberry Messenger, and Telegram in the United States).

1741. From 2012 to 2014, WhatsApp's user base in the United States more than tripled.

<u>Meta Response</u>: Disputed in part. Undisputed that WhatsApp's user base grew between 2012 and 2014. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (WhatsApp reached only [redacted]% penetration in U.S. by 2014); ¶¶ 779-782 (WhatsApp founders not focused on

pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734 (WhatsApp's slow pre-acquisition growth in the U.S).

a. In 2012, WhatsApp had 5.2 million monthly active users in the United States. PX9000, Hemphill Report at ¶ 1001 (citing PX3464, Meta document: "Meta Monthly User Engagement Data," (undated), FTC-META-012004977).

Meta Response: Disputed in part. Undisputed that Professor Hemphill's report states the cited data. Disputed for the reasons stated above in Meta's response to paragraph 1741.

b. In 2013, WhatsApp had 8.9 million monthly active users in the United States. PX9000, Hemphill Report at ¶ 1001 (citing PX3464, Meta document: "Meta Monthly User Engagement Data," (undated), FTC-META-012004977).

Meta Response: Disputed in part. Undisputed that Professor Hemphill's report states the cited data. Disputed for the reasons stated above in Meta's response to paragraph 1741.

c. In 2014, WhatsApp had 17.5 million monthly active users in the United States. PX9000, Hemphill Report at ¶ 1001 (citing PX3464, Meta document: "Meta Monthly User Engagement Data," (undated), FTC-META-012004977).

Meta Response: Disputed in part. Undisputed that Professor Hemphill's report states the cited data. Disputed for the reasons stated above in Meta's response to paragraph 1741.

1742. WhatsApp was the second most downloaded application in the Apple app store in the United States in 2012. PX14798, WhatsApp email: N. Arora to [redacted] re: "WhatsApp & BlackBerry," (Dec. 14, 2012), FB_FTC_CID_02588805, at -806.

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp was the second most downloaded application in the Apple app store in the United States in 2012. Disputed that the statement creates a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (limited growth in the U.S. before the acquisition); ¶¶ 779-782 (WhatsApp founders not focused on pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734.

1743. The United States had the [redacted] most daily sign-ups of any country that WhatsApp operated in in February of 2014. *See* PX14806 at -004, [redacted] spreadsheet: "WA Stats Summary.xls" (Feb. 8, 2014), [redacted] (listing WhatsApp's "Daily New Sign-ups" in the United States behind [redacted]); PX6096, Arora (Meta) Dep. Tr., at 104:7-15.

Meta Response: Disputed in part. Undisputed that the document asserts that the U.S. had the [redacted] most daily sign-ups of any country that WhatsApp operated in in February of 2014. Disputed that the statement creates a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (limited growth in the U.S. before the acquisition); ¶¶ 779-782 (WhatsApp founders not focused on pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734.

1744. At one point in February 2014, WhatsApp was gaining about [redacted] new WhatsApp users a day from the United States. *See* PX14806 at -004, [redacted] spreadsheet: "WA

Stats Summary.xls" (Feb. 8, 2014), [redacted] (showing WhatsApp's "Daily New Sign-ups" in the United States was [redacted]); PX6096, Arora (Meta) Dep. Tr., at 104:16-18.

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp was gaining about [redacted] new WhatsApp users per day from the United States in February 2014. Disputed that the statement creates a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (limited growth in the U.S. before the acquisition); ¶¶ 779-782 (WhatsApp founders not focused on pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734.

1745. In February 2014, the United States had the [redacted] most monthly active users of any country that WhatsApp operated in. *See* PX14806 at -003, [redacted] spreadsheet: "WA Stats Summary.xls" (Feb. 8, 2014), [redacted].

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp had the [redacted] most monthly active users of any country in which WhatsApp operated. Disputed that the statement creates a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (limited growth in the U.S. before the acquisition); ¶¶ 779-782 (WhatsApp founders not focused on pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734.

1746. In February 2014, the United States had the [redacted] most daily active users of any country that WhatsApp operated in. *See* PX14806 at -003, [redacted] spreadsheet: "WA Stats Summary.xls" (Feb. 8, 2014), [redacted]; PX6096, Arora (Meta) Dep. Tr., at 102:9-14.

Meta Response: Disputed in part. Undisputed that the document asserts that the United States had the [redacted] most daily active users of any country that WhatsApp operated in February 2014. Disputed that the statement creates a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (limited growth in the U.S. before the acquisition); ¶¶ 779-782 (WhatsApp founders not focused on pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734.

1747. WhatsApp had around [redacted] monthly active users in the United States in early February of 2014. PX14806 at -003, [redacted] spreadsheet: "WA Stats Summary.xls" (Feb. 8, 2014), [redacted].

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp had around [redacted] monthly active users in the United States in early February of 2014. Disputed that the statement creates a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (limited growth in the U.S. before the acquisition); ¶¶ 779-782 (WhatsApp founders not focused on pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734.

1748. WhatsApp had around [redacted] daily active users in the United States in early February of 2014. PX14806 at -003, [redacted] spreadsheet: "WA Stats Summary.xls" (Feb. 8, 2014), [redacted].

Meta Response: Disputed in part. Undisputed that the document asserts that WhatsApp had around [redacted] daily active users in the United States in early February of 2014. Disputed that the statement creates a genuine dispute of material fact, including because WhatsApp had very limited success in the U.S. in the years prior to Meta's acquisition, and was not focused on growing its U.S. presence. *See* Meta SMF ¶¶ 772-778 (limited growth in the U.S. before the acquisition); ¶¶ 779-782 (WhatsApp founders not focused on pursuing growth in the U.S.); *see also* Meta Resp. to Counter SMF ¶ 1734.

1749. A February 2014 slide deck about WhatsApp titled "Project Message" created by [redacted] included a slide titled "User Growth in Current Top [redacted] Markets" with the subheading "[redacted]%+ Monthly Growth in [redacted] Large Addressable Markets." PX10279, [redacted] investment presentation: "Project Message Discussion Materials" (Feb. 2014), [redacted]; PX6124, [redacted] Dep. Tr., at 45:8-46:3 (explaining that the document at PX10279 is about WhatsApp). In February 2014, growth over the last year for WhatsApp was [redacted]% in the United States. *Id.* In comparison, in February 2014, growth over the last year for WhatsApp was [redacted]% globally and [redacted]% for the top [redacted] markets. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1734 and

because the statement lacks necessary context. [redacted]

1750. WhatsApp stood out as a leading OTT mobile messaging app in the United States.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1734, and because [redacted] On the contrary, all of the evidence cited supports the conclusion that WhatsApp was merely one of numerous apps, with an insignificant presence in United States in the months leading up to Meta's acquisition. *See* Meta SMF ¶ 782 (Mr. Acton's identification of a "number of alternative systems of communication," including iMessage among others). Further disputed because "stood out" is vague and undefined.

a. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1750 and because the statement lacks necessary context. [redacted]

b. Meta's internal data as of September 2013 includes estimates of percentages of U.S. iPhone users installing applications, which indicated that WhatsApp's figure was among the highest for OTT mobile messaging apps: Facebook Messenger (11%), WhatsApp (7%), Kik (6%), Viber (5%), LINE (2%), WeChat (2%), and KakaoTalk (1%). Meta Ex. 192 at -921.003-921.004 (FB_FTC_CID_03802920).

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1750.

c. In a January 2014 presentation created by Morgan Stanley titled "WhatsApp Overview," there is a slide titled "WhatsApp is the Only Global Messenger Today," that includes a circle containing a chart for "U.S." with Facebook Messenger at 12%, WhatsApp at 9%, and Line, WeChat, and Kakao Talk each at 1%. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and paraphrased data. Disputed for the reasons stated above in Meta's response to paragraph 1750.

1751. WhatsApp co-founder Brian Acton "felt that [WhatsApp] would grow in every country of the world, including the United States, knowing that every country would have a different growth rate and a different adoption rate in each country." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 272:1-5.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because it lacks important context. Mr. Acton's testimony – both during the IH and during discovery for this matter – confirms that he did not view the U.S. as a "core market" for WhatsApp, did not take actions to grow WhatsApp's presence in the U.S., and recognized that U.S. consumers had numerous alternative messaging systems, including iMessage, Google Hangouts, Facebook Messenger, Kik Messenger, Viber, WeChat, Blackberry Messenger, and Telegram. *See* Meta SMF ¶¶ 772-782 (Mr. Acton's testimony).

1752. Mr. Acton believed that WhatsApp would continue to grow in the United States "[b]ecause we had a rock solid product that was delightful to its users, and eventually people would come to realize that and use it." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 272:6-12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1751.

1753. At the time of Meta's acquisition of WhatsApp, there was still room to take share in the United States. On February 22, 2014, Meta pointed out that, with respect to messaging in the United States, "[t]he biggest prize . . . [was] still up for grabs." PX11108, Meta email: A. Schultz to [redacted], et al. re: "managing the fallout," (Feb. 20, 2014), FB_FTC_CID_03879643, at -644.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the evidence cited does not support the assertion that "there was still room to take share in the United States." Further disputed because, to the extent the cited e-mail refers to share of messaging, it relates to a product that is outside the FTC's alleged relevant market.

1754. WhatsApp Director for Growth and Business Development Mubarik Imam testified that in the United States there was an "opportunity for [WhatsApp] to grow based on product-market fit with immigrants where we've seen reverse network effects." PX15191, Meta message: M. Imam to C. Daniels, et al. re: "WA in iOS countries," (June 26, 2018), FB_FTC_CID_02496775, at -775; PX6130, Imam (Meta/WhatsApp) Dep. Tr., at 20:14-16. Ms. Imam explained that reverse network effects were created when consumers in the United States would first use WhatsApp to chat with family and friends abroad and then find and begin communicating via WhatsApp with other users in the United States who had similarly downloaded WhatsApp to chat with family and friends abroad. *See* PX6130, Imam (Meta/WhatsApp) Dep. Tr., at 104:25-106:4.

Meta Response: Undisputed that the document contains the quoted language and that the witness provided the quoted testimony.

1755. The United States was one of only seven countries where WhatsApp was actually charging its subscription fee. PX6009, Acton (Meta/WhatsApp) IH Tr., at 221:13-17; *see also* PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 229:15-18 (listing six of the seven countries in which WhatsApp charged a subscription fee).

Meta Response: Undisputed that the witness provided the paraphrased testimony.

1756. WhatsApp's United States presence was accomplished even though WhatsApp was not prioritizing efforts to grow in the United States compared to its effort to grow in other regions before it was acquired by Meta. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 213:6-11 ("Q: So I think Ms. Miller asked you about promotion, and I just want to be very clear. You did not take any actions specifically to target growth in the United States before you were acquired? A: No."); PX6009, Acton (Meta/WhatsApp) IH Tr., at 145:20-23 ("Q. Had WhatsApp taken actions specifically targeting growth in the United States prior to February 2014? A. No.").

Meta Response: Undisputed that before February 2014, WhatsApp did not take any actions to specifically target growth in the United States.

(3) WhatsApp had the metrics and support necessary to successfully pivot into personal social networking services.

1757. Professor Rim offered the opinion that WhatsApp "showed extraordinary promise as indicated by industry metrics for scale, growth, and engagement." PX9014, Rim Rebuttal Report at ¶ 32.

Meta Response: Disputed in part. Undisputed that Professor Rim's rebuttal report contains the quoted language. Disputed that the opinion that WhatsApp was not likely to fail – which is all the quoted language addresses – creates any genuine dispute of material fact.

1758. Daily Active Users (DAU) counts the number of unique users of a software application who use the product on a given day. PX9014, Rim Rebuttal Report at ¶ 52.

Meta Response: Undisputed.

1759. Monthly Active Users (MAU) counts the number of unique users of a software application who use the product in a given month. PX9014, Rim Rebuttal Report at ¶ 52.

Meta Response: Undisputed.

1760. DAU and MAU can be used to indicate scale (how many people use the software application) and growth (how fast the user base is expanding). PX9014, Rim Rebuttal Report at ¶ 53.

Meta Response: Undisputed.

1761. The ratio of DAU to MAU (DAU/MAU), expressed as a percentage, is a common venture capital and tech industry metric for user engagement with a software application and is sometimes referred to as "stickiness." *See* PX9014, Rim Rebuttal Report at ¶¶ 51, 54.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because it is not supported by competent evidence. The statement's sole citation is Professor Rim's opinion. But that opinion is buttressed by nothing more than Professor Rim's unsupported say-so, and [redacted] which does not establish that DAU/MAU is "a common venture capital and tech industry metric for user engagement." Further disputed because "stickiness" has no relationship to what is most commonly referred to as engagement – that is, the number of users and level of usage of an application.

a. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the quoted testimony [redacted]

See Meta Resp. to Counter SMF ¶ 1734 (WhatsApp's slow pre-acquisition growth in the U.S.).

1762. Jim Goetz was the sponsor for Sequoia Capital's investment in WhatsApp and was a WhatsApp board member. [redacted]

Meta Response: Undisputed.

1763. Sequoia Capital took a seat on WhatsApp's Board as part of its growth round investment.

[redacted]

Meta Response: Undisputed.

1764. Compared to other consumer tech products, WhatsApp has had high user engagement in the United States, only below Facebook, Snapchat, and Instagram.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because DAU/MAU ratio does not measure the amount of user engagement; therefore none of the evidence cited below shows that [redacted]. Further disputed because the FTC has no evidence that the cited materials provide information about [redacted]. Further disputed to the extent the FTC cites materials that do not relate to the United States in support of its statement.

a. From the period of January 2009 to June 2022, Facebook had an average DAU/MAU of [redacted]%. PX9014, Rim Rebuttal Report, Ex. 1 (DAU/MAU calculated using "Meta monthly user engagement base.dta").

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

b. [redacted]

Meta Response: Disputed in part. Undisputed that Professor Rim offered the paraphrased data. Disputed for the reasons stated above in Meta's response to paragraph 1764.

c. From the period of January 2014 to June 2022, Instagram had an average DAU/MAU of [redacted]%. PX9014, Rim Rebuttal Report, Ex. 1 (DAU/MAU calculated using "Meta monthly user engagement base.dta").

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

d. From the period of August 2014 to June 2022, WhatsApp had an average DAU/MAU of [redacted]%. PX9014, Rim Rebuttal Report, Ex. 1 (DAU/MAU calculated using "Meta monthly user engagement base.dta").

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

e. [redacted]

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

f. [redacted]

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

g. [redacted]

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

h. [redacted]

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

i. [redacted]

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

j. [redacted]

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764.

k. As of February 2014, WhatsApp had a DAU/MAU of [redacted]%. PX9014, Rim Rebuttal Report, Ex. 1 (calculated using data from [redacted]).

Meta Response: Disputed in part. Undisputed that the data in this statement appears in Professor Rim's Exhibit 1. Disputed for the reasons stated above in Meta's response to paragraph 1764 and because Exhibit 1 provides no information regarding the DAU/MAU metric for "As of 2014/02" for any app other than WhatsApp and Instagram.

l. Meta's February 2014 Board Presentation listed WhatsApp's DAU/MAU as 70% overall and "even higher in some countries." PX1266, Meta presentation: "Cobalt Transaction" (Feb. 17, 2014), FB_FTC_CID_00002272, at -274; PX6094, Heysse (Meta) Dep. Tr., at 19:9-25 (testifying that Cobalt was Meta's code name for WhatsApp).

Meta Response: Disputed in part. Undisputed that the document asserts WhatsApp's DAU/MAU as 70% overall and "even higher in some countries." Disputed for the reasons stated above in Meta's response to paragraph 1764 and because neither this statement nor the cited material has any bearing on the

DAU/MAU ratio of the app in the United States, the FTC's alleged relevant geographic market.

m. In June 2013, Sequoia Capital noted that "[f]rom a usage perspective, WhatsApp is one of the highest engagement apps we have seen, with a DAU/MAU ratio of 68% versus Facebook at 60%." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1764 and because [redacted] has any bearing on the DAU/MAU ratio of the app in the United States, the FTC's alleged relevant geographic market.

1765. The WhatsApp co-founders Brian Acton and Jan Koum were experienced and capable individuals able to grow WhatsApp. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 15:3-17:25 (describing roles at Adobe, Apple Computer, and Yahoo!); PX6010, Koum (Meta/WhatsApp) IH Tr., at 14:20-16:4 (describing prior work experience), 23:5-8.

Meta Response: Disputed in part. Undisputed that Mr. Acton and Mr. Koum had significant industry experience. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp had no intention of adding features to become more like Facebook. *See* Meta SMF ¶¶ 787-795. Professor Hemphill testified: "Q. And you've not offered an opinion as to when WhatsApp would have become a PSN in the but-for world, correct? . . . A. That's – that's – that's correct." *Id.* at ¶ 799 (quoting Ex. 283 at 283:8-12 (Hemphill Dep. Tr.)). In focusing on what WhatsApp may or may not have been able to do, the FTC ignores the

essential context of what WhatsApp's founders testified that they intended to do with WhatsApp. Both Mr. Acton and Mr. Koum have testified, and their contemporaneous documents confirm, that the "grow[th]" they intended for WhatsApp was limited to growing the app as an OTT messaging app, without any of the features that the FTC has claimed are essential to "PSNS" apps. *See* Meta SMF ¶¶ 785-795. WhatsApp had no intention of making an effort to expand in the United States. *See id.* at ¶¶ 778-782.

a. A December 14, 2010 Google presentation described Messrs. Koum and Acton as a "[h]igh quality team" who were "deeply experienced" and "extremely passionate" with an "impressive track record." *See* PX14795, Google presentation: "Whatsapp Inc. Project Roth" (Dec. 14, 2010), GOOG-META-01997760, at -761, -762 (describing WhatsApp's "founding team" and co-founders.).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1765.

b. Sequoia Capital's January 2012 investment memo described the team Messrs. Koum and Acton had assembled as "an outstanding technical team with a proven history of working together. Our own interactions with the team supports these conclusions." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1765.

1766. Professor Rim opined that "[t]he evidence in this case shows that the VCs involved with Instagram and WhatsApp took active steps to help both companies with their needs and were willing to continue to do so. That is consistent with my experience as a VC." PX9014, Rim Rebuttal Report at ¶ 69.

Meta Response: Disputed in part. Undisputed that Professor Rim offered the quoted opinion in his rebuttal report. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765.

1767. Sequoia Capital assisted WhatsApp with hiring.

Meta Response: Disputed in part. Undisputed that Sequoia Capital on at least some occasions assisted WhatsApp with hiring. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765. Further disputed that any assistance that Sequoia Capital provided with hiring is material to the resolution of either party's motion.

a. On March 16, 2013, Mr. Koum emailed [redacted] thanking him for meeting with a candidate. PX3118, WhatsApp email chain: J. Koum to [redacted] re: "shruthi," (Mar. 16, 2013), FTC-META-003366426, at -426. [redacted] responded that she "[l]ooks like a wonderful addition to the team. 90% confident she will sign on." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's responses to paragraphs 1765 and 1767.

b. In a May 2013 email stating that WhatsApp had made [redacted] an employment offer, Mr. Koum asked [redacted] to "help us convince him." PX3123, WhatsApp email chain: J. Koum to [redacted] re: "Emanata," (May 9, 2013), FTC-META-003425705, at -705. On May 10, 2013, [redacted] wrote [redacted] to inform him that he would be accepting WhatsApp's offer. PX3124, WhatsApp email chain: [redacted] to [redacted] re: "Joining WhatsApp," (May 10, 2013), FTC-META-003425738, at -738. [redacted] forwarded [redacted]'s email to Mr. Koum, writing: "fyi re: [redacted] [sic]." *Id.*

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1765 and 1767.

c. In November 2013, [redacted] organized meetings and calls to successfully persuade [redacted] to leave Google and join WhatsApp. *See* PX3121, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum re: "[redacted] <> [redacted]," (Nov. 20, 2013), FTC-META-003370917, at -917, -920-21 (showing correspondence between Sequoia Capital's [redacted] and WhatsApp's founders regarding [redacted]'s efforts to bring over [redacted] from Google); PX0627, [redacted] *LinkedIn page*, LinkedIn, https://www.linkedin.com/in/[redacted] (last visited May 20, 2024) (indicating that [redacted] worked for WhatsApp from March 2014 to August 2018).

Meta Response: Disputed in part. Undisputed that the documents contain the paraphrased statements. Disputed for the reasons stated above in Meta's responses to paragraphs 1765 and 1767.

d. In January 2014, [redacted] sent Mr. Koum a list of candidates and links to their profiles for WhatsApp to consider hiring. PX3116, WhatsApp email chain: [redacted] to J. Koum re: "A few names – happy to intro if helpful," (Jan. 10, 2014), FB_FTC_CID_02594944, at -944.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's responses to paragraphs 1765 and 1767.

e. In January 2014, Sequoia Capital sent the WhatsApp founders a list of candidates put together by Sequoia's technical recruiting staff for hiring consideration. PX3117, WhatsApp email chain: [redacted] (Sequoia Capital) to B. Acton re: "WhatsApp," (Jan. 23, 2013), FB_FTC_CID_02596825, at -826; *id*. at -825.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's responses to paragraphs 1765 and 1767.

1768. Sequoia Capital assisted WhatsApp with acqui-hires and acquisitions.

Meta Response: Disputed in part. Undisputed that Sequoia Capital on at least some occasions assisted WhatsApp with acquisitions and so-called "acqui-hires." Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765. Further disputed that any assistance that Sequoia Capital provided with acqui-hires and acquisitions is material to the resolution of either party's motion.

a. On July 30, 2013, [redacted] sent the WhatsApp founders an email discussing the potential acqui-hire of a company called Qwilt. PX3119, WhatsApp email chain:

[redacted] (Sequoia Capital) to J. Koum and B. Acton re: "qwilt acquihire," (July 30, 2013), FTC-META-003368637, at -637. [redacted] sent another email that day connecting the WhatsApp founders to Qwilt. PX3120, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum and B. Acton re: "jan & brian <---> [redacted]," (July 30, 2013), FTC-META-003368661, at -661).

Meta Response: Disputed in part. Undisputed that the documents contain the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1768.

b. In November 2013, WhatsApp's Head of Business Neeraj Arora emailed [redacted] about how best to come to agreement with a business owner to acquire one of his companies. PX3122, WhatsApp email chain: N. Arora to [redacted] (Sequoia Capital) re: "[redacted]," (Nov. 27, 2013), FTC-META-003419296, at -296. [redacted] responded: "[v]ery close to MD, helped him get into the business. Would be easy for me to get him over the line with some of your guidance." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1768.

1769. Sequoia Capital connected WhatsApp to people that might be able to assist the company.

Meta Response: Disputed in part. Undisputed that Sequoia Capital on at least some occasions put WhatsApp's leaders in contact with individuals at other companies that were interested in doing business with WhatsApp. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for

the reasons stated above in Meta's response to paragraph 1765. Further disputed that the evidence cited shows Sequoia Capital necessarily putting WhatsApp's leaders in contact with "people that might be able to assist the company." Further disputed on the basis that the statement is vague and not material to the resolution of either party's motion.

a. In January 2013, [redacted] offered to connect Mr. Koum to a senior business manager at Amazon after Amazon reached out to [redacted] offering AWS services for WhatsApp. PX3131, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum re: "WhatsApp," (Jan. 22, 2013), FTC-META-003430245, at -244-45.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1769.

b. On April 26, 2013, [redacted] introduced Mr. Koum to [redacted], Head of Business Development for Apple, via email, noting that "[redacted] graciously volunteered to sponsor a meeting between apple & whatsapp executives to strengthen the relationship between the two companies." PX3128, WhatsApp email chain: [redacted] (Sequoia Capital) to [redacted] and J. Koum re: "[redacted] <--->jan," (Apr. 26, 2013), FTC-META-003426476, at -476.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1769.

c. On August 20, 2013, [redacted] suggested to WhatsApp's founders that "if you have any issues with chrome or safari we have a group of webkit committers at

Sencha that we could easily connect your engineers to." PX3126, WhatsApp email chain: [redacted] (Sequoia Capital) to B. Acton and J. Koum re: "browser client," (Aug. 20, 2013), FTC-META-003368847, at -847.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1769.

1770. Sequoia Capital assisted WhatsApp with money management.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765. Further disputed because none of the cited material demonstrates Sequoia Capital "assist[ing] WhatsApp with money management." The cited material shows, at most, that Sequoia Capital made recommendations or provided insight on organizations or individuals that might be able to assist WhatsApp with money management. Further disputed that any assistance that Sequoia Capital provided with "money management" is material to the resolution of either party's motion.

a. On August 6, 2013, [redacted] responded to a request from Mr. Arora for assistance managing WhatsApp's funds by recommending specific companies for "that amount of capital." PX3134, WhatsApp email chain: [redacted] (Sequoia Capital) to N. Arora re: "treasury," (Aug. 6, 2013), FTC-META-003501235, at -235.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1770.

b. On November 19, 2013, Mr. Koum emailed [redacted] asking for a reference check for a particular money manager. PX3127, WhatsApp email chain: J. Koum to [redacted] (Sequoia Capital) re: "[redacted]," (Nov. 19, 2013), FTC-META-003419724, at -724. [redacted] solicited feedback from others and then forwarded that feedback to Mr. Koum with the instructions: "obviously highly confidential feedback. please do not forward or share." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1770.

1771. Sequoia Capital assisted WhatsApp with partnerships.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765, and because none of the cited materials demonstrate Sequoia Capital "assist[ing] WhatsApp with partnerships." The cited materials show, at most, that Sequoia Capital put third parties interested in doing business with WhatsApp in touch with the WhatsApp founders. None of the cited materials demonstrate that these connections matured into partnerships, let alone that such partnerships proved beneficial to WhatsApp. Further disputed that any assistance that Sequoia Capital provided with "partnerships" is material to the resolution of either party's motion.

a. In August 2013, [redacted] forwarded to Messrs. Koum and Arora an email from Telefonica, which was "very interested in a carrier deal across their network," inquiring if Messrs. Koum and Arora would be open to a meeting with Telefonica's CTO. PX3129, WhatsApp email chain: [redacted] (Sequoia Capital)

to N. Arora and J. Koum re: "Catch up," (Apr. 12, 2013), FTC-META-003427334, at -334.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1771.

b. In October 2013, [redacted] noted to Mr. Arora that a company called Optus was "in the office today" and wondered if Mr. Arora "wanted to carve out 30 minutes to talk about a potential partnership in australia," as they "would be interested in teaming." PX3133, WhatsApp email chain: [redacted] (Sequoia Capital) to N. Arora re: "optus (australia)," (Oct. 16, 2013), FTC-META-003500087.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1771.

1772. Sequoia Capital assisted WhatsApp with general strategy.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765, and because the single email cited does not evidence a specific instance of Sequoia Capital assisting WhatsApp with strategy, let alone assisting the company with general strategy as a matter of course. Further disputed that any assistance that Sequoia Capital provided with "general strategy" is material to the resolution of either party's motion.

a. In December 2012, Mr. Koum notified [redacted] that WhatsApp would announce user numbers on their blog as a "heads up." [redacted] responded, saying "we

believe claiming your market leadership position will pay all sorts of dividends." PX3132, WhatsApp email chain: J. Koum to [redacted] re: "announcing numbers," (Dec. 30, 2012), FTC-META-003430722, at -722.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1772.

1773. Sequoia Capital assisted WhatsApp with publicity.

Meta Response: Disputed in part. Undisputed that Sequoia Capital on at least some occasions offered to help WhatsApp's leaders with publicity. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765. Further disputed that the material cited supports that Sequoia Capital "assisted WhatsApp with publicity," given that none of the cited material shows that WhatsApp actually accepted Sequoia Capital's offers to assist with publicity for the company. Further disputed that any assistance that Sequoia Capital provided with "publicity" is material to the resolution of either party's motion.

a. In January 2013, [redacted] emailed Messrs. Koum and Arora offering to get WhatsApp profiled in a TechCrunch article if they wanted. PX3130, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum and N. Arora re: "The Enterprise Cool Kids," (Jan. 25, 2013), FTC-META-003430118, at -118.

Meta Response: Disputed in part. Undisputed that [redacted] contacted WhatsApp leadership about press coverage. Disputed for the reasons stated above in Meta's response to paragraph 1773. Further disputed that [redacted] "offer[ed]

to get WhatsApp profiled in a TechCrunch article if they wanted." [redacted] instead stated that he "could probably get whatsapp selected and profiled," but did not identify the context of such a profile or the publication. PX3130 at -118 (FTC-META-003430118).

b. In April 2013, [redacted] offered to help prepare Mr. Koum for a talk and bring in other members of the Sequoia Capital team to assist. PX3125, WhatsApp email chain: [redacted] to J. Koum re: "(no subject)" (Apr. 8, 2013), FB_FTC_CID_03115576, at -577. Someone at Sequoia then reached out to Mr. Koum suggesting they cover the following topics during their meeting: "mock interview and feedback" and "review[ing] messaging, metrics and tough questions." *Id.*

Meta Response: Disputed in part. Undisputed that document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1773.

1774. Sequoia Capital assisted WhatsApp with financing.

Meta Response: Disputed in part. Undisputed that Sequoia Capital assisted in WhatsApp with financial matters. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765. Further disputed that any assistance that Sequoia Capital provided with "financing" is material to the resolution of either party's motion.

a. On January 23, 2013, [redacted] emailed Mr. Koum stating that he would work on debt options and assist in building an "'investor model' on monetization" if "we

want to raise equity dollars at ultra high prices." PX3139, WhatsApp email chain: J. Koum to [redacted] (Sequoia Capital) re: "yesterday follow up," (Jan. 23, 2013), FTC-META-003430581, at -581 ([redacted] responding to Mr. Koum's email in line and all caps).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1774.

b. On January 26, 2013, [redacted] forwarded to Mr. Koum an email from [redacted] at Silicon Valley Bank (SVB) with a proposed term sheet for WhatsApp and wrote "[t]his is [a] potential debt structure to consider as you [weigh] your options." PX3144, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum re: "WhatsApp," (Jan. 26, 2013), FTC-META-003503355, at -355-56.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1774.

1775. Sequoia Capital handled investment and acquisition offers for WhatsApp.

Meta Response: Disputed in part. Undisputed that Sequoia Capital on at least some occasions fielded inquiries regarding investment or acquisition relating to WhatsApp. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1765. Further disputed that whether Sequoia Capital "handled investment and acquisition offers" is material to the resolution of either party's motion.

a. In October 2012, [redacted] forwarded an email to Mr. Koum where Goldman Sachs asked for an introduction to WhatsApp. [redacted] wrote: "more inbound. [S]omeone . . . is looking to acquire." PX3140, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum re: "WhatsApp," (Oct. 29, 2012), FTC-META-003432502, at -502.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1775.

b. In April 2013, Goldman Sachs's [redacted] emailed [redacted] and said that Goldman Sachs was "getting inundated with people calling us expressing interest in WhatsApp from around the globe. Very serious buyers." PX3137, WhatsApp email chain: [redacted] (Goldman Sachs) to [redacted] (Sequoia Capital) and [redacted] (Sequoia Capital) re: "What'sApp," (Apr. 10, 2013), FTC-META-003366608, at -608. [redacted] forwarded the email on to WhatsApp's founders with the note "per our conversation last night." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1775.

c. In April 2013, [redacted] emailed Mr. Koum, stating: "Clear to us that you could get tencent, facebook, and google into a bidding war (with microsoft and yahoo trailing)." PX3145, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum re: "Rumor," (Apr. 7, 2013), FTC-META-009045607, at -607.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1775.

d. In April 2013, [redacted] emailed Mr. Arora, noting that Sequoia Capital had "heard from: twitter, tencent, msft, google, yahoo, facebook, quattrone and grimes" expressing interest in acquiring WhatsApp. PX14801, WhatsApp email chain: [redacted] (Sequoia Capital) to N. Arora re: "Samsung intro," (Apr. 8, 2013), FTC-META-003503239, at -239.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1775.

1776. Between late 2010/early 2011, when WhatsApp engaged in its Series A prime round, and early 2014, when WhatsApp engaged in its Series C round, WhatsApp received overtures from at least eight potential investors: America Movil, Benchmark Capital, Digital Sky Technologies (DST), Felicis Ventures, General Atlantic, Meritech Capital, Sequoia Capital, and Tencent. *See infra* CMF at ¶ 1776(a)-(h); PX6009, Acton (Meta/WhatsApp) IH Tr., at 79:8-14, 80:7-81:5 (testifying that Series A prime fundraising from Sequoia Capital closed in early 2011); *id.* at 95:20-22, 96:7-8 (testifying that WhatsApp negotiated series C round in January 2014).

Meta Response: Disputed in part. Undisputed that the listed companies reached out about potential investments in WhatsApp between late 2010 and early 2014. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the willingness of certain parties to invest in WhatsApp

in late 2010/early 2011 does not support the FTC's speculative theory that WhatsApp would have "pivoted" to offer "personal social networking" services but for the Meta acquisition. *See* Meta Resp. to Counter SMF ¶ 1765 (evidence undermines any claim WhatsApp would have pivoted to PSNS).

a. Mr. Acton testified that Sequoia Capital approached WhatsApp about investing in WhatsApp. PX6009, Acton (Meta/WhatsApp) IH Tr., at 80:7-24.

Meta Response: Undisputed that the witness provided the paraphrased testimony.

b. Mr. Koum testified that one of the people interested in investing in WhatsApp around April 2011 was Bill Gurley from Benchmark Capital. PX6010, Koum (Meta/WhatsApp) IH Tr., at 93:12-25.

Meta Response: Undisputed that the witness provided the paraphrased testimony.

c. Mr. Koum testified that one of the people interested in investing in WhatsApp around April 2011 was [redacted] from Felicis Ventures. PX6010, Koum (Meta/WhatsApp) IH Tr., at 93:12-94:2; *see also* PX0628, [redacted] LinkedIn page, LinkedIn, https://www.linkedin.com/in/[redacted] (last visited May 20, 2024) (showing that [redacted] is the founder of the boutique VC firm Felicis Ventures and has been the managing partner of the VC firm since 2005).

Meta Response: Undisputed that the witness provided the paraphrased testimony.

d. Mr. Koum testified that around the end of 2012, Digital Sky Technologies ("DST") reached out about a potential investment in WhatsApp. *See* PX6010,

Koum (Meta/WhatsApp) IH Tr., at 99:14-100:18 (discussing how DST's investment in WhatsApp came about and noting that "they reached out to us I would probably say maybe a year or so before that investment" and "expressed an interest in giving us money without any sort of terms," and "at some time in the end of 2013, early '14, those conversations got serious, where they said they will be happy to write you a big check for a very small portion of your company.").

Meta Response: Undisputed that the witness provided the quoted testimony.

e. In February 2013, [redacted] received an email indicating that America Movil's CEO was "interested to discuss a deeper partnership and maybe to invest in [WhatsApp], as a shareholder." PX3136, WhatsApp email chain: [redacted] (America Movil) to [redacted] (Sequoia Capital) re: "WhatsApp," (Feb. 6, 2013), FB_FTC_CID_09331006, at -006.

Meta Response: Undisputed that the document contains the quoted language.

f. In August 2013, [redacted] received an email from Sequoia Capital's [redacted] explaining that Tencent had called and "expressed interest[], as long as there are opportunities to participate, to make minority investments into [Whatsapp] by participating in a special Sequoia fund where they are the key LP." PX3138, WhatsApp email chain: [redacted] (Sequoia Capital) to [redacted] (Sequoia Capital) re: "Whatsapp," (Aug. 15, 2013), FTC-META-003422366, at -366. In an email on August 15, 2013, to Mr. Koum, [redacted] noted that Tencent had also reached out earlier that summer seeking "a traditional minority investment/partnership," though [redacted] believed it was a "veiled acquisition interest." PX3196,

WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum re: "(no subject)" (Aug. 16, 2013), FB_FTC_CID_02582691, at -691.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except that the cited material reflects that [redacted]'s email to Mr. Koum was sent on August 16, 2013.

g. In August 2013, [redacted] received emails from [redacted] at General Atlantic stating they "would love to figure out a way to invest" in WhatsApp and asking for an introduction to the WhatsApp founders "to begin to develop the relationship." PX3143, WhatsApp email chain: [redacted] (General Atlantic) to [redacted] (Sequoia Capital) re: "WhatsApp," (Aug. 3, 2013), FTC-META-003500039, at -040.

Meta Response: Undisputed that the document contains the quoted language.

h. In October 2013, [redacted] received an email from [redacted] at Meritech Capital about a potential investment in WhatsApp, stating: "likely a day late and a dollar short on WhatsApp but we have heard there is a round going on there – is there still a shot for us?" PX3142, WhatsApp email chain: [redacted] (Meritech Capital) to [redacted] (Sequoia Capital) re: "WhatsApp," (Oct. 21, 2013), FTC-META-003499777, at -777.

Meta Response: Undisputed that the document contains the quoted language.

1777. WhatsApp's planned Series C round of investment garnered interest from many parties.

Meta Response: Disputed in part. Undisputed that several parties reached out about potential investments in WhatsApp's planned Series C funding round. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the interest of certain parties in participating in WhatsApp's Series C round of investment does not support the FTC's speculative theory that WhatsApp would have "pivoted" to offer "personal social networking" services but for the Meta acquisition. *See* Meta Resp. to Counter SMF ¶ 1765 (evidence undermines any claim WhatsApp would have pivoted to PSNS).

a. On January 14, 2014, Sequoia Capital's [redacted] emailed WhatsApp with a list of "secondary options" for their investment round that included Coatue, Tiger, Maverick, Trowe, Fidelity, Blackrock, Bessemer, Battery, General Atlantic, IVP, Meritech, Greylock, Google Ventures, Suhail Rizvy, "DST/Yuri," Naspers, Tencent, "Softbank (Masa)," Raketu, and Microsoft. *See* PX3141, WhatsApp email chain: [redacted] (Sequoia Capital) to N. Arora re: "(no subject)" (Jan. 16, 2014), FTC-META-003498847, at -847.

Meta Response: Disputed in part. Undisputed that [redacted] sent an email to Mr. Arora with a subject line "secondary options" that included the list of companies identified by the statement. Disputed for the reasons stated above in Meta's response to paragraph 1777, and because the material cited merely includes the list of companies identified in the statement, but lacks sufficient context to demonstrate that they were considered – by [redacted] or anyone at WhatsApp – as " 'secondary options' for their investment round."

b. Sequoia Capital's [redacted] noted in the January 2014 email that he had already promised Coatue, General Atlantic, Meritech, Greylock, and Tencent that they "would be invited to the dance." PX3141, WhatsApp email chain: [redacted] (Sequoia Capital) to N. Arora re: "secondary options," (Jan. 16, 2014), FTC-META-003498847, at -847 (explaining that a meeting with firms marked with two asterisks would "help our relationship dynamics" and that those firms had been "promised they would be invited to the dance.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1777.

(4) WhatsApp needed a viable monetization approach, which a personal social networking pivot provided.

1778. WhatsApp initially charged one dollar for iPhone users to download the application. PX6009, Acton (Meta/WhatsApp) IH Tr., at 218:20-25.

Meta Response: Undisputed.

1779. WhatsApp experimented with a yearly subscription model in late 2012 or early 2013, offering a free first year and charging 99 cents each following year. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., 87:8-15, 94:19-95:3, 218:20-219:13; [redacted].

Meta Response: Disputed in part. Undisputed that, beginning in late 2012 or early 2013, WhatsApp charged some users an annual subscription fee of $0.99 following a free first year. Disputed that the statement creates a genuine dispute of material fact, including because the material cited [redacted]

[redacted]. On the contrary, in the cited transcript, Mr. Acton described the subscription model as WhatsApp's "general operating thesis" for monetization and "sort of our long-term goal to get to." PX6009 at 87:8-15 (Acton IH Tr.). WhatsApp's subscription fee was eliminated after Meta acquired WhatsApp – an outcome that was made possible by Meta's acquisition. *See* Meta SMF ¶¶ 763-764.

1780. WhatsApp's subscription model experiment applied only to users of the Android version of the app in seven countries; WhatsApp remained free for the rest of the world, as well as anyone using the iPhone version. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 220:7-221:17; PX6010, Koum (Meta/WhatsApp) IH Tr., at 165:10-17.

Meta Response: Disputed in part. Undisputed that Mr. Acton testified that only Android users in seven countries were actually charged under WhatsApp's subscription model. Disputed that the statement creates a genuine dispute of material fact, including because the material cited does not demonstrate that WhatsApp was "experiment[ing]" with the subscription model. WhatsApp's subscription fee was eliminated after Meta acquired WhatsApp – an outcome that was made possible by Meta's acquisition. *See* Meta SMF ¶¶ 763-764.

1781. WhatsApp's financial statements for 2013 reflected total revenues of $10.2 million and an EBIDTA of negative $39.6 million. *See* PX11685, Facebook, Inc., Current Report (Form 8-K/A), Ex. 99.1 at 4-6 (Oct. 28, 2014); PX9005, Hearle Report at Table 2 (calculating EBITDA).

Meta Response: Undisputed that the document contains the paraphrased statement.

1782. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted], and that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because [redacted] *See* Meta Resp. to Counter SMF ¶ 1765 (evidence undermines any claim WhatsApp would have pivoted to PSNS). Further disputed because [redacted].

1783. Operating WhatsApp required a clear monetization strategy, as demonstrated by the fact that Meta has lost [redacted] sums on WhatsApp since acquiring it: since acquiring WhatsApp in 2014, Meta has attributed [redacted] to WhatsApp for a total of [redacted].

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because none of the material cited below shows that "[o]perating WhatsApp required a clear monetization

strategy," nor provides any evidence that Meta's significant investments in WhatsApp somehow support such a claim. Meta invests billions of dollars a year in its business – in 2022 alone, it spent more than $35 billion on research and development across its business. *See* Meta SMF ¶ 823. Further disputed because the materials cited in the subparagraphs below lack sufficient context to confirm that the cited data – [redacted] – reflects costs attributed to WhatsApp during the identified period of time. Further disputed because the cited data [redacted] WhatsApp's operations in the United States, the only geographic market alleged by the FTC in this matter.

a. In the fourth quarter of 2014, Meta attributed [redacted] to WhatsApp. PX3147 at -005, Meta data production: Meta's Resp. to FTC's Req. for Prod. No. 79, FTC-META-009687124, at "[redacted]" tab (Dec. 15, 2022) ([redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

b. In 2015, Meta attributed [redacted] to WhatsApp. *Id.* ([redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

c. In 2016, Meta attributed [redacted] to WhatsApp. *Id.* ([redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

d. In 2017, Meta attributed [redacted] to WhatsApp. *Id.* ([redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

e. In 2018, Meta attributed [redacted] to WhatsApp. *Id.* ([redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

f. In 2019, Meta attributed [redacted] to WhatsApp. *Id.* ([redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

g. In 2020, Meta attributed [redacted] to WhatsApp. *Id.* ([redacted]).

Meta Response: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

h. In 2021, Meta attributed [redacted] to WhatsApp. *Id.* ([redacted]).

Meta Response: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

i. In the first three quarters of 2022, Meta attributed [redacted] to WhatsApp. PX3147 at -004, Meta data production: Meta's Resp. to FTC's Req. for Prod. No. 79, FTC-META-009687124, at "[redacted]" tab (Dec. 15, 2022) ([redacted]).

Meta Response: Disputed in part. Undisputed that the numbers cited appear in the location identified. Disputed for the reasons stated above in Meta's response to paragraph 1783.

1784. Professor Rim stated in his report that "the pre-monetization stage of a startup is by necessity time limited. The VC backer cannot continue to inject cash forever . . . At some point, business will need to expand and monetize." PX9014, Rim Rebuttal Report at ¶ 102.

Meta Response: Undisputed that Professor Rim offered the quoted opinion.

1785. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because [redacted].

a. On January 22, 2013, Sequoia Capital's [redacted] sent Mr. Koum an email with a "whatsapp confidential summary for [his] partners" where he stated that "WhatsApp remains a tale of tremendous growth without meaningful monetization." PX1363, WhatsApp email chain: [redacted] (Sequoia Capital) to J. Koum re: "(no subject)" (Jan. 22, 2013), FB_FTC_CID_02572469, at -469.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1785.

b. [redacted]

i. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1785.

1786. Professor Rim wrote in his report:

> Based on my experience as a venture capitalist, . As a VC, you wouldn't present speculative information to the investment committee, which ultimately decides on the investment.

PX9014, Rim Rebuttal Report at ¶ 106.

Meta Response: Undisputed that Professor Rim offered the quoted opinion.

1787.

[redacted]

Meta Response: Disputed in part. Undisputed that the cited material proposes an [redacted] valuation for WhatsApp [redacted]. Disputed that the statement creates a genuine dispute of material fact, including because [redacted]

1788. [redacted]

Meta Response: Undisputed that the witness provided the paraphrased testimony.

1789. Professor Catherine Tucker—Meta's monetization and digital advertising expert—opined that "WhatsApp's subscription model was not sustainable because it did not successfully generate sufficient revenue." PX9015, Tucker Report at ¶ 105; *see generally id.* at § VII.A.

Meta Response: Undisputed that Professor Tucker offered the quoted opinion.

1790. Professor Steven Kaplan—Meta's expert—opined that "WhatsApp provides an example of founders motivated by a particular vision that may not have been compatible with long-term profitability." PX9023, Kaplan Report at ¶ 60.

Meta Response: Undisputed that Professor Kaplan offered the quoted opinion.

1791. Professor Rim opined that "a likely evolution path for WhatsApp would have involved expansion into adjacent uses, e.g., a social networking offering similar to Facebook." PX9014, Rim Rebuttal Report at ¶ 37.

Meta Response: Disputed in part. Undisputed that Professor Rim offered the quoted opinion. Disputed that the statement creates a genuine dispute of material fact, including because Professor Rim's statement is unsupported by any competent evidence. Professor Rim's opinion is based on nothing beyond his own say-so, and is directly contrary to voluminous evidence that the founders of WhatsApp were resolutely against expanding the product into "adjacent use [cases], e.g., a social networking offering similar to Facebook." *See* Meta SMF ¶¶ 785-795.

1792. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because [redacted].

a. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1792.

1793. Meta likewise recognized the difficulty of advertising in the messaging portion of a messaging application.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the cited material – comprising a single document created by a lower-level Meta employee – does not evidence that "Meta . . . recognized the difficulty of advertising in the messaging portion of a messaging application."

a. On November 14, 2014, Meta put together a "Messaging Report," which noted that "[t]op messaging apps exclude advertising as it adversely affects user experience" and that "[m]essaging apps have excluded advertising as it deters from user experience." PX11654 at -022, Meta presentation: "Facebook Messaging Report" (Nov. 11, 2014), FB_FTC_CID_02813970.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1793.

b. Meta's November 2014 Messaging Report noted the distinction between advertising on messenger versus social networking, stating that "[a]ds for mobile

have not yet been that successful and well implemented with the exception of Facebook's mobile newsfeed." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1793, and because the cited material does not "note[] the distinction between advertising on messenger versus social networking." The cited slide provides no additional context beyond the quoted text, and nothing to support the overbroad characterization.

1794. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp had no intention of adding features to become more like Facebook and had a limited presence in the United States. *See* Meta SMF ¶¶ 787-795. Professor Hemphill testified: "Q. And you've not offered an opinion as to when WhatsApp would have become a PSN in the but-for world, correct? . . . A. That's – that's – that's correct." *Id.* at ¶ 799 (quoting Ex. 283 at 283:8-12 (Hemphill Dep. Tr.)). Both Mr. Acton and Mr. Koum have testified, and their contemporaneous documents confirm, that the "growth" they intended for WhatsApp was limited to growing the app as an OTT messaging app, without any of the features that the FTC has claimed are essential to so-called "PSNS" apps. *See* Meta SMF ¶¶ 785-795. WhatsApp had no intention of making an effort to expand in the United States. *See id.* at ¶¶ 778-782. Further disputed because [redacted]

[redacted].

a. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1794.

b. [redacted]

Meta Response: **Disputed in part.** Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1794.

c. [redacted]

Meta Response: **Disputed in part.** Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1794.

d. [redacted]

Meta Response: **Disputed in part.** Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1794.

e. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1794.

f. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the stated metrics. Disputed for the reasons stated above in Meta's response to paragraph 1794.

g. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1794.

h. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1794.

1795. [redacted]

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's response to paragraph 1794. Further disputed because [redacted]. *See* Meta Resp. to Counter SMF ¶ 1794 (undisputed that WhatsApp had no intention of adding features to become more like Facebook or making an effort to expand in the United States).

a. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1795.

1796. [redacted]

Meta Response: Disputed in part. Undisputed that Morgan Stanley created analyses of WhatsApp's potential value. Disputed that the statements in this paragraph and its subparagraphs regarding Morgan Stanley's "assum[ptions]" are material to the resolution of either party's motion. As Mr. Esfahani testified at his deposition, at the time the materials cited were prepared Morgan Stanley had "never met this company before" and the materials were created with the objective of "get[ing] a meeting with WhatsApp." PX6128 at 39:10-22 (Esfahani (Morgan Stanley) Dep. Tr.). Mr. Esfahani's assumptions or projections about the company's future, developed without any information about the actual intentions of the company's founders or their objectives, has no bearing on any issue in this case. Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp had no intention of adding features to become more like Facebook. *See* Meta Resp. to Counter SMF ¶ 1794 (undisputed that WhatsApp had no intention of adding features to become more like Facebook or making an effort to expand in the United States).

a. In early 2014, Morgan Stanley created a presentation titled "WhatsApp Overview" that described the "value proposition of WhatsApp," why it was "an important asset," and why it was "relevant to various players in the [technology]

space." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1796.

b. Morgan Stanley's 2014 presentation included a "positioning" deck describing why multiple major technology companies might want to acquire WhatsApp. *See* PX10227, Morgan Stanley presentation: "WhatsApp Overview January 2014" (Jan. 29, 2014), MS_FTCMETA-00001557, at -557-605 (providing an overview of WhatsApp and describing WhatsApp as a strategic fit with Meta, [redacted]); PX6128, Esfahani (Morgan Stanley) Dep. Tr., at 48:11-16, 49:144-22 (testifying that PX10227 includes a "positioning presentation . . . which is basically talking about WhatsApp competitive positioning and their appeal to the technology landscape in terms of who could be a potential acquirer for the business and what the fit is").

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1796.

c. The Morgan Stanley presentation also included a detailed model mapping out valuation scenarios for WhatsApp based on potential acquirers and [redacted]. *See* PX10228, Morgan Stanley email: M. Grimes to J. Goetz re: "Files," (Feb. 3, 2014), MS_FTCMETA-00001673, at 674-80 (modeling scenarios under which WhatsApp is acquired by Meta, [redacted]

[redacted]); *see also* PX6128, Esfahani (Morgan Stanley) Dep. Tr., at 80:5-81:6 (explaining that the PDFs attached to PX10228 were "[redacted]").

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1796.

d. The Morgan Stanley presentation also included a companion deck titled "WhatsApp LENS 1.0," that was meant to accompany and explain the models. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1796.

e. Morgan Stanley's WhatsApp positioning deck described WhatsApp's strategic fit with six potential acquirers: Meta [redacted] *See* PX10227, Morgan Stanley presentation: "WhatsApp Overview January 2014" (Jan. 29, 2014), MS_FTCMETA-00001557, at -574-605.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1796.

f. Morgan Stanley's WhatsApp positioning deck noted that certain potential acquirers would be able to "determine the social network winner on mobile" by acquiring WhatsApp. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1796, and because none of the cited material concerns WhatsApp's success or performance in the United States, the FTC's alleged relevant geographic market.

g. Morgan Stanley's WhatsApp positioning deck noted that "[redacted] resources combined with WhatsApp's user base and traction could create the predominant social network on Mobile (surpassing Facebook)." *Id.* at -582.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1796.

h. The [redacted] models Morgan Stanley created to value WhatsApp in [redacted]. *See* PX10228, Morgan Stanley email: M. Grimes to J. Goetz re: "Files," (Feb. 3, 2014), MS_FTCMETA-00001673, at -674-80 ([redacted]); PX6128, Esfahani (Morgan Stanley) Dep. Tr., at 81:17-82:9 (explaining the

"[redacted]" field); *see also* PX10227, Morgan Stanley presentation: "WhatsApp Overview January 2014" (Jan. 29, 2014), MS_FTCMETA-00001557, at -613 ([redacted]); PX6128, Esfahani (Morgan Stanley) Dep. Tr., at 78:1-21 (explaining the checkmarks in the chart depicted on MS_FTCMETA-00001557, at -613).

Meta Response: Disputed in part. Undisputed that Morgan Stanley's [redacted] model included a [redacted] button to include [redacted] as a revenue stream. Disputed for the reasons stated above in Meta's response to paragraph 1796.

i. In the [redacted] models Morgan Stanley created to value WhatsApp in different transaction scenarios, the only scenarios that resulted in an EBITDA multiple equity value greater than [redacted] were [redacted].

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1796. Further disputed because the statement lacks context and is incomplete. As Mr. Esfahani made clear in his testimony, the models shown were not "created to value WhatsApp in different transaction scenarios," they were created to try to "get a meeting with WhatsApp." PX6128 at 39:10-22 (Esfahani (Morgan Stanley) Dep. Tr.). Moreover, the FTC relies on screenshots from a model created by Morgan Stanley prior to any communication with WhatsApp. It is impossible to determine, based

on the screenshots alone, how the model works, what the values represent, or the impact of different assumptions on the model.

i. In the Morgan Stanley [redacted] model where Meta acquires WhatsApp, the model included [redacted] and had an EBITDA multiple Equity Value of [redacted]. PX10228, Morgan Stanley email: M. Grimes to J. Goetz re: "Files," (Feb. 3, 2014), MS_FTCMETA-00001673, at -680 ([redacted]).

Meta Response: Disputed in part. Undisputed that the statement accurately describes the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

ii. In the Morgan Stanley [redacted] model where [redacted] acquires WhatsApp, the model included [redacted] and had an EBITDA multiple Equity Value of [redacted]. *Id.* at -679 (showing [redacted]).

Meta Response: Disputed in part. Undisputed that the statement accurately describes the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

iii. In the Morgan Stanley [redacted] model where [redacted] acquires WhatsApp, the model included [redacted] had an EBITDA multiple

Equity Value of [redacted]. *Id.* at -674 (showing [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the statement accurately describes the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

iv. In the Morgan Stanley [redacted] model where [redacted] acquires WhatsApp, the model [redacted] and had an EBITDA multiple Equity Value of [redacted]. *Id.* at -675 (showing [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the statement accurately describes the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

v. In the Morgan Stanley [redacted] model where [redacted] acquires WhatsApp, the model did not include [redacted] and had an EBITDA multiple Equity Value of [redacted]. *Id.* at -677 (showing [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the statement accurately describes the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

vi. In the Morgan Stanley [redacted] model where [redacted] acquires WhatsApp, the model did not include [redacted] and had an EBITDA multiple Equity Value of [redacted]. *Id.* at -676 (showing [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the statement accurately described the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

vii. In the Morgan Stanley [redacted] model where WhatsApp was a [redacted], the model did not include [redacted] and had an EBITDA multiple Equity Value of [redacted]. *Id.* at -678 (showing [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the statement accurately described the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

viii. In the Morgan Stanley [redacted] model where WhatsApp was a [redacted], Morgan Stanley assumed that [redacted]. *See id.* ([redacted]).

Meta Response: Disputed in part. Undisputed that the statement accurately described the configuration of the [redacted] model shown on the cited page. Disputed for the reasons stated above in Meta's responses to paragraphs 1796 and 1796(i).

1797. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, Meta assumed that WhatsApp could attain revenue comparable to companies earning revenue from advertising.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp had no intention of earning revenue from advertising. *See* Meta SMF ¶¶ 790-792. Further disputed because the cited material does not support the claim that "Meta assumed that WhatsApp could attain revenue comparable to companies earning revenue from advertising." The cited material shows nothing save for the fact that Meta presented a slide showing different monetization approaches across different "Social Messaging" apps, and then stated that if WhatsApp's ARPU were the same as LINE's, it would generate approximately $1 billion in revenue. PX1266 at -280 (FB_FTC_CID_00002272). That statement provides no evidence of an "assumption" on Meta's part regarding what revenue WhatsApp could achieve or how it could achieve it.

a. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, Meta compared WhatsApp to Facebook, Skype, WeChat, Twitter, LINE, Kakao, and Viber, all of which monetized through advertising except for Viber. PX1266, Meta presentation: "Cobalt Transaction" (Feb. 17, 2014), FB_FTC_CID_00002272, at -280.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1797.

b. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, Meta listed average revenue per user ("ARPU") for each company in 2012 and 2013. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1797.

i. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, WeChat's ARPU was $0.00 in 2012 and $1.80 in 2013. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1797.

ii. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, LINE's ARPU was $1.12 in 2012 and $2.17 in 2013. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1797.

iii. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, Kakao's ARPU was $0.72 in 2012 and $1.67 in 2013. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1797.

iv. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, Viber's ARPU was $0.00 in 2012 and $0.01 in 2013. *Id.* PX1266, Meta presentation: "Cobalt Transaction" (Feb. 17, 2014), FB_FTC_CID_00002272, at -280.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1797.

c. In Meta's February 2014 presentation to its Board of Directors related to the WhatsApp acquisition, Meta explained that "[i]f Cobalt were to monetize at Line's current ARPU of $2.17 off its current user base of 460 MAUs, it would generate approximately $1 billion of revenue." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1797.

1798. After Meta acquired WhatsApp, Meta highlighted that the price of acquiring WhatsApp was justifiable because WhatsApp had the potential to earn comparable revenue to LINE,

Kakao, and WeChat, who had social networking features and were earning revenue from advertising.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including because WhatsApp had no intention of implementing "social networking features" or earning revenue from advertising. *See* Meta Resp. to Counter SMF ¶ 1765 (evidence undermines any claim WhatsApp would have pivoted to PSNS). Further disputed because the cited material does not support the statement and misrepresents the only piece of evidence cited in support – a brief video clip of Mr. Zuckerberg responding to a question on CNN Money forum shortly after the acquisition. The quoted text below ignores the broader context of the statement, where Mr. Zuckerberg explained that the value of WhatsApp was justifiable based on both the company's value as a standalone company, and its strategic value as part of Facebook. PX0610 (YouTube, *Video interview of Mark Zuckerberg at Mobile World Congress*). He also highlighted the breadth of WhatsApp's user base and its engagement as contributing to the app's value. Further, Mr. Zuckerberg did not make any statement about LINE, Kakao, and WeChat's non-messaging features. On the contrary, Mr. Zuckerberg, specifically referred to those apps as "messaging apps." *Id.*

a. In a 2014 interview at the Mobile World Congress conference that took place after Meta's acquisition of WhatsApp, Mr. Zuckerberg responded to a question about the WhatsApp acquisition and said: "[Y]ou can look at other messaging apps that are out there you know whether it's Kakao, or Line, or WeChat, that already are monetizing at a level of two to three dollars per person with pretty early efforts and I think that shows that if we can do a pretty good job of helping

WhatsApp to grow that this is just going to be a huge business." PX0610, Video interview of Mark Zuckerberg at Mobile World Congress (Feb. 24, 2014), https://youtu.be/vgoctV4AcNw, at 01:30-02:17.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1798.

b) Meta viewed WhatsApp as a significant threat to enter personal social networking services, either on its own or as a result of acquisition by another firm.

(1) Meta recognized that leading mobile messaging providers posed a significant competitive threat to its personal social networking services because they could pivot into personal social networking services.

1799. Meta recognized that OTT mobile messaging companies growing and pivoting was a reasonable way to enter the personal social networking market.

Meta Response: Disputed in part. Undisputed that, throughout its existence, Meta has perceived a variety of competitive threats, including from OTT mobile messaging companies. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp had no intention of adding features to become more like Facebook and had a limited presence in the United States. *See* Meta SMF ¶¶ 787-795; *see also* Meta Resp. to Counter SMF ¶ 1734 (WhatsApp's slow pre-acquisition growth in the U.S.). Professor Hemphill testified: "Q. And you've not offered an opinion as to when WhatsApp would have become a PSN in the but-for world, correct? . . . A. That's – that's – that's correct." Meta SMF ¶ 799 (quoting Ex. 283 at 283:8-12 (Hemphill Dep. Tr.)). Both Mr. Acton and Mr. Koum have testified, and their contemporaneous documents confirm, they intended for WhatsApp to remain an

OTT messaging app, free of any of the features that the FTC has claimed are essential to so-called "PSNS" apps. *See* Meta SMF ¶¶ 785-795. WhatsApp had no intention of making an effort to expand in the United States. *See id.* at ¶¶ 778-782. The FTC's use of "personal social networking service market" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. In April 2012, Mark Zuckerberg observed that KakaoTalk, LINE, and WeChat were each "using messages as a springboard to build more general mobile social networks. Kakao launched a photos app that got millions of downloads on its first day based off the popularity of its messaging network. Given how important messaging is on mobile, this seems like a reasonable way for a network to grow to me." PX1116, Meta messages: M. Zuckerberg to M. Schroepfer, (Apr. 22, 2012), FB_FTC_CID_06208072, at -072.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1799, and because the quoted text lacks important context. Specifically, the quoted passage begins with Mr. Zuckerberg distinguishing WhatsApp, stating that "*[w]ith the exception of WhatsApp*, all of these other messaging apps are using messages as a springboard to build more general mobile social networks." PX1116 at -072 (FB_FTC_CID_06208072) (emphasis added).

b. Mr. Zuckerberg testified that by April 2012: "there was some precedent, especially WeChat in China and some other apps like Line in Japan, that some apps started off as messaging apps and then built additional other sharing features

to become much broader networks than even just messaging." PX6127, Zuckerberg (Meta) Dep. Tr., at 95:22-96:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1799. Further disputed because the quoted text lacks important context. Mr. Zuckerberg was asked: "It's true that in April of 2012, you were concerned about messaging as a potential avenue for competitors to build broader social features and compete with the Facebook App; right?" PX6127 at 95:4-7 (Zuckerberg Dep. Tr.). He responded:

> I think around this time – it's 2012 – mobile was quickly becoming the primary way that people interacted. Messaging was increasingly important as part of that. I mean, there were a few different questions.
>
> One was we just wanted to enable people to connect over messaging the way we had on desktop with chat. And then there were concerns if we weren't able to do that, would that mean that – first of all, that was probably – that would have been an issue by itself because messaging is actually a big part of connecting with friends and communicating.
>
> But, second, I think that there was some precedent, especially with WeChat in China and some other apps like Line in Japan, that some apps started off as messaging apps and then built additional other sharing features to become much broader networks than even just messaging.
>
> So even if I think there was potentially some kind of risk or concern of that happening, but *even without that, messaging is a very important form of sharing, and today is the most common form of sharing*. So that's relevant by itself.

Id. at 95:9-96:7 & errata (emphasis added).

c. Javier Olivan testified that mobile messaging services "seemed to be following a playbook of growing through the messaging backdoor, starting to evolve into

more of a social network because you have profiles, you have feeds, you have broadcast kind of things. That was the playbook they were following." PX6076, Olivan (Meta) Dep. Tr., at 211:23-212:2, 212:16-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1799, and because the quoted text lacks important context. The FTC's citation omits the most relevant portion of Mr. Olivan's testimony, specifically the lack of concern about the United States (the FTC's alleged relevant geographic market) and cabining of the cited testimony to the markets *outside* the United States. Specifically Mr. Olivan testified:

> Well, 2013, we're talking here 2013. I think what I'm specifically fearing is that some of these mobile messaging services can evolve into social networks. There have been indications of that happening in China or KakaoTalk trying to do the same thing in Korea. So there were data points, *especially in Asia*, of that happening.
>
> Now, would we lose the entire business, well, no. Because we have a big business in North America and United States, and no mobile messaging services was growing in United States. So no, we would not lose all of our business, but *we could certainly lose a lot of business in some of these geographies outside of the United States* where some of these competitors were growing very quickly.

PX6076 at 211:23-212:15 & errata (Olivan Dep. Tr.) (emphases added).

i. These messengers, which were "morphing into fully fleshed SSN sites," were WeChat, Kakao, and LINE which, to Mr. Olivan's recollection, were "the ones that we had seen evolving from a pure messaging app, SMS replacement, into a lot more than that." PX6076, Olivan (Meta) Dep. Tr., at 217:9-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1799 and subparagraph 1799(c).

d. On April 26, 2012, Peter Deng approved the posting of an announcement to the Messages Team that explained that it was important for Facebook Messenger to "win" because "[b]y providing the best private communication channel where people choose to share the important news in their life first, we can make it very easy to share this content with all your friends when you're ready. Mobile messaging can be made the ultimate entry point for the larger Facebook experience." PX10449, Meta email chain: P. Deng to [redacted] re: "Announcement," (Apr. 26, 2012), FB_FTC_CID_06850829, at -830.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1799.

e. Javier Olivan testified that messaging applications are "very close to social networks. They are adjacent." PX6076, Olivan (Meta) Dep. Tr., at 56:14-24.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1799.

1800. Meta began tracking the pivots by Kakao, WeChat, and LINE almost as soon as the pivots occurred.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

above in Meta's response to paragraph 1799. Further disputed because the evidence cited in the subparagraphs below does not show that Meta "began tracking the pivots by Kakao, WeChat, and LINE almost as soon as the pivots occurred." In particular, the evidence cited below does not demonstrate that Meta was *not* monitoring Kakao, WeChat, and LINE prior to the claimed "pivot." On the contrary, the evidence suggests that Meta had been tracking those apps well before any expansion of features. Mr. Zuckerberg's testimony further suggests that Meta was long tracking apps like Kakao, WeChat, and LINE. *See* PX6127 at 95:4-96:7 (Zuckerberg Dep. Tr.).

a. On April 22, 2012, in an email chain entitled "Industry update," Mr. Nowak wrote to Mr. Zuckerberg, Mr. Olivan, and other Meta employees: "I think it's worth calling out that these apps are trying pretty hard to shift away from being 'free SMS' to being more 'fully featured' social networks. WeChat now has photo sharing and G+-style circles, and Kakao recently introduced Kakao Story, which is a photo-heavy sharing service . . . ." PX10626, Meta email chain: M. Nowak to M. Zuckerberg, J. Olivan, et al. re: "Industry update," (Apr. 22, 2012), FB_FTC_CID_06085791, at -791.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1800, and because the quoted material lacks important context. As Mr. Nowak explained at his deposition, his industry updates regarding WhatsApp either did not address its success or failure in the United States, or expressly highlighted WhatsApp's failures to gain traction in the U.S. *See* PX6056 at 204:13-210:18 (Nowak Dep. Tr.). Mr. Nowak also confirmed that, in his

recollection, in mid-2012 "WhatsApp . . . had not experienced significant growth at that point in the United States." *Id*. at 207:24-208:5.

i. Mr. Nowak testified that he was referring to KakaoTalk, LINE, and WeChat as the apps that were each becoming "a more fully featured social network by launching social features." PX6056, Nowak (Meta) Dep. Tr., at 93:14-23, 96:14-19 (discussing PX10626).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1800 and subparagraph 1800(a).

b. On April 24, 2012, Mr. Nowak sent a link to an article about WeChat to Mr. Olivan, [redacted], and others, commenting: "Note how far they're moving beyond 'free SMS,'" followed by a quote comparing WeChat's "new features" to Instagram, Path, and Google+. PX10827, Meta email chain: M. Nowak to J. Olivan, [redacted], et al. re: "More on WeChat," (Apr. 24, 2012), FTC-META-010410972, at -973.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1800 and subparagraph 1800(a).

c. On May 4, 2012, Mr. Nowak wrote to colleagues including Meta senior executives: "Many mobile messengers aren't just mobile messengers . . . . Until recently, Tencent was essentially a 'free SMS' app with some integrations with other Tencent properties like QQ Mail and Tencent Weibo." PX10594, Meta email chain: M. Nowak to [redacted], et al. re: "Industry update," (May 4, 2012),

FB_FTC_CID_02442395, at -397. "In April, Tencent rebranded Weixin as 'WeChat!' and added a number of social features, including Google+-style Circles, Instagram-style photo filters, and a Path-style 'photo journal.'" *Id.* at -398. "Meanwhile, KakaoTalk [] and LINE [] have introduced separate standalone apps with more social components." *Id.* at -399.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1800 and subparagraph 1800(a).

d. On October 30, 2012, Mr. Nowak noted that "Kakao, Line, and Tencent's WeChat [] have been more aggressive about branching out into Facebook-style social networking." PX10595, Meta email chain: M. Nowak to D. Ebersman re: "Mobile panel data," (Oct. 30, 2012), FB_FTC_CID_03703708, at -708; *see also* PX6056, Nowak (Meta) Dep. Tr., at 105:11-14, 112:22-113:5 (discussing PX10595 and stating that "Kakao launched an application that had additional social features that made use of the underlying social graph").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1800 and subparagraph 1800(a).

e. On October 30, 2012, Mr. Nowak reported to Mr. Ebersman that KakaoStory "is a true mobile-first social network that leverages KakaoTalk's social graph," and that in Japan, Line represented "another mobile messenger with social-networking features." PX10595, Meta email chain: M. Nowak to D. Ebersman re: "Mobile panel data," (Oct. 30, 2012), FB_FTC_CID_03703708, at -708; *see also* PX6056,

Nowak (Meta) Dep. Tr., at 105:11-14, 112:22-113:5; 115:22-25 (discussing PX10595).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1800 and subparagraph 1800(a).

1801. In Asia, Meta observed that the personal social networking services offerings of mobile messaging services that had pivoted into personal social networking services were overtaking Facebook in some locations where they competed.

Meta Response: Disputed in part. Undisputed that KakaoStory and LINE at times had higher engagement than Facebook in some parts of Asia during the period between 2012 and 2014. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1799. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. On October 30, 2012, Mr. Nowak wrote: "In Korea (Slide 4), mobile-messenger KakaoTalk has remarkably high penetration: 96% of panelists are MAUs, and > 60% are L6+/7. What's more, KakaoStory (which is a true mobile-first social network that leverages KakaoTalk's social graph) is also ahead of Facebook on both MAUs and L6+/7 users." PX10595, Meta email chain: M. Nowak to D. Ebersman re: "Mobile panel data," (Oct. 30, 2012), FB_FTC_CID_03703708, at -708.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1801.

b. On October 30, 2012, Mr. Nowak wrote: "In Japan (Slide 5), Line (another mobile messenger with social-networking features) has recently overtaken Facebook in both MAUs and L6+/7s." PX10595, Meta email chain: M. Nowak to D. Ebersman re: "Mobile panel data," (Oct. 30, 2012), FB_FTC_CID_03703708, at -708.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1801.

c. On January 17, 2014, Meta's [redacted] wrote to Mr. Schultz and Mr. Daniels that LINE was "killing it" in Thailand to the point that the relevant telecommunications company "has raised questions about doing Test B with us because they view LINE to be the dominant social network in the next year or two." PX11078, Meta email chain: [redacted] to C. Daniels and A. Schultz re: "LINE in Thailand," (Jan. 17, 2014), FTC-META-002815647, at -647.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1801.

i. On January 17, 2014, Mr. Schultz responded to [redacted] and stated that Meta was investing in messaging because "we see it as a threat." PX11078, Meta email chain: A. Schultz to [redacted] and C. Daniels re:

"LINE in Thailand," (Jan. 17, 2014), FTC-META-002815647, at -647 ("The reason messaging is in growth is that we see it as a threat.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1801.

1802. Meta's leadership feared that mobile messaging would serve as a path for a serious competitive threat to enter the personal social networking market.

Meta Response: Disputed in part. Undisputed that Meta was concerned about many competitive threats, including from mobile messaging. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1799. The FTC's use of "personal social networking market" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. On April 26, 2012, Peter Deng approved the posting of an announcement to the Messages Team that stated that "it is so important that we win" in mobile messaging because . . . "[I]f a competitor ends up owning this channel they can leverage this position to compete with us on other social use-cases. We're already seeing this with WeChat[.]" PX10449, Meta email chain: P. Deng to [redacted] re: "Announcement," (Apr. 26, 2012), FB_FTC_CID_06850829, at -830.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802, and because the quoted material lacks important context. Quoted above is the *second* reason that [redacted] – the author of the post – stated was

"important that [Meta] win" in mobile messaging. The first reason was that people tend to share important information about their lives "privately with a few people before they're shared more widely." PX10449 at -830 (FB_FTC_CID_06850829).

b. On June 17, 2012, Alex Schultz wrote, in connection with the "Growth target[]" of "getting everyone in the world on Facebook" that messaging was one of two main areas of focus. Mr. Schultz noted that the move was "also defensive because Zuck believes this is where our greatest competitive threat is today." PX11076, Meta email chain: A. Schultz to [redacted] [redacted] re: "[Internet-marketing] some thoughts on the start of 2012," (June 17, 2012), FB_FTC_CID_03764082, at -082.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802. Further disputed because the quoted material lacks important context. Mr. Schultz's message makes clear that the primary reason Meta was focused on messaging was that it "increases engagement," and part of Mr. Olivan's "vision for reaching the next billion users" on Facebook, in particular. PX11076 at -082 (FB_FTC_CID_03764082).

c. On June 22, 2012, Javier Olivan requested the creation of a "this shit is getting scary deck" to be provided to Meta senior executives adding: "we really need to double down on messenger / our messenger is broken . . . ." PX10598, Meta email chain: J. Olivan to [redacted], et al. re: "Facebook vs. KakaoStory (Nielsen KoreanClick) / Kakao Game," (June 22, 2012), FB_FTC_CID_04336573, at -574.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802.

i. The "Mobile messengers" deck produced in response to Mr. Olivan's request stated that "Mobile messengers are one of the most significant competitive threats we face." PX10598 at -007, Meta presentation: "Mobile messengers" (June 26, 2012), FB_FTC_CID_04336573. In explaining why, Olivan's team wrote that the leading messengers had experienced "sustained, rapid growth with very high user engagement;" messengers were growing in both key growth markets for Facebook "AND established Facebook markets;" and messengers were "increasingly moving into core social-networking product areas," which "marks a transition from SMS replacement and a generic 'time spent' threat to a direct threat to our primary products." *Id.* at -008.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802.

d. On May 4, 2012, Michael Nowak wrote to colleagues including Meta senior executives: "We're continuing to focus on mobile messenger apps. Two takeaways: several of these apps are trying to expand into more full-fledged social networking; and a number are working on international expansion but with varying degrees of success." PX10594, Meta email chain: M. Nowak to [redacted], et al. re: "Industry update," (May 4, 2012), FB_FTC_CID_02442388, at -395.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802.

e. In October 2012, Peter Deng explained that:

i. We are facing a huge threat with messaging competitors. As I told the Messages team at our all hands yesterday, this is the biggest threat to our product that I've ever seen in my 5 years here at Facebook; it's bigger than G+, and we're all terrified. These guys actually have a credible strategy: start with the most intimate social graph (I.e. The ones you message on mobile), and build from there. PX2970, Meta email: [redacted] on behalf of P. Deng to A. Schultz and [redacted] re: "Messenger Growth XFN SWAT," (Oct. 8, 2012), FB_FTC_CID_09504642, at -642.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802.

f. In January 2013, Javier Olivan expressed a belief that messenger services were "one of the most dangerous beach heads to morph into" personal social networking services. PX12108, Meta email chain: J. Olivan to D. Rose and M. Schroepfer, et al. re: "Competitive Mobile App Install Ads," (Jan. 9, 2013), FB_FTC_CID_01409579, at -580; *see also* PX6076, Olivan (Meta) Dep. Tr., at 217:2--8 (confirming that "SSN" referred to "Social network" and that "IMO" referred to "in my opinion.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1802, and because Mr. Olivan did not express any belief relating to "personal social networking services." As the quoted text from Mr. Olivan's deposition demonstrates, his statement in the cited document refers to social networks, not "personal social networking services," as the FTC uses that term. The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

g. On February 11, 2013, Mark Zuckerberg explained to the Meta board of directors that:

> [M]obile messaging is the next biggest consumer risk and opportunity . . . the biggest competitive vector for us is for some company to build out a messaging app for communicating with small groups of people, and then transform[] that into a broader social network. Companies like Line and Kakao in Korea and Tencent in China are running this exact strategy and it's working reasonably well.

PX10271, Meta email chain: M. Zuckerberg to D. Graham, E. Bowles, et al. re: "Board Update," (Feb. 11, 2013), FB_FTC_CID_08957288, at -789.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802, and because the quoted material omits important context. Mr. Zuckerberg's statements regarding the risks from mobile messaging were in response to a pending question from a board member of whether "things were going too well," and to elaborate on the "biggest risks" Meta faced. PX10271 at -289 (FB_FTC_CID_08957288). Moreover, the excised quote omits Mr. Zuckerberg's explanation of why messaging represented a "big opportunity" for

Meta – specifically, that messaging can "significantly increase the volume of sharing and communication on Facebook." *Id.*

h. Mr. Zuckerberg also noted that he wanted Facebook to "use M&A to build a competitive moat around us on mobile and ads. I think we could spend $1-2 billion over the next couple of years on such acquisitions." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802, and because the statement does not support the claim that Meta "feared that mobile messaging would serve as a path for a serious competitive threat to enter the personal social networking market." Further disputed because the quote lacks context. Mr. Zuckerberg's statement had nothing to do with messaging or WhatsApp. Instead, he goes on to explain that the $1-2 billion in acquisitions he planned to "build a competitive moat" were exemplified by two companies, OSMeta and Atlas, which he hoped would help Facebook build "a better app store" and "help us in our ads strategy," respectively. PX10271 at -289 (FB_FTC_CID_08957288).

i. In August 2013, Director of Corporate Development Amin Zoufonoun wrote to Mr. Zuckerberg and Mr. Olivan: "the scary part, of course, is that this kind of mobile messaging is a wedge into broader social activity/sharing on mobile we have historically led on web." PX1413, Meta email chain: A. Zoufonoun to J. Olivan and M. Zuckerberg re: "WhatsApp/FB sends," (Aug. 28, 2013), FB_FTC_CID_06213795, at -795; PX6028; Zoufonoun (Meta) IH Tr., at 19:25-20:6 (explaining that he joined Meta as the director of corporate development).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802.

j. In August 2013, then-Head of Growth Javier Olivan replied to Mr. Zoufonoun: "Trust me – this keeps me awake every night. We are definitely not playing in the same field as whatsapp [sic] does (as evidenced by the fact that we only have 200M messenger to messenger daily sends as opposed to their 12B daily sends by now)." PX1413, Meta email chain: J. Olivan to A. Zoufonoun and M. Zuckerberg re "WhatsApp/FB sends," (Aug. 28, 2013), FB_FTC_CID_06213795, at -795.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802, and because the statement lacks important context. Mr. Olivan's assertion that Facebook Messenger was "not playing in the same field as whatsapp," was responsive to Mr. Zoufonoun's suggestion that comparing the two products may be "comparing apples to oranges between the two products in terms of graph, use case, user expectation[s]," noting in particular that there may be differences in user expectations about what the apps are to be used for based on "legacy user perception[s]." PX1413 at -795 (FB_FTC_CID_06213795).

k. On January 17, 2014, Mr. Schultz noted that "[t]he reason messaging is in growth is that we see it as a threat." PX11078, Meta email chain: A. Schultz to [redacted] re: "LINE in Thailand," (Jan. 17, 2014), FTC-META-002815647, at -647.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1802.

(2) Meta restricted leading OTT mobile messengers, including WhatsApp, from accessing growth tools, and refused to sell advertising to OTT messengers that had already pivoted to offer personal social networking services.

1803. Meta responded to its fear of OTT mobile messengers pivoting into personal social networking services by restricting their ability to access growth tools. *See infra* CMF ¶ 1804.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1799. Further disputed because none of the evidence cited in paragraph 1804 below supports the statement. The material cited does not evidence anything about Meta's alleged "fear of OTT mobile messengers pivoting into personal social networking services," let alone evidence some broader, coordinated response to such apps. The cited documents – covering a handful of emails across a few weeks more than a decade ago – all relate to Meta's decision not to facilitate the growth of a single app, WeChat, including because Meta could not compete with WeChat in its home market, China. Further disputed that the cited material is relevant, given that the cited testimony and documents refer exclusively to WeChat, a messaging app the FTC claims operated *outside* the United States, *see* Counter SMF ¶ 1738(c), the FTC's alleged relevant geographic market. To the extent the statement incorporates the FTC's statement in paragraph 1804, Meta incorporates its responses to that paragraph.

1804. Meta restricted OTT mobile messaging services, including WhatsApp, from accessing growth tools such as the friends.get API.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1799. Further disputed because the cited evidence does not support the claim that "Meta restricted OTT mobile messaging services" in any particular way. The cited documents – covering a handful of emails across a few weeks more than a decade ago – all relate to Meta's decision not to facilitate the growth of a single app, WeChat, including because Meta could not compete with WeChat in its home market, China. Further disputed that the cited material is relevant, given that the cited testimony and documents refer exclusively to WeChat, a messaging app the FTC claims operated *outside* the United States, *see* Counter SMF ¶ 1738(c), the FTC's alleged relevant geographic market.

a. On August 6, 2012, Meta employee [redacted] noted in an email to Mark Zuckerberg, [redacted], Justin Osofsky, Dan Rose, Mike Vernal, and [redacted] that WeChat had "grown quickly on Platform to 1M MAU in less than 4 months, mostly in APAC, and have over 100M users worldwide, mostly in China." PX2996, Meta email chain: [redacted] to M. Zuckerberg, [redacted], et al. re: "WeChat," (Aug. 6, 2012), FB_FTC_CID_06274544, at -544.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1804.

b. [redacted] asked how the group wanted to "proceed with" WeChat and offered several potential options. PX2996, Meta email chain: [redacted] to M. Zuckerberg, [redacted], et al. re: "WeChat," (Aug. 6, 2012), FB_FTC_CID_06274544, at -544-45. Mr. Zuckerberg responded that he thought option (2) "[t]urn[ing] off friends.get, but still allow[ing] [WeChat] to post pictures and read the user's profile picture," might be "reasonable for now," but noted that "Tencent is a clear long term competitor and this will likely be problematic going forward for us so it may just be best to" also "[c]ompletely shut off their access to Platform as being a competitive service." PX2996, Meta email chain: M. Zuckerberg to [redacted] re: "WeChat," (Aug. 6, 2012), FB_FTC_CID_06274544, at -544.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1804.

c. [redacted] then identified WeChat as "a direct competitor with very little to offer us in terms of content," and explained that "I don't like giving a key competitor anything that will strengthen them when we can't enter their main market [China]." PX2996, Meta email chain: [redacted] to [redacted] re: "WeChat," (Aug. 7, 2012), FB_FTC_CID_06274544, at -544.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1804.

d. On August 9, 2012, Vice President of Partnerships Dan Rose responded to the email chain discussing Meta's options for handling WeChat and suggested that "[w]e should shut [WeChat] down." PX2996, Meta email chain: D. Rose to [redacted], M. Zuckerberg, [redacted], et al. re: "WeChat," (Aug. 9, 2012), FB_FTC_CID_06274544, at -544.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1804.

e. On August 16, 2012, Justin Osofsky messaged Mark Zuckerberg, Mike Vernal, [redacted], Dan Rose, and others, to explain that he "talked tonight with the GM of WeChat" to "let them know that we will disable friends.get and content supporting functionality per our policies," explaining that "this policy applies more broadly to competing social networks." PX2997, Meta message: J. Osofsky to M. Zuckerberg, D. Rose, [redacted], et al. (Aug. 16, 2012), FB_FTC_CID_10821073, at -073. Meta employee [redacted] then disabled WeChat's friends.get access. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1804.

1805. Meta asked Apple to restrict OTT messaging services from accessing Facebook data that would allow them to grow more quickly.

Meta Response: Disputed in part. Undisputed that Facebook restricted competitors, including certain messaging services, from accessing Facebook data that could help them

grow at the expense of Facebook's own growth and user engagement. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1799.

a. On September 25, 2012, Mark Zuckerberg emailed [redacted] of Apple about a Facebook / iOS integration. PX11286, Meta email chain: M. Zuckerberg to [redacted] re: "Urgent Issue," (Sept. 25, 2012), FB_FTC_CID_06030042, at -049. Mr. Zuckerberg explained that "[w]hen we discussed the Facebook / iOS integration, one of the biggest issues we discussed was around how developers would try to use our graph to grow competitive products." *Id.* Mr. Zuckerberg then complained that:

> Within days of launching iOS6, this has already become an issue. Even though we were mostly concerned about Google before, competitive Asian social networks like Naver Line, KakaoTalk and others -- which weren't even on the map when we were initially discussing this but are now at scale -- are using the phone numbers we're putting into your contacts to bootstrap their own competitive graphs. This is a huge issue for us and it is urgent that we resolve this quickly. Every hour that goes by these social networks are getting more and more contact info from us.

PX11286, Meta email chain: M. Zuckerberg to [redacted] re: "(Urgent Issue)," (Sept. 25, 2012), FB_FTC_CID_06030042, at -049.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1799.

b. On September 27, 2012, Mr. Zuckerberg identified the "issue" to [redacted] of Apple as: "by pulling all this info into contacts, we're helping our competitors

compete against ourselves." PX11286, Meta email chain: M. Zuckerberg to [redacted] re: "(Urgent Issue)," (Sept. 27, 2012), FB_FTC_CID_06030042, at -048.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1799.

c. On September 30, 2012, Mr. Zuckerberg laid out his perspective on helping competitors, explaining:

> When we said we didn't want a competitor like Google to use Facebook data to build a competitive graph, I interpreted this as including competitors like Line and Kakao, which both now have more active users than Google+. I also interpreted this as meaning that if they used our data -- including through the contacts API -- and this became an issue, that you would help us deal with this . . . This isn't a matter of us not liking some apps; it's a matter of these competitors using this data to do the exact thing we said they shouldn't be able to."

PX11286, Meta email chain: M. Zuckerberg to [redacted] re: "Urgent Issue," (Sept. 30, 2012), FB_FTC_CID_06030042, at -046.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1799.

d. Mr. Zuckerberg continued explaining his perspective on helping competitors, stating that:

> [T]he competitive issue we have is that for people who are your distant Facebook friends but you never cared enough to enter into your contacts in the first place and are probably never going to call, the primary thing that this integration enables is that now competitive services like Line and Kakao can easily invite 50% more people and grow faster. This doesn't really make iOS or any of Apple's products better. It just uses data from Facebook to help competitive services

> build out their graphs. And this isn't apps getting the same data they would have gotten before . . . they now get 50% more additional contacts to invite.

PX11286, Meta email chain: M. Zuckerberg to [redacted] re: "Urgent Issue," (Sept. 30, 2012), FB_FTC_CID_06030042, at -046.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1799.

e. Mr. Zuckerberg's proposed solution to the problem posed by apps like LINE and Kakao having access to contact information shared through a Facebook / iOS integration was to "auto-update all contacts that are already in your contacts to give them up to date info, but only to send down validated info for new contacts we'd be adding." PX11286, Meta email chain: M. Zuckerberg to J. Olivan and M. Vernal, et al. re: "Urgent Issue," (Sept. 30, 2012), FB_FTC_CID_06030042, at -045.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1799, and because the statement does not accurately describe Mr. Zuckerberg's statement and omits context. The quoted statement represented "one reasonable solution for [Facebook]," not a "proposed solution to the problem," and not one apparently presented to Apple. PX11286 at -045 (FB_FTC_CID_06030042).

1806. Meta refused to sell advertising to WeChat, Kakao, and Line, because they pivoted to offer personal social networking services.

Meta Response: Disputed in part. Undisputed that Meta refused to sell advertising to WeChat, Kakao, and LINE. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1799. Further disputed that WeChat, Kakao, and Line "offer personal social networking services." The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Before the end of 2012, WeChat, Kakao, and Line had launched personal social networking services that competed with Facebook. *See supra* CMF at §§ I.C.1(c), I.C.2(b)(1) [errata: "§§ I.C.1(c), I.C.2(b)(1)" should be "§§ III.C.1(c), III.C.2(b)(1)"].

Meta Response: Disputed in part. Undisputed that WeChat, Kakao, and Line competed with Facebook. Disputed for the reasons stated above in Meta's response to paragraph 1806. Further disputed that WeChat, Kakao, and Line launched "personal social networking services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent the statement incorporates the FTC's statements in Sections I.C.1(c) and I.C.2(b)(1), Meta incorporates its responses to those statements here.

b. In January 2013, Meta executives and other employees re-addressed a question of whether "to continue to allow ads" by "messenger apps" that could drive installations of those apps. PX12108, Meta email chain: [redacted] to M. Zuckerberg, J. Olivan, and S. Sandberg, et al. re: "Competitive Mobile App Install Ads," (Jan. 8, 2013), FB_FTC_CID_01409579, at -581.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1806.

c. As part of this consideration, Dan Rose explained that, whether or not Meta chose to block messengers like "WeChat / Kakao / Line" from purchasing "Mobile App Install Ads," "we're going to continue blocking messenger apps from accessing friends.get." PX12108, Meta email chain: D. Rose to M. Zuckerberg and J. Olivan, et al. re: "Competitive Mobile App Install Ads," (Jan. 9, 2013), FB_FTC_CID_01409579, at -580.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1806.

d. In response, then-Vice President of Growth Javier Olivan explained that:

> [W]e will look like complete idiots if we lose our business to these messenger services and help them along the way for a couple of $s! The sum-product of shift to mobile + messenger services morphing into fully fleshed SSN sites is IMO the biggest competitive threat we face as a business . . . . IMO messenger services deserve special treatment, since it arguably is one of the most dangerous beach heads to morph into FB.

PX12108, Meta email chain: J. Olivan to D. Rose and M. Zuckerberg, et al. re: "Competitive Mobile App Install Ads," (Jan. 9, 2013), FB_FTC_CD_01409579, at -580; PX6076, Olivan (Meta) Dep. Tr., at 217:2-8 (confirming that "SSN" referred to "Social network" and that "IMO" referred to "in my opinion.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1806.

e. Mark Zuckerberg responded that, "we should block WeChat, Kakao and Line ads. Those companies are trying to build social networks and replace us. The revenue is immaterial to us compared to any risk." PX12108, Meta email chain: M. Zuckerberg to J. Olivan and D. Rose, et al. re: "Competitive Mobile App Install Ads," (Jan. 10, 2013), FB_FTC_CD_01409579, at -579. He further concluded that "I'd still block companies that compete with our core from gaining any advantage from us." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1806.

(3) Meta recognized that WhatsApp posed a significant competitive threat to Meta's personal social networking services because WhatsApp could pivot into offering personal social networking services, as other large OTT mobile messengers did.

1807. Meta specifically referenced WhatsApp as a threatening OTT mobile messaging app.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1799, and because the evidence cited in the subparagraphs below does not support the assertion that Meta was concerned about WhatsApp as a competitor to Facebook or Instagram in the United States, the FTC's alleged relevant geographic market.

a. On April 17, 2012, Mr. Nowak wrote to colleagues at Meta, addressing mobile messaging apps: "[W]hile [they] apps began as alternatives to SMS, they are increasingly expanding into domains that more closely resemble traditional social-networking services." PX10626, Meta email chain: M. Nowak to M. Zuckerberg re: "(no subject)" (Apr. 17, 2012), FB_FTC_CID_06085791, at -795. On April 21, 2012, Mr. Zuckerberg responded to Mr. Nowak's April 17, 2012 email:

> Related to this, I think this space is going to be important and these companies could end up being very valuable. I'm curious who the parent company of KakaoTalk is (if there is one) and whether we should consider buying them if we think what they're doing is good. I'd consider doing the same with WhatsApp, but I don't think they're currently interested in selling.

PX10626, Meta email chain: M. Zuckerberg to M. Nowak re: "(no subject)" (Apr. 21, 2012), FB_FTC_CID_06085791, at -793.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807, and because the statement is misleading as to WhatsApp. Mr. Nowak's email goes on to explain that KakaoTalk and LINE, not WhatsApp, had expanded beyond messaging. PX10626 at -795 (FB_FTC_CID_06085791).

b. On April 22, 2012, Mr. Zuckerberg recognized that WhatsApp was the exception in the group of major OTT messengers (WhatsApp, WeChat, LINE, and Kakao), in that it had not yet used messaging "as a springboard to build more general mobile social networks." PX1116, Meta messages: M. Zuckerberg to M. Schroepfer, (Apr. 22, 2012), FB_FTC_CID_06208072, at -072.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807.

c. On September 25, 2012, Mike Vernal messaged Javier Olivan about Meta's communications with Apple about Apple sharing data with mobile messengers. Mr. Vernal expressed the view that "I think going nuclear with apple would literally be the stupidest decision we've made as a company. . ." PX12106, Meta messages: M. Vernal to J. Olivan, (Sept. 25, 2012), FB_FTC_CID_04303101, at -101.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807.

i. Mr. Olivan responded that despite the risk of damaging Meta's relationship with Apple, Meta should consider doing so because the threat from mobile messenger services "morphing into" broader social networks was so serious that it was a "potential recipe for [Meta] not being around a couple [of] years from now," specifically referencing WhatsApp. *See* PX12106, Meta messages: J. Olivan to M. Vernal, (Sept. 25, 2012), FB_FTC_CID_04303101, at -101-02. Mr. Olivan wrote:

> I sent you a bunch of info on the messenger services / their growth / how they r morphing into ssns / growing all over the place already: whatsapp = top 3 app in 100 out of 134 countries of apple store. Fwiw: I am as worried for the future of the company as you are . . .

Id. at -101; PX6076, Olivan (Meta) Dep. Tr., at 217:2-3 (explaining that "ssn" referred to "Social network"). Mr. Olivan further explained:

> i believe (otherwise i would not have made such a big deal of this) that the sumproduct [sic]of the shift to mobile + messengers growing organically with huge retention and virality = potential recipe for not be around in a couple [of] years from now. so I do not know what the right decision is.

PX12106, Meta messages: J. Olivan to M. Vernal, (Sept. 25, 2012), FB_FTC_CID_04303101, at -102.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807. Further disputed because Mr. Olivan's position that "the threat from mobile messenger services 'morphing into' broader social networks was so serious that it was a 'potential recipe for [Meta] not being around a couple [of] years from now,'" does not "specifically reference WhatsApp." The full context of the document makes clear that is not the case. Mr. Olivan s repeatedly regarding "messengers" – not WhatsApp specifically. *See*, *e.g.*, Meta Resp. to Counter SMF ¶ 1799(a). Further disputed because the statement omits necessary context – as Mr. Olivan explained during his deposition, while describing an email chain with Mark Zuckerberg and others addressing "Competitive Mobile App Install Ads," the threat from messengers transitioning into social networking apps was primarily a threat to Facebook's market share in Asia. *See* PX6076 at 211:23-212:15 (Olivan Dep. Tr.).

d. On October 9, 2012, Meta Vice President of Partnerships Dan Rose sent a "high importance" email to then-Chief Operating Officer Sheryl Sandberg recommending that Meta's leadership team "talk about the competitive threat from WhatsApp, KakaoTalk, Line, etc. This might be the biggest threat we've ever faced as a company." PX11287, Meta email chain: D. Rose to S. Sandberg re: "offsite topics," (Oct. 9, 2012), FB_FTC_CID_06194835, at -835; PX6065, Rose (Meta) Dep. Tr., at 28:11-25; PX6022, Sandberg (Meta) IH Tr., at 15:24-25. Ms. Sandberg responded that "this is a good idea" and asked Mr. Olivan to "bring numbers and remind us to cover this . . . ." PX11287, Meta email chain: D. Rose to S. Sandberg re: "offsite topics," (Oct. 9, 2012), FB_FTC_CID_06194835, at -835.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807.

e. In October 2012, Mr. Davenport wrote that "Asian competitors to WA [WhatsApp] have proven the model of taking a mobile communication network and leveraging it to bootstrap a social network can be successful." PX1297, Meta messages: B. Davenport to P. Deng and J. Olivan, (Oct. 17, 2012), FB_FTC_CID_04259815, at -815.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807.

f. In March 2013, Mr. Zuckerberg wrote to the leads of the Facebook Messenger team: "[b]eing the best messaging service is the biggest opportunity and mitigation to the biggest threat we face today," citing Google, Line, and "rumors of WhatsApp expanding into more services." PX1708, Meta email chain: M. Zuckerberg to P. Deng, et al. re: "Winning at messaging," (Mar. 22, 2013), FB_FTC_CID_06203142, at -145; PX6054, Deng (Meta) Dep. Tr., at 19:2-10 (explaining that through his time at Meta, he was a product manager or oversaw Facebook Messenger); PX6041, Endres (Meta) Dep. Tr., at 17:15-20:20 (explaining he managed engineers for the messaging team and was managed by Mr. Schroepfer).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807.

g. On August 6, 2013, Mr. Zuckerberg wrote that if WhatsApp were to "succeed at building differentiated photos features, then they could start winning in the US and other markets where they've historically struggled." PX1486, Meta email chain: M. Zuckerberg to J. Olivan re: "game on!" (Aug. 6, 2013), FB_FTC_CID_06086195, at -195.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807, and because the quotation lacks context. The entirety of PX1486 makes clear that the conversation between Mr. Zuckerberg and Mr. Olivan relates to competition among different messaging products – i.e., between WhatsApp and

Facebook Messenger – and not competition with Facebook or Instagram. In the sentence immediately preceding the quotation above, Mr. Zuckerberg states "[o]ne big challenge WhatsApp has is that they need to offer something beyond just simply texting in order to get folks in places like the US to use them over regular SMS." PX1486 at -195 (FB_FTC_CID_06086195). This is consistent with testimony from Mr. Acton that it was difficult for WhatsApp to compete in the U.S. because it had to compete with existing messaging products like iMessage. *See* Ex. 314 at 147:7-17 (Acton IH Tr.).

h. On August 8, 2013, then-Head of Growth Javier Olivan responded to Mr. Zuckerberg's August 6 discussion of WhatsApp:

> I have been thinking hard about this for the past couple of sleepless nights since I am really worried . . . these guys [WhatsApp] are the real deal! . . . With the window of opportunity to solve the messaging situation shrinking there are a couple of things we might want to add to messenger 3.0 . . . it might be now or never given how fast these guys keep growing / the ambitions they are signaling.

PX1486, Meta email chain: J. Olivan to M. Zuckerberg re: "game on!" (Aug. 8, 2013), FB_FTC_CID_06086195, at -195; PX6017, Olivan (Meta) IH Tr., at 24:21-25:5.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1807 and 1807(g).

i. On August 8, 2013, Mr. Zuckerberg replied to Mr. Olivan's email, explaining that his "point about WhatsApp's direction is that if they build substantive features beyond just making SMS free, that could be enough for them to tip markets like

the US . . ." PX1486, Meta email chain: M. Zuckerberg to J. Olivan re: "game on!" (Aug. 8, 2013), FB_FTC_CID_06086195, at -195.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1807 and 1807(g).

j. On January 26, 2014, Mr. Schultz acknowledged that a widely used OTT messaging app within a country allowed the app to launch a competing personal social networking services that posed "a threat to our core," and cited WhatsApp as one of the mobile messaging services that could pose such a threat:

> The focus on messaging is driven by Whatsapp/KakaoTalk/WeChat/LINE and I think is the right area to be focusing to win in Korea (and Japan) in the long run . . . . We are not surrendering Korea. We have [won] the social networking use case (after a long battle with CyWorld and a flash in the pan from KakaoStory) but we have not won the messaging use case and as long as that's the case KakaoStory remains a threat to our core and KakaoTalk takes away a bunch of our future.

PX11079, Meta email chain: A. Schultz to [redacted] re: "DE, JP and other international growth," (Jan. 26, 2014), FB_FTC_CID_09516513, at -513.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1807, and because the statement lacks important context. Mr. Schultz's email at the top states that in Korea, Meta's "big gap is in messaging," and thus the focus of Meta's strategy is on messaging. PX11079 at -513 (FB_FTC_CID_09516513). The sentence immediately preceding the quoted language above confirms this, as Mr. Schultz states "Now the real threat/problem is KakaoTalk" – a popular messaging product. *Id.* And the sentence immediately

following the excerpted quote explains: "A better messenger product is crucial for Korea and we're working on that hard." *Id.* The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

(4) Meta recognized that WhatsApp posed a significant competitive threat to Meta's personal social networking services because WhatsApp could be acquired by another firm that either already offered personal social networking services or was capable of doing so.

1808. Google's experience with Google+ indicated Google's interest in developing a personal social networking service.

Meta Response: Disputed in part. Undisputed that Google competed with Meta, including by launching Google+. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because Google made no offer to acquire WhatsApp in 2014, WhatsApp was not interested in a Google acquisition, and, had it considered such an acquisition, its founders would have insisted on maintaining control of the development of WhatsApp post-acquisition. *See* Meta SMF ¶¶ 807-809. Google similarly recognized the WhatsApp founders' intention to maintain control over the product and to keep WhatsApp as a messaging-only product. *See id.* at ¶ 809. Further disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in paragraph 1799 (WhatsApp had no intention of "pivoting" to "PSNS"). Further disputed that Google+ was a personal social networking service for the reasons stated in Meta's responses to paragraphs 1007 and 1034. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Google launched a personal social networking service in 2011, known as Google+. *See* PX6148, Horowitz (Google) Dep. Tr., at 30:13-31:2 (explaining that Google+ had "functionality and services therein, which were the rudiments of social networking, setting up a profile, posting, reading a feed, searching across those posts, et cetera.").

Meta Response: Disputed in part. Undisputed that Google launched Google+ in 2011. Disputed for the reasons stated above in Meta's response to paragraph 1808.

b. Mr. Zuckerberg agreed that Google+ competed with Facebook to offer "the friends sharing use case," and testified that Google+ "also had a bunch of innovation around photo sharing." PX6127, Zuckerberg (Meta) Dep. Tr., at 18:10-18, 19:16-20:17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1010(e).

c. Mr. Zuckerberg testified that Google was "really serious" about Google+, which was:

> scary because, you know, Google was a much bigger company than us. So, you know, when the head of Google is basically saying that that's their top priority, and they're going to kind of point everything they have at making this succeed, then that's something that I think, you know, we should take seriously. . . I mean, it was certainly a serious threat at the time.

PX6127, Zuckerberg (Meta) Dep. Tr., at 18:10-19:12.

Meta Response: Undisputed.

d. After Google launched Google+, Meta faced a "heightened sense of urgency" that led it to enter a "lockdown" where Meta employees focused on specific feature development to compete with Google+, and did "not work on other things until they were built." *See* PX6065, Rose (Meta) Dep. Tr., at 80:4-81:5 (describing Meta's urgency to develop a feature that "allowed users to share content in a more granular way").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1808.

e. Google+ ultimately failed. PX1297, Meta messages: B. Davenport to P. Deng and J. Olivan, et al. (Oct. 17, 2012), FB_FTC_CID_04259815, at -815 (stating that "G+ has shown itself to be a failure."); *infra* CMF at § II.A.3(d)(1).

Meta Response: Undisputed.

f. Data scientist Michael Nowak described Google+ as "enjoy[ing] really strong registration growth, but suffer[ing] from very weak engagement." PX10828, Meta email: M. Nowak to A. Schultz and [redacted] re: "introductions re g+," (Feb. 7, 2012), FB_FTC_CID_01536922, at -922. Mr. Nowak explained in February 2012 that, "by building up a large network of registered users [Google+ is] developing a lot of latent value that could make them turn into a very big threat quickly at some point in the future – if they're able to crack the engagement nut." *Id.*

Meta Response: Undisputed.

1809. WhatsApp achieved the strong engagement that Google+ lacked.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1808. Further disputed because the cited evidence does not support the proposition that "WhatsApp achieved the strong engagement that Google+ lacked." The cited material below does not show that WhatsApp had achieved strong engagement in the U.S. On the contrary, the undisputed evidence confirms that WhatsApp had limited penetration and engagement in the U.S. *See* Meta Resp. to Counter SMF ¶ 1734 (WhatsApp's slow pre-acquisition growth in the U.S.).

a. Mr. Olivan explained in January 2013 that he:

> would be worried about SSNs like G+/ Path (if they were successful) and I am definitely worried about mobile messengers with scale (which as opposed to G+/Path have huge retention, are already extremely successful and evolving into full SSNs where you can share all types of content, have identity and profiles, are becoming gaming platform and are literally one step away from having a full newsfeed.

PX12108, Meta email chain: J. Olivan to M. Zuckerberg re: "(no subject)" (Jan. 9, 2013), FB_FTC_CD_01409579, at -579.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1809.

1810. Google's interest in acquiring Path indicated Google's interest in offering personal social networking services.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1808. The FTC's use of "personal social

networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Google attempted to acquire Path, a mobile application launched in 2010 that competed with both Facebook and Google+ to offer "users the use case of online sharing with friends." PX6127, Zuckerberg (Meta) Dep. Tr., at 21:14-22:5, 34:22-35:4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1810.

1811. Meta understood that Google was interested in acquiring WhatsApp and feared that outcome.

Meta Response: Disputed in part. Undisputed that Meta believed Google was interested in acquiring WhatsApp in 2012 and 2013. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1808. Further disputed because the evidence below does not show that Meta "feared that outcome."

a. In April 2012, Mr. Zoufonoun and Mr. Zuckerberg discussed their understanding that WhatsApp had turned down a "big m&a offer from google a year or so ago." PX1127, Meta messages: A. Zoufonoun to M. Zuckerberg, (Apr. 10, 2012), FB_FTC_CID_06214279, at -279. Mr. Zuckerberg responded that, "I heard that 'big' M&A offer was $100m though. I'd pay $1b for [WhatsApp] if we could get them." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1811.

b. In August 2012, [redacted], an engineer at Meta, explained in a message conversation with Facebook Messenger Product Manager Peter Deng, "if [W]hats[A]pp falls into Google's hands, that would be very very bad." PX10453, Meta messages: [redacted] to P. Deng, (Aug. 29, 2012), FTC-META-002880959, at -960.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1811.

c. Mr. Davenport wrote to Mr. Olivan that "the case for Google acquiring WhatsApp" only got "stronger" after Google+ failed. *See* PX1297, Meta messages: B. Davenport to P. Deng and J. Olivan, et al. (Oct. 17, 2012), FB_FTC_CID_04259815, at -815; PX6036, Davenport (Meta) Dep. Tr., at 194:14-18.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1811.

d. Mr. Olivan responded "[t]hat is definitely what I would do if I was them . . . ." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1811.

e. As Mr. Davenport explained, Google acquiring WhatsApp "[c]ould help strengthen Google+ or form the basis for a reboot, a new – a new social network of some form." PX6036, Davenport (Meta) Dep. Tr., at 194:19-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1811.

f. In October 2012, Mr. Olivan noted that the "[b]iggest problem" related to WhatsApp "would be if it lands in the wrong hands." PX1410, Meta messages: J. Olivan to M. Zuckerberg, (Oct. 23, 2012), FB_FTC_CID_06087147, at -147.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1811.

g. Given Google's efforts and failures with Google+, Meta feared that, "if [WhatsApp] is acquirable at all, the risks to us not being the acquirer have grown." *See* PX1297, B. Davenport to P. Deng and J. Olivan, et al. (Oct. 17, 2012), FB_FTC_CID_04259815, at -815.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1811, and because the cited material does not support the statement. The cited material conveys, at most, Mr. Davenport's view of a Google acquisition of WhatsApp, not what "Meta [allegedly] feared." PX1297 at -815 (FB_FTC_CID_04259815). Nothing in the cited material suggests that that view was shared by Mr. Zuckerberg or any other Meta leadership, let alone the organization itself.

h. Rumors of an offer by Google for WhatsApp in 2013 prompted Mr. Zuckerberg to reach out to a WhatsApp founder about selling to Meta instead, writing: "If you are thinking of having WhatsApp join another company, we'd of course love to talk at this price range and are almost certainly a better fit than Google!" PX1002, Meta email chain: M. Zuckerberg to J. Koum re: "Rumor," (Apr. 6, 2013), FB_FTC_CID_00003688, at -688.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1811.

1812. Google did attempt to acquire WhatsApp several times.

Meta Response: Disputed in part. Undisputed that Google made offers to acquire WhatsApp. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1808 (WhatsApp was not interested in acquisition by Google prior to 2014, and had no offer from Google in 2014).

a. On December 1, 2010, Google met with WhatsApp's founders and extended an acquisition offer to WhatsApp that "could be a $50-100M deal." PX14794, Google email chain: N. Arora to A. Rubin re: "(no subject)" (Dec. 1, 2010), GOOG-META-00580416, at -418; *see also* PX6096 Arora (Meta) Dep. Tr., at 32:24-33:21, 35:6-36:2 (discussing a late 2010/early 2011 offer Mr. Arora, who was working for Google at the time, made to WhatsApp on behalf of Google).

Meta Response: Disputed in part. Undisputed that [redacted]

[redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1808.

b. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1808.

c. [redacted], and Sequoia Capital's [redacted] discussed "inbound M&A interest we received over the last three days," that included hearing from "[G]oogle." PX14801, WhatsApp email chain: [redacted] to N. Arora re: "(no subject)" (Apr. 8, 2013), FTC-META-003503239, at -239; [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1808.

1813. According to a December 14, 2010 Google presentation, a "Strategic Rationale" for acquiring WhatsApp was the opportunity to "[o]btain an extremely viral product that works across all smartphone platforms, potentially grow it into a mobile social network," while one of two major "Goals" was to "[s]upercharge our mobile social initiatives." PX14795, Google presentation: "Whatsapp Inc. Project Roth" (Dec. 14, 2010), GOOG-

META-01997760, at -761-62. The presentation was presented to Google's executive committee. PX6096, Arora (Meta) Dep. Tr., at 37:17-23.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in paragraph 1808 (WhatsApp was not interested in acquisition by Google prior to 2014, and had no offer from Google in 2014).

1814. In February 2014, Google was engaged with WhatsApp about potentially acquiring WhatsApp.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1808 (WhatsApp was not interested in acquisition by Google prior to 2014, and had no offer from Google in 2014). Further disputed because the evidence in the record does not support the statement. Mr. Acton testified that his February 2014 meeting with Google's Mr. Page was an "informal discussion" that Mr. Acton described as "an awkward conversation about online identity that almost was somewhat academic in nature, and, you know, toward the end of the conversation Larry sort of indicated interest. He said that – something along the lines of, you know, if you guys are up for sale, we'd love to participate in the opportunity to buy you." Ex. 314 at 180:11-20 (Acton IH Tr.). Mr. Koum also testified that WhatsApp did not have "any offers from Google around February of 2014." Meta SMF ¶ 808.

a. In February 2014, Sundar Pichai of Google emailed the WhatsApp founders about a meeting with Larry Page, also of Google. PX7004, Google email chain: S.

Pichai to J. Koum and Brian Acton, et al. re: "Meet with Larry," (Feb. 3, 2014), GOOG-META-01949294, at -294.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 1814.

b. In the February 2014 meeting between Google and the WhatsApp founders, Mr. Page indicated interest in acquiring WhatsApp. PX6009, Acton (Meta/WhatsApp) IH Tr., at 179:24-180:20.

Meta Response: Disputed in part. Undisputed that Google met with the WhatsApp founders. Disputed for the reasons stated above in Meta's response to paragraph 1814.

1815. Google believed in February 2014 that WhatsApp could monetize through advertising and adding social network features.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1808 (WhatsApp was not interested in acquisition by Google prior to 2014, and had no offer from Google in 2014). Further disputed because the evidence cited does not support the statement, as discussion of potential business strategies does not evidence "belief." Further disputed insofar as the statements below lack important context: Mr. Acton testified that, if WhatsApp were acquired by Google, they "would have stipulated a similar control model that [WhatsApp] had with Facebook," which would have granted the founders substantial control over the direction of the company. Meta SMF ¶ 809. [redacted]

[redacted]

a. In the slide titled "WhatsApp: potential path to revenue" in a presentation to Google's L-team, one bullet under the subheading "Monetization Options" stated "Advertising (they could change their mind once they have 1B+ users)." PX12753, Google presentation: "Comm Companies Review L-Team Discussion Materials" (Feb. 3, 2014), GOOG-META-00047007, at -030; *see also* PX0612, Thomas Ricker, *Meet the L-Team, the most powerful group in Google,* The Verge (Dec. 17, 2011), https://www.theverge.com/2011/12/17/2642303/meet-the-l-team-the-most-powerful-group-in-google (describing the L-Team as "an elite group of Google executives that signs off on all major decisions").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1815, and because the statement lacks important context. Earlier in the same presentation, Google notes that [redacted].

b. In the slide titled "Questions" in the Google L-team presentation, one bullet under the subheading "WhatsApp product strategy and monetization" stated: "Is WhatsApp making a strategic mistake by religiously focusing on 'pure play

messaging' while other players are evolving into more complex, robust social networks?" PX12753, Google presentation: "Comm Companies Review L-Team Discussion Materials" (Feb. 3, 2014), GOOG-META-00047007, at -015.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1815.

c. In the slide titled "WhatsApp: potential path to revenue" in the Google L-team presentation, one bullet under the subheading "Monetization Options" stated: "Richer Social Networking features: . . . Could purposely evolve WhatsApp into a much richer social networking experience (e.g., WhatsApp Home)." *Id.* at -030.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1815, and because the statement lacks important context. Earlier in the same presentation, Google notes that [redacted].

1816. When Google's 2013 interest in acquiring WhatsApp became public, a number of other companies also expressed interest in acquiring WhatsApp, including Tencent and Microsoft. [redacted].

Meta Response: Disputed in part for the reasons stated below in Meta's responses to paragraphs 1817-1820. Further disputed that the statement creates a genuine dispute of material fact, including because the statement is not supported by the cited evidence, *see*, *e.g.*, Meta SMF [redacted], and because Mr. Koum testified that WhatsApp was not presented with any serious acquisition offers in 2014 until they were approached by Meta, *see id.* at ¶ 811.

1817. Tencent, the owner of WeChat, was interested in acquiring WhatsApp.

Meta Response: Disputed in part. Undisputed that Tencent reached out to WhatsApp through Sequoia capital, and that [redacted] viewed that outreach as reflecting acquisition interest. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they lack important context, namely that both Mr. Acton and Mr. Koum confirmed that Tencent never actually made an offer to acquire WhatsApp. *See* Meta SMF ¶ 810. Further disputed that the statement creates a genuine dispute of material fact, including because Mr. Koum testified that WhatsApp was not presented with any serious acquisition offers in 2014 until they were approached by Meta. *See id.* at ¶ 811.

a. On August 16, 2013, [redacted] emailed Mr. Koum regarding interest from Tencent:

> As you know, Tencent has a veiled acquisition interest in WhatsApp. The outreach in the early summer was masked as a traditional minority investment/partnership. With your guidance, Neil politely declined their 'minority investment' request and suggested (without committing you) that a

> meeting between you and Pony might be possible in Hong Kong or San Francisco in the next year.

PX3196, WhatsApp email chain: [redacted] to J. Koum re: "(no subject)" (Aug. 16, 2013), FB_FTC_CID_02582691, at -691.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1817.

b. On October 18, 2013, [redacted] of Sequoia Capital emailed [redacted] that "[a]ccording to Neil, [Tencent] would pay up to 10B for Whatsapp if they could bu[y] the whole thing. They need it for global domination." PX5001, WhatsApp email chain: [redacted] to [redacted] re: "Tencent," (Oct. 18, 2013), FTC-PROD-00016269, at -269. Neil Shen is the founder and managing partner of Sequoia Capital in China. PX0613, *Neil Shen*, Forbes, https://www.forbes.com/profile/neil-shen/?sh=609487c221ff (last visited May 22, 2024).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1817.

c. On October 22, 2013, [redacted] wrote to Mr. Koum that he "politely signaled to tencent that we would like to postpone the dinner/dialogue . . . to early next year. This only increased the interest from Pony." PX5002, WhatsApp email chain: [redacted] to B. Acton and J. Koum re: "(no subject)" (Oct. 22, 2013), FTC-PROD-00016270, at -270.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1817.

d. On February 5, 2014, [redacted] of Tencent emailed to cancel a planned meeting between him, Tencent Chief Executive Officer [redacted], and WhatsApp on February 10th due to [redacted]. [redacted] stated: "I want to reiterate our sincerity to work with WhatsApp strategically given our respect for both your product and your leadership." PX10223, WhatsApp email chain: [redacted] to J. Koum re: "(no subject)" (Feb. 5, 2014), FTC-META-003417891, at -892;PX0614, *Ma Huateng*, Forbes, https://www.forbes.com/profile/ma-huateng/?sh=630e9f3e5437 (last visited May 22, 2024) ("Ma Huateng (also known as Pony Ma)").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1817.

e. On February 20, 2014, after Meta's acquisition of WhatsApp was announced, [redacted] of Tencent wrote to Jan Koum: "Congratulations on the deal with Facebook. It's great that the value of your hard work is reflected in the amazing price. It pains me that we didn't have the chance to talk as we felt we could have built something even bigger in collaboration." PX10223, WhatsApp email chain: [redacted] (Tencent) to J. Koum re: "(no subject)" (Feb. 20, 2014), FTC-META-003417891, at -891.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1817.

1818. Meta was aware of and concerned about Tencent's interest in acquiring WhatsApp. PX1365, WhatsApp email chain: J. Koum to [redacted] (Sequoia Capital), et al. re: "Weixin," (Nov. 5, 2012), FB_FTC_CID_02575885 at -885 (describing a conversation with Mr. Zuckerberg about tencent trying to buy WhatsApp).

Meta Response: Disputed in part. Undisputed that Meta was aware that Tencent had some interest in acquiring WhatsApp. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1816 (WhatsApp had no interest in acquisition) and 1817 (Tencent never made an offer to acquire WhatsApp). Further disputed that Mr. Koum's impression of his conversation with Mr. Zuckerberg evidences any actual concern on the part of Meta regarding Tencent's interest in acquiring WhatsApp.

1819. In 2012, Mr. Zuckerberg was "very concerned tencent was trying to buy [WhatsApp] to compete with [Facebook] outside of China." PX1365, Meta email chain: J. Koum to [redacted] (Sequoia Capital), et al. re: "Weixin," (Nov. 5, 2012), FB_FTC_CID_02575885 at -885.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1817 (Tencent never made an offer to acquire WhatsApp). Further disputed that Mr. Koum's

impression of his conversation with Mr. Zuckerberg evidences any actual concern on the part of Meta regarding Tencent's interest in acquiring WhatsApp.

1820. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statement creates a genuine dispute of material fact, as it omits the essential context that none of the alleged acquisition interest progressed in any serious way. As Mr. Koum testified "nobody really kind of stepped up to the plate until Facebook came out and said here is an offer and let's talk about terms if you guys are interested." Meta SMF ¶ 811.

a. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1820.

b. On April 10, 2013, Sequoia Capital's [redacted] forwarded an email from Goldman Sachs to the WhatsApp founders, noting that Goldman Sachs was "getting inundated with people calling us expressing interest in WhatsApp from around the globe," referring to them as "very serious buyers." PX10221, Meta

email chain: [redacted] (Goldman Sachs) to [redacted] (Sequoia Capital) re: "What'sApp," (Apr. 10, 2013), FTC-META-003366608, at -608.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1820.

c. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1820.

c) Other mobile messaging apps posed a lesser threat than WhatsApp to pivot successfully into personal social networking services.

(1) Apple was not a pivot threat.

1821. iMessage is not cross-platform.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the iMessage app enables messaging between individuals regardless of platform. Further disputed because "cross-platform" is undefined and vague.

a. iMessage comes pre-loaded on Apple devices such as iPhones, iPads, and Macs.

[redacted]

Meta Response: Undisputed.

b. iMessage has never been offered on Android devices. *Id.* at 187:17-187:19.

Meta Response: Disputed in part. Undisputed that iMessage has never, in fact, been offered on Android devices. Disputed in that the statement is misleading, as it omits important context. As Mr. Shah conceded at his deposition, Apple *did* consider launching iMessage on Android, [redacted]. PX6106 at 187:20-189:14 (Shah (Apple) Dep. Tr.). Further disputed because the iMessage app enables messaging between individuals regardless of platform.

c. Ronak Shah, Apple's Director of Product for Internet Technologies and User Privacy, testified that Apple is "focused on delivering the best possible user experience we can [on iMessage], and that includes building software that takes advantage of the hardware we provide." *Id.* at 13:22-14:2 (position at Apple), 186:2-186:12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1821.

d. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1821, and because the statement is misleading, as it omits important context. As Mr. Shah conceded at his deposition, Apple *did* consider launching

iMessage on Android, [redacted].

PX6106 at 187:20-189:14 (Shah (Apple) Dep. Tr.).

1822. Apple is focused on selling devices rather than monetizing its individual applications.

Meta Response: Disputed. Apple monetizes iMessage by bundling the iMessage app, as well as several other apps, with its hardware devices. It is that bundle, not a specific app or hardware device alone, that is sold to consumers. Further disputed because the cited material does not evidence what Apple's "focus" is as a business.

a. Apple does not monetize iMessage. [redacted].

Meta Response: Disputed for the reasons stated above in Meta's response to paragraph 1822.

b. Mr. Shah testified that Apple's goal for iMessage is "to deliver a great user experience that people value that's ultimately additive to the overall experience that users get when they decide to buy an Apple device." *Id.* at 199:21-200:4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1822.

1823. Apple had [redacted] no intention of adding a personal social networking service.

Meta Response: Disputed. Disputed that Apple has no "personal social networking service," as the FTC uses that term. *See* Meta Resps. to Counter SMF § II.A.5.(d) (mobile messaging). The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. iMessage shares many features with apps that the FTC claims are

"personal social networking services," *see* Meta SMF ¶¶ 423-429, and employs a social graph to enable users to communicate with friends and family, *see id.* at ¶¶ 430-432. The FTC has also described the same activities enabled on iMessage as "personal social networking services" when conducted on Facebook and Instagram. *See id.* at ¶¶ 589-591; *see also id.* at ¶¶ 439-445 (sharing with friends and family increasingly happening through messenger apps and functions). And evidence confirms that Meta regards iMessage as one of its most serious competitors. *See id.* at ¶¶ 439, 445-447. Further disputed because Mr. Shah's lack of knowledge does not support the claim that "Apple had [redacted] no intention of adding a personal social networking service."

a. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1823.

b. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 1823.

(2) Google Messages did not represent a pivot threat.

1824. Google Messages is not cross platform.

Meta Response: Disputed. Google Messages is designed to enable messaging between individuals regardless of platform. Further disputed because "cross platform" is vague and undefined.

a. Google Messages is available on Android devices. PX6141, Slattery (Google) Dep. Tr., at 133:7-9 ("so Google Messages essentially strategically serves to improve the Android user experience related to iOS").

Meta Response: Undisputed.

b. Google Messages is not available on iPhones. *Id.* at 34:1-2.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed because users of Google Messages can communicate with individuals using iPhone.

c. Meta documents addressing the threat posed by mobile messengers of a pivot into personal social networking services do not mention Google Messages. *See, e.g., supra* at CMF § C.2(b)(1) [errata: "CMF § C.2(b)(1)" should be "CMF at § III.C.2(b)(1)"].

Meta Response: Disputed in part. Undisputed that the documents cited in Section C.2(b)(1) do not mention Google Messages. Disputed because the statement is misleading. Google Messages – known at launch as simply "Messenger" – did not launch until 2014, *see* Meta SMF ¶ 434 [redacted]. The FTC's use of "personal social networking services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1825. The goal of Google Messages is to deliver a good messaging experience on Android devices.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including because the statements are not material to the resolution of either party's motion, and because the evidence cited below does not support the assertion that "the goal" of the Google Messages app is "to deliver a good messaging experience on Android devices."

a. Mr. Slattery, Google's Director of Communications Product Partnerships, testified that "Google Messages exists primarily to improve the messaging experience on Android." PX6141, Slattery (Google) Dep. Tr., at 11:21-12:1 (confirming role), 31:15-16.

Meta Response: Disputed in part. Undisputed that the witness offered the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1825.

1826. Google improves the Android messaging experience to increase sales of its Android devices.

Meta Response: Disputed in part. Undisputed that increasing sales of Android devices is a reason that Google has improved Android messaging. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the evidence cited below does not support the implication that increasing sales is the primary or only reason that Google improves the Android messaging experience.

a. Mr. Slattery testified that in the United States, research shows that "users . . . make purchase decisions on the phones based on [the default messaging] experience." PX6141, Slattery (Google) Dep. Tr., at 52:20-53:1.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. Mr. Slattery testified:

> Android certainly some years ago had an experience which is far inferior to that on iPhone, the native experience on iPhone. Therefore, we -- the Google Messages team, and by extension Android, wanted to vastly improve that, such that Android devices become more attractive relative to alternatives for consumers when they make purchase decisions.

Id. at 53:1-8.

Meta Response: Undisputed that the witness provided the quoted testimony.

1827. In 2014, Google Messages existed as a smaller and more limited messaging product.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the statement is unsupported by the evidence cited below, insofar as the statement offers no comparator, such that it is impossible to know what Google Messages is "smaller" or "more limited" than.

a. Mr. Slattery testified that in 2014, Google Messages' predecessor was "a vastly different product than the one that exists today." PX6141, Slattery (Google) Dep. Tr., at 110:21-111:6.

Meta Response: Undisputed that the witness provided the quoted testimony.

b. In 2014, Google Messages was known as Messenger in the Google Play Store. *Id.* at 111:8-12 ("[Q.] What was the Google Messages product referred to [as] in

that 2014 time period? A. I believe the name that would have been listed on the play store would have been Messenger.").

Meta Response: Undisputed that the witness provided the quoted testimony.

c. In 2014, Google Messages was limited to Nexus devices, which was the predecessor of the Pixel device. *Id.* at 110:19-111:2.

Meta Response: Undisputed that the witness provided the paraphrased testimony.

d. Mr. Slattery testified that in 2014, Google Messages "served a much smaller user base." *Id.* at 111:2-3.

Meta Response: Undisputed that the witness provided the quoted testimony.

(3) Other mobile messaging applications posed a lesser threat to pivot than WhatsApp posed.

1828. Other OTT mobile messaging apps posed a lesser threat to pivot into personal social networking services in the United States than WhatsApp. PX9000, Hemphill Report at ¶¶ 1038-1039.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the statement is inconsistent with the evidence, including the FTC's other alleged facts. The FTC asserts above that, as of 2014, several OTT mobile messenger apps had already pivoted to become "social networks." *See*, *e.g.*, Meta Resps. to Counter SMF ¶¶ 1799-1806. In contrast, WhatsApp had not made such a pivot, and had no intention of making such a pivot. *See* Meta SMF ¶¶ 785-795; *see also* Meta Resp. to Counter SMF ¶ 1765 (evidence undermines any claim WhatsApp would have pivoted to PSNS). WhatsApp also had limited penetration in the United States, and numerous other messaging apps had similar or superior penetration. *See id.* at ¶ 1734

(WhatsApp's slow pre-acquisition growth in the U.S.); ¶ 1750(b) (similar U.S. market penetration of competing messaging apps (Kik, 6% of iPhone users; Viber, 5% of iPhone users; WeChat, 2% of iPhone users)); Meta SMF ¶ 782(a) ([redacted]). Further disputed because the phrase "posed a lesser threat to pivot" is vague and undefined. The FTC's use of "personal social networking services" is disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Professor Rim testified that:

> it is very possible for a successful messenger to expand into a social network . . . I have not said that WhatsApp is the only one, but if you want to consider other messengers, you really have to look into the data and see the metric[s] of . . . number of users, growth, and then the DAU/MAU, the engagements, and looking at collectively then I think you would be able to make an opinion on whether they would be able to expand into a social network or not.

PX6182, Rim (FTC) Dep. Tr., at 203:6-16.

Meta Response: Disputed in part. Undisputed that Professor Rim offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 1828, and because Professor Rim's opinion is unsupported by evidence.

1829. Mr. Acton testified that of the over-the-top messengers, WhatsApp was "the most successful in the U.S.", PX6009, Acton (Meta/WhatsApp) IH Tr., at 144:21-24.

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 1740.

1830. Since Meta's acquisition of WhatsApp, no cross-platform OTT mobile messenger not owned by Meta has been able to achieve scale comparable to WhatsApp, whether

measured by [redacted]. *See* PX9000, Hemphill Report ¶ 1121, Exs. 79, 80 (charts demonstrating that WhatsApp and Facebook Messenger have [redacted]).

Meta Response: Undisputed.

3. Meta acquired WhatsApp to neutralize it as a pivot threat, paying a significant premium.

1831. Amidst Meta's concerns about pivots from messaging applications, Meta made multiple overtures to WhatsApp.

Meta Response: Disputed in part. Undisputed that Meta offered to acquire WhatsApp. Disputed that Meta's interest in acquiring WhatsApp stemmed from "concerns about pivots from messaging applications." None of the cited evidence in the subparagraphs below supports the assertion that Meta's interest in acquiring WhatsApp arose from "concerns about pivots from messaging applications," as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Disputed on the ground that the statement is vague and ambiguous because it does not explain what messaging application "pivots" the statement concerns. Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because there is no genuine dispute that WhatsApp had limited U.S. presence and no intention of pivoting to become more like Facebook prior to Meta's acquisition of the company. *See* Meta SMF ¶¶ 778-781 (U.S. presence), ¶¶ 785-793 (no intention to pivot to become more like Facebook), ¶ 795 (FTC's lack of evidence). The statements in this paragraph and its subparagraphs are further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. On March 2, 2012, Mr. Deng explained that Meta "talk[s] about [WhatsApp] all the time," but noted that WhatsApp was "[p]robably too expensive for us, but happy to evaluate." PX10446, Meta email chain: P. Deng to [redacted] re: "What's app?" (Mar. 2, 2012), FTC-META-004296288, at -288. Mr. Deng further explained that "[t]hey've done well, but nothing we can't build." *Id*.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the cited document supports the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots from messaging applications." Mr. Deng did not express any concerns that WhatsApp would pivot or even focus on the United States. In the 2012 email thread cited, Mr. Deng responded to a Facebook employee who had asked him if Meta had evaluated WhatsApp because she had heard "many random mentions" about WhatsApp usage "in Spain and France" where SMS was "expensive." PX10446 at -288 (FTC-META-004296288). Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

b. Less than two weeks later, on March 13, 2012, Mr. Deng emailed Mr. Zoufonoun, copying Mr. Davenport, asking if they had "contact info for the Whatsapp guys." PX10328, Meta email: P. Deng to A. Zoufonoun re: "Whatsapp," (Mar. 13, 2012), FB_FTC_CID_09639581, at -581.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the cited document supports the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots from

messaging applications." Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

c. Around July 2012, Mr. Zuckerberg met with WhatsApp co-founder Jan Koum and discussed the WhatsApp product. *See* PX1491, Meta messages: M. Zuckerberg to P. Deng, et al. (July 16, 2022), FB_FTC_CID_06208278, at -278.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg and Mr. Koum met to discuss WhatsApp in July 2012. Disputed that the cited document supports the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots from messaging applications." Mr. Zuckerberg did not express any concerns about WhatsApp or that it would "pivot" from messaging. On the contrary, the cited document contains the following notes (among others) about WhatsApp from Mr. Zuckerberg's meeting with Mr. Koum: "30 engineers, 1 business person"; "Want to keep it small with no managers"; "wants to be everyone's msg app"; "Looks down on features in Asian clones"; "Wants to stay focused on messages"; "Competitively focused on Asian clones," "[e]specially Korea and Japan"; "Most users don't use most features." PX1491 at -278 (FB_FTC_CID_06208278). Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

d. In October 2012, Mr. Zuckerberg stated that he didn't think WhatsApp would sell, but explained that "I'm working on that though." PX1410, Meta messages:

M. Zuckerberg to J. Olivan, et al. (Oct. 23, 2012), FB_FTC_CID_06087147, at -147.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the cited document supports the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots from messaging applications." Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

e. On April 6, 2013, Mr. Zuckerberg emailed Mr. Koum a link to an online article, stating "If you are thinking of having WhatsApp join another company, we'd of course love to talk at this price range and are almost certainly a much better fit than Google!" PX1036, Meta email: M. Zuckerberg to J. Koum re: "Rumor," (Apr. 6, 2013), FB_FTC_CID_00003687, at -687. The article appeared to reference a potential acquisition price of $1 billion. PX0296, Fracis Bea, *Rumor: Google negotiating $1 billion acquisition of WhatsApp*, Digital Trends (Apr. 5, 2013), https://www.digitaltrends.com/social-media/google-acquiring-whatsapp/.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the cited document supports the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots from messaging applications." Mr. Zuckerberg did not express any concerns about WhatsApp or that it would "pivot" from messaging. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

f. After Mr. Koum responded that WhatsApp would "never sell for such a low price," Mr. Zuckerberg asked whether WhatsApp would "sell for a higher price" and reminded him he promised to talk to Mr. Zuckerberg if he were ever seriously discussing a sale. PX2990, Meta email chain: M. Zuckerberg to J. Koum re: "Rumor," (Apr. 6, 2013), FTC-META-003366585, at -585.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed on the ground that the statement omits the context that Mr. Koum also said rumors about WhatsApp having sales talks with Google for $1 billion were "not true." PX2990 at -585 (FTC-META-003366585). Further disputed that the cited document supports the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots from messaging applications." In the cited document, Mr. Zuckerberg did not express any concerns about WhatsApp or that it would "pivot" from messaging. Mr. Zuckerberg told Mr. Koum that Meta was interested in acquiring WhatsApp because "[w]e love what you're doing." *Id.* Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

g. On May 19, 2013, Facebook board member Marc Andreessen asked Mr. Koum to have lunch or dinner. PX2991, Meta email chain: M. Andreessen to J. Koum re: "meet up?" (May 19, 2013), FTC-META-003367651, at -651.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement. Disputed that the cited document supports the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots

from messaging applications." Mr. Andreessen did not express any concerns about WhatsApp or that it would "pivot" from messaging. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

h. On October 26, 2013, while updating Ms. Sandberg on Meta's ongoing talks with Snap, Mr. Zuckerberg also let her know he was flying back to get dinner with WhatsApp founder Jan Koum, to which she proclaimed, "[WhatsApp] is better - so charm them at dinner!" PX15160, Meta messages: M. Zuckerberg to S. Sandberg, (Oct. 26, 2013), FB_FTC_CID_08609556 at -557. Before the dinner, in a message to Mr. Zoufonoun, with whom he discussed strategy for pitching Mr. Koum on an acquisition, Mr. Zuckerberg asked if he should "propose something concrete to Jan tonight[.]" PX13948, Meta messages: M. Zuckerberg to A. Zoufonoun, FB_FTC_CID_08706608, at -610. Mr. Zuckerberg told Ms. Sandberg after the dinner that "WhatsApp is a longer term project. I think I'm making progress and we might have our chance in Q1. I've been working on this for almost two years now." PX15160, Meta messages: M. Zuckerberg to S. Sandberg, (Oct. 26, 2013), FB_FTC_CID_08609556, at -557.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg, Ms. Sandberg, and Mr. Zoufonoun discussed a dinner with Mr. Koum in October 2013. Disputed that the documents cited support the assertion that Meta's interest in acquiring WhatsApp was related to "concerns about pivots from messaging applications." Mr. Zuckerberg did not express any concerns about WhatsApp or that it would "pivot" from messaging. Further disputed that the statement creates

a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

1832. In February 2014, Meta negotiated its deal to acquire WhatsApp in under two weeks while worrying about overtures from Google to WhatsApp.

Meta Response: Disputed in part. Undisputed that Meta negotiated to acquire WhatsApp in February 2014. Disputed to the extent the statement suggests that Meta's interest in acquiring WhatsApp was driven by concerns that Google sought to acquire WhatsApp. The evidence cited in the subparagraphs does not support that Meta negotiated the acquisition while "worrying" about Google, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because there is no evidence that Google had a concrete plan to acquire WhatsApp, would have been successful in acquiring WhatsApp if it had wanted to do so, or what Google would have done with WhatsApp if it had acquired it. *See* Meta SMF ¶¶ 808-809, 811. Further disputed for the reasons stated above in Meta's response to paragraph 1831, and for the reasons stated in Meta's responses to the subparagraphs below.

FTC Reply: Meta does not dispute that its negotiation to acquire WhatsApp in February 2014 took place in under two weeks.

Meta attempts to dispute that it undertook its negotiation to acquire WhatsApp while worrying about simultaneous overtures to WhatsApp from Google, but Meta does not proffer evidence putting that proposition into dispute. Instead, Meta's response makes claims about the purported absence of evidence that Google would have acquired and pivoted WhatsApp. The Counterstatement does in fact contain such evidence, *see,*

e.g., CMF at ¶¶ 1811-15, but that evidence is not necessary to address the statement proffered in Paragraph 1832, which is that *Meta* was worried about overtures from Google to WhatsApp at the time it engaged in speedy negotiations to acquire WhatsApp for $19 billion. That statement is well supported by evidence that, among other things: (1) Meta's Director of Corporate Development Amin Zoufonoun learned on February 7, 2014 that WhatsApp was meeting with Google CEO Larry Page, CMF at ¶¶ 1832(a)-(b); (2) upon learning about WhatsApp's meeting with Google, Mr. Zoufonoun "freak[ed]" out, CMF at ¶ 1832(b); (3) that same day, Mr. Zoufonoun discussed making an offer to acquire WhatsApp with Mr. Zuckerberg, noting the need to "deal with timing re the other potential buyer," CMF at ¶ 1832(c), while Mr. Zuckerberg wondered if he should try to meet with WhatsApp founder Jan Koum the next day (February 8), CMF at ¶ 1832(d); (4) [redacted]; and (5) WhatsApp leveraged Google's interest in its negotiations with Mr. Zuckerberg, CMF at ¶ 1832(g).

Meta further attempts to dispute the fact that it was worried about overtures from Google to WhatsApp while negotiating to acquire WhatsApp by referring to its specific responses to the subparagraphs that make up the evidentiary support for Paragraph 1832. These responses—claims about materiality, a circular objection that Meta objects for the reasons contained in its overarching response to Paragraph 1832 (which objects for the reasons contained in the subparagraphs), a hearsay claim that fails under Federal Rule of Civil Procedure 56(c)(2) in light of the ability to call the relevant WhatsApp employees at trial, and the inclusion of irrelevant additional information—do not undercut the veracity of the FTC's cited evidence.

Meta's final attempt to dispute Paragraph 1832—by incorporating its response to Paragraph 1831—also has no bearing on the fact that Meta was worried about overtures from Google to WhatsApp while negotiating to acquire WhatsApp. Paragraph 1831 and its subparts outline the multiple overtures that Meta made to WhatsApp between 2012 and February 2014. *See, e.g.*, CMF at ¶ 1831(d) (Mr. Zuckerberg noting that he was "working on" getting WhatsApp to sell in October 2012); CMF at ¶¶ 1831(e)-(f) (Mr. Zuckerberg expressing interest in buying WhatsApp in April 2013); CMF at ¶ 1831(h) (Mr. Zuckerberg stating in October 2013 that he had been "been working on [acquiring WhatsApp] for almost two years now"). That is the same time frame in which Meta was getting increasingly concerned about pivots by mobile messaging applications into PSNS. *See, e.g.*, CMF at ¶ 1799 (including subparts) (Meta recognized in 2012 that certain mobile messaging applications were "using messages as a springboard to build more general mobile social networks"); CMF at ¶ 1801 (including subparts) (Meta observed pivoted mobile messaging applications overtaking Facebook in 2012 and 2014); CMF at ¶ 1802 (including subparts) (Meta leadership expressed fears about mobile messaging serving as a path for a serious competitive threat to enter personal social networking in the 2012 to 2014 time period).

Meta responds to Paragraph 1831 by arguing that there is "no genuine dispute that WhatsApp had limited U.S. presence and no intention of pivoting to become more like Facebook prior to Meta's acquisition of the company." Meta Resp. CMF at ¶ 1831. The FTC's Counterstatement in fact contains evidence of WhatsApp's growth in the United States, *see, e.g.*, CMF at ¶¶ 1740-49, and evidence supporting the likelihood of WhatsApp pivoting into personal social networking services in the absence of the Meta

acquisition, *see, e.g.*, CMF at ¶¶ 1778-96. In any event, nothing about Meta's objections to Paragraph 1831 undercut the facts establishing that Meta was worried about overtures from Google to WhatsApp at the time Meta negotiated the WhatsApp acquisition. *See, e.g.*, CMF at ¶¶ 1832(b), 1831(e); *see also* CMF at ¶¶ 1811, 1811(a)-(b), (f)-(h).

a. On February 7, 2014, Meta's Director of Corporate Development Amin Zoufonoun and WhatsApp's Head of Business Neeraj Arora met. PX6028, Zoufonoun (Meta) IH Tr., at 19:20-24; PX6096, Arora (Meta) Dep. Tr., at 16:21-17:1; PX14809, Meta email chain: [redacted] (Forbes) to N. Arora re: "Timeline," (Feb. 21, 2014), FB_FTC_CID_02592983, at -984 (Feb. 21, 2014 email from Forbes reporter to Neeraj Arora with interview notes).

Meta Response: Disputed in part. Undisputed that Mr. Zoufonoun and Mr. Arora met on February 7, 2014. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1832.

b. In the February 7 meeting, Mr. Zoufonoun learned that WhatsApp was meeting with Google's Larry Page, which "freak[ed] him out" and "he then sets things in motion at FB to get a deal plan together more quickly." PX14809, Meta email chain: [redacted] (Forbes) to N. Arora re: "Timeline," (Feb. 21, 2014), FB_FTC_CID_02592983, at -984 (reviewing notes compiled by Forbes reporter from interview with Neeraj Arora).

Meta Response: Disputed. Disputed on the basis that the statement – a reporter purporting to relate what others told her Mr. Zoufonoun purportedly said – is inadmissible hearsay. *See* Fed. R. Civ. P. 56(c)(1)(B). Disputed that the

statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1832. Further disputed on the ground that the cited document contradicts the statement that Meta negotiated a deal to acquire WhatsApp quickly due to worries about Google. PX14809 at -983. (FB_FTC_CID_02592983) (Statement of [redacted] of Sequoia Capital: "Zuck and Jan had been hatching this for weeks.").

FTC Reply: Meta does not dispute that Mr. Zoufonoun learned that WhatsApp was meeting with Google's Larry Page during Mr. Zoufonoun's February 7, 2014 meeting with Mr. Arora. Nor does Meta dispute the truth of the statement that Mr. Zoufonoun "freaked out" upon learning that WhatsApp was meeting with Google's CEO. Meta simply objects to the document's admissibility as hearsay and argues that the fact proffered in this subparagraph does not support the proposition that "Meta negotiated a deal to acquire WhatsApp quickly due to worries about Google." Neither of these responses establishes that Meta did not learn about Google's interest in acquiring WhatsApp during Mr. Zoufonoun's February 7, 2014 meeting with Mr. Arora.

Because Meta does not dispute the substance of the fact proffered in Paragraph 1832(b), and because the information in this paragraph is capable of being rendered in admissible form at trial—including, for example, as a recorded recollection or through trial testimony from Mr. Arora attesting to the contents of his meeting with Mr. Zoufonoun, his impression of Mr. Zoufonoun's reaction to the meeting, and/or the accuracy of the information recorded (information which Mr. Arora was given the timely opportunity to revise and for which he rendered

no statement other than expressing an interest in asking for the removal of some of the more sensitive information in the document)—the court may consider this material on summary judgment. *See* Fed. R. Civ. P. 56 advisory committee's notes to 2010 amendments (discussing subdivision (c)(2) and noting that proponent of fact may show material is admissible or explain the admissible form anticipated).

c. On February 7, 2014, Mr. Zuckerberg and Mr. Zoufonoun discussed making an offer for WhatsApp, with Mr. Zoufonoun writing that "we indeed could have a window here" and "this could be bad too depending on how we deal with timing re the other potential buyer." PX13949, Meta messages: M. Zuckerberg to A. Zoufonoun, (Feb. 7, 2014), FB_FTC_CID_06213953, at -953.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1832.

d. Mr. Zuckerberg wondered whether he should "try to get together with Jan [Koum] tomorrow evening" and said it was "[n]ot great that Jan doesn't want to meet tonight." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1832.

e. On February 9, 2014, Mr. Koum met Mr. Zuckerberg for dinner. *See* PX14809, Meta email chain: [redacted] (Forbes) to N. Arora re: "Timeline," (Feb. 21, 2014), FB_FTC_CID_02592983, at -984. At this dinner, Mr. Zuckerberg offered to

acquire WhatsApp and they discussed acquisition numbers and how WhatsApp would "move forward" under a Meta acquisition. PX6010, Koum (Meta/WhatsApp) IH Tr., at 145:13-146:3, 147:17-148:7.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg and Mr. Koum met for dinner on February 9, 2014. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1832.

f. On February 12, 2014, Mr. Koum and Mr. Acton met with Larry Page and Sundar Pichai of Google, where Mr. Page indicated interest in acquiring WhatsApp. *See* PX14809, Meta email chain: [redacted] (Forbes) to N. Arora re: "Timeline," (Feb. 21, 2014), FB_FTC_CID_02592983, at -984); *see also* PX6010, Koum (Meta/WhatsApp) IH Tr., at 160:20-21 ("I got a sense that [Messrs. Page and Pichai] were – they were interested . . .").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the cited material does not support the statement. Further disputed that the cited material creates a genuine dispute of material fact regarding whether Google would have bought WhatsApp in 2014 but for Meta's acquisition. Immediately before the cited portion of Mr. Koum's testimony, the FTC asked Mr. Koum, "Q. Did Google express interest in acquiring WhatsApp around February of 2014?" PX6010 at 159:23-24 (Koum IH Tr.). Mr. Koum responded, "It's hard for me to speculate what expressing an interest means. We had one meeting with Larry Page and Sundar around that time, but there was no real conversation around acquisition or acquisition

numbers or anything like that." *Id.* at 159:23-160:4. Mr. Koum then explained that he "got a sense that [Mr. Page] was not very familiar with our product and didn't really understand how WhatsApp worked or why it was popular and I don't think he understood the scale at which we were operating. So it was just a very awkward meeting because I got a sense that they were – they were interested [in us], but I don't think they understood themselves why they were interested . . . ." *Id.* at 160:15-23. Mr. Koum also testified regarding the possibility of any acquisition in 2014: "[T]o me nobody really kind of stepped up to the plate until Facebook came out and said here is an offer and let's talk about the terms if you guys are interested." *Id.* at 163:4-7. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1832.

FTC Reply: Meta does not dispute that on February 12, 2014, Mr. Koum and Mr. Acton met with Larry Page and Sundar Pichai of Google and that Google was interested in WhatsApp. Meta's unrelated additional briefing over whether Google would have acquired WhatsApp in the absence of the Meta acquisition has no bearing on the fact actually proffered in Paragraph 1832(f). Indeed, the testimony cited by Meta literally contains the fact proffered by the FTC—i.e., [redacted] Mr. Koum's impression was corroborated by [redacted]

[redacted]

And while unnecessary to support the fact proffered in Paragraph 1832(f), [redacted]

g. WhatsApp leveraged Google's interest in WhatsApp when negotiating with Meta. PX6010 [errata: "PX6010" should be "PX6009"], Acton (Meta/WhatsApp) IH Tr., at 181:12-17.

Meta Response: Disputed. Disputed on the ground that the cited exhibit, PX6010, is testimony from Mr. Koum, not Mr. Acton, and Mr. Koum's testimony does not support the statement. Mr. Koum testified as follows: "Q. Did you mention to Mr. Zuckerberg in your negotiations that Google had shown some interest in further conversations with WhatsApp? A. I actually don't remember if I did or I didn't." PX6010 at 161:13-17 (Koum IH Tr.). To the extent the FTC intended to cite Mr. Acton's testimony (PX6009), Mr. Acton testified as follows: "Q. . . . In 2014 did you discuss with Mark Zuckerberg Google's interest in acquiring WhatsApp in the 2011-2010 time frame? A. I don't know. Ask [Mr.

Koum]." PX6009 at 179:12-16 (Acton IH Tr.). And when asked whether WhatsApp "discuss[ed] the informal acquisition talks with Larry Page with Mark Zuckerberg during the acquisition negotiations," Mr. Acton testified he "believe[d] that was conveyed to him" but referred the FTC to Mr. Koum to "confirm it." *Id.* at 181:7-11. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1832.

FTC Reply: [redacted]

[redacted]

Meta's invocation of its overarching response to Paragraph 1832 as an additional reason that it disputes Mr. Acton's testimony has no bearing on the veracity of his testimony. Moreover, Meta's overarching response to Paragraph 1832 is incorrect for the reasons stated in the FTC's reply above.

1833. On February 15, 2014, Meta CFO David Ebersman notified his team on a Saturday morning that Mr. Zuckerberg and Mr. Koum had "reached a tentative agreement on price," and there was a viable possibility that the deal would be signed "on Monday evening." [redacted]; PX10855, Meta email chain: D. Ebersman to [redacted] re: "Thoughts," (Feb. 15, 2014), FB_FTC_CID_09191525, at -525.

Meta Response: Undisputed.

1834. On February 17, 2014, Meta's Board of Directors met to discuss Meta's proposed acquisition of WhatsApp. PX10857, Meta document: "Minutes of a Meeting of the Board of Directors of Facebook, Inc." (Feb. 17, 2014), FB_FTC_CID_10958599, at -600. The code name used for the transaction was "Project Cobalt." *Id.*

Meta Response: Undisputed.

1835. Meta presented a slide deck to its Board of Directors titled "Cobalt Transaction." PX6094, Heysse (Meta) Dep. Tr., at 18:25-20:19 (confirming PX1266, Meta presentation: "Cobalt Transaction" (Feb. 17, 2014), FB_FTC_CID_00002272 was shown to Meta's Board of Directors as part of the process to approve the acquisition of WhatsApp). In this slide deck, Meta identified the "[t]otal cost" of the proposed

acquisition as "$19B (~$12B stock + $4B cash as purchase price; $3B in retention RSUs)." PX1266, Meta presentation: "Cobalt Transaction" (Feb. 17, 2014), FB_FTC_CID_00002272, at -273.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta acquired WhatsApp for $19 billion. Meta acquired WhatsApp for $16 billion, with $3 billion paid to WhatsApp personnel for continued employment ("retention RSUs"). *See* PX9021 at ¶ 32 (Fischel Rep.) ("[Mr. Hearle] conflates payments to stockholders for their equity with the $3 billion in payments made to certain WhatsApp employees as incentives for continued employment. A payment to key employees to assure future participation that is not shared with all stockholders on a pro rata basis is not properly treated as a premium or consideration for equity."); Meta SMF ¶¶ 813-814. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

1836. While approval of the Board of Directors was required to finalize the acquisition of WhatsApp, Meta has stated that it lacks information sufficient to identify the reasons that Meta's Board of Directors approved the acquisition of WhatsApp. PX15546 at -004-05 (Meta's Objs. & Resps. to FTC's First Set of Req. for Admis. (Jan. 17, 2023)).

Meta Response: Disputed. Disputed on the ground that the material cited does not support the assertion, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In the cited discovery response, Meta responded to a request for admission "that improving Integrity on WhatsApp did not motivate Meta's Board of Directors to acquire WhatsApp in 2014" that it "lack[ed] information sufficient to admit or deny"

because it could not determine "the state of mind of 'Meta's Board of Directors' nearly a decade ago." PX15546 at -005, -006 (Meta's Objs. & Resps. to FTC's First Set of Reqs. for Admis. (Jan. 17, 2023)). Meta did not state that it was unable to identify any reasons for the approval of the WhatsApp transaction.

Further disputed that this paragraph creates a genuine dispute of material fact regarding whether Meta has not identified the reasons why the Board of Directors approved the acquisition of WhatsApp. On the contrary, the February 17, 2014 meeting minutes at which the acquisition was discussed describe Meta's rationales for the acquisition, including that the acquisition would "'mak[e] it more difficult for operating system providers to exclude [Meta's] mobile applications from their mobile operating system platforms.'" Meta SMF ¶ 813 (quoting Ex. 178 at -386 (FB _FTC_ CID _00049384)); *see also* Ex. 139 at 268:23-269:19 (Zuckerberg IH Tr.) ("One of the – in one of the things that – that reviewing some of the documents is that this kind of reminded me of was the extent to which we felt like we were under constant threat by Apple and Google, that they would not . . . approve our apps, would try to adopt policies that would advantage their own apps. And I just thought that if we weren't just building one app but were building a number of services that people found very valuable, it would be harder for Apple and Google to mess with us and kind of hurt our – the different apps. . . . I certainly think that having more ways that we provide value to people has been an important defense against Apple just completely either disadvantaging us or taking or carving off parts of what we do and making it very hard for us to compete on iOS."). The slide deck presented to the Board of Directors regarding the acquisition, *see* Meta Resp. to Counter SMF ¶ 1835, provided that same rationale and also stated that WhatsApp

"could 'help Facebook grow by exposing Facebook to people who are not yet part of' Facebook." Meta SMF ¶ 813 (quoting Ex. 276 at -596.005 (FB_FTC_CID_10650595)). The same Board document states as a "Strategic Rationale" for the acquisition that Meta "can help [WhatsApp] grow by using our distribution, infrastructure, etc." *Id.* Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1831.

1837. On February 19, 2014, Meta announced its agreement to pay $19 billion to acquire WhatsApp. PX2963, Meta email: [redacted] to [redacted] re: "WhatsApp announcement," (Feb. 19, 2014), FB_FTC_CID_08209360, at -360. The acquisition closed on October 6, 2014. PX11685 at -002 (Meta SEC Form 8-K/A, dated Oct. 28, 2014).

Meta Response: Disputed in part. Undisputed that the acquisition was announced on February 19, 2014, and closed on October 6, 2014. Disputed that this announcement creates a genuine dispute of material fact regarding whether Meta paid $19 billion to acquire WhatsApp. Meta did not pay $19 billion to acquire WhatsApp; it acquired WhatsApp for $16 billion. *See* Meta Resp. to Counter SMF ¶ 1835. The document the FTC cites confirms that fact in stating Meta had agreed to acquire WhatsApp "for a total of approximately *$16 billion*, including $4 billion in cash and approximately $12 billion worth of Facebook shares," with the agreement also providing "an additional $3 billion in restricted stock units to be granted to WhatsApp's founders and employees that will vest over four years subsequent to closing." PX2963 at -360 (FB_FTC_CID_08209360) (emphasis added). Further disputed for the reasons stated above in Meta's response to paragraph 1831.

1838. Prior to Meta's acquisition of WhatsApp, no express or implied valuation of WhatsApp came close to $19 billion.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding whether there was no express or implied valuation of WhatsApp that "came close to $19 billion" prior to Meta's acquisition of WhatsApp. On the contrary, there were [redacted] contemporaneous valuations of WhatsApp that exceeded $19 billion *before* Meta acquired WhatsApp.

- On February 3, 2014, Google presented a "Comm Companies Review" slide deck to its senior leadership, which profiled WhatsApp, Snapchat, Line, and other services. That slide deck implied a "$10B to $60B" valuation for WhatsApp based on range of per-user valuations observed at comparable companies. PX12753 at -013 (GOOG-META-0047007); *see* Ex. 460 at 53:4-55:18 (Hearle Dep. Tr.) (FTC's proffered expert agreeing that [redacted]).
- [redacted]

[redacted]

- In a February 17, 2014 presentation to its Board of Directors, Meta did a public company comparable analysis that showed, on a per user basis, WhatsApp likely was worth significantly more than $19 billion. *See* Ex. 276 at -596.009 (FB_FTC_CID_10650595). Meta also did a comparable transactions analysis that supported a purchase price of $19 billion. *See id.* at -596.010. The FTC's proffered expert, Mr. Hearle, agreed these were standard methods for valuation. *See* Ex. 460 at 83:1-84:8 (Hearle Dep. Tr.) ("There were other valuation benchmarks presented to the board which arguably appear to be consistent with one of the standard methods. . . . sets of analyses that I believe gave the appearance – looked like they were implementations of what is commonly referred to as the market approach"). Finally, Meta created a valuation framework that showed WhatsApp would be worth more than $19 billion if it was able to monetize as successfully as comparable companies. *See* Ex. 276 at -596.011, -596.012. *See generally* Ex. 6 at ¶¶ 166-183 (Kaplan Rep.) (discussing Meta's valuation analysis).

Further disputed for the reasons stated above in Meta's responses to paragraphs 1831 and 1837.

a. In late 2010 or early 2011, Google made an offer to acquire WhatsApp for $100 million. PX6096, Arora (Meta) Dep. Tr., at 35:9-18.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1838.

b. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that this statement creates a genuine dispute of material fact regarding [redacted]. Further disputed for the reasons stated above in Meta's response to paragraph 1838.

c. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the

statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1838.

d. [redacted]

Meta Response: Disputed in part. Undisputed that, [redacted]. Disputed that this statement creates a genuine dispute of material fact regarding [redacted]. Venture capital firms "attempt to acquire ownership of companies precisely because they believe those companies will be worth more in the future" than the valuation implied by the investment. Ex. 6 at ¶ 162 (Kaplan Rep.). [redacted]. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1838.

e. In October 2013, Alvarez & Marsal Valuation Service, LLC, who had been engaged by WhatsApp to estimate the value of a minority interest in WhatsApp, estimated that, as of September 30, 2013, WhatsApp's Fair Market Value

Indication of Equity was $531.6 million. PX7005, KPMG email: M. Riley to A. Ali re: "Prior 409A report," (Oct. 28, 2014), KPMG_META_0011157, at -204.

Meta Response: Disputed in part. Undisputed that Alvarez & Marsal stated that the "Indicated Fair Market Value of Equity" was $531.6 million. Disputed that this statement creates a genuine dispute of material fact regarding whether WhatsApp's value to an acquirer was $531.6 million in October 2013. The report states that its purpose was to "estimate the value of a minority, non-marketable common stock interest in the Company . . . for income tax and financial statement reporting purposes related to the issuance of common stock options as compensation." PX7005 at -159 (KPMG_META_0011157). The cover email indicates that Alvarez and Marsal merely "backsolved to the Series B financing." *Id.* at -156. Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1838.

f. In January 2014, an internal Meta presentation indicated that WhatsApp's "last financing" was a $10 billion valuation, on an unknown date. PX11662 at -007, Meta email: D. Wehner to T. Heysse re: "m&a discussion – raw data," (Jan. 22, 2014), FB_FTC_CID_05621406.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta's value was $10 billion in January 2014, because the cited material is inadmissible hearsay from unknown third parties. *See* Fed. R. Civ. P. 56(c)(1)(B). Mr. Zoufonoun testified he did not recall where the $10 billion figure came from. *See* PX6103 at 144:23-145:3 (Zoufonoun Dep.

Tr.). Further disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1838.

g. In January 2014, then-Vice President of Corporate Finance and Business Planning David Wehner calculated a "Current EV," or enterprise value, for WhatsApp of $10 billion, and an "EV with Premium" for WhatsApp of $12.5 billion. PX10849, Meta email: D. Wehner to A. Zoufonoun, et al. re: "valuation," (Jan. 27, 2014), FB_FTC_CID_03090860, at -860; PX6070, Wehner (Meta) Dep. Tr., at 10:24-11:3, 115:6-9 ("Q. And 'EV' would stand for enterprise value? A. That would be – Q. Is that right? A. That would be my interpretation.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact that Meta "calculated" WhatsApp's value to be $10 billion or $12.5 billion in January 2014. There is no evidence that Mr. Wehner "calculated" WhatsApp's enterprise value. When asked about the table, Mr. Wehner could not recall where the $10 billion figure came from. *See* PX6070 at 117:23-118:5 (Wehner Dep. Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 1838.

h. In January 2014, Morgan Stanley created a [redacted] valuation scenario in which WhatsApp [redacted]. PX10227, Morgan Stanley email: M. Grimes to J. Goetz (Sequoia Capital) re: "Files/Models," (Jan. 29, 2014), MS_FTCMETA-00001557, at 613; PX6128, Esfahani (Morgan Stanley) Dep. Tr., at 78:1-14.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact regarding whether

Morgan Stanley created a [redacted] valuation of WhatsApp in January 2014. The FTC mischaracterizes the testimony. Mr. Esfahani testified that the model Morgan Stanley created was not a valuation model. *See* PX6128 at 83:6-11 (Esfahani (Morgan Stanley) Dep. Tr.) ("I wouldn't say – I don't want to call this a valuation model because that's not what it really is."). Rather, Morgan Stanley created a "razzle-dazzle tool meant to impress Sequoia and WhatsApp." *Id.* at 111:7-13. The model was not an "assessment of value" for WhatsApp. *Id.* at 175:1-13. Further disputed for the reasons stated above in Meta's response to paragraph 1838. This statement and its subparagraph are further disputed for the reasons stated below in Meta's response to the subparagraph.

i. In the [redacted] scenario in which WhatsApp was not making money from [redacted], Morgan Stanley's highest valuation for WhatsApp was [redacted]. PX10228, Morgan Stanley email: M. Grimes to J. Goetz (Sequoia Capital) re: "Files," (Feb. 3, 2014), MS_FTCMETA-00001673, at -678.

<u>Meta Response</u>: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether Morgan Stanley created a [redacted] valuation of WhatsApp of [redacted]. The FTC mischaracterizes the model. Morgan Stanley witnesses testified that the model was not a valuation at all but was just a "tool" for WhatsApp to play with for which the inputs and output (value) did not matter. *See* Meta Resp. to Counter SMF ¶ 1838(h). Further disputed for the reasons stated above in Meta's response to paragraph 1838.

i. [redacted]

Meta Response: Disputed in part. Undisputed that, on February 4, 2014, [redacted]. Disputed that this was an "[redacted]." Further disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact regarding whether WhatsApp's value [redacted] was [redacted] on February 4, 2014. [redacted] Indeed, venture capital firms [redacted] "attempt to acquire ownership of companies precisely because they believe those companies will be worth more in the future" than the valuation implied by the investment. Ex. 6 at ¶ 162 (Kaplan Rep.). Further disputed for the reasons stated above in Meta's response to paragraph 1838.

i. Then-WhatsApp Head of Business Neeraj Arora was "sure that we presented some basic user numbers and financial numbers to [DST

Global]" prior to DST's agreement to value WhatsApp at $8 billion. PX6096, Arora (Meta) Dep. Tr., at 16:23-17:1, 93:3-7.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact regarding [redacted]. *See* Meta Resp. to Counter SMF [redacted]. Further disputed for the reasons stated above in Meta's response to paragraph 1838.

j. Sequoia Capital also invested in this February 2014 funding round. PX6096, Arora (Meta) Dep. Tr., at 93:8-17.

Meta Response: Undisputed.

k. Sequoia Capital had access to WhatsApp's financials and information about WhatsApp's user base at the time it agreed to value WhatsApp at $8 billion in February 2014. PX6096, Arora (Meta) Dep. Tr., at 93:22-94:5.

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that this statement creates a genuine dispute of material fact [redacted]. The cited evidence does not state [redacted]. Further disputed for the reasons stated above in Meta's response to paragraph 1838.

1839. Meta did not conduct a valuation analysis of WhatsApp prior to agreeing to acquire it for $19 billion. *See* PX6050, Smith (Allen & Co.) Dep. Tr., at 52:16-53:1.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding whether Meta conducted a valuation analysis of WhatsApp prior to acquisition. There is no dispute that Meta did conduct such a valuation analysis. The February 17, 2014 board meeting minutes, *see* Meta Resp. to Counter SMF ¶ 1834, have a section titled "Valuation Analysis" that states the CFO (Mr. Ebersman) "then reviewed the Company's valuation analysis of WhatsApp," which included input from the investment bank Allen & Co., a valuation using comparable companies, and an analysis of WhatsApp's monetization potential in the future. *See* PX10857 at -600, -601 (FB_FTC_CID_10958599). The slide deck presented to Meta's Board of Directors, *see* Meta Resp. to Counter SMF ¶ 1835, also contained a valuation using a market approach (comparable companies) and an approach that was similar to a discounted cash flow ("DCF") approach. *See* Ex. 6 at ¶¶ 166-183 (Kaplan Rep.) ("[W]hile the valuation that was presented to the Meta board was not a traditional DCF analysis, it did have most, if not all, of the components of a DCF analysis."); *see* Ex. 276 at -596.009 (FB_FTC_CID_10650595) ("Public Comparable Company Analysis"); *id.* at -596.010 ("Selected Precedent Transactions" analysis"); *id.* at -596.011, -596.012 (assessing WhatsApp's monetization potential similar to a DCF analysis). The FTC's proffered expert, Mr. Hearle, testified that those analyses "looked like . . . implementations of what is commonly referred to as the market approach" to valuation. Ex. 460 at 83:1-84:8 (Hearle Dep. Tr.).

The only support cited by the FTC – testimony from Mr. Smith, the investment banker that Meta hired to advise on the WhatsApp transaction – contradicts the FTC's assertion. Mr. Smith testified: "I would say [Meta] came up with a valuation framework as opposed to a valuation – you know, specific valuation of the business. It's to provide context as to whether the agreed-upon price was – made sense. And I think that their valuation framework made sense to me." PX6050 at 52:16-53:1 (Smith (Allen & Co.) Dep. Tr.). He elaborated several questions later: "You know, when you asked if we performed a valuation, I said no. But we did assist in the creation of a valuation framework." *Id.* at 53:12-16. He explained: "a valuation would be trying to come up with a point valuation of an asset, what is this asset worth. And a framework is more to put into context for a given, you know, price, like what – you know, kind of how to think about that price in the context of many different pieces of data. So it's just a – it's looking at it through a different lens. It's much of the same work, but it's looking at it through a different lens. . . . It's a very minor distinction." *Id.* at 53:17-54:5. Further disputed for the reasons stated above in Meta's responses to paragraphs 1831 and 1837.

FTC Reply: Meta's response does not dispute that Meta did not conduct a valuation analysis of WhatsApp prior to agreeing to acquire it.

Even accepting Meta's inaccurate contention that Meta's February 17, 2014 Board presentation contains a valuation analysis of WhatsApp, it is undisputed that Meta agreed to the acquisition price for WhatsApp *before* the alleged valuation analysis was created. As stated in Subparagraphs 1839(a) and 1839(e), Meta reached agreement to acquire WhatsApp on February 15, 2014. Meta does not dispute this fact, disputing only that the acquisition price was $19 billion. *See* Meta Resp. CMF at ¶¶ 1839(a), (e).

To the extent that Meta was also attempting to dispute the date on which Meta agreed to acquire WhatsApp, it is simply incorrect on the facts. In addition to the Meta documents cited in support of this point in Paragraph 1839, testimony from Morgan Stanley executives likewise confirms that the acquisition price was agreed upon by February 15, 2014. Both Michael Grimes, Morgan Stanley's Head of Technology Investment Banking, and Ali Esfahani, a Morgan Stanley VP, who each worked on the deal on behalf of WhatsApp, testified that the deal price was already agreed upon by the time Morgan Stanley was hired. *See* PX6072, Grimes (Morgan Stanley) Dep. Tr., at 8:13-9:6 (job title), 15:9-14 (representation of WhatsApp), 19:12-20:14 ("We did not negotiate price. So that was not in the role because it had been agreed before we arrived[.]"); PX6128, Esfahani (Morgan Stanley) Dep. Tr., at 15:15-21 (job title), 89:10-90:17 (describing work on WhatsApp deal and stating that "[w]hen we arrived, we realized the price had already been negotiated"). Morgan Stanley was informally retained on February 15, 2014, and began work on the morning of February 16, 2014. *See* PX6072, Grimes (Morgan Stanley) Dep. Tr., at 15:15-17:6; PX6128, Esfahani (Morgan Stanley) Dep. Tr., at 89:10-90:7.

Nor can Meta rely upon its unrelated hearsay objection to Paragraph 1839(a) (related to the $19 billion acquisition price) to belatedly claim that the uncontested February 15, 2014 agreement date is inaccurate. That fact is capable of being rendered in admissible form at trial in numerous ways, including as a recorded recollection or through trial testimony by Mr. Koum and others, such that the Court may consider it at summary judgment. *See* Fed. R. Civ. P. 56 advisory committee's notes to 2010

amendments (discussing subdivision (c)(2) and noting that proponent of fact may show material is admissible or explain the admissible form anticipated).

In short, Meta agreed to the acquisition price for WhatsApp prior to the creation of the February 17 document Meta points to as a valuation analysis.

a. On February 15, 2014, Mr. Zuckerberg and Mr. Koum agree to the $19 billion acquisition number for WhatsApp. PX14809, Meta email chain: [redacted] (Forbes) to N. Arora re: "Timeline," (Feb. 21, 2014), FB_FTC_CID_02592983, at -985.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg and Mr. Koum were negotiating a potential acquisition on or around February 15, 2014. Disputed that this statement creates a genuine dispute of material fact that Meta agreed to acquire WhatsApp for $19 billion. The cited document is an inadmissible hearsay statement from a Forbes reporter, *see* Fed. R. Civ. P. 56(c)(1)(B), who expressed doubt about its accuracy: "Saturday 15 Feb: Koum drives to Zuck's house again to talk about the deal. Zuck offers $19 billion (that right?)," PX14809 at -985 (FB_FTC_CID_02592983). The agreed acquisition price was $16 billion. *See* Meta Resp. to Counter SMF ¶ 1835. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

b. In Meta's presentation to its Board of Directors related to the WhatsApp acquisition, it identified the $19 billion it was paying as the "Enterprise Value" of WhatsApp. PX1266, Meta presentation: "Cobalt Transaction" (Feb. 17, 2014), FB_FTC_CID_00002272, at -278, -279, and -281.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact that Meta paid $19 billion for WhatsApp. The presentation identifies $19 billion as the enterprise value of WhatsApp – not what Meta paid to acquire WhatsApp. *See* PX1266 at -278.007, -278.008, -278.010 (FB_FTC_CID_00002272). Meta acquired WhatsApp for $16 billion. *See* Meta Resp. to Counter SMF ¶ 1835. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

c. The "Cobalt Transaction" presentation deck and then-Chief Financial Officer David Ebersman's description repeating the presentation's contents were the only materials related to a valuation presented to Meta's board of directors. *See, e.g.*, PX10857, Meta document: "Minutes of a Meeting of the Board of Directors of Facebook, Inc." (Feb. 17, 2014), FB_FTC_CID_10958599, at -600; PX6050, Smith (Allen & Co.) Dep. Tr., at 110:02-111:07, 112:2-7 (not aware of Meta using any other valuation method).

Meta Response: Undisputed.

d. Then-Chief Financial Officer David Ebersman explained that "in any transaction where you are justifying the price of the transaction, the enterprise value is based on what you are planning to pay for it. . . ." PX6064, Ebersman (Meta) Dep. Tr., at 11:9-11, 206:24-207:2.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1839.

e. On Saturday, February 15, 2014, Mr. Ebersman emailed Amin Zoufonoun, [redacted], David Wehner, Todd Heysse, [redacted], and [redacted] to "get everything I can think of and others have suggested in front of us for consideration based on my understanding that Mark and Cobalt have reached a tentative agreement on price so there is a legit possibility that Cobalt will be signed on Monday evening." PX11678, Meta email chain: D. Ebersman to D. Wehner, et al. re: "Thoughts," (Feb. 15, 2014), FB_FTC_CID_12390474, at -475. As part of this gathering of thoughts on Meta's imminent acquisition of WhatsApp, Mr. Ebersman asked whether Mr. Wehner thought a bank could do a fairness opinion "if we don't have a financial plan for them to work from?" *Id.* He also asked "[w]hat happens if the fairness opinion does not support the deal price . . . ." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1839.

f. Mr. Ebersman also pointed out that, "[w]hen investors ask 'why $19B,' it would be useful if we had a better quantitative plan of what we thought [WhatsApp] could contribute incrementally the future . . . and how that discounted back to today justifies the price." *Id*. The challenge, Mr. Ebersman noted, was "that I [] would want the plan to match what Mark believes and we don't have that from him." *Id*.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of

material fact that Meta paid $19 billion for WhatsApp. Meta paid $16 billion for WhatsApp. *See* Meta Resp. to Counter SMF ¶ 1835. Mr. Ebersman explained that he considered the $16 billion acquisition price and the $19 billion which consisted of the acquisition price and $3 billion for compensation for continued employment to WhatsApp employees would both "be relevant numbers" for investors. *See* PX6064 at 234:16-23 (Ebersman Dep. Tr.); *see also* Meta Resp. to Counter SMF ¶ 1839(d). Further disputed for the reasons stated above in Meta's response to paragraph 1839.

g. On Sunday, February 16, 2014, Meta engaged Allen & Company to advise it on Meta's acquisition of WhatsApp, including to assist in a valuation of WhatsApp. PX10124, Allen & Co. document: "(untitled)" (Feb. 16, 2014) (Project Cobalt Engagement Letter), FTC_ALLEN00001416; PX6094, Heysse (Meta) Dep. Tr., at 63:16-23. While Meta engaged Allen & Company to support it "in the analysis of the transaction," Meta did not get a fairness opinion for the transaction. PX6070, Wehner (Meta) Dep. Tr., at 134:19-25.

Meta Response: Disputed in part. Undisputed that Meta engaged Allen & Company to advise on the transaction and assist in valuing WhatsApp and that Meta did not obtain a fairness opinion. Disputed that the statement creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 1839.

h. Allen & Company managing director Ian Smith testified that Meta did not ask Allen & Company to perform a valuation for the WhatsApp acquisition. PX6050, Smith (Allen & Co.) Dep. Tr., at 15:3-18, 50:9-51:6.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact that Meta did not conduct a valuation of WhatsApp. Mr. Smith's actual testimony contradicts the asserted fact. Mr. Smith testified: "I would say [Meta] came up with a valuation framework as opposed to a valuation – you know, specific valuation of the business. It's to provide context as to whether the agreed-upon price was – made sense. And I think that their valuation framework made sense to me." PX6050 at 52:16-53:1 (Smith (Allen & Co.) Dep. Tr.). He elaborated several questions later: "You know, when you asked if we performed a valuation, I said no. But we did assist in the creation of a valuation framework." *Id.* at 53:12-16. He explained: "a valuation would be trying to come up with a point valuation of an asset, what is this asset worth. And a framework is more to put into context for a given, you know, price, like what – you know, kind of how to think about that price in the context of many different pieces of data. So it's just a – it's looking at it through a different lens. It's much of the same work, but it's looking at it through a different lens. . . . It's a very minor distinction." *Id.* at 53:17-54:5. Further disputed the reasons stated above in Meta's responses to paragraphs 1831 and 1837.

1840. Meta's expert Professor Fischel testified that when performing a valuation, "if you're attempting to determine a value you can't start with an assumption of the value." PX6180, Fischel (Meta) Dep. Tr., at 131:8-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact that Meta's analysis of WhatsApp was not a valuation. Professor Fischel testified: "I think

any question about what valuation professionals do would require a specific context. But generally speaking, if you're attempting to determine a value you can't start with an assumption of value." PX6180 at 131:8-18 (Fischel Dep. Tr.). With respect to the context of Meta's acquisition of WhatsApp, Professor Fischel opined that Meta conducted standard valuation analyses under the market approach for WhatsApp: "compar[ing] the expected 'purchase cost' to Enterprise Value per Monthly Active Users ('EV/MAU') ratios of 'Public Comparable Companies' and 'Precedent Transactions.'" PX9021 at ¶ 37 (Fischel Rep.); *see also* Meta Resp. to Counter SMF ¶ 1839 (discussing Meta's valuation analyses). The FTC's proffered valuation expert, Mr. Hearle, agreed with his testimony that "[i]t depends on the circumstances" whether "providing a final value estimate that the target company is worth more than the proposed purchase price" would "be reasonable." Ex. 460 at 115:3-11 (Hearle Dep. Tr.); *see also id.* at 112:19-113:6 ("Whether it's appropriate or not depends on the circumstances. I don't have a global view on that."). Further disputed for the reasons stated above in Meta's response to paragraph 1831.

1841. Meta acknowledged in its discussion with its Board of Directors that it might be valuing WhatsApp "at a premium." PX10857, Meta document: "Minutes of a Meeting of the Board of Directors of Facebook, Inc." (Feb. 17, 2014), FB_FTC_CID_10958599, at -600.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta purchased WhatsApp "at a premium." The minutes of the Board of Directors meeting do not state that *Meta* was valuing WhatsApp "at a premium." They state: "Mr. Ebersman cited several potential reasons why WhatsApp might be valued at a premium, including WhatsApp's strong user growth and high level

of user engagement, and the potential to scale the user base to > 1 billion MAUs." PX10857, at -600 (FB_FTC_CID_ 10958599). Further disputed for the reasons stated above in Meta's response to paragraph 1831.

1842. Meta did not have a clear understanding of WhatsApp's current or expected future monetization when it acquired WhatsApp.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the evidence cited in the subparagraphs below does not support the statement, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed because Meta was aware of WhatsApp's current monetization strategy (subscription fees) but did not plan to continue that monetization strategy. *See* Meta SMF ¶ 825; Ex. 276 at -596.004, -596.011 (FB_FTC_CID_10650595) (presentation to Board of Directors mentioning the subscription model); *see also* PX6070 at 146:4-19 (Wehner Dep. Tr.). Meta also analyzed WhatsApp's future monetization potential by comparing it to comparable applications that were further along the monetization curve. *See* Ex. 276 at -596.011, -596.012. The minutes of the Board of Directors meeting at which the WhatsApp acquisition was discussed reflect that Meta "discussed potential long-term monetization strategies for WhatsApp" and that, "if WhatsApp is able to monetize its user base in a manner similar to other companies in the industry over the long-term, then the proposed purchase price appeared to be reasonable." PX10857, at -600, -601 (FB_FTC_CID_10958599). Further disputed for the reasons stated above in Meta's response to paragraph 1831 and in Meta's responses to the subparagraphs below.

a. On January 27, 2014, three weeks before Meta's Board of Directors voted to acquire WhatsApp, Mr. Wehner asked Mr. Zoufonoun whether he had a "guess of what WhatsApp does in revenue in 2014?" PX10849, Meta email chain: D. Wehner to A. Zoufonoun, et al. re: "valuation," (Jan. 27, 2014), FB_FTC_CID_03090860, at -861. Mr. Zoufonon responded, "unfortunately i [sic] do not have any real financial numbers from them." PX10849, Meta email chain: A. Zoufonoun to D. Wehner, et al. re: "valuation," (Jan. 27, 2014), FB_FTC_CID_03090860, at -861. Instead, he proposed that, "we can do a rough estimate though based on their model: they don't charge the first year, and then $1/year thereafter and they currently have 430m MAUs and around 40 employees." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta had an understanding of WhatsApp's current or expected future monetization. *See* Meta Resp. to Counter SMF ¶ 1842. On the contrary, Mr. Zoufonoun noted that Meta was aware of WhatsApp's current monetization strategy and could estimate its revenue. *See* PX10849 at -861 (FB_FTC_CID_03090860). Further disputed for the reasons stated above in Meta's response to paragraph 1842.

b. Meta did not have a "detailed year-by-year set of cash flows" for WhatsApp when it acquired WhatsApp. PX6094, Heysse (Meta) Dep. Tr., at 37:4-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of

material fact regarding whether Meta had an understanding of WhatsApp's current or expected future monetization. *See* Meta Resp. to Counter SMF ¶ 1842. The FTC mischaracterizes the testimony. Mr. Heysse testified that Meta did not have a "detailed year-by-year set of cash flows" for WhatsApp to perform a discounted cash flow analysis into the future (2014 to 2024). *See* PX6094 at 37:4-21 (Heysse Dep. Tr.). Meta, however, did assess WhatsApp's future monetization potential by comparison to the monetization of comparable apps further along the monetization curve. *See* Meta Resp. to Counter SMF ¶ 1842. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

c. The Chief Financial Officer at the time of Meta's acquisition of WhatsApp, Mr. Ebersman, testified that he did not recall whether a financial plan was completed for the WhatsApp transaction. PX6064, Ebersman (Meta) Dep. Tr., at 11:9-11, 161:08-162:07.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta had an understanding of WhatsApp's current or future monetization. *See* Meta Resp. to Counter SMF ¶ 1842. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

d. Meta did not have specific or detailed plans for how WhatsApp would monetize after it acquired WhatsApp. PX6094, Heysse (Meta) Dep. Tr., at 38:25-40:25.

Meta Response: Disputed in part. Undisputed that Mr. Heysse testified that he was unaware of any specific or detailed monetization plan. Disputed for the reasons stated above in Meta's response to paragraph 1831.

e. The minutes from the Board Meeting where the WhatsApp acquisition was discussed show that the information presented to the Board "[f]or valuation purposes" was that "if WhatsApp is able to maintain its projected user growth trajectory and if WhatsApp is able to monetize its user base in a manner similar to other companies in the industry over the long-term then the proposed purchase price appeared to be reasonable." PX10857, Meta document: "Minutes of a Meeting of the Board of Directors of Facebook, Inc." (Feb. 17, 2014), FB_FTC_CID_10958599, at -600-01.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1842.

f. At the time of the acquisition, Meta's board of directors was informed that despite the "[m]eaningful P&L impact" of the deal, Meta had no plans for monetization and did not even plan to "focus on monetization for years" despite the lack of "a revenue model proven to work at scale." PX1266, Meta presentation: "Cobalt Transaction" (Feb. 17, 2014), FB_FTC_CID_00002272, at -283, -285.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1842.

1843. In January 2015, at Meta's request, KPMG completed a valuation of the "common stock" of WhatsApp "at certain dates" between January 28, 2014 (22 days before the announcement of the Meta/WhatsApp transaction) and October 6, 2014 (the day the transaction closed). PX12692, KPMG presentation: "Valuation of Common Stock of WhatsApp, Inc. As of Certain Dates between January 28, 2014 and October 3, 2014" (Jan. 22, 2015), KPMG_META_0003446, at -447.

Meta Response: Undisputed.

a. KPMG calculated the standalone value of WhatsApp's implied equity as $8.1 billion. *Id.* at -467. The standalone value KPMG calculated "capture[d] the value independent of the Facebook transaction." *Id.*

Meta Response: Disputed. Disputed that the cited material supports the statement. In the "Standalone Scenario" as of February 19, 2014, KPMG stated the value per share indication was $43.39, which implies equity value of $10.1 billion based on 232,800,745 fully diluted shares. *See* PX12692 at -447 (KPMG_META_0003446); see *also id.* at -448. Further disputed that this statement creates a genuine dispute of material fact regarding whether WhatsApp's value was $10.1 billion (or $8.1 billion) to an acquirer. The KPMG valuation merely used the implied valuation from the DST investment in February 2014 for the standalone scenario. *See id.* -454, -467. [redacted]. *See* Meta Resp. to Counter SMF [redacted]. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

1844. Using the standalone valuation of WhatsApp by KPMG of $8.1015 billion, Meta incurred a $10.9 billion or 135% transaction premium for its acquisition of WhatsApp. PX9005, Hearle Report at ¶ 41; *see* PX12692, KPMG presentation: "Valuation of Common Stock of WhatsApp, Inc. As of Certain Dates between January 28, 2014 and October 3, 2014" (Jan. 22, 2015), KPMG_META_0003446, at -467.

Meta Response: Disputed. Disputed on the ground that this calculation [redacted]. *See* Meta Resp. to Counter SMF [redacted]. This calculation [redacted]. *See* Meta Resp. to Counter SMF [redacted]. Mr. Hearle – who performed this calculation – [redacted]. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

1845. Even using the largest available pre-acquisition valuation of WhatsApp, of $12.5 billion from an email prepared by Meta personnel, Meta incurred a $6.5 billion or 52% transaction premium for its acquisition of WhatsApp. PX9005, Hearle Report at ¶ 40;

see PX10849, Meta email: D. Wehner to A. Zoufonoun, et al. re: "valuation," (Jan. 27, 2014, FB_FTC_CID_03090860, at -860.

Meta Response: Disputed. This calculation assumes incorrectly that Meta paid $19 billion for WhatsApp when there is no genuine dispute that Meta in fact paid $16 billion. *See* Meta Resp. to Counter SMF ¶ 1835. This calculation also assumes incorrectly that $12.5 billion was the "largest possible pre-acquisition valuation of WhatsApp" prior to Meta's acquisition when contemporaneous valuations of WhatsApp in the weeks leading up to Meta's acquisition valued WhatsApp at more than $19 billion. *See* Meta Resp. to Counter SMF ¶ 1838. Mr. Hearle – who performed this calculation – [redacted]. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

1846. Meta did not identify or quantify any sources of the premium it paid to acquire WhatsApp in the acquisition presentation presented to its Board of Directors. *See* PX9005, Hearle Report at ¶ 43.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta paid a premium, or, if it did, whether it identified the reasons for that premium. Contemporaneous valuations leading up to Meta's acquisition valued WhatsApp at more than the purchase price of $16 billion. *See* Meta

Resps. to Counter SMF ¶¶ 1835, 1838. In any event, even if Meta paid a premium, both the presentation to the Board of Directors and the minutes of the Board of Directors meeting identify the reasons for any premium, which included making it more difficult for dominant mobile operating system providers (Google and Apple) to exclude Meta's mobile applications and helping Facebook grow by exposing Facebook to users of WhatsApp who did not currently use Facebook. *See* Meta SMF ¶ 813. Further disputed for the reasons stated above in Meta's response to paragraph 1831.

D. Meta's Acquisitions Eliminated Head-to-Head Competition and Raised Barriers to Entry.

1. Acquiring Instagram Eliminated Head-to-Head Competition between Facebook and Instagram.

a) The acquisition removed the competitive pressure that Instagram had been putting on Facebook, and Meta responded by relaxing its competitive efforts.

1847. Prior to the acquisition, Instagram was putting competitive pressure on Facebook. *See supra* CMF at §§ III.B.2, III.B.4(b), III.B.4(d).

Meta Response: Disputed. Disputed on the ground that this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections III.B.2, III.B.4(b), and III.B.4(d), Meta incorporates its responses to those statements here.

1848. Meta responded to that pressure by investing, innovating, and improving its personal social networking services offering. Most prominently, it devoted substantial resources and high-level executive attention to improving Facebook's photo-sharing capabilities in the form of an app that would be called Facebook Camera. *See supra* CMF at §§ III.B.4(b)-(c).

Meta Response: Disputed. Disputed on the ground that this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections III.B.4(b)-(c), Meta incorporates its responses to those statements here.

1849. The competitive pressure ceased with Meta's acquisition of Instagram, and with it Meta's urgent need to respond. Within days of inking the agreement to buy Instagram, Meta began diverting resources away from Facebook Camera to other areas, most prominently messaging. *See infra* CMF at § IV.B.1.

Meta Response: Disputed. Disputed on the ground that this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section IV.B.1, Meta incorporates its responses to those statements here.

1850. On April 12, 2012—just four days after Meta signed the agreement to acquire Instagram—Meta employees acknowledged internally that Facebook Camera was likely on the chopping block:

> On the question of additive versus zero sum to [Facebook Camera] . . . In the short term till close [of the acquisition], for anti-trust purposes we cannot be seen to be cancelling or changing product plans. For the longer term plans I think the best person to talk to is [then-Vice President of Engineering Mike Schroepfer].

PX3370, Meta email chain: [redacted] to [redacted], et al. re: "Instagram Capex Cost," (Apr. 12, 2012), FTC-META-002493383, at -384; PX6075, Schroepfer (Meta) Dep. Tr., at 15:11-15:21.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the cited evidence does not support the statement. Contrary to the FTC's contention, Facebook Camera was not "on the chopping block"; Meta *did* release Facebook Camera on May 24, 2012 – after announcing the Instagram acquisition. *See* PX12416 at -001 (Meta, *Introducing Facebook Camera*). Furthermore, Meta began incorporating Facebook Camera's features into the Facebook mobile app almost immediately afterwards – as Mr. Stoop explained, "as soon as we were able to free up the resources to do it, we went for it ASAP." PX6079 at 163:9-10 (Stoop Dep. Tr.); *see also id.* at 158:6-17 (testifying that by September 2012, Meta had integrated Facebook Camera's production flow into the Facebook Android app), *id.* at 163:11-14 (testifying that integrating Facebook Camera's production flow into the Facebook Android app increased photos shared by 45%), *id.* at 167:2-21 (testifying that by November 2012, Meta had integrated key Facebook Camera features to the Facebook iOS app). Camera features that Meta incorporated into the Facebook mobile app include Camera's multi-photo post format, full-screen photo-viewing experience, photo selection grids, photo editing features, filters, tagging features, and Camera's feedback interface. *See id.* at 161:19-162:25. The same testimony confirms that Meta had always intended to integrate the Camera features into the Facebook mobile app, and acquiring Instagram did not affect this plan. *See id.* at 72:18-23; *see also* PX12405 at -956 (FTC-META-004130954) ("We are building [Facebook Camera] to be modular, and intend most if [*sic*] [Facebook Camera] to be reused in fbiphone."). After the acquisition closed, Meta continued to innovate the Camera tools. *See* PX12409 at -015 (FTC-META-000294202) (identifying new and forthcoming features to Facebook Camera as of September 2012:

"[j]ust shipped album support," "[a]bout to ship digital zoom," "[m]ore picture-taking features are on their way"). Meta deprecated Camera as a standalone app on May 9, 2014 – nearly two years after the Instagram acquisition – after incorporating the Camera features into the Facebook mobile app. *See* PX13800 at -593 (FTC-META-011636593). Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1851. On April 22, 2012—less than two weeks after Meta's acquisition of Instagram was announced, but before Facebook Camera launched—Mr. Zuckerberg told Mike Schroepfer, Meta Vice President of Engineering, that "[s]ince we bought instagram (and extended the close date!), I now feel like we're ahead in photos but falling increasingly behind in messages." PX1116, Meta message: M. Zuckerberg to M. Schroepfer, (Apr. 22, 2012), FB_FTC_CID_06208072, at -072-73. Mr. Zuckerberg identified for Mr. Schroepfer several projects to "cancel or slow," including "[Facebook Camera] (now or post-launch) since we are acquiring Instagram," and continued: "Just so I can be completely clear on this, my advice would be to cancel every single one of [the identified projects, including [Facebook Camera] . . . and put as many of these people as possible on mobile messaging." *Id.* at -073.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language (but not the FTC's bracketed insertion). Disputed that the modified language accurately reflects the document. Further disputed that the statement creates a genuine dispute of material fact, including because Meta launched Camera, improved it, and

integrated its features into the Facebook mobile app – for the reasons stated above in Meta's response to paragraph 1850. Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1852. On April 22, 2012, Mr. Zuckerberg informed Chief Operating Officer Sheryl Sandberg of his desire to cancel or scale back investment in Facebook's own mobile photo app as a direct result of the Instagram deal: "I am pushing [Mike Schroepfer] very hard to cancel or scale back many of the projects in his group . . . so that his team can focus more completely on mobile apps and specifically on mobile messages. Examples of things we could scale back or cancel . . . Mobile photos app (since we're acquiring Instagram)." PX1115, Meta message: M. Zuckerberg to S. Sandberg (Apr. 22, 2012), FB_FTC_CID_06166678, at -678.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because Meta launched Camera, improved it, and integrated its features into the Facebook mobile app – for the reasons stated above in Meta's response to paragraph 1850. Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1853. On April 24, 2012, Mr. Zuckerberg wrote that he had "talked to [M. Schroepfer] and all of the product group leads about how we need to make mobile messages a higher

priority," and Mr. Zuckerberg described "three pools we're going to pull from," one of which was "Photos. When [Facebook Camera] launches in a couple weeks, we can pull some iOS engineers from there. We may also scale back another photos project like Shoebox to get another person or two." PX3371, Meta messages: M. Zuckerberg to P. Deng, (Apr. 24, 2012), FB_FTC_CID_06240919, at -919; *see also* PX6079, Stoop (Meta) Dep. Tr., at 160:7-23 ("Shoebox was an internal code name for a very different photo product . . . [i]t was more of a cloud storage product to allow users to silently have Facebook back up their entire camera roll . . . .").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language without alterations, except the document says "three primarily pools I think we're going to pull from," PX3371 at -919 (FB_FTC_CID_06240919), and that the witness provided the quoted testimony. Disputed that the FTC's characterization of the document is complete – Mr. Zuckerberg stated that "*[i]n terms of finding more people*, there are three primarily pools I think we're going to pull from." PX3371 at -919 (FB_FTC_CID_06240919) (emphasis added). In addition to photos, Mr. Zuckerberg identified "Mobile core" and "Other messages projects" as potential sources of additional staffing. *Id.* Further disputed that the statement creates a genuine dispute of material fact, including because Meta launched, improved, and integrated Camera into the Facebook mobile app – for the reasons stated above in Meta's response to paragraph 1850. Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1854. Meta quickly followed through on its plans to strip Facebook Camera of development resources. On May 21, 2012, three days before the launch of Facebook Camera, Mr. Schroepfer reported to Meta executives that even though it was "very painful" having "just built [the photos] team up over the last 6 months or so from almost nothing," Meta had "recently moved 1/3 of the photos team (6 out of 18) to a messaging [sic] and to a lesser degree ads." PX12193, Meta email: M. Schroepfer to [redacted] re: "HPM," (May 21, 2012), FB_FTC_CID_05995952, at -592.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the evidence cited does not support the assertion that Meta had any "plans to strip Facebook Camera of development resources." The cited document references staffing changes to the broader "photos team," not Camera; the photos team worked on much more than just Facebook Camera, it was responsible for the "core parts of the photo viewing experience," so "what happened after one clicks on the photo in newsfeed" and "all aspects of the photo upload experience," including "photo[]tagging" as well as video. PX6079 at 22:24-23:19 (Stoop Dep. Tr.). The cited document identifies non-Camera projects: "shipping a photos viewer redesign for ads" and "image processing." PX12193 at -952 (FB_FTC_CID_05995952). Further, Mr. Schroepfer observed that the reallocation – involving six employees – to messaging reflects "the right overall prioritization and we will rebuild [the team]!" *Id.*

Disputed to the extent the statement implies Meta reallocated six employees from the photos team to work on messaging because of the Instagram acquisition. The cited document does not refer to the acquisition. Meta reallocated staff to work on messaging from multiple projects because the company's "overall prioritization" at the time focused

on messaging. *Id*. Further disputed to the extent the statement implies Meta's reallocation of six employees from the photos team affected launch of Facebook Camera. As Mr. Schroepfer states in the cited document, Meta had submitted Facebook Camera to be released on Apple's iOS by May 9, 2012, and the Facebook team had "already started cranking on v1.1" of the app – i.e., an updated version of the app. *Id.* Further disputed, as to this statement's assertions regarding Camera – which Meta launched, improved, and integrated into the Facebook mobile app – for the reasons stated above in Meta's response to paragraph 1850. Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1855. Dirk Stoop, Meta's Facebook Camera Project Manager, reported that Meta made "no marketing efforts and very few updates" for Facebook Camera after it was launched. PX2947, Meta email chain: D. Stoop to [redacted], et al. re: "Camera Usage," (Sept. 15, 2014), FTC-META-000277498, at -498 (explaining, a few months after Facebook Camera's demise, how the app performed: "From memory, it was around 1M MAU, one month after release and about 280K DAU . . . When I say solid, I mean that those 280K-ish folks stuck around pretty well month over month. Even two years later, with no marketing efforts and very few updates we still had a good amount of active users.").

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's quotation from the cited document is incomplete and omits necessary context. In the cited document, Mr. Stoop explained that Meta "didn't care

about retention per se" for Camera because "[o]ur goal was to launch a great product that made mobile photo sharing on FB substantially better and incorporate what worked well into the main iOS and Android apps." PX2947 at -498 (FTC-META-000277498). There were therefore "[n]o metrics goals." *Id.* Further disputed, as to this statement's assertions regarding Camera – which Meta launched, improved, and integrated into the Facebook mobile app – for the reasons stated above in Meta's responses to paragraphs 1850 and 1854. Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1856. In an October 2012 document, Meta Director of Platform Product [redacted] suggested that Meta's ownership of Instagram meant it "effectively dominate[d] photo sharing," and would not be "require[d] to do much work to maintain or extend" that dominance. PX2706, Meta email chain: [redacted] to D. Liu, et al. re: "Please Read: iOS photo upload metrics," (Oct. 31, 2012), FB_FTC_CID_05194834, at -834.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's characterization of the document is misleading and omits the document's context. The full quotation from [redacted] is: "I think we effectively dominate photo sharing regardless of source (especially with Instagram), so I am not too concerned about our photos platform product per se and I don't think we are in a situation that require us [*sic*] to do much work to maintain or extend that lead." PX2706 at -834 (FB_FTC_CID_05194834). [redacted]'s statement was in response to an email thread discussing Meta's approach to Platform integrations enabling photo sharing

on third-party apps and what Meta could do to enable Platform photo sharing. *See id.* Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off because of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1857. Meta released its last update for Facebook Camera in mid-2013. PX2789, Meta email: [redacted] to M. Zuckerberg, et al. re: "Q&A prep–- July 19, 2013," (July 19, 2013), FB_FTC_CID_09702019, at -019 ("We are releasing our last version of Facebook Camera before retiring and removing it from the repo and builds.").

<u>Meta Response</u>: Undisputed.

1858. Meta never released an Android version of Facebook Camera. PX6079, Stoop (Meta) Dep. Tr., at 108:16-19.

<u>Meta Response</u>: Undisputed.

1859. Less than two years after launch, on May 9, 2014, Meta withdrew Facebook Camera from the Apple App Store. PX13800, Meta Workplace Post: [redacted] post to iOS FYI (May 9, 2014), FTC-META-011636593, at -593.

<u>Meta Response</u>: Undisputed.

1860. In an internal document described as "the definitive history of Facebook's standalone app efforts," a Meta employee described Facebook Camera writing: "[w]as in development to ward against IG before the acquisition – once the acquisition went through, we decided to launch it anyway but didn't really intend to grow or maintain it . . . ." PX3372, Meta Workplace Post: [redacted] post to Facebook PMs (Nov. 8, 2019), FB_FTC_CID_12177391, at -393.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the FTC omits context from the document. It contains a disclaimer ("Disclaimers") that it is a years-later retrospective "product of a quick two-week turn-around involving [the author] and others jotting down what we remembered . . . . If you read through this and find something is missing, or if you flat out disagree with what's being said, that's great. This note intentionally avoids going deep on a lot of facets to keep it accessible, and we hope it generates conversation." PX3372 at -391 (FB_FTC_CID_12177391). The document also confirms, "We rolled several of these photo features back into the main app after shutting the app down." *Id.* at -393. Further disputed for the reasons stated above in Meta's responses to paragraphs 1850 and 1854. Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1861. Explaining why Meta failed to support and then eliminated Facebook Camera, Mr. Zuckerberg testified that "we concluded that Instagram was on a better trajectory, that we should just put all of our investment behind Instagram." PX6029, Zuckerberg (Meta) IH Tr., at 326:8-12.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the evidence cited does not support the assertion, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Mr. Zuckerberg did not provide the quoted testimony to "[e]xplain[] why Meta failed to

support and then eliminated Facebook Camera." Mr. Zuckerberg was instead asked, "If you hadn't acquired Instagram, you would have tried to build something better; right?" PX6029 at 326:3-4 (Zuckerberg IH Tr.). In his answer, Mr. Zuckerberg testified that Meta was thinking about "how to manage the fact that we had this camera app and we had Instagram." *Id.* at 326:7-8. Further disputed, as to this statement's assertions regarding Camera – which Meta launched, improved, and integrated into the Facebook mobile app – for the reasons stated above in Meta's responses to paragraphs 1850 and 1854 (citing testimony from Mr. Stoop, who was "responsible for the overall trajectory, goal setting, milestones, feature sets," PX6079 at 27:12-21 (Stoop Dep. Tr.)). Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1862. As Mr. Zuckerberg testified, if Meta had not acquired Instagram, "we would have [] continued working on the camera app, continued integrating more of these features into the Facebook app over time" and "we have a track record of being [] relatively effective at building new things and competing." *Id.* at 326:13-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including because the excerpted testimony is incomplete. In the same portion of the deposition cited, Mr. Zuckerberg testified that "it's hard to say in retrospect what would have ended up happening," PX6029 at 326:21-22 (Zuckerberg IH Tr.), and "I think it's really hard to know what would have happened had we not bought Instagram," *id.* at 327:4-5. Further disputed that the statement creates a genuine dispute of material fact

because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

b) After Meta acquired Instagram, it attempted to ensure Instagram did not grow at the expense of Facebook.

1863. Prior to the acquisition, Instagram never "refrain[ed] from taking any action that [it] thought would help Instagram because of concern that it would hurt Facebook." *See* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 61:4-8.

Meta Response: Undisputed that the witness provided the quoted testimony.

a. Shortly after the acquisition, Mr. Zuckerberg directed Meta that the "primary focus" of its promotion of Instagram should be on "amplifying Instagram and not transferring any behavior from Facebook to Instagram." PX2364, Meta email: M. Zuckerberg to K. Systrom, et al. re: "Instagram Growth," (Oct. 10, 2012), FB_FTC_CID_06315737, at -738.

Meta Response: Disputed. Disputed that the document contains the quoted language. The document states, "for now I think we should *primarily* focus on amplifying Instagram"; it does not state "primary focus." Further disputed because the FTC's quotation is incomplete. Mr. Zuckerberg caveated the quoted language with the statement, "We might learn in the future that upselling Instagram in these cases [where a person was going to use Facebook to upload a photo] is good for engagement in both products." PX2364 at -738 (FB_FTC_CID_06315737). He added that his goal was "to optimize flows that will be the most sustainable over long periods of time" and that will "sustainably decrease friction in the user growth funnel and sustainably increase the viral

coefficient." *Id.* at -737. Mr. Zuckerberg also wrote among several things "we should do": "Enable Instagram users to send invites to their Facebook friends. We don't currently allow third-party non-canvas apps to send notifs, but we can easily support this for Instagram. This will increase growth meaningfully and sustainably." *Id.* at -738. Mr. Zuckerberg also advocated for enabling "Instagram to access our coefficient APIs to rank a user's Facebook friends and help them follow the people they care about the most. . . . This will definitely help people ramp up faster, which will help active growth sustainably." *Id.* He also wrote: "On Instagram, I think we should make the button to share to Facebook sticky. This is good for sharing more content on Facebook, but it will also increase exposure of Instagram content on Facebook and therefore increase distribution back to Instagram from Facebook." *Id.* He also advocated for Meta to "run promotions" for Instagram. *Id.* Mr. Systrom responded with his agreement as to these proposals to grow Instagram and Facebook. *See id.* Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

b. Mr. Zuckerberg explained that "[o]ne thing we should be careful about is that we're not explicitly trying to move behavior from Facebook's photos products to Instagram. So, for example, if a person was going to use Facebook to upload a photo, we should [not] encourage them to use Instagram instead." *Id.* at -738; *see*

also PX6127, Zuckerberg (Meta) Dep. Tr., at 272:22-273:6 (acknowledging that the email inadvertently omitted "not").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the paraphrased testimony. Disputed that the statement creates a genuine dispute of material fact, including because it omits context from the email, for the reasons stated above in Meta's response to subparagraph 1863(a). Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

c. Mr. Systrom acknowledged to Mr. Zuckerberg that Meta should now "position[] IG as a fun way to add to the FB photos experience" as opposed to marketing Instagram as a replacement. PX2364, Meta email chain: M. Zuckerberg to K. Systrom, et al. re: "Instagram Growth," (Oct. 10, 2012), FB_FTC_CID_06315737, at -738-39.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because it omits context from the email, for the reasons stated above in Meta's response to subparagraph 1863(a). Further disputed because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

d. Mr. Systrom wrote to Mr. Olivan in October 2012 that "it's just our job not to go out of our way to shift behavior away from posting photos on FB. In other words, we shouldn't run any promotions that are in the tone of 'Try Instagram instead.'" PX15244, Meta email chain: K. Systrom to J. Olivan, et al. re: "instagram growth (internet marketing)," (Oct. 25, 2012), FB_FTC_CID_12568180, at -181.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's quotation is incomplete and misleading. The full statement Mr. Systrom wrote to Mr. Olivan states, "Some form of cannibalization studies may be interesting in the long run but let's keep one thing in mind here: Instagram is Facebook, and Facebook is Instagram. Behavior will naturally shift to where we as an org create the most value for users – and as Mark said, it's just our job not to go out of our way to shift behavior away from posting photos on FB. In other words, we shouldn't run any promotions that are in the tone of 'Try Instagram instead.'" PX15244 at -181 (FB_FTC_CID_12568180). Further disputed because this statement omits context, for the reasons stated above in Meta's response to subparagraph 1863(a). Further disputed that the statement creates a genuine dispute of material fact because the FTC provides no evidence that consumers were made worse off as a result of the acquisition of Instagram compared to the but-for world. *See* Meta SMF ¶¶ 722, 733-734, 754, 762.

1864. Meta found any decreases in Facebook's usage due to increases in Instagram's usage unacceptable, even if it would have resulted in greater overall usage of both applications.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the evidence does not support the assertion, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). On the contrary, Mr. Olivan testified that Meta implemented promotions on Facebook of Instagram, even though the promotions decreased Facebook usage on the margin, because they were accretive overall to Meta. *See* Ex. 160 at 110:9-111:21, 163:10-14 & errata (Olivan Dep. Tr.); *see also id.* at 110:19-20 ("[I]n my mind as long as it is accretive for Facebook Inc., it's positive."). Evidence shows that Meta aggressively promoted and invested in other growth efforts on Instagram after the acquisition. *See* Meta SMF ¶¶ 723-728. Further disputed that the statement creates a genuine dispute of material fact because there is no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). This paragraph and its subparagraphs do not provide a single example of an action Meta took to support the assertion in this statement, let alone anything backed by supporting documentary material.

a. Meta maintained that Instagram's growth had to be entirely accretive to Facebook. *See* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 51:7-52:4 ("My experience of discussions with leaders at Facebook/Meta, is that generally they would not accept any decrease in the usage of Facebook Blue at the time if people started using Instagram and that we had to focus on that before doing anything else and that it needed to be accretive specifically to Facebook Blue, not the overall corporation Meta or what it was called Facebook at the time. [Q.] So if – if there were an action that led to an increase on Instagram in engagement that

was larger than any decrease in Facebook Blue, was that an acceptable outcome to Facebook? [A.] My experience in discussions with all leaders at Facebook is that, no, that would not be acceptable.").

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including because the evidence cited does not support the assertion in this subparagraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Mr. Systrom was testifying about a document from late 2012, and his testimony accordingly reflects his understanding of Meta's position "at the time." PX6133 at 46:1-9, 51:7-20 (Systrom Dep. Tr.). Further disputed to the extent the quotation does not give context to Mr. Systrom's testimony regarding how Meta grew Instagram following the acquisition. He agreed, regarding Instagram, that "so much of our growth and our success is because of our very tight-knit relationship with Facebook." *Id.* at 271:6-19. Mr. Systrom confirmed that he recalled Mr. Zuckerberg instructing Facebook employees to take steps to help Instagram grow following the acquisition. *See id.* at 278:23-279:1. And asked whether Facebook "h[e]ld back from supporting Instagram's growth in any way" right after the acquisition, Mr. Systrom testified, "No. Right after the acquisition, it was extremely supportive, and if anything, the question was: How do we help? And throw resources in to help." Ex. 284 at 236:12-22 (Systrom IH Tr.). Mr. Systrom also testified that he only agreed to Meta's acquisition of Instagram because he received "a very clear assertion that Mark [Zuckerberg] wanted to be, effectively, like an investor in Instagram where they would help us and – and give us space to

grow." *Id.* at 184:21-24. Mr. Systrom testified that he thought Meta "could scale [Instagram] faster than [it] could independently"; asked why he ultimately agreed to sell Instagram to Facebook, Mr. Systrom "likened it to strapping yourself to a rocket ship, which was Facebook had enormous distribution. And if they didn't want to, as I said before, destroy us and we could work together, we could build a beautiful thing." PX6133 at 243:16-244:10 (Systrom Dep. Tr.).

Meta continued developing and growing Instagram after the acquisition. For example, Mr. Systrom testified that Instagram took advantage of know-how from Facebook to develop its own ranked feed. *See* Ex. 151 at 369:5-9 (Systrom Dep. Tr.). Ranked feed increased time spent and engagement on Instagram. *See* Meta SMF ¶ 742 (quoting Ex. 151 at 267:18-22 (Systrom Dep. Tr.) and Ex. 153 at 383:16-384:2 (Krieger Dep. Tr.)). Moreover, being part of Meta allowed Instagram to "skip some of the early mistakes" with its feed ranking feature, enabling Instagram to "speed its development." PX6133 at 256:22-257:13 (Systrom Dep. Tr.). Mr. Systrom agreed that, generally, "being part of Facebook allowed Instagram to skip several years of development." *Id.* at 251:17-20. This was particularly true for Instagram's monetization efforts; he testified that by plugging into Facebook's advertising platform and moving to a more programmatic advertising model, Instagram achieved "[m]ore ads, more revenue, more quickly, is how I would describe it." Ex. 284 at 217:15-19 (Systrom IH Tr.). As a result, as Mr. Systrom acknowledged, "Instagram went from a business with essentially zero revenues at the acquisition to a business with billions in revenues by the time [he] left." Ex. 151 at 351:13-18 (Systrom Dep. Tr.). Mr.

Systrom acknowledged that Instagram could not have leveraged Facebook's advertising platform if it had remained independent. *See id.* at 343:1-4. He testified that "with Facebook's help, Instagram was able to monetize faster than it could have done on its own." *Id.* at 351:19-23.

Regarding Meta's improvements to Instagram's infrastructure, Mr. Systrom testified: "Q. Facebook helped with the [Instagram] infrastructure? A. Yes. Q. How? A. They had a handful of experts at systems that came into our team very early on as soon as the deal closed past review that were helpful in thinking about how to architect our systems. . . . Q. During your negotiations with Mr. Zuckerberg, did he tell you that Facebook could help Instagram with its infrastructure? A. Yes." PX6133 at 244:24-245:22 (Systrom Dep. Tr.); *see also id.* at 246:3-12 ("Q. Did you think it was an advantage to Instagram to be able to use Facebook's expertise in scaling rather than have to develop that expertise itself? . . . A. It was really nice to have people who had seen exactly what we were going through before sitting there giving you advice and – and helping. Yeah, that was – that was really nice."). Mr. Systrom also testified regarding Meta's post-acquisition, "They certainly gave us resources that allowed us to thrive, yes." *Id.* at 250:23-24.

Mr. Systrom acknowledged that Meta staffed and employed all of Instagram's employees beyond a handful of employees it had before acquisition, and that Instagram grew to more than 1,000 by the time he left Meta in 2018 – most of whom were engineers. *See id.* at 275:22-276:5. He agreed that "Instagram benefited from the experience that the Facebook employees had who

came over to Instagram with growing a service." *Id.* at 269:6-9. Regarding the growth team, Mr. Systrom confirmed: "Q. . . . So the people on the Instagram Growth team either are people who came over to Instagram from Facebook or people who were hired through the Facebook hiring process? A. That's correct. Q. And, again, those people were employees of Facebook and were paid by Facebook? A. Yes." *Id.* at 291:1-8.

Further disputed that the statement creates a genuine dispute of material fact, including because there is no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

b. Meta considered Facebook to be the "main product" and was unwilling to make tradeoffs in Instagram's favor even if usage or monetization of both apps combined would increase. *See id.* at 54:12-55:3 ("[I]t was very clear through [Mr. Zuckerberg's] actions and very clear through our conversations that we were not willing to make tradeoffs in—in the direction of trying to optimize the overall pie. But there was specifically importance in retaining both usage and monetization on the main original product, which was Facebook Blue.").

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including because the evidence cited does not support the assertion in this subparagraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The cited testimony does not state that anyone at Meta considered Facebook as Meta's "main product," it contains

only Mr. Systrom's description of Facebook as Meta's "main original product." Nor does the cited testimony support the FTC's characterization that Meta was "unwilling to make tradeoffs in Instagram's favor even if usage or monetization of both apps combined would increase." Further disputed because this statement does not give context to Mr. Systrom's testimony regarding how Meta grew Instagram following the acquisition, as stated above in Meta's response to subparagraph 1864(a). Further disputed that the statement creates a genuine dispute of material fact, including because there is no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

c. Mr. Zuckerberg took the position that growth at Instagram should not detract from Facebook usage throughout Mr. Systrom's tenure at Meta. *See id.* at 54:12-18 ("[Q.] Do you know whether Mark Zuckerberg felt that any growth to Instagram should not come at any cost to Facebook Blue? [A.] Through his actions throughout the years, I would say that is generally true.").

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including because the evidence shows that Mr. Zuckerberg supported investing heavily in growth on Instagram, including by "building links into the Facebook App that could lead people to want to install or use Instagram," such that Facebook was "sending a lot of value and growth to the other apps without . . . any notion of . . . balance between" them. Ex. 142 at 125:10-22 (Zuckerberg Dep. Tr.). He believed that arrangement "made

sense for a long time." *Id.* at 125:21-22. According to Mr. Zuckerberg, along with other investments by Meta, Facebook's promotions encouraging Facebook users to use Instagram "encouraged hundreds of millions of people to use Instagram and that [] amount likely compounded over time." Ex. 139 at 344:1-23 (Zuckerberg IH Tr.). Far from limiting Instagram's growth, Facebook's promotions were "increasing Instagram's growth . . . by taking some of the engagement that was going to Facebook and directing it to Instagram instead." Ex. 142 at 167:9-21 (Zuckerberg Dep. Tr.). Mr. Systrom agreed that Facebook's in-app integrations aimed at promoting Instagram were "all elements that, very specifically, had Facebook chosen not to do them, this benefit would not be there." PX6133 at 303:23-25 (Systrom Dep. Tr.).

Mr. Zuckerberg testified extensively about how Meta invested in growing Instagram – in addition to the Facebook promotions. Right after the acquisition closed, Meta allowed Instagram access to "use whatever technical systems at Facebook [they] want to make Instagram better." Ex. 139 at 118:5-6 (Zuckerberg IH Tr.). Instagram immediately "plug[ed] in the spam-defense systems that [Facebook] had built over years," which "completely mitigated" Instagram's spam problem and enabled users to comment and have conversations on the app more freely. *Id.* at 114:22-23; Ex. 142 at 212:2-3 (Zuckerberg Dep. Tr.). Instagram also leveraged Facebook's friend data, which allowed it to rank the users that users would want to follow when a user registered for Instagram, increasing uplift in connections and retentiveness. *See* Ex. 142 at 212:5-10 (Zuckerberg Dep. Tr.).

Meta enabled Instagram to build Instagram Live as well as voice- and video-calling features using technology Meta developed for Facebook Live and Messenger. *See* Ex. 139 at 119:11-17, 119:25-120:4 (Zuckerberg IH Tr.). Based on these and other investments in Instagram's growth and innovation, "Instagram is significantly more successful now that it would have been had it remained an independent company with all the challenges that it had there." *Id.* at 256:7-10; *see also id.* at 274:18-275:12 (testifying that "the result, looking back on [the Instagram acquisition], is that we've been able to offer significantly better services to people across our whole portfolio, and we've been able to take innovations and get them to reach a significantly greater scale than what was likely to have happened otherwise").

Further disputed because this statement does not give context to Mr. Systrom's testimony regarding how Meta grew Instagram following the acquisition, as stated above in Meta's response to subparagraph 1864(a). Further disputed that the statement creates a genuine dispute of material fact, including because there is no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

1865. Meta's unwillingness to accept any growth to Instagram that reduced Facebook's growth—even if the net result was an increase in the usage of both applications combined—was based on Meta's belief that growing Facebook was more important than growing Instagram, and its concerns that Instagram could "cannibalize" user engagement from Facebook. *See* PX2577, Meta document: "2017 Q2 sharing and cannibalization

downturn agenda first meeting" (June 23, 2017), FB_FTC_CID_11293867, at -867 ("[O]f our 5 medium-term bets (WhatsApp, Messenger, Video, Search, and Marketplace), 4 of them are tied to engagement on Facebook. That means that every minute a person spends on Facebook today is considerably more valuable for our future than a minute spent in other apps, [redacted] ."); PX6015, Krieger (Meta/Instagram) IH Tr., at 201:16-202:15 (testifying that Instagram was "on track to a billion" MAUs and that the large scale of Instagram "reraised the [cannibalization] question for leadership of Facebook," and that Meta wanted to know "what happens [to Facebook] when Instagram becomes the dominant way people keep up with their friends in a different country"); *id.* at 205:4-18 (testifying that Mr. Zuckerberg was concerned that "big future bets from Facebook the company were built off of [Facebook] Blue": "Q. So earlier you mentioned one of the questions that the – that was posed during these studies was whether the balance of users and activities should shift back to Facebook from Instagram. Why was that a question? A. According to Mark, the biggest reason was that a lot of the sort of big future bets from Facebook the company were built off of Blue."); *see also* PX9000, Hemphill Report at ¶ 1081.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including because the evidence cited does not support the assertion and because there is no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). None of the cited material suggests that Meta was "unwilling[] to accept any growth to Instagram that reduced

Facebook's growth." On the contrary, the cited document states: "First, it should go without saying that we all want each of our apps to continue growing quickly. Whenever we discuss how one app's growth is causing some issue for another app in some way, the answer is never to stop the other app from growing. I want to be clear that we will always focus on aggressively growing each of our apps." PX2577 at -867 (FB_FTC_CID_11293867). Meta aggressively promoted and invested in other growth efforts on Instagram after the acquisition. *See* Meta SMF ¶¶ 723-728; *see also* Ex. 153 at 395:18-396:13 (Krieger Dep. Tr.) (testifying that Instagram "couldn't have" achieved "the scale that we achieved and the sort of investments we were able to make . . . without the support of Facebook leadership."). Meta grew Instagram from approximately 3.9 million U.S. monthly active users at the time Meta announced the acquisition to more than [redacted] U.S. monthly active users by 2022 and more than [redacted] global monthly active users over the same period. *See* Meta SMF ¶¶ 658, 724; PX9000 at p. C.26 (Hemphill Rep.) (Meta Monthly User Engagement Data that Professor Hemphill used backup material and a source for Ex. C-25). None of the cited materials suggest that Meta believed that growing Facebook was more important than growing Instagram or Meta generally. The cited document is from 2017, five years after the Instagram acquisition, and as the quoted language from the document states, time spent on Facebook was valuable *at the time* because four of Meta's company-wide "medium-term bets" *at the time* were tied to engagement on Facebook. PX2577 at -867 (FB_FTC_CID_11293867) ("The future is what I'm most focused on; not short-term cannibalization."). Mr. Krieger's testimony concurs with this account. *See* PX6015 at 204:1-3, 205:4-21 (Krieger IH Tr.) (testifying that around 2017-2018, "a lot of the sort of

big future bets from Facebook the company were built off of Blue," including Facebook Watch, Facebook Marketplace, Facebook Groups, and Oculus "[t]o some degree," so Facebook "wanted to, given the importance of those bets, make sure that Facebook Blue was – was as healthy as possible").

Further disputed because the FTC's quotation of Mr. Krieger's testimony is incomplete. Mr. Krieger testified that new engineers Meta hired immediately following the acquisition grew Instagram by building new features like photo tagging, growth-specific features like push notifications and new registration flows, and by fixing infrastructure problems. *See id.* at 173:4-24. He also testified that during the two years following the Meta acquisition, Meta enabled Instagram to start a growth team for the first time that took "a look at how people were signing up for Instagram and making that flow easier for people, understanding how push notifications could be better used to help people . . . general bucket of growth work that we hadn't really done before that we spun up as we grew the team." *Id.* at 171:5-15.

Post-2014, Instagram's growth team used Meta's resources and "added some machine learning capabilities, and that was primarily useful for helping connect new Instagram users to who they should follow," making more useful recommendations for whom users should follow. *Id.* at 175:14-17. Mr. Krieger described this change as "impactful," it "helped a lot on the retention side of things." *Id.* at 175:25, 176:13-14. Mr. Krieger testified about how being a part of Meta facilitated different Instagram product initiatives, like IGTV. *See* Ex. 153 at 377:20-378:6 (Krieger Dep. Tr.) (testifying that Instagram leveraged Facebook's video stack to support IGTV because Facebook had "made a bigger investment in video").

Asked whether Instagram could have received similar growth between 2014 and 2018 without Facebook, Mr. Krieger testified that it would be "really hard to speculate on the relative amount . . . we would have had to do it differently. . . . [E]specially as we integrated more deeply with Facebook, a lot of the collaborations happened between our growth team and Facebook's growth team, you know, the bookmark as an example, and a few of these other things. Those would, of course, not have been available to us had we remained independent. . . . [W]e would have to develop our own strategies. And I don't know how successful they would have been." PX6015 at 177:3-19 (Krieger IH Tr.).

Mr. Krieger testified extensively about how Meta's infrastructure expertise and resources helped Instagram's performance. He testified that, "going into 2012, as [Instagram] started getting into 5, 10, 20 million users, we were constantly hit with new infrastructure challenges." *Id.* at 127:19-22. Mr. Krieger testified that Instagram's struggle to manage its infrastructure problems pre-acquisition contributed to why he and Mr. Systrom agreed to the acquisition. *See id.* at 158:20-159:17 ("[W]e had talked recently about the infrastructure challenges. Like, it had been difficult last time since launch till then in terms of the scaling the infrastructure or trying to hire the team. So I think we were both pretty underwater on that. And so getting to partner with Facebook, they had a much larger infrastructure and a much more built-out team, was appealing. And I had a ton of respect for their engineering team already at the time. . . . [W]e were so underwater from an engineering perspective that having assistance was very appealing."). And Mr. Krieger testified that Instagram's performance stabilized and improved after the acquisition by moving onto Meta's infrastructure and leveraging Facebook's expertise. *See id.* at 173:20-24; *see also* Meta SMF ¶¶ 756, 761.

Mr. Krieger also testified that Meta's spam-fighting systems, which Instagram leveraged upon joining Meta, were "among the most advanced" in the industry. Ex. 153 at 254:23-255:4 (Krieger Dep. Tr.). He testified that, compared to Instagram, the Meta antispam program was "radically more sophisticated on the Facebook side . . . their systems used better pattern recognition, machine learning, clustering of behaviors so that if, you know, a bunch of suspicious-looking things all came from the same place, that probably means that place is – or, you know, that machine is compromised, like, just a whole host of improved technology." PX6015 at 233:20-234:7 (Krieger IH Tr.).

1866. In 2018, Meta feared that Instagram was "cannibalizing" user engagement from Facebook, and undertook an assessment that concluded that [redacted]. PX9000, Hemphill Report at ¶ 1084, n. 2047.

<u>Meta Response</u>: Disputed in part. Undisputed that Meta evaluated how the impact of growth in usage on Instagram affected usage of Facebook and made the above-reported finding. Disputed that the cited document supports the statement regarding what Meta "feared." Meta is a corporate entity, and the assertion that it "feared" the growth of its own app – which it had grown by investing billions and establishing numerous growth measures, *see* Meta SMF ¶¶ 723-738 – does not create a genuine dispute of material fact. Between 2018 and 2022, Meta grew Instagram from over [redacted] U.S. monthly active users to more than [redacted] U.S. monthly active users. *See* PX9000 at p. C.26, Ex. C-25 (Hemphill Rep.). Meta released multiple new features on Instagram since 2018, contributing to its growth, including Reels, long-form video through IGTV, video chat, voice messaging, curated distribution lists for Stories, the ability to watch videos jointly

with other users ("Watch Together"), group livestreaming, visual themes for chats on Instagram Direct, message effects, and custom emoji reactions. *See* Meta SMF ¶¶ 741, 743-745; Ex. 2 at 253, tbl. 33 (Carlton Rep.). In February 2023, Reels accounted for [redacted] of U.S. time spent on Instagram. *See id.* at ¶ 746 (citing Ex. 2 at p. 79, fig. 4 (Carlton Rep.)). By April 2024, Reels made up about 50% of global time spent on Instagram. *See* Ex. 499 at 4 (Meta Q1 2024 Earnings Call). Meta launched Reels on Instagram before it did so on Facebook. *See* Meta SMF ¶ 745. Professor Hemphill admitted that Meta's addition of Reels to Instagram was a "quality improvement" and "innovation" which he "agree[d] serves to, to some degree, improve the personal social networking offering for all users." *Id.* at ¶ 127 (quoting Ex. 283 at 229:17-19, 231:10-232:4, 263:17-264:4 (Hemphill Dep. Tr.)). Disputed that the statement creates a genuine dispute of material fact, including because there is no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See id.* at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

1867. In response to concerns about cannibalization, Meta took actions to remove certain integrations it believed were benefiting Instagram's growth, even without specific evidence that the integrations had an effect on Facebook.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. The documents cited below in fact show that Meta had data confirming the measures it took were beneficial to overall output and user engagement. *See*, *e.g.*, PX15237 at -002 (FB_FTC_CID_02616285) (addressing a measure Meta might take because the status quo showed a negative effect on "Teen OBP," or original broadcast

production, of "-838K/day"); Ex. 160 at 110:9-111:21, 162:25-163:14 & errata (Olivan Dep. Tr.) (testifying that the analytics team's research showed that "[t]he promotions were a slight lose for Blue, a big win for Instagram, and a big – and a win overall"); PX15129 at -409 (FB_FTC_CID_10958409) ("The Facebook app has historically driven most of Instagram's growth [redacted]"). Disputed that the statement creates a genuine dispute of material fact, including because there is no evidence that Instagram would have achieved as much growth – let alone greater growth – in a but-for world without the acquisition. *See* Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

a. On May 4, 2018, Mr. Schultz reported the results of certain "holdout" experiments in which Meta tested the effect of removing certain promotions for Instagram. PX12102, Meta email chain: A. Schultz to M. Zuckerberg, et al. re: "Follow up re: cannibalization," (May 5, 2018), FB_FTC_CID_05996506, at -508-09. According to Mr. Schultz, "the **overall holdout** on all promotions and notifications has reduced IG MAP by ~3%," but it showed "no benefit across FB critical metrics in the overall holdout except an increase in teen OBP." *Id.* at -508. Mr. Schultz continued that "[b]ased on the data," turning off "invite notifications" for Instagram "is just a gesture, not really something helping FB in any meaningful way and will probably do more relationship harm than real benefit." *Id.* at -509. And in Mr. Schultz's conclusion, he noted that "[e]ven if IG cannibalizes facebook every study we have ever done shows that it's **incremental to total family time**." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except the statement omits the phrase "cross team" and adds the word "ever." PX12102 at -509 (FB_FTC_CID_05996506). Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1865-1866. Further disputed because the statement in this subparagraph omits context from the quoted email discussion. The conclusion of Mr. Olivan – writing in response to Mr. Zuckerberg's feedback on the above-quoted findings – is that Mr. Zuckerberg was "right" that the data "does not account for network effects," meaning whether implementing a specific action is net beneficial to overall output and user engagement (or not) turns on "crystal ball[] type arguments." PX12102 at -506 (FB_FTC_CID_05996506).

b. On May 16, 2018, Mr. Systrom wrote to Adam Mosseri—Head of Product for Instagram, PX6078, Mosseri (Meta) Dep. Tr., at 8:16-25—about "[b]ig product areas to track" describing the "all-too-familiar refrain of IG is hurting FB," noting that Mr. Zuckerberg "is proposing cutting all integration from FB to IG which would be bad for growth, morale, etc." PX3373, Meta email chain: K. Systrom to Adam Mosseri, et al. re: "Big product areas to track together," (May 17, 2018), FB_FTC_CID_02845756, at -756.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1865 and 1866. Further disputed because the statement omits the

context that Mr. Systrom provided in sworn testimony regarding Meta's efforts to grow Instagram, for the reasons stated above in Meta's response to subparagraph 1864(a). Further disputed because there is no evidence that Meta cut all integrations from Facebook to Instagram (this never happened).

Mr. Mosseri testified about the ways in which Meta grew Instagram after the acquisition, including since October 2018, when he became head of Instagram. *See* PX6078 at 61:13-18 (Mosseri Dep. Tr.). For example, Instagram relied heavily on data being shared from Meta for follow recommendations, which "help[ed] people actually find people that they were interested in following," leading to a "critical mass of connections over time." *Id.* at 268:8-16. For new product features, Mr. Mosseri testified that "Stories has grown a lot" and "overall time on Instagram or overall engagement grew." *Id.* at 299:5-19. He also testified about the success of Reels – which Meta added to Instagram in 2020 – [redacted] Ex. 143 at 132:2-11, 252:5-10 & errata (Mosseri Dep. Tr.).

c. On June 13, 2018, then head of growth Javi Olivan, "outlined all the ways in which Instagram and Facebook were deeply integrated, the relative benefits and cost to each party," in a chart. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 133:20-134:8 (discussing PX15237). The relevant chart estimated that these integrations with Facebook accounted for "14% of IG net MAP growth," but were "neutral" for Facebook "glo[b]al & US DAP." PX15237 at -002, Meta email

chain: K. Systrom to A. Mosseri, "table with integrations / impact," (June 15, 2018), FB_FTC_CID_02616285; *see also* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 153:4-12 (indicating relevant language is "global," not "gloal").

Meta Response: Disputed in part. Undisputed that the cited materials contain the referenced information. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866. Further disputed because this statement's quotation of the cited document is incomplete. The chart states that the integrations overall had a "neutral" effect on Facebook's daily active users, but a negative effect on "Teen OBP" of "-838K/day." PX15237 at -002 (FB_FTC_CID_02616285). Mr. Systrom explained that "OBP" stands for "original broadcast production," so the output of content. PX6133 at 153:19-23 (Systrom Dep. Tr.) ("[O]riginal broadcast production, I believe, was the term. So basically sharing. That it would drive teen sharing down.").

d. On June 29, 2018, in response to "engagement issues on [Facebook]," Meta decided to "turn[] off" promotions for Instagram including "Entry Points," "Notifications," and "Netego Ads." PX2352, Meta email chain: J. Olivan to K. Systrom, et al. re: "Follow up from meeting today / next steps," (June 30, 2018), FB_FTC_CID_03904781, at -781; *compare id.*, *with* PX15237 at -002, Meta email chain: K. Systrom to A. Mosseri re: "table with integrations / impact," (June, 15, 2018), FB_FTC_CID_02616285, at -285_0001 (noting "impact" of promotions: "Entry Point" ("IG: +7.7M MAP/year, +3.3M DAP/year," "FB: Neutral"), "Notifications" ("IG: +13.1M MAP/year, +7M DAP/year," "FB:

neutral"), and "Netego" ("+7.5M MAP/year, +3M DAP/year," "FB: neutral")); *see also* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 141:24-142:7 (noting "FB: Neutral" in PX15237 indicates "there was no cost or benefit to Facebook measurable of having that bookmark within Facebook.").

Meta Response: Disputed in part. Undisputed that the materials contain the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866. Further disputed because the FTC's quotation of the document is incomplete and misleading. Meta decided that "[g]iven engagement issues on FB," it would "stop using FB real [e]state to drive non-FB engagement," which meant that it would "turn[] off" certain promotions for Instagram that appeared within the Facebook app. PX2352 at -781 (FB_FTC_CID_03904781); Ex. 160 at 143:9-13 (Olivan Dep. Tr.) ("[I]t means surface inside the app, real estate inside the app."). There is no evidence that Meta stopped promoting Instagram generally (this never happened).

e. In July 2018, Meta stopped attributing content that was cross-posted to Facebook via the Instagram app with a link back to Instagram. PX1594, Meta email chain: M. Zuckerberg to A. Schultz re: "IG links in FB," (July 16, 2018), FB_FTC_CID_05935412, at -412 (Mr. Zuckerberg responding to a report that "we have shutoff attribution for feed-sharing with a holdout to measure impact" with "Why do we have to keep 4% on a backtest? This isn't a test – it's a policy decision. I'd ramp this to 100%"). Meta did this despite its own analysis showing that the cross-posting benefited Instagram and had no negative impact on

Facebook. PX15237 at -002, Meta email chain: K. Systrom to A. Mosseri re: "table with integrations / impact," (June, 15, 2018), FB_FTC_CID_02616285 (listing "impact" of "Cross-Posting" in "feed" at "+5.9M MAP/year, +7M DAP/year (just from attribution link and bar CTA holdouts . . .)" and "FB: neutral").

Meta Response: Disputed in part. Undisputed that in July 2018, Meta decided temporarily to stop showing attribution links to Instagram for Instagram content cross-posted to Facebook. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866. Further disputed because this statement omits the context of the cited document, which confirms that Mr. Zuckerberg supported removing attribution links for all cross-posted content within Meta's apps to boost overall output, engagement, and the quality of the user experience. *See* PX1594 at -413 (FB_FTC_CID_05935412) (stating "I don't think we should include attribution for cross-posting in our other apps either," and "all of our products will be cleaner and feel better if we don't include attribution stating where the content came from within our family"). Further disputed that Meta's analyses showed cross-posting had no negative impact on Facebook as unsupported by the cited evidence; the cited document does not purport to show all impacts of the listed integrations on Facebook and Instagram.

f. Mr. Systrom testified that ultimately Meta removed all integrations except "data" (which noted "n/a (hard to measure; huge impact much of which can be regained by working on contact importing . . .)" under the "impact" column). PX6133,

Systrom (Meta/Instagram) Dep. Tr., at 154:10-156:6 (describing outcome of integrations listed in PX15237); *see also* PX6027, Systrom (Meta/Instagram) IH Tr., at 262:22-265:6; PX15237 at -002, Meta email chain: K. Systrom to A. Mosseri re: "table with integrations / impact," (June, 15, 2018), FB_FTC_CID_02616285.

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866 and because the evidence cited does not support the assertion in this subparagraph. Mr. Systrom only testified regarding the integrations listed in the referenced document, PX15237, not all integrations between Facebook and Instagram. There is no evidence that Meta ended all integrations between Facebook and Instagram (this did not happen). For example, of the listed integrations, Mr. Systrom expressly testified that Instagram users could still cross-post content to Facebook. *See* PX6133 at 154:10-155:25 (Systrom Dep. Tr.) (testifying that "Instagram would continue sharing content into Facebook Feed"). Mr. Systrom acknowledged that the integrations enumerated in PX15237 were "all elements" Meta had chosen to offer to Instagram following the acquisition that otherwise "would not be there." *Id.* at 297:21, 303:23-25 (Systrom Dep. Tr.). And while Mr. Systrom testified that he thinks removing some integrations might have caused "Instagram growth [to] stutter[] . . . for a short amount of time, it continued to grow and today, is much larger than it was when [he] left [Instagram]." Ex. 284 at 245:5-11 (Systrom IH Tr.). Further disputed because this statement omits the context of

Mr. Systrom's testimony regarding Meta's efforts to grow Instagram following the acquisition, for the reasons stated above in Meta's response to the statement in paragraph 1864(a).

1868. Meta's actions to protect Facebook at Instagram's expense slowed the growth of Instagram. PX9000, Hemphill Report at ¶¶ 1087-95; PX2145, Meta email chain: M. Krieger to [redacted] re: "Instagram HPM 7/23," (July 24, 2018), PX2145, FB_FTC_CID_02597521, at -521 ("Instagram's growth has slowed dramatically during the first week after turning off all IG promotions and ads in FB[.] Globally, net growth has declined from [redacted] per day . . . .").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866. Disputed that the cited statistics are relevant to growth within the United States, the FTC's alleged relevant geographic market. Further disputed because this statement does not account for measures Meta implemented subsequent to 2018, including investing to release Reels (before releasing Reels on Facebook), which has contributed substantial growth to Instagram. Indeed, Mr. Systrom testified that Instagram "continued to grow" and "is much larger than it was when [he] left" Instagram in 2018. Ex. 284 at 237:19-20, 245:10-11 (Systrom IH Tr.).

1869. Concerns about cannibalization also led Meta to take steps to differentiate Instagram's social graph from Facebook's. PX11095, Meta email: J. Olivan to M. Zuckerberg, et al. re: "Follow up from meeting today / next steps," (June 29, 2018), FB_FTC_CID_05989266, at -269 (Olivan to Zuckerberg, Systrom, Krieger, and Cox: "Hey guys, Quick recap of what we spoke today / next steps on each of the areas we

discussed: Given engagement issues on FB . . . ." Zuckerberg responded in part, "I strongly hope and expect we will find a solution that addresses differentiation" and warned that "I do want to clarify that it is not a foregone conclusion that it will always continue to make sense to use FB connection data if we do not also make meaningful changes to how we use it to make graph recommendations on Instagram.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866. Disputed that supposed "graph differentiation" presents a material issue relevant to either party's motion; there is no evidence that claimed product differentiation harmed Instagram. Mr. Mosseri – head of Instagram – testified that Meta implemented measures for its overall business "to be stronger" and that differentiation is helpful. Ex. 143 at 263:6-21 (Mosseri Dep. Tr.). Specifically, he testified regarding the Facebook and Instagram graphs: "[M]y honest take is people were overly focused on this. It wasn't going to be as helpful or as problematic in either extreme as people thought, which ended up playing out to be the case." *Id.* at 266:10-15. Mr. Mosseri also explained that, as a result of Meta's conduct, Instagram "ended up being better off for it, it sort of taught us all to fish, so to speak, but two of the apps differentiate more, which means you've got a more compelling and more diverse set of product offerings for the market." *Id.* at 267:11-16. Further disputed because the statement omits context; Mr. Zuckerberg wrote that he had a "deep belief that we will provide a better experience and more value for people if we offer more differentiated services rather than having our services increasingly converge. That's why we need to optimize not solely for ramping people up as quickly as possible, but also for making sure that what we've ramped them

up onto provides as much unique and different value as possible." PX11095 at -269 (FB_FTC_CID_05989266).

1870. This differentiation meant that Instagram was to focus on "Close Friends and Interests" while Facebook would include "Everyone You Know" including close friends. In other words, all of a user's friends would be part of their Facebook social graph but only close friends would be part of their Instagram social graph. PX1017 at -006, Meta presentation: "Family Product Differentiation Through Graph Positioning" (Sept. 4, 2018), FB_FTC_CID_02620006 ("We want to adopt goals for FB and IG growth to help achieve better differentiation."); PX3421, Meta document: "H1 2019 Instagram Product Strategy," (undated), FTC-META-000206907, at -009; PX3420, Meta email chain: [redacted] to A. Mosseri, et al. re: "Facebook Data and Instagram," (Apr. 1, 2019), FB_FTC_CID_02858967, at -969.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866 and 1869.

1871. Meta wanted to differentiate Facebook's and Instagram's social graphs because "Mark [Zuckerberg's] feeling was that the apps would be more compelling as a set if they were more differentiated . . . so there were a number of different efforts to differentiate more, including graph differentiation." PX6078, Mosseri (Meta) Dep. Tr., at 262:25-263:21; *see also* PX3375, Meta email chain: [redacted] to [redacted], et al. re: "Next steps meeting on social graph differentiation," (Oct. 5, 2018), FB_FTC_CID_02641825, at -840 ("Mark asked Alex Schultz and Adam Mosseri to look into social graph overlap between FB and IG about three weeks ago . . . in particular he is worried that there is too

much convergence between the friends graphs on FB and IG."); *id.* at -840 (noting "Mark [Zuckerberg] agreed with the framing that IG should focus on 'Close Friends and Interests' while FB should be 'Everyone You Know.'").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866 and 1869.

1872. As part of the effort to achieve this differentiation, Meta [redacted]. PX6015, Krieger (Meta/Instagram) IH Tr., at 209:17-210:23; *see also* PX6078, Mosseri (Meta) Dep. Tr., at 269:7-270:10.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866 and 1869.

1873. Meta's leadership team expected that limiting Instagram's social graph in this way would slow Instagram's growth. However, Mr. Zuckerberg concluded that on Instagram "we should be willing to accept some measure of tradeoff against growth/ramping people up as quickly as possible to achieve" increased social-graph differentiation. PX11095, Meta email: J. Olivan to M. Zuckerberg, et al. re: "Follow up from meeting today / next steps," (June 29, 2018), FB_FTC_CID_05989266, at -269; PX6078, Mosseri (Meta) Dep. Tr., at 266:24-267:6 (Testifying that the reduced sharing of social graph data with Instagram

"probably" made Instagram "less interesting in the short run" because it had "less information to work with.").

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to the statements in paragraphs 1865-1866 and 1869. The material cited does not support the assertion that anyone on Meta's leadership team expected limiting Instagram's access to the Facebook coefficient data to slow growth on Instagram. The FTC's quotation from Mr. Mosseri's testimony is incomplete and misleading, for the reasons stated above in Meta's response to the statement in paragraph 1869, and because Mr. Mosseri testified in his full answer that "the tension here is between short-term and long-term" while the FTC quotes only his answer concerning effects "in the short run." PX6078 at 267:16-268:23 (Mosseri Dep. Tr.). Mr. Mosseri further testified that these measures at issue benefited Instagram "[i]n the long run" because they caused Instagram – as part of Meta – to build its own new-user recommendation systems, "end[ing] up with a more vibrant set of recommendations" to new users that ultimately caused Instagram to "grow[] really, really quickly, particularly in about a year after" the changes. *Id.* at 267:24-268:23.

c) The acquisition raised barriers to entry in personal social networking services.

1874. The acquisition eliminated the ability of another acquirer such as Google, Twitter, or Apple to use Instagram as a foothold to enter into personal social networking services.

Meta Response: Disputed. This paragraph cites no evidence to support its claim, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore fails to create a genuine dispute of material fact.

1875. Meta feared that another company such as Google, Twitter, or Apple could acquire Instagram as a way to enter the personal social networking services market. *See supra* CMF at § III.B.1(e).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.B.1(e), Meta incorporates its responses to those statements here.

1876. In a 2012 discussion regarding whether Meta should acquire Instagram, Meta employee [redacted] opined to Mark Zuckerberg: "I think Instagram might end up being more compelling than Foursquare from a defense perspective because of the potential for someone like Apple to use them as a foothold." PX1202, Meta messages: [redacted] to M. Zuckerberg (Apr. 5, 2012), FB_FTC_CID_06290875, at -875.

Meta Response: Undisputed that the document contains the quoted language.

1877. The Instagram acquisition creates a competitive moat that insulates Meta from competition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. The evidence cited in the subparagraphs does not support the assertion. The evidence shows that new firms entered following the Instagram acquisition. *See* Meta SMF ¶ 729.

a. Meta saw its acquisition and operation of Instagram as means to protect Meta from the rise of new competition. *See* PX9000, Hemphill Report at ¶ 1082.

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact. The evidence cited – the opinion of an expert who cannot testify to Meta's intentions – does not support the assertion in this subparagraph. Meta identified Instagram as a promising, mobile-first app that it could help (and did) grow into a much larger, more successful business. *See* Meta SMF ¶¶ 695, 698. Further disputed because pre-acquisition intent is not material to the resolution of the pending motions, which turn on effects.

b. Mr. Zuckerberg stated in February of 2012 that Meta should:

> keep their [Instagram's] product running and just not add more features to it, and focus future developments on our products, including building all of their camera features into ours. By not killing their products we prevent everyone from hating us and we make sure we don't immediately create a hole in the market for someone else to fill, but all future development would go towards our core products. Over time we might build Instagram features that encourage people to link to FB and push more of their activity through OG, but I'm not sure we'd have to prioritize that super highly as part of an acquisition plan.

PX2888, Meta message board post: M. Zuckerberg post to [redacted] (Feb. 11, 2012), FB_FTC_CID_12302559, at -559.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because pre-acquisition intent is not material to the resolution of the pending motions, which turn on effects.

c. Before the acquisition, Meta recognized the risk that "killing" Instagram through underinvestment might "open up a window for a new entrant." PX3352, Meta email chain: M. Schroepfer to M. Zuckerberg re: "HSR for Iris," (Mar. 9, 2012), FB_FTC_CID_12302498, at -503 (discussing the potential acquisition of Instagram, Mr. Schroepfer told Mr. Zuckerberg "the biggest risk imho is that we

either quickly or slowly kill instagram but [sic] not investing in i[t] – and open up a window for a new entrant.")

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because pre-acquisition intent is not material to the resolution of the pending motions, which turn on effects.

d. Mr. Zuckerberg planned to "just keep [Instagram] running. Insurance." PX3352 Meta email chain: M. Schroepfer to M. Zuckerberg re: "HSR for Iris," (Mar. 9, 2012), FB_FTC_CID_12302498, at -504.

Meta Response: Disputed. Disputed because pre-acquisition intent is not material to the resolution of the pending motions, which turn on effects. Further disputed because this statement omits that Mr. Zuckerberg expressly wrote, in the quoted document on the quoted page, "By insurance I don't mean starve it. Just let it run relatively independently." PX3352 at -504 (FB_FTC_CID_12302498).

1878. Other Meta executives recognized the use of Instagram as a competitive moat for Meta as well. *See* PX11727, Meta email chain: R. Armbrust to P. Deng, et al. re: "Photo partner update 4/23," (Apr. 23, 2012), FB_FTC_CID_02534601, at -601 ("As some of you know, we heard this week that Camera+ is acquisition target for Twitter and Google. They are #2 photo app in iOS with 8M paid users. Hipstamatic is considered another top iOS app (4M paid users) also went silent last week which could indicate they are in acquisition discussions. Either acquisition is not a huge concern for us: (1) Both are much smaller and don't have strong interest graph. They are mainly used as photo editing apps. (2) The Android photo apps ecosystem is much larger and should be our platform focus. (3) Camera+ and Hipstamatic don't have any knowledge of our plans in photos beyond

standard developer/platform messaging we have been using (4) Instagram is clear winner on iOS and would difficult to compete with at this point . . . .").

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1877, and because pre-acquisition intent is not material to the resolution of the pending motions, which turn on effects. Further disputed because the cited document does not refer to a "competitive moat." Further disputed to the extent the above statement omits that the cited document references five different photo-based sharing apps, all with at least "4M users," *see* PX11727 at -601 (FB_FTC_CID_02534601), which is more than the number of active U.S. users Instagram had before Meta announced the acquisition (3.9 million), *see* Meta SMF ¶ 658 (citing Ex 279 at p. 238, Ex. 42 (Hemphill Rep.)).

i. On April 10, 2012, the day after the Instagram acquisition was announced, [redacted], Director of Production Engineering at Meta, noted that Instagram was "generating nearly 4x's the photos/user . . . as we are on iOS – that is actually pretty scary when you think about how important photos are to the social and mobile experience ," and emphasized the "defensive value" of preventing "any competitors from gaining this traction." PX1208, Meta message board post: A. Bosworth post to [redacted], (Apr. 10, 2012), FB_FTC_CID_01540471, at -471.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a

genuine dispute of material fact, including because it is irrelevant to the actual effects of the acquisition for the reasons stated above in Meta's response to the statement in paragraph 1877.

1879. The Instagram acquisition served to build Meta a "competitive moat" because "Instagram's presence in the market has . . . deterred other firms from fresh entry by limiting their ability to benefit from the direct network effects associated with mobile photo sharing." PX9000, Hemphill Report at ¶¶ 1104-05.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to the statement in paragraph 1877.

1880. Mr. Zuckerberg explicitly considered the barrier to entry provided by Instagram's network effects when discussing Meta's potential acquisition of Instagram. *See* PX2822, Meta messages: M. Zuckerberg to D. Ebersman (Feb. 28, 2012), FB_FTC_CID_03694681, at 681-82 ("One thing that may make (1) [neutralizing a potential competitor] more reasonable here is that there are network effects around social products and a finite number of different social mechanics to invent. Once someone wins at a specific mechanic, it's difficult for others to supplant them without doing something different. It's possible someone beats Instagram by building something that is better to the point that they get network migration, but this is harder as long as Instagram keeps running as a product.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1877 and 1877(a). Further disputed because the FTC omits context from the cited document. Mr. Zuckerberg wrote, after what the above statement quotes, "Above, I didn't mean to imply that we'd be buying them to prevent them from

competing with us in any way. Buying them would give us the people and time to incorporate their innovations into our core products, which is how we'd do the integration rather than actually combining the products. I'm mostly excited about what the companies could do together if we worked to build what they've invented into more people's experiences." PX2822 at -682 (FB_FTC_CID_03694681). He testified that this message conveyed "[Meta] thought [it] would be useful and put our weight behind growing them and making them better than we thought that they could be independently." Ex. 139 at 256:1-4 (Zuckerberg IH Tr.).

2. Acquiring WhatsApp Prevented it from Competing Head-to-Head in Personal Social Networking Services and Provides a Competitive Moat for Meta.

a) The acquisition prevented WhatsApp from competing with Meta's personal social networking services directly as a standalone company or as part of a potential acquirer.

1881. "The threat posed by WhatsApp was particularly important, in part, due to the rareness of new and effective competitive challenges" given that "the entry barriers protecting Meta's dominance in personal social networking services are substantial and enduring." PX9000, Hemphill Report at ¶ 1097.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The cited paragraph in Professor Hemphill's report does not cite any evidence to support the quoted language, whereas extensive record evidence refutes the statement. The statement cites no evidence showing that WhatsApp was particularly important to Meta in the relevant geographic market. On the contrary, at the time of the acquisition, WhatsApp had penetrated [redacted] of the U.S. market. *See* Meta SMF ¶ 778 (citing Ex. 138 at -035 (PX10279, [redacted])). The statement cites no evidence that new and effective competitive challenges to Meta are rare, that there are entry barriers in

the FTC's PSNS market, or that any such entry barriers are substantial and enduring. Rather, the record shows numerous instances of new and effective entry by Meta's competitors, including MeWe, Snapchat, TikTok, and [redacted]. *See* Meta SMF ¶¶ 729(a), [redacted], 486, 205, 207, [redacted]. The statement cites no evidence that Meta has dominance in the FTC's personal social networking services market. Rather, the record refutes that Meta has market power and that the alleged PSNS market exists. *See*, *e.g.*, Meta SMF ¶¶ 156-326 (discussing competition with YouTube, TikTok, and Twitter), ¶¶ 533-566 (Meta experts' empirical substitution data), ¶¶ 729-732 (significant entry and increased output).

1882. "It was a viable and proven strategy to jumpstart a social network with the network of connections in a successful messaging app. WhatsApp had the network scale in messaging to help it overcome the network-effects barrier to entry facing other applications when trying to enter or expand into PSN services." PX9000, Hemphill Report at ¶ 1097.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The cited paragraph does not cite or provide a single example of a messaging app "jumpstart[ing]" a successful social network in a geographic market where the app had low penetration. At the time of Meta's acquisition, WhatsApp had penetrated [redacted] of the U.S. market. *See* Meta SMF ¶ 778 (citing Ex. 138 at -035 (PX10279, [redacted])). The cited paragraph in Professor Hemphill's report does not cite any evidence that supports his assertion that any network effects existed "to enter or expand into PSN services," or that WhatsApp needed to or "had the network scale" to overcome any such effects "to enter or expand into PSN services." On the contrary,

Professor Hemphill testified: "Q. And you've not offered an opinion as to when WhatsApp would have become a PSN in the but-for world, correct? . . . A. That's – that's – that's correct." Meta SMF ¶ 799 (quoting Ex. 283 at 283:8-12 (Hemphill Dep. Tr.)). WhatsApp had no intention of adding features to become more like Facebook. *See id.* at ¶¶ 787-795.

1883. "[T]he 'risk' of successful competition is an important threat to Meta (and an important source of benefit to consumers), even if the probability of realization is modest. Even a small probability, applied to a large impact if the probability is realized is large in expected value." PX9007, Hemphill Rebuttal Report at ¶ 691.

Meta Response: Disputed. Disputed that the risk of successful competition is "important" given that there is no evidence that Meta has significant market power in any relevant market alleged by the FTC. *See*, *e.g.*, Meta SMF ¶¶ 156-326 (discussing competition with YouTube, TikTok, and Twitter), ¶¶ 533-566 (Meta experts' empirical substitution data), ¶¶ 729-732 (significant entry and increased output).

1884. By acquiring WhatsApp, Meta prevented WhatsApp from pivoting into personal social networking services, on its own or in the hands of another acquirer, and delivering the benefit of additional personal social networking competition. *See supra* CMF at §§ III.C.2(a)-(b), III.C.3; PX9000, Hemphill Report at ¶¶ 1096-1100.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Professor Hemphill testified: "Q. And you've not offered an opinion as to when WhatsApp would have become a PSN in the but-for world, correct? . . . A. That's – that's – that's correct." Meta SMF ¶ 799 (quoting Ex. 283 at 283:8-12 (Hemphill Dep. Tr.)). And the evidence cited in the

paragraph and the subparagraphs does not support the assertion that Meta "prevented WhatsApp from pivoting into personal social networking services," that WhatsApp planned to pivot to "personal social networking services" on its own, or that another potential acquirer had any interest in purchasing WhatsApp to turn it into a "personal social networking service[]." On the contrary, pre-acquisition WhatsApp had no intention of focusing on attracting more U.S. consumers or becoming more like Facebook. *See id.* at ¶¶ 778-781 (U.S. growth), ¶¶ 785-795 (feature pivot). And there is no evidence that there was any firm with a concrete plan to acquire WhatsApp and turn it into a personal social network, or would have been successful had it wanted to do so. *Id.* at ¶¶ 807-811. To the extent the statement incorporates the FTC's statements in Sections III.C.2(a)-(b) and III.C.3, Meta incorporates its responses to those statements here.

a. Meta's acquisition of WhatsApp eliminated the need for a standalone WhatsApp to monetize, and with it pressure to add personal social networking features.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The evidence cited in the subparagraphs does not support the assertion that WhatsApp was under any pressure to add "personal social networking features" as a standalone app. And in contrast to the FTC's unsupported assertion about the "pressure" to add "personal social networking features," the record makes clear that WhatsApp had no intention of adding them. *See* Meta SMF ¶¶ 787-795.

i. Prior to Meta's acquisition of WhatsApp, WhatsApp needed a viable monetization approach. *See supra* CMF at § III.C.2(a)(4).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.C.2(a)(4), Meta incorporates its responses to those statements here.

ii. Mr. Koum testified that if Meta had not acquired WhatsApp, then WhatsApp "would need to find a monetization strategy for [WhatsApp] to be successful long-term." PX6010, Koum (Meta/WhatsApp) IH Tr., at 168:17-22.

Meta Response: Undisputed that the document contains the quoted testimony.

b. Meta acquired WhatsApp in part to prevent a potential acquirer like Google, Tencent, Microsoft, or Yahoo from using WhatsApp to enter the personal social networking services market. *See supra* CMF at § III.C.2(b)(4).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.C.2(b)(4), Meta incorporates its responses to those statements here.

c. Any acquisition of WhatsApp would give the acquirer the ability to use WhatsApp to enter the personal social networking services market.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The evidence cited in the subparagraphs does not support the assertion that "[a]ny acquisition of

WhatsApp would give" another "acquirer the ability to use WhatsApp to enter" an alleged PSNS market.

i. Mr. Koum testified: "[I]f we were acquired they would have a full right to shut down and turn off the switch on the computer the day after the acquisition and shut down WhatsApp. That's what happens once you acquire an asset; you get to do what you wish." PX6010, Koum (Meta/WhatsApp) IH Tr., at 152:20-25.

Meta Response: Disputed in part. Undisputed that Mr. Koum provided the quoted testimony. Disputed that the quoted testimony supports the assertion above regarding another firm's ability to use WhatsApp to enter an alleged "PSNS" market. Further disputed because the quoted testimony is incomplete and misleading. Mr. Koum gave the quoted testimony in response to a question about what he thought "would happen" after Meta – not another firm – acquired WhatsApp. *See* PX6010 at 152:11-25 (Koum IH Tr.). Immediately after Mr. Koum's response above, he testified: "So I'm sure [Meta] wouldn't turn off the WhatsApp network and then flush 19 billion down the drain." *Id.* at 153:1-3. The cited testimony says nothing about another firm's ability to use WhatsApp to enter an alleged "PSNS" market.

ii. Morgan Stanley's WhatsApp positioning deck notes that most of the potential acquirers would be able to "determine the social network winner on mobile" by acquiring WhatsApp. *See* PX10227, Morgan Stanley presentation: "WhatsApp Overview January 2014" (Jan. 29, 2014),

MS_FTCMETA-00001557, at -558-605 (discussing WhatsApp's "Strategic Fit" with each company).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the cited material does not support the assertion in subparagraph 1884(c). The cited material, a "positioning presentation," describes one of WhatsApp's "[k]ey [v]alue [p]roposition[s]" as a "[s]imple," "[n]o-frills core communication utility." PX10227 at -563 (MS_FTCMETA-00001557). The cited material does not identify any potential acquirer's actual "ability to use WhatsApp to enter" an alleged PSNS market. Rather, the Morgan Stanley employee who created the presentation testified that in the deck, he identified "who *could* be a potential acquirer for" WhatsApp and "what the fit is," for the purpose of "impressing Sequoia to get us a meeting with WhatsApp." PX6128 at 49:21-22, 50:19-20, 51:2-7, 52:16-20 (Esfahani (Morgan Stanley) Dep. Tr.) (emphasis added).

b) WhatsApp serves as a competitive moat that has raised barriers to entry.

1885. In February 2013, Mr. Zuckerberg stated that he wanted Meta to "use M&A to build a competitive moat around us on mobile and ads. I think we could spend $1-2 billion over the next couple of years on such acquisitions." PX10271, Meta email chain: M. Zuckerberg to P. Thiel et al., re: "Board Update," (Feb. 11, 2013), FB_FTC_CID_08957288, at -789.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact,

including because the excerpted quotation is misleading and lacks context. The quoted language from 2013, a year before Meta's acquisition of WhatsApp, is not about the WhatsApp acquisition or messaging. Immediately after the quoted language in the statement, Mr. Zuckerberg went on to describe two acquisitions "we've been negotiating" – one of Osmeta to "help our mobile strategy by enabling us to build a better app store" and another of Atlas "to help us in our ads strategy." PX10271 at -789 (FB_FTC_CID_08957288). When the FTC questioned Mr. Zuckerberg about the quoted language in the statement, he testified that "[i]t looks like I'm trying to get us to make acquisitions that further a technology and advantage that we could have and improve our products. And then the two examples here are a . . . piece of technology that could help translate apps from iOS to Android, and potentially help us out in App Store . . . . And then the second . . . was a piece of ads technology." Ex. 139 at 406:16-25 (Zuckerberg IH Tr.); *see also id.* at 407:7-9 ("I think what I'm referring to here is increasing our technology or improving our products to make them better than everyone else's."). Regarding the WhatsApp acquisition, Mr. Olivan wrote to Mr. Zuckerberg in February 2014, to follow up on an earlier conversation about the prospective acquisition:

> I wanted to share with you a bit more structured thinking from a growth perspective on how potentially owning a company like whatsapp [sic] would fit with our current messaging strategy.
>
> First – I would continue investing in Facebook Messenger since there are meaningfully complimentary differences (and more to come) between a service like WhatsAppv [sic] (pure SMS replacement) and where our messaging products are heading. That said, owning a service like WhatsApp would allow us to do the following things:
>
> Meaningfully Improve Whatsapps' [sic] experience
>
> Right now Whatsapp [sic] depends on the address book of your phone to present you with the set of people you can contact. Often addressbook information is incomplete (people only store phone # and incomplete first

> name, last name). On FB people have a much richer profile – which creates a much richer experience (we have data that shows how e.g. profile pictures make for better / more functional UIs). By exposing internal APIs, we could populate all the contacts in the Whatsapp experience with much richer and useful profile information.
>
> Additionally we could share some of VOIP technology, sticker packs, and other items that would make their experience better.

Ex. 474 at -285 (FB_FTC_CID_00002285). Mr. Zuckerberg replied: "I really agree with this analysis." *Id.*

1886. In June 2014, Meta Vice President of Business Development and Partnerships Dan Rose referred to WhatsApp as a "moat," a platform with "a network effect [that] can provide sustainable competitive advantage." PX2677, Meta email: D. Rose (Meta) to [redacted], (Samsung), re: "Fireside chat Q&A," (June 9, 2014), FB_FTC_CID_03185546, at -548.

Meta Response: Disputed. Disputed that the statement accurately summarizes Mr. Rose's statement in the cited document. Disputed that the statement creates a genuine dispute of material fact, including because the selective quotation from the document lacks context and is misleading. The quoted material is a snippet of one of Mr. Rose's draft answers for a "Fireside chat Q&A" with Samsung executives. PX2677 at -546, -548 (FB_FTC_CID_03185546). In a draft response to a question about lessons Mr. Rose learned when he worked at Amazon, Mr. Rose wrote that Amazon's Jeff Bezos made "two huge platform bets" on "Amazon Web Services and Kindle" in the early 2000s after the "Internet bubble burst" and "everyone thought Amazon should focus all of our energy on the core business." *Id.* at -548. Mr. Rose stated that "Jeff Bezos made these bold bets . . . because he always believed that Amazon must be more than just a retailer" and "recognized that being . . . a great retailer . . . was a business without a moat around it. But platforms have a network effect and can provide sustainable competitive

advantage." *Id.* Mr. Rose added, Amazon's "most valuable assets are arguably their platform businesses – Amazon marketplace, Amazon Web Services, and Amazon Kindle. For Facebook, we placed similar bets this year on WhatsApp and Oculus." *Id.* [redacted] of Samsung, in providing feedback on Mr. Rose's proposed answer, suggested that Mr. Rose "consider a different word choice than 'moat'" because "this tends to be better understood by a Warren Buffet but not so much with your typical audience member." *Id.* at -546.

Taken in context, the quoted language from Mr. Rose in the statement above referred to Amazon's decision to diversify its retail business with platform offerings to add to its competitiveness, and he only referred to WhatsApp (and Oculus) as Meta's "similar bets." As Mr. Rose explained when questioned about the quoted language, "What I was saying was that some of these new areas that Amazon invested in, like Amazon Marketplace, Amazon Web Services, and Amazon Kindle, had a different type of defensibility than Amazon's original retail business." PX6065 at 183:21-184:2 (Rose Dep. Tr.); *see also id.* at 182:18-23 ("I was just saying that Jeff's vision for Amazon was that it would be more than just a retailer. Its efforts to become more than just a retail would build a moat around the business."), 185:7-10 ("What I was suggesting here was that Amazon invested in these platforms, and those platforms added to Amazon's competitiveness in the market."); 183:5-7 ("[A] moat is a way for a company to compete effectively and defend itself from competition effectively").

1887. Meta knew that "winning" mobile messaging would keep competitors away from its core personal social networking services.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The evidence cited in the subparagraphs does not support the assertion that "Meta knew that 'winning' mobile messaging would keep competitors away from its core personal social networking services," for the reasons stated in Meta's responses to the subparagraphs below. The evidence cited in the subparagraphs also does not relate to the FTC's alleged relevant geographic market. Disputed because the quoted material below is taken out of context and misleading. None of the material cited in the subparagraphs below is about Meta's decision to acquire WhatsApp; it all predates Meta's acquisition of WhatsApp by more than a year. Further disputed on the ground that "winning" is vague and undefined and not explained by any of the cited evidence.

a. In April 2012, Facebook Messenger Product Manager Peter Deng approved a post that explained that "if a competitor ends up owning [mobile messaging] they can leverage this position to compete with us on other social use-cases." PX10449, Meta email chain: [redacted] to P. Deng re: "Announcement," (Apr. 26, 2012), FB_FTC_CID_06850829, at -830.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except the FTC's alteration of the quote. Disputed that the quoted language shows "Meta knew that 'winning' mobile messaging would keep competitors away from its core personal social networking services." The quoted language does not say anything about Meta "'winning' mobile messaging" or "keep[ing] competitors away from its core personal social networking services," nor does it state that Meta possessed "core personal social networking services."

On the contrary, it describes potential increased competition and refers generally to "other social use-cases."

b. In November 2012, Mr. Deng wrote: "If we don't enter the mobile messaging game and create a clean mobile graph, we are leaving ourselves vulnerable to many competitors who will take this and build the next Facebook . . . If we win and successfully build 'the mobile messaging graph,' we will need to build a new business around close contacts. This will have costs to build and maintain but huge benefits (the biggest one is not allowing someone else to step in)." PX1586, Meta email chain: P. Deng to M. Schroepfer et al., re: "Mayflower notes and next steps," (Nov. 26, 2012), FB_FTC_CID_02938697, at -698.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that it shows "Meta knew that 'winning' mobile messaging would keep competitors away from its core personal social networking services." The quoted language does not say anything about Meta "keep[ing] competitors away from its core personal social networking services," nor does it state that Meta possessed "core personal social networking services." On the contrary, it describes one Meta employee's ideas for competing in "mobile messaging."

c. In March 2013, Zuckerberg wrote to the leads of the Facebook Messenger team: "[b]eing the best messaging service is the biggest opportunity and mitigation to the biggest threat we face today," especially with "Google about to get into this in a big way" and "rumors of WhatsApp expanding into more services as well."

PX1708, Meta email chain: M. Zuckerberg to P. Deng, et al. re: "Winning at messaging," (Mar. 22, 2013), FB_FTC_CID_06203142, at -145.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that it shows "Meta knew that 'winning' mobile messaging would keep competitors away from its core personal social networking services." The quoted language does not say anything about Meta "keep[ing] competitors away from its core personal social networking services," nor does it state that Meta possessed "core personal social networking services." On the contrary, the email is directed to the team leads for "Facebook Messenger," an app that the FTC does not allege offers "personal social networking services," and describes how Facebook Messenger might better compete with messaging competitors like Google and WhatsApp.

1888. Meta has been willing to absorb [redacted] on WhatsApp.

Meta Response: Disputed in part. Undisputed that Meta has incurred operational losses associated with WhatsApp since acquiring the company in 2014. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp's profitability is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed to the extent the statements in this paragraph and its subparagraphs imply that Meta will not ultimately monetize WhatsApp successfully. The evidence cited in the subparagraphs does not support any such implication. On the contrary, evidence shows that Meta's acquisition of WhatsApp has delivered significant monetization benefits to WhatsApp.

See, *e.g.*, Meta SMF ¶ 831 ("Global revenue from Click-to-WhatsApp has grown from [redacted] to [redacted]," and "[a]s of 2022, Click-to-WhatsApp had 'passed a $1.5 billion run rate' and was 'growing more than 80% year-over-year'" (citing Ex. 4 at ¶ 118 (Tucker Rep.) and quoting Ex. 453 at 3 (Meta Q3 202 Earnings Call))); Meta SMF ¶¶ 828-829 (in 2022, paid messaging generated more than [redacted] in revenue in the United States and more than [redacted] worldwide, and global paid messaging revenue is expected to reach [redacted]). In his deposition, Professor Aral could not name any standalone messaging app that has monetized more successfully than WhatsApp. *See id.* at ¶ 832 ("Q. Can you name any stand-alone messaging app that has monetized more successfully than WhatsApp? . . . A. I don't know.") (quoting Ex. 287 at 139:20-140:2 (Aral Dep. Tr.)).

a. Mr. Zuckerberg has recognized that messaging competitors would eventually need to monetize somehow, and that Meta does not "have this pressure since we make money in other ways" and thus can offer messaging—and eventually WhatsApp—for free. PX3145, Meta message exchange: M. Zuckerberg to P. Deng, et al. (Apr. 1, 2012), FB_FTC_CID_06203049, at -050.

<u>Meta Response</u>: Disputed. Disputed that the cited exhibit (PX3145) contains the paraphrased or quoted language. To the extent the FTC intended to instead cite its exhibit PX1345 (FB_FTC_CID_06203576), disputed that the paraphrase of the document is an accurate summary. In the cited document from April 2012, Mr. Zuckerberg did not discuss a need for "messaging competitors" generally to "monetize somehow." Rather, with respect to pre-acquisition WhatsApp,

Mr. Zuckerberg stated WhatsApp is "their only product so it can never be completely free. Over time, they will also need to figure out to make more money per user." PX1345 at -577 (FB_FTC_CID_06203576). Mr. Zuckerberg also did not discuss any of Meta's plans for WhatsApp in the cited document – dated more than two years before Meta acquired WhatsApp. Further disputed for the reasons stated above in Meta's response to paragraph 1888.

b. In a 2014 valuation of WhatsApp performed by KPMG at Meta's request, KPMG noted that other potential acquirers would "likely attempt to recover their investment" through monetization, but that Meta's plans were different: KPMG "underst[oo]d that the deal held certain defensive value for Facebook." *See* PX2994, KPMG presentation: "Facebook, Inc. / Valuation of Certain Identifiable Assets and Liabilities for ASC 805 Purposes Acquired in Connection with the Acquisition of WhatsApp Inc." (Oct. 6, 2014), FTC-META-005177379, at -388.

Meta Response: Disputed. Disputed that the document supports the statement in paragraph 1888. The summary of the document is incomplete and misleading. The document refers to a longer-term plan for monetizing WhatsApp after Meta's acquisition, not a plan "to absorb [redacted] on WhatsApp" as the statement above asserts. The full quote from the document states: "[W]e understand that [Meta's] intention is to prioritize market share and user growth over monetization in the near term in order to capture market share, to allow WhatsApp to operate independently under the current business model, and to further [Meta's] mission to connect the world. Further, we understand that the deal held certain defensive value for [Meta]." PX2994 at -388 (FTC-META-

005177377); *see also* Meta SMF ¶ 813 (Meta's February 17, 2014 board presentation stating that the acquisition would "mak[e] it more difficult for operating system providers to exclude [Meta's] mobile applications from their mobile operating system platforms"). The document also does not say that other potential acquirers would "likely attempt to recover their investment" through monetization in contrast to Meta. The document states that "[w]hile monetization of the WhatsApp user base in the near term is not the immediate focus of Facebook, we believe that other market participants would likely attempt to recover their investment in WhatsApp *more quickly* . . . over a five year period." PX2994 at -388 (FTC-META-005177377) (emphasis added). Further disputed for the reasons stated above in Meta's response to paragraph 1888.

c. Between Meta's acquisition of WhatsApp and at least mid-2022, Meta [redacted] operating WhatsApp. *See* PX9005, Hearle Report at Tables 6.1- 6.3 ([redacted]); *see also id.* at ¶ 67 (explaining that [redacted]); PX9000, Hemphill Report at ¶ 1115, Ex. 78.

<u>Meta Response</u>: Disputed in part. Undisputed that Meta has incurred losses at certain times with respect to WhatsApp. Disputed for the reasons stated above in Meta's response to paragraph 1888. Further disputed that Mr. Hearle offered an accurate calculation of those losses for all the months and years in which Click-to-WhatsApp earned revenue. Mr. Hearle's calculations of Meta's purported losses from operating WhatsApp in those years are based on the assumption that

[redacted] of Click-to-WhatsApp revenue should be allocated to WhatsApp. *See* PX9005 at ¶¶ 8(c), 61 & pp. 48-50, tbls. 6.1-6.3 (Hearle Rep.). But Mr. Hearle chose his [redacted] range based on three employees' calculations of WhatsApp's possible incremental revenue in March 2019 (an analysis the employee noted had a "wide range of error and many caveats build into [it]," PX15275 at -747 (FTC-META-011627747)); June 2021; and November 2021, and then used those calculations for all months and years in which Click-to-WhatsApp earned revenue between 2018 and the second quarter of 2022. *See* PX9005 at ¶ 8(c) & pp. 48-50, tbls. 6.1-6.3 (Hearle Rep.). Evidence shows that, soon after these analyses, WhatsApp began to generate significant revenue for Meta that is not included in Mr. Hearle's calculations. *See* Meta SMF ¶ 831 ("Global revenue from Click-to-WhatsApp has grown [redacted] to [redacted]," and "[a]s of 2022, Click-to-WhatsApp had 'passed a $1.5 billion run rate' and was 'growing more than 80% year-over-year'" (internal citations omitted)). The FTC provides no evidence of what the incrementality of Click-to-WhatsApp revenue has been since this dramatic growth in the use of those ads. In addition, Mr. Hearle's revenue and expense figures only extend through the first half of 2022. The two primary components of revenue for WhatsApp – Click-to-WhatsApp ads and Paid Messaging – have grown rapidly since then. *See* Meta SMF ¶¶ 828-829 (paid Messaging generated [redacted] in revenue in 2022 and has been growing [redacted] with projected revenue of [redacted]); *id.* at ¶ 831 (Global Click-to-WhatsApp revenue was [redacted]

[redacted]); Ex. 460 at 296:11-21 (Hearle Dep. Tr.) (acknowledging that WhatsApp's revenue has been increasing). Mr. Hearle ignored this information, as well as WhatsApp revenue data that Meta produced for the second half of 2022 and the first quarter of 2023. *See* Ex. 469 at 3 (May 5, 2023 Production Cover Letter) (Click-to-WhatsApp revenue data through March 2023); Ex. 497 at 1 (May 31, 2023 Production Cover Letter) (WhatsApp paid messaging data through March 2023).

i. [redacted] PX9005, Hearle Report at ¶ 8(c).

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to subparagraph 1888(c).

1889. Meta's "willingness to absorb [redacted]" as a result of offering the WhatsApp service for free "has had the likely effect of discouraging entry into messaging, thereby deterring entry by firms otherwise inclined to pivot into personal social networking." *See* PX9000, Hemphill Report at ¶¶ 1103, 1113-22.

<u>Meta Response</u>: Disputed. Disputed that the statement creates a genuine dispute of material fact. The evidence cited in the paragraph does not support the assertion that Meta was "willing to absorb [redacted] on WhatsApp." *See* Meta Resp. to Counter SMF ¶ 1888. On the contrary, evidence shows that Meta's acquisition of WhatsApp has delivered significant monetization benefits to WhatsApp. *See id.* Professor Hemphill's claim that offering WhatsApp for free discouraged "entry into

messaging" (and then PSNS) is unsupported. *See*, *e.g.*, Ex. 2 at ¶¶ 302-303 (Carlton Rep.) (explaining that "it is implausible that WhatsApp could function as a 'moat' in the United States geographic market because WhatsApp has always been focused outside of the United States and has a relatively small presence in the U.S.," and that Professor Hemphill's analyses incorrectly [redacted]); Meta SMF [redacted] (recounting [redacted], as well as new entry after the WhatsApp acquisition, such as by Discord and Signal). The FTC's use of "personal social networking" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1890. Furthermore, Meta's "elimination of [WhatsApp's] $1 [annual subscription] fee [is] a form of limit pricing, a term used in the economic literature to describe the strategy for incumbent firms of lowering price to make operating in the market less profitable for rivals or new entrants." PX9007, Hemphill Rebuttal Report at ¶ 715; *see also* PX9000, Hemphill Report at ¶¶ 1116-17.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. The cited paragraphs in Professor Hemphill's reports do not cite any evidence to support his assertion that Meta's elimination of WhatsApp's subscription fee was "a form of limit pricing" that was done to "make operating in the market less profitable for rivals or new entrants." Instead, the record shows that Meta made WhatsApp free so that it could grow faster, a price decrease that benefited consumers. *See* Meta SMF ¶ 825 (quoting Ex. 314 at 222:5-11 (Acton IH Tr.)); *see also* Ex. 2 at ¶ 219 (Carlton Rep.) (explaining that "in the actual world with the acquisition, WhatsApp

had a lower price and higher output than in a but-for world without the acquisition" and that "we can say with certainty that WhatsApp's existing users worldwide would be worse off in Prof. Hemphill's but-for world without the acquisition").

1891. Since Meta's acquisition of WhatsApp, no cross-platform OTT mobile messenger has been able to achieve scale comparable to WhatsApp, whether measured by user or engagement numbers. *See* PX9000, Hemphill Report at ¶ 1121, Exs. 79, 80 [redacted].

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact. Professor Hemphill's claim that "no cross-platform OTT mobile messenger has been able to achieve scale comparable to WhatsApp" is unsupported. Mr. Acton testified that the reason WhatsApp achieved little success in the United States was the predominance of, among others, Apple's iMessage, which supports messaging across platforms. *See* Ex. 163 at 202:15-204:17 (Acton Dep. Tr.) ("Q. What were some of the factors that caused WhatsApp to have this very limited success in the United States prior to the acquisition? A. I think we've already talked about free and unlimited SMS. We talked about iMessage. There was a substantial amount of usage of Facebook Messenger in the United States as well, in various demographics of users."). But for Professor Hemphill's calculations of WhatsApp usage in the United States, *see* PX9000 at ¶ 1121 & Ex. 79 (Hemphill Rep.), cited in the statement above), [redacted]. *See* Ex. 2 at ¶ 304 (Carlton Rep.). As Professor Carlton explained, [redacted]

[redacted] *Id.* [redacted]

[redacted] *Id.*

IV. Meta's Exclusionary Conduct and Protection of Its Monopoly Has Harmed Consumers

1892. Meta's elimination of competition, via its acquisitions of Instagram and WhatsApp, has preserved and entrenched Meta's monopoly power in PSN services. PX9000, Hemphill Report at ¶ 1123; *see also* PX9000, Hemphill Report at §§ 4.1, 4.2, 4.3, 4.4; PX9007, Hemphill Rebuttal Report at §§ 3.3, 3.4; *supra* CMF at §§ III.B-C.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and cites scores of paragraphs from expert reports without explanation or elaboration. To the extent a response is required, disputed that Meta's acquisitions of Instagram and WhatsApp eliminated competition; rather, after acquiring the two services, Meta improved and grew both, increasing quality and expanding output. *See* Meta SMF ¶¶ 710-762, 823-869. Disputed that there is such a thing as "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Disputed that Meta has monopoly power: Meta faces fierce competition from sources not limited to those the FTC labels PSNS, including YouTube, TikTok, and Twitter. *See id.* at ¶¶ 156-326 (discussing competition with TikTok, Twitter, and YouTube), ¶¶ 533-566 (Meta's experts' empirical substitution data). To the extent this paragraph incorporates the FTC's statements in Sections III.B-C, Meta incorporates its responses to those statements here.

1893. Meta's conduct has thus prevented competition that would have driven down the quality-adjusted price of PSN services and spurred innovation in the development and offering of PSN services, to the benefit of consumers. *Supra* CMF at § III.D; *infra* CMF at § IV; PX9000, Hemphill Report at §§ 4.3, 4.4; PX9007, Hemphill Rebuttal Report at §§ 3.3, 3.4.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1892. To the extent this paragraph incorporates the FTC's statements in Sections III.D and IV, Meta incorporates its responses to those statements here. Further disputed because new rivals have entered – even among those the FTC labels "PSNS," and those firms have expanded capacity and output – following the acquisitions at issue. *See* Meta SMF ¶¶ 729-731. Meta faces fierce competition from sources not limited to those the FTC labels "PSNS," including YouTube, TikTok, and Twitter. *See id*. at ¶¶ 156-326 (discussing competition with TikTok, Twitter, and YouTube), ¶¶ 533-566 (Meta's experts' empirical substitution data). Further disputed because the FTC's conclusory statements about the acquisitions ignore that Meta's acquisitions of Instagram and WhatsApp have a vertical component. *See* Ex. 2 at ¶ 226 (Carlton Rep.). Meta owns and operates a global content-distribution and storage infrastructure, *see* Meta SMF ¶¶ 151-153, which it used to expand distribution of the consumer-facing apps Instagram and WhatsApp, *see*, *e.g.*, *id.* at ¶¶ 724, 835. In that sense, the acquisitions involved "combin[ing] firms at different . . . levels of the production chain" – Meta as a distributor (and also owner of the consumer-facing app Facebook), and Instagram and WhatsApp as consumer-facing apps. Ex. 2 at ¶ 226 (Carlton Rep.). Economics literature recognizes

that such acquisitions "may frequently bring about substantial synergies and efficiencies: while the start-up may contribute innovative ideas, products and services, the established firm may possess the skills, assets and financial resources needed to further deploy those products and commercialise them." *Id.* at ¶ 225 (citation omitted). Accordingly, within economics, "there is or appears to be a general presumption that such mergers are desirable." *Id.* at ¶ 226 & n.308 (collecting peer-reviewed articles).

1894. Competition incentivizes firms to improve quality and to develop new and better products. PX9007, Hemphill Rebuttal Report at ¶ 727.

Meta Response: Undisputed.

1895. Acquiring a competitor to entrench market power leads to consumer harm not only through higher prices, but also "diminished innovation" and "reduced product quality [and] variety." PX9000, Hemphill Report at ¶ 1124; PX15346, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 1 (2010) (enumerating, as harms of concern, "reduced product quality, reduced product variety, reduced service, [and] diminished innovation"); PX15347, U.S. Department of Justice and the Federal Trade Commission, Horizontal Merger Guidelines § 4.2.E (2023) (When "firms can compete for customers by offering varied and innovative products and features," a "merged firm may have a reduced incentive to continue or initiate development of new products that would have competed with the other merging party.").

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this

paragraph and its subparagraphs are argumentative, assert legal conclusions, do not state any facts, and are broad overgeneralizations.

a. Acquisitions that prevent potential or nascent competitors from establishing themselves as independent competitors can have a similar harmful impact on consumers. PX9000, Hemphill Report at ¶ 1124.

Meta Response: Disputed for the reasons stated above in Meta's response to paragraph 1895.

b. New entrants to a market, as outsiders, are a particularly important source of innovation in that market; their removal is therefore especially troubling, particularly in market settings where competitive threats only rarely arise. *Id.* at ¶ 1125.

Meta Response: Disputed for the reasons stated above in Meta's response to paragraph 1895.

1896. Effective competitive constraints on Meta, via competitors offering alternative PSN services, would force Meta to upgrade its own PSN offering through such improvements as a lower ad load, better features, or greater data security. PX9000, Hemphill Report at ¶ 1126.

Meta Response: Disputed in part. Undisputed that Meta works hard to improve user experience and give consumers more innovation and choice. Disputed that the statements in this paragraph create a genuine dispute of material fact for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and is a broad overgeneralization.

1897. Indeed, in the limited instances when Meta has faced competition in PSN services, Meta has worked harder to improve the user experience on Facebook and consumers consequently received better choices. *Infra* CMF at § IV.A; *see also* PX9000 Hemphill Report at § 2.2.4.

Meta Response: Disputed in part. Undisputed that Meta works hard to improve user experience and give consumers more innovation and choice. Disputed that this statement creates a genuine dispute of material fact. Meta faces intense competition from multiple firms outside the FTC's alleged "PSN services" market. *See* Meta SMF ¶¶ 156-326 (discussing competition with TikTok, Twitter, and YouTube), ¶¶ 533-566 (Meta's experts' empirical substitution data). Meta has spent billions investing in its services. *See id.* at ¶ 126. Further disputed that there is such a thing as "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this paragraph incorporates the FTC's statements in Section IV.A, Meta incorporates its responses to those statements here.

1898. Without competitive constraints governing its offering of PSN services, and having neutralized Instagram and WhatsApp as competitive threats, Meta has had the latitude to harm consumers in manifold ways. Meta's acquisitions of Instagram and WhatsApp neutralized those companies as competitive threats, affording Meta the latitude to reduce the quality of its services and otherwise harm consumers by:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this

paragraph and its subparagraphs are argumentative, assert legal conclusions, do not state any facts, and are broad overgeneralizations.

a. Allowing quality to decline on Facebook and Instagram across numerous product quality dimensions, all while Meta reaps enormous profits. *Infra* CMF at § IV.C.1; *see also* PX9000, Hemphill Report at § 4.4.3; PX9007, Hemphill Rebuttal Report at § 3.5.1.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Section IV.C.1, Meta incorporates its responses to those statements here.

b. Raising ad load significantly on both Facebook and Instagram. *Infra* CMF at § IV.C.2; *see also* PX9000, Hemphill Report at § 4.4.2; PX9007, Hemphill Report at § 3.5.3.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Section IV.C.2, Meta incorporates its responses to those statements here.

c. Reducing innovation on Facebook. *Infra* CMF at § IV.B.1; *see also* PX9000, Hemphill Report at §§ 4.4.1, 4.4.3.1; PX9007, Hemphill Rebuttal Report at § 3.5.2.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the

FTC's statements in Section IV.B.1, Meta incorporates its responses to those statements here.

d. Reducing innovation on Instagram. *Infra* CMF at § IV.B.3; *see also* PX9000, Hemphill Report at §§ 4.4.1, 4.4.3.1; PX9007, Hemphill Rebuttal Report at § 3.5.2.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Section IV.B.3, Meta incorporates its responses to those statements here.

e. Underinvesting in the friends and family sharing use case on Facebook and Instagram. *Infra* CMF at § IV.C.3; *see also* PX9000, Hemphill Report at § 4.4.1; PX9007, Hemphill Rebuttal Report at § 3.5.1.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Section IV.C.3, Meta incorporates its responses to those statements here.

f. Allowing for poor privacy and data protection practices. *Infra* CMF at § IV.C.4; *see also* PX9000, Hemphill Report at ¶¶ 1175-83; PX9007, Hemphill Rebuttal Report at § 3.5.4.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Section IV.C.4, Meta incorporates its responses to those statements here.

g. Underinvesting in integrity. *Infra* CMF at § VI.C.5; *see also* PX9000, Hemphill Report at § 4.4.3.2; *infra* CMF at §§ V.D, V.J.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Section VI.C.5, Meta incorporates its responses to those statements here.

h. Declining to provide users with greater value via rewards and incentives. *Infra* CMF at § IV.C.6; *see also* PX9000, Hemphill Report at § 4.4.4; PX9007, Hemphill Rebuttal Report at § 3.5.5.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Section IV.C.6, Meta incorporates its responses to those statements here.

i. Eliminating consumer choice and innovation in personal social networking services, including foreclosing innovations that Instagram or WhatsApp would have introduced in trying to attract users away from Facebook. PX9000, Hemphill Report at ¶ 1080 (explaining the loss of innovation from Instagram); *id.* at ¶ 1100 (foreclosing of innovation from WhatsApp).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898.

j. Subjecting users to problems and issues, including delayed feature launches, increasing latency, and outages stemming from Meta's shared computing infrastructure. *See infra* CMF at §§ V.E.3, V.I.3-5.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1898. To the extent this subparagraph incorporates the FTC's statements in Sections V.E.3 and V.I.3-5, Meta incorporates its responses to those statements here.

1899. Meta has increased quality-adjusted price for PSN services since the acquisitions. *See supra* CMF at § II.C.3. This underscores that the acquisitions have not produced any net pass-through to consumers that lowers quality-adjusted price. That Meta has maintained its monopoly in the market for PSN services over years despite various consumer harms and declining user sentiment for its products indicates that consumers the acquisitions were not procompetitive overall. PX9007, Hemphill Rebuttal Report at ¶ 826.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and is a broad overgeneralization. To the extent this paragraph incorporates the FTC's statements in Section II.C.3, Meta incorporates its responses to those statements here.

1900. Meta's acquisitions of Instagram and WhatsApp have harmed competition for personal social networking services and harmed consumers. PX9007, Hemphill Rebuttal Report at ¶ 827.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and is a broad overgeneralization. Further disputed

that there is such a thing as "personal social networking services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. With respect to the allegation that the acquisitions harmed consumers, the FTC has no measure of price, nor a measure of quality with which it can measure whether quality-adjusted price has increased or decreased. *See* Meta SMF ¶ 129 (Professor Hemphill: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.))). The FTC also has no evidence of the relative harms or benefits consumers would have received in a but-for world without the acquisitions. *See*, *e.g.*, *id.* at ¶¶ 154-155 (infrastructure and reliability), ¶ 722 (monetization), ¶ 733 (consumer welfare), ¶ 734 (output and growth), ¶ 754 (integrity systems). Non-Meta firms the FTC labels "PSNS" have entered and expanded following the acquisitions at issue. *See id.* at ¶¶ 729-731.

1901. Meta's economic expert, Professor Carlton, acknowledged that a state of competition is preferable to a state of monopoly, because competition "tends to expand output" and improve consumer welfare. PX6179, Carlton (Meta) Dep. Tr., at 333:9-12 ("I'm not in favor of monopoly – if I had my choice between monopoly and competition, all else equal, I'd prefer competition because it tends to expand output and benefit society.").

<u>Meta Response</u>: Undisputed that Professor Carlton provided the quoted testimony.

A. In the limited instances when Meta has faced PSN competition, Meta worked harder to improve the user experience and consumers received more choice.

1902. In the limited instances when Meta has faced PSN competition, Meta worked harder to improve the user experience and consumers received more innovation and choice. *Infra*

CMF at ¶¶ 1903-17; PX9000, Hemphill Report at ¶¶ 102-10, 120-21, 137-45, 823-33, 1133-36; PX9007, Hemphill Rebuttal Report at ¶ 737.

Meta Response: Disputed in part. Undisputed that Meta works hard to improve user experience and give consumers more innovation and choice. Disputed that this statement creates a genuine dispute of material fact. Meta faces intense – not limited – competition from multiple firms outside the FTC's asserted "PSN" market. *See* Meta SMF ¶¶ 156-326 (discussing competition with TikTok, Twitter, and YouTube), ¶¶ 533-566 (Meta's experts' empirical substitution data). Meta has spent billions investing in its services. *See id.* at ¶ 126. Professor Hemphill conceded that Meta has improved the quality of its services by innovating and releasing new features, like Stories and Reels. *See id.* at ¶ 127 (when asked: "You would agree with me that the addition of Stories to the Instagram and Facebook apps was a quality improvement, correct?," Professor Hemphill testified: "Yes. I would – I would agree with that and indeed emphasize the introduction of Stories by Facebook and Instagram as a product improving competitive response to the threat posed by Snapchat." (quoting Ex. 283 at 231:10-19 (Hemphill Dep. Tr.))); *see also id.* ("Q. . . . And the addition of Reels was a quality improvement, correct? . . . A. It's a quality improvement, I think I would agree with that, albeit one that is less directly improving of the provision of personal social networking services." Professor Hemphill later added: "Q. . . . And just to be clear, you agree that the addition of Reels was an innovation of Facebook and Instagram's personal social networking services, correct? . . . A. It was an innovation bringing the competition to TikTok in the way that we talked about and which I agree serves to, to some degree, improve the personal social networking offering for all users." (quoting Ex. 283 at 231:20-232:4, 263:17-264:4

(Hemphill Dep. Tr.))). Further disputed that there is such a thing as competition for "PSN" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. To the extent this paragraph incorporates the FTC's statements in paragraphs 1903-1917, Meta incorporates its responses to those statements here.

1903. Meta has acknowledged that when it is faced with PSN competition, it needs to do more to attract and retain users. As former COO Sheryl Sandberg succinctly put it in response to the launch of Google+:

> "The most important thing to acknowledge is that for the first time, we have real competition and consumers have real choice. I think this will have the same impact on us as competition has in every industry — we will have to be better to win, our margins may go down over time, we will no longer be able to make as many mistakes and hold onto our core users."

PX2527, Meta email chain: S. Sandberg to Bizleads et al. re: "HPM – a/c privileged" (July 15, 2011), FB_FTC_CID_08964773, at -773.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including because the FTC has not provided full context for the statement. The FTC asked Ms. Sandberg about this document during her investigational hearing, when she testified: "I understand I wrote it this way. I don't think you could have experienced Facebook at the time and not thought Myspace was competition. But I think this was a moment where – I guess it's three years after, Myspace had gone down, and so Google+ was the next big competition coming in." PX6022 at 198:17-23 (Sandberg IH Tr.); *see also id.* at 202:19-21 ("I don't believe I ever thought we've never had any other real competition."). Further disputed because Meta faces intense competition from multiple firms outside the FTC's asserted market. *See* Meta SMF ¶¶ 156-326 (discussing

competition with TikTok, Twitter, and YouTube), ¶¶ 533-566 (Meta's experts' empirical substitution data). Further disputed that there is such a thing as competition for "PSN" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1. Meta initially responded to PSN entry by Google+ by improving Facebook, including efforts to improve privacy.

1904. Google's entry into PSN services with Google+ presented Meta with a threat that was differentiated on privacy, and Meta initially responded by making a concerted effort to improve Facebook's PSN services. *Infra* CMF at ¶¶ 1905-13.

Meta Response: Disputed in part. Undisputed that Meta competes with Google, and competed with Google+, including by making improvements to Facebook, and that Meta has improved Facebook. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent it relies on the FTC's statements in paragraphs 1905-1913, Meta incorporates its responses to those statements here. Disputed that Facebook offers "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1905. In June 2011, Google made a concerted effort to launch a PSN service: Google+. PX9000, Hemphill Report at ¶ 102.

Meta Response: Disputed in part. Undisputed that Google launched a service called Google+ around June 2011. Disputed that Google+ is a "PSN service" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. There is no contemporaneous Google document about Google+ that refers to it as a "PSN service."

1906. Google management acknowledged that it was facing "the entrenched competitor in social"—Facebook—but Google pointed to its own "incredible assets," including "millions of users," "great technology and scale," "brand," and "talented people" as reasons to be optimistic about the prospects of Google+. PX7066, Google email chain: J. Rosenberg to A. Eagle, et al. re: "04 2009 Prodcut/Eng [sic] Update for the Board" (Dec. 16, 2009), GOOG-META-00574342, at -343 ("[W]e are facing an entrenched competitor."); PX11304, Google email chain: B. Horowitz to V. Gundotra re: "Emerald Sea: Today's presentation and next steps..." (May 19, 2010), GOOG-META-00577035, at -037 ("When there's a giant population for whom the network effect doesn't apply, it's still anyone's game. That's not the case anymore."); PX6148, Horowitz (Google) Dep. Tr., at 217:5-219:2; PX11312, Google document: "Bradley Horowitz briefing package" (May 13, 2010), GOOG-META-01596793, at -797, -799-800.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the statement creates a genuine dispute of material fact, including because the FTC's characterization of Google management's view regarding the prospects of Google+ is irrelevant to any legal issue. Further disputed because the statement is incomplete and missing necessary context. Mr. Horowitz, the second-in-command of Google+ at the time it launched, testified that Google+ "was very contentious from the minute it launched," and "it was a priority to some [senior executives at Google] and an anti priority to others." PX6148 at 16:21-17:7, 97:9-13 (Horowitz Dep. Tr.).

1907. Google also understood that, by comparison to Facebook, Google+ could distinguish itself on privacy. In a July 2012 meeting agenda, Google reported that "[p]rivacy,

[m]onetization, and [m]obile [were] [s]etting Google+ [a]part." Google noted that a recently published edition of the American Consumer Satisfaction Index ("ACSI") survey had "indicate[d] [that] Google+ is strong where Facebook is weak: privacy, lack of ads, and the mobile experience." Google also noted that Facebook had fallen "8% to a dismal score of 61. The score makes Facebook one of the lowest scoring of all the companies measured by the ACSI." PX11309 at -008, Google document: "Agenda" (*July 18, 2012), GOOG-META-00591539.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including because the FTC's characterization of Google management's view regarding the prospects of Google+ is not material to any legal issue.

1908. Meta understood that Google's PSN offering had the potential to target existing weaknesses in Facebook's offering and provide users with a preferable alternative to Facebook, including on privacy.

Meta Response: Disputed in part. Undisputed that Meta competes with Google, and competed with Google+, including by making improvements to Facebook. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. They cite no evidence that Google+ provided users with a preferable alternative to Facebook. The evidence in fact shows that Google+ offered an inferior product and user experience. [redacted]

[redacted] Further disputed that Facebook or Google+ are "PSN offering[s]" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Meta executives were aware of the impending launch of Google's PSN offering as early as 2010 and understood that "it will be directly targeted at our weaknesses," including "[p]rivacy and trust issues." PX2831, Meta email chain: W. Cathcart to Facebook PMs re: "Chris's Lockdown 2010 Email" (July 22, 2011), FB_FTC_CID_00523608, at -608-09 (sharing an earlier email from Chris Cox).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1908, and because the FTC's inaccurate characterization of the views

of Meta's management regarding the prospects of Google+ is not material to any legal issue.

b. Meta executives had recognized in 2010 that "[p]erhaps our biggest sore spot compared to Google is that users are concerned about their data and about us," and called for campaigns to communicate to users "We don't sell your data" and how to "Understand your privacy." PX2831, Meta email chain: W. Cathcart to Facebook PMs re: "Chris's Lockdown 2010 Email" (July 22, 2011), FB_FTC_CID_00523608, at -610.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1908 and subparagraph 1908(a).

c. In May 2010, Head of Growth [redacted] observed, in an email to Sheryl Sandberg, Dan Rose, Elliot Schrage, and Chris Cox, that, with respect to Facebook's growth, "[p]rivacy seems to be the 'silent killer,'" with privacy "diminish[ing] [users'] trust with FB which makes it less likely for [users] to be resurrected, click on emails from us, invite others etc." PX3497, Meta email chain: [redacted] to S. Sandberg, et al. re: "PPPMF 5/7/10 (a/c privileged)" (May 10, 2010), FB_FTC_CID_08753174, at -174; PX6017, Olivan (Meta) IH Tr., at 24:21-25:5 (noting [redacted] was Mr. Olivan's predecessor as Head of Growth).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1908 and subparagraph 1908(a).

d. Meta executives were "worried that Google would be able to exploit key weaknesses in the Facebook Blue platform via Google+[.]" PX6065, Rose (Meta) Dep. Tr., at 109:13-110:9 ("Q. And you were worried that Google would be able to exploit key weaknesses in the Facebook Blue platform via Google+? A. Yes.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1908 and subparagraph 1908(a). Further disputed because the FTC's characterization of the document is missing necessary context. Mr. Rose explained that the "key weaknesses" he referenced "might have been related to the performance of the platform and how easy it was to develop, or how easy it was [for developers] to develop for our platform" or "platform rules" governing app development on Meta's platform. PX6065 at 112:13-113:8 (Rose Dep. Tr.).

e. In July 2011, Chris Cox identified "in-line privacy" as a "product gap[] highlighted by [Google]+." PX2356, Meta email chain: C. Cox to [redacted], et al. re: "HPM" (July 25, 2011), FB_FTC_CID_05999660, at -660.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1908 and subparagraph 1908(a).

f. In October 2011, [redacted] emailed Sheryl Sandberg, Will Cathcart, Elliot Schrage, and Eric Antonow concerning "[t]he biggest threat from [G]oogle." [redacted] noted that Google had "[i]n the past [been] able to paint us as a closed system that locks in your data." [redacted] shared his belief that Google was

going to target "the wider consumer space" with messaging such as "'unlike other social networks we have designed something with privacy at the heart of it.'" PX3498, Meta email chain: [redacted] to E. Schrage, et al. re: "The biggest threat from google" (Oct. 27, 2011), FB_FTC_CID_01529378 at -378.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1908 and subparagraph 1908(a).

1909. Meta understood that Google+ presented a clear competitor in the market for PSN services, and that Meta needed to deliver better value to consumers in response even though doing so would hurt Meta's profit margins.

Meta Response: Disputed in part. Undisputed that Meta competes with Google, and competed with Google+, including by making improvements to Facebook; and that Meta has improved user privacy on Facebook. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC's inaccurate characterization of the views of Meta's management regarding the prospects of Google+ are not material to any legal issue, and for the reasons stated in Meta's responses to the subparagraphs below. Further disputed that Facebook or Google+ are "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. On July 15, 2011, Ms. Sandberg reacted to the launch of Google+ by noting that "[t]he most important thing to acknowledge is that for the first time, we have real competition and consumers have real choice. I think this will have the same impact on us as competition has in every industry — we will have to be better to

win, our margins may go down over time, we will no longer be able to make as many mistakes and hold onto our core users." PX2527, Meta email chain: S. Sandberg to Bizleads, et al. re: "HPM – a/c privileged" (July 15, 2011), FB_FTC_CID_08964773, at -773.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1909, and because the FTC's characterization of the document is missing necessary context. The FTC asked Ms. Sandberg about this document during her investigational hearing, when she testified: "I understand I wrote it this way. I don't think you could have experienced Facebook at the time and not thought Myspace was competition. But I think this was a moment where – I guess it's three years after, Myspace had gone down, and so Google+ was the next big competition coming in." Ex. 144 at 198:17-23 (Sandberg IH Tr.); *see also id.* at 202:19-21 ("I don't believe I ever thought we've never had any other real competition.").

b. Meta's Mike Schroepfer offered some "thoughts on Google+," including Google's "current advantages in infrastructure," "performance and stability," and: "Competition is exhilarating and focusing." PX 3490, Meta email chain: M. Schroepfer to [redacted] re: "[[redacted]] I thought I'd share my thoughts on Google+" (July 3, 2011), FB_FTC_CID_12767921, at -924-26. A Meta employee added that "[o]ne of my friends told me over the weekend that competition will be good for facebook, it will make us produce a better product for our users and partners

because we'll be more motivated and will have new reference points. It was a good reminder about keeping perspective and yes, focus." *Id.* at -923.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1909.

1910. Responding to the threat of Google+, Mark Zuckerberg put Meta on a "lockdown" to focus on developing a response. PX6127, Zuckerberg (Meta) Dep. Tr., at 14:12-15:8 (defining a "lockdown" as when, at Meta, "there was a need that was so urgent in terms of what we needed to build that we really needed to drop everything and get that done immediately"), 15:11-21 ("Q. . . . Is it true that Meta announced a lockdown in June of 2011 when Google+ launched? . . . Yes is I think the short answer."); *see also* PX9000, Hemphill Report at ¶ 1134.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact because the FTC's characterization of the evidence is incomplete and missing necessary context. Mr. Zuckerberg explained that the Google+ response was not "anything like the early days" of Meta – when it would "lockdown" and "really only . . . work[ ] on one project at a time" – "but it was more just, okay, everyone, we're going to pivot some of the projects that we're working on internally in order to focus on this and make sure that we don't give them an inch in terms of anywhere where their products could be better than ours." PX6127 at 14:12-16:11 (Zuckerberg Dep. Tr.). He added: "But, you know, that's just been one competitor that we've had over time. I mean, it was certainly a

serious threat at the time. I think we competed effectively and innovated in response to it, but we've had a lot of competitors like that over time as well." *Id.* at 19:10-15.

1911. Similarly, Sheryl Sandberg pressed internally for information on "the main levers we could pull to improve" user satisfaction in the face of pressure from Google+. PX2532, Meta email chain: S. Sandberg to C. Cox, et al. re: "user marketing" (July 17, 2011),FB_FTC_CID_05990453 at -453.

Meta Response: Undisputed that the document contains the quoted language.

1912. When Meta was faced with competition from Google in the market for PSN services, Meta competed for users by making improvements to Facebook, including improving elements of Facebook's treatment of user privacy.

Meta Response: Disputed in part. Undisputed that Meta competes with Google, and competed with Google+, including by making improvements to Facebook, and that Meta has improved user privacy on Facebook. Disputed that there is such a thing as a market for "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. The initial launch of Google+ in June 2011 heavily emphasized its Circles feature, which Google called "a new way to share online," based on the understanding that users sought to protect their privacy by "sharing different things with different people." PX0492 at -006 (Google SEC form 10-K, dated Dec. 31, 2011).

Meta Response: Undisputed. *See also* Meta Resp. to Counter SMF ¶ 1908 ([redacted]).

b. After the launch of Google+ in June 2011, Meta prioritized launching or reworking privacy-protective features like "Friend Lists" to respond to "product

gaps highlighted by G+: Circles, Follow, In-line privacy." PX2356, Meta email: C. Cox to M. Zuckerberg, et al. re: "HPM," (July 25, 2011), FB_FTC_CID_05999660, at -660.

Meta Response: Undisputed that the document contains the quoted language.

c. An August 2011 "Weekly Social Summary" document prepared for Google's L-Team reported, under a heading labeled "[Competition]," explained that "Facebook [had] made several privacy & sharing changes (incl. incline profile controls, tag approval tools, and location tagging), with future plans for more granular private sharing options." PX7032, Google document: "Weekly Social Summary for L-Team" (Aug. 2011), GOOG-META-00050339, at -339; *see also* PX0612 at -002, Thomas Ricker, *Meet the L-Team, the most powerful group in Google*, The Verge (Dec. 17, 2011), https://www.theverge.com/2011/12/17/2642303/meet-the-l-team-the-most-powerful-group-in-google (describing the L-Team as "an elite group of Google executives that signs off on all major decisions").

Meta Response: Undisputed that the document contains the quoted language.

i. By August 2011, Meta had launched "inline profile controls," moving privacy controls "from a separate settings page to being inline with the posts, photos, and tags they affect," and adding "[d]ropdowns" that "allow[ed] users to select between Public, Friends, and Custom sharing."

PX7032, Google document: "Weekly Social Summary for L-Team" (Aug. 2011), GOOG-META-00050339, at -343.

Meta Response: Undisputed that the document contains the quoted language.

ii. By August 2011, Meta had reemphasized the "View Profile As" feature, allowing users to see their profile from the perspective of other users, by moving the tool to the top of profiles. *Id.* at -343.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the document says or indicates that Meta "reemphasized" the feature at issue.

iii. By August 2011, Meta was "more clearly providing the set of options when removing tags or content – removing from your profile, removing the tag itself, messaging the photo owner or tagger, or requesting the content get taken down." *Id.* at -344.

Meta Response: Undisputed that the document contains the quoted language.

d. Google employees shared their understanding that the launch of Google+ "forced [Meta] to divert resources to fight G+ to catch up on features and work on mobile so they couldn't focus on revenue as much as they wanted." PX7067, Google email chain: E. Lipkovitz to V. Gundotra, et al. re: "Entertaining tidbit about FB," (May 9, 2012), GOOG-META-00590425, at -425.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of

material fact, including because the FTC's inaccurate characterization of the views of a single unidentified Google employee (as of May 9, 2012) is not material to any legal issue. Further disputed because the FTC's summary of the evidence is incomplete and missing necessary context. The Google employee quoted made the statement in the context of Google making a job offer to a candidate "who is considering a FB offer." PX7067, Google email chain: E. Lipkovitz to V. Gundotra, et al. re: "Entertaining tidbit about FB," (May 9, 2012), GOOG-META-00590425, at -425.

1913. Google+'s threat to Meta did not last long, though. After a promising start, Google+ soon went defunct, ending Meta's concern and need to react by improving its product.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The FTC's own expert, Professor Hemphill, found that Google+ had more than [redacted] monthly active users in [redacted], *see* Ex. 279 at p. 238, Ex. 42 (Hemphill Rep.), and [redacted] monthly active users in [redacted], *id.* at p. 239, Ex. 43; *see also* Ex. 2 at ¶ 285 (Carlton Rep.). Evidence also establishes that Google continued operating Google+ until 2019, years after its launch. *See* Ex. 2 at ¶ 96 n.146 (Carlton Rep.). Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. By November 2011, Facebook executives recognized that Google+ was failing to attract sustained engagement from users. PX2042, Meta email chain: [redacted] to M. Zuckerberg, et al. re: "Google+ Qualitative Findings," (Dec. 14, 2011), FB_FTC_CID_01529491, at -491; PX14319, Meta document: "road show narratives" (May 15, 2012), FB_FTC_CID_06003438, at -442; PX3499, Meta

Workplace Post: [redacted] post to FYI (Company Announcements) (Nov. 6, 2011), FB_FTC_CID_04309224, at -225.

Meta Response: Disputed in part. Undisputed that the cited evidence shows that Meta's executives were monitoring Google+'s user engagement. Disputed for the reasons stated above in Meta's response to paragraph 1913.

b. Time spent per user on Google+ [redacted], compared to more than seven hours for Facebook. PX9000, Hemphill Report at ¶ 110, Ex. 9.

Meta Response: Disputed in part. Undisputed that Professor Hemphill's report cites a news article reporting the referenced figures. Disputed for the reasons stated above in Meta's response to paragraph 1913.

c. News reports from early 2012 characterized Google+ as "a virtual ghost town." PX9000, Hemphill Report at ¶ 110.

Meta Response: Disputed in part. Undisputed that Professor Hemphill cites a single article containing the above quotation. Disputed for the reasons stated above in Meta's response to paragraph 1913.

2. Snapchat innovated in friends and family sharing with the introduction of Stories, forcing Meta to respond by building a similar feature.

1914. In 2012 and 2013, Snapchat rebuffed acquisition overtures from Meta, with the offered acquisition price reportedly rising as high as $3 billion. *See* PX9000, Hemphill Report at ¶ 141.

Meta Response: Undisputed that the *Wall Street Journal* article cited in paragraph 141 of Professor Hemphill's report states that Snapchat turned down an "acquisition offer from Facebook for close to $3 billion."

1915. Snapchat, having remained independent from Meta, innovated in friends and family sharing by introducing ephemeral broadcast sharing to PSN services through its "Stories" feature.

Meta Response: Disputed in part. Undisputed that Snapchat is not owned by Meta and that Snapchat offers a Stories feature. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding whether Snapchat "innovated in friends and family sharing," because the FTC fails to define what "friends and family sharing" means in this context. [redacted]

See Meta SMF ¶ 495. Disputed that Snapchat is a "PSN service" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. The FTC cites no contemporaneous ordinary-course document in which Snapchat refers to itself (or its Stories feature) as a "PSN service." Many apps excluded from the FTC's claimed "PSNS" market contain stories features, including WhatsApp, Meta SMF ¶¶ 117-118, TikTok, ¶ 128, Signal; *see also* Ex. 1 at ¶ 51 (Ghose Rep.).

a. Snapchat's "Stories" feature, which allows for ephemeral broadcast sharing to friends and family, launched in October 2013. PX9000, Hemphill Report at ¶ 139.

Meta Response: Disputed in part. Undisputed that Snapchat's Stories feature launched in October 2013, and that Stories permits ephemeral broadcast sharing,

including to friends and family. Disputed for the reasons stated above in Meta's response to paragraph 1915. Further disputed to the extent the statement implies that Stories allows for broadcast sharing to friends and family only; [redacted]. *See* Meta SMF ¶ 485; *see also id*. at ¶ 489 (FTC response agreeing that "users can . . . view Stories posted by users with whom they do not have a bidirectional friend connection" when the other user has a public profile or has toggled certain privacy settings).

b. Snapchat Stories allowed users to post an image as a broadcast to all of their friends on the Snapchat app. Stories were presented to Snapchat users on a new tab (or "surface") of the Snapchat application, which arranged all Stories from users' friends into a feed. PX14955, Snap presentation: "Spotlight Product Background" (Dec. 2020), SNAP – FTC – No. 191-0134 – 0000033191, at -200 ("Stories / The genesis of broadcast content on Snap, but focused on your friends."); *see also* PX9000, Hemphill Report at ¶ 139.

Meta Response: Disputed in part. Undisputed that Snapchat Stories allows users to share an image as described. Disputed for the reasons stated above in Meta's responses to paragraph 1915 and subparagraph 1915(a). Further disputed that Snapchat Stories organize Stories "into a feed," which is inaccurate and unsupported by any evidence – the page cited in PX14955 (SNAP – FTC – No. 191-0134 – 0000033200) does not mention organizing stories into a "feed," and

the cited paragraph from Professor Hemphill's report cites only [redacted].

c. On Snapchat, Snaps were sent to a relatively small number of recipients, with Snapchat Stories reaching a larger audience (though an audience that was comparatively significantly smaller than the typical audience of a Facebook user's friends). PX2588 at -014-015, Meta presentation: "Snapchat Global Research" (Aug. 2017), FB_FTC_CID_00054072 ("Nearly two thirds of Snaps are sent to between two and nine people, whereas about a quarter of stories are sent to fewer than ten people, about one half to between 10 and 49 people, and the remaining quarter to at least 50 people."); *see also* PX9000, Hemphill Report at ¶ 139.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1915, and because the FTC cites no evidence to support its contentions that Snapchat Stories reach an audience "comparatively significantly smaller than the typical audience of a Facebook user's friends," or to explain the size of "the typical audience of a Facebook user's friends." The pages cited in PX2588 (at -014-015) say nothing about the size of a Facebook user's "typical audience" and do not compare that size to the size of a Snap user's audience. The paragraph cited from Professor Hemphill's report simply cites the same pages of PX2588. Disputed to the extent the FTC claims that a single statement about Snapchat from August 2017 reflects its usage today or any other relevant time.

1916. Meta recognized that Snapchat Stories proved to be an attractive mechanic for friends and family sharing.

Meta Response: Disputed in part. Undisputed that the emails cited in the subparagraphs below describe the growth of Snapchat Stories. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. Further disputed because "attractive mechanic" is vague and undefined. Further disputed to the extent the statement implies that Snapchat Stories is for friends and family only; the materials it cites below contradict such a claim. For example, the email from Mr. Zuckerberg quoted in subparagraph 1916(a) below states that Snapchat Stories is a "large semi-public feed product"; it says nothing about friends-and-family sharing. PX1009 at -567 (FB_FTC_CID_02231566). The other document cited (in subparagraph 1916(b) below), a slide deck from Meta, states that the "audience" for "Snap[s]" "for many users the typical Story audience also includes acquaintances." PX2588 at -017 (FB_FTC_CID_00054072) (reflecting that in 2017, 50% of users studied in the United States listed "[a]cquaintances" as part of their "Story Audience," and 18% listed "[s]trangers" as part of their Story audience); *id.* at -033 (noting that, alongside "[c]lose friends" and "[f]amily around my age," "acquaintances" are another "main source[ ] of Stories users view," and that "some also view Stories created by celebrities and strangers"). The FTC does not dispute that [redacted]. *See* Meta SMF ¶¶ 485, 489, 495.

a. In June 2014, Mark Zuckerberg emailed Kevin Systrom, in part concerning the success and growth of Snapchat Stories, and Snapchat's resultant competition with Facebook and Instagram.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg emailed Mr. Systrom about Snapchat Stories in June 2014. Disputed for the reasons stated above in Meta's response to paragraph 1916. Further disputed to the extent this statement suggests that Meta's competition with Snapchat was a "result[ ]" of the Stories feature; nothing in the material cited indicates that Meta and Snapchat were not competitors before Snapchat released Stories.

i. Mr. Zuckerberg noted that Stories had surpassed Snaps as Snapchat's primary product, with over one billion Stories viewed daily—corresponding to each Snapchat user viewing 10 to 20 Stories per day. PX1009, Meta email chain: M. Zuckerberg to K. Systrom, et al. re: "Snapchat Stories and ephemeral stories," (June 22, 2014), FB_FTC_CID_02231566, at -566-67.

Meta Response: Undisputed that the document includes the paraphrased language.

ii. Mr. Zuckerberg stated that "the growth of Snapchat Stories means that Snapchat is now more of a competitor for Instagram and News Feed than it ever was for messaging. . . . Snapchat Stories serves the exact same use cases of sharing and consuming feeds of content that News Feed and Instagram deliver." *Id.* at -566-67.

Meta Response: Undisputed that the document contains the quoted language.

b. An August 2017 Meta internal presentation on "Snapchat Global Research" noted that "[w]hile Snaps drive content creation, Stories account for an equal or greater share of content consumption." PX2588 at -005, Meta presentation: "Snapchat Global Research" (Aug. 2017), FB_FTC_CID_00054072.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1916. Further disputed because the document does not support the statement in this subparagraph, to the extent the subparagraph makes claims that Snapchat Stories is solely a "friends and family sharing" "mechanic." The cited slide says nothing about friends and family sharing. Other slides in this slide deck acknowledge that Snapchat Stories is used in part to consume content from users with whom a Snap user has no personal relationship (like strangers or celebrities) – or with users that are merely "acquaintances," as opposed to close friends or family members. PX2588, at -017, -033 (FB_FTC_CID_00054072).

1917. Meta responded to Snapchat Stories by implementing its own Stories feature. *See infra* CMF at ¶¶ 1941(a), 19-65.

Meta Response: Disputed in part. Undisputed that Meta launched Stories for Facebook (in 2017) and Instagram (in 2016). *See* Meta SMF ¶ 34 (Facebook), ¶ 82 (Instagram). Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph

incorporates the FTC's statements in paragraphs 1941 and 1965, Meta incorporates its responses to those statements here.

B. Meta's acquisition of Instagram directly extinguished competitive pressures, allowing Meta to raise quality-adjusted price for consumers, including by increasing ad load and reducing investment in quality and innovation.

1918. Meta's acquisition of Instagram directly extinguished competitive pressures between Facebook and Instagram, allowing Meta to raise quality-adjusted price on both apps, including by increasing ad load and reducing investment. *Infra* CMF at ¶¶ 1919-43; PX9000, Hemphill Report at ¶¶ 921-35, 1068-80, 1081-95, 1130-92; PX9007, Hemphill Rebuttal Report at ¶¶ 727-59, 781-87; *see also* PX9000, Hemphill Report at ¶¶ 717-26, 761-76; PX9007, Hemphill Rebuttal Report at ¶¶ 60-103, 122-48.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The FTC cites no evidence that Meta reduced investment in Instagram as a result of the acquisition; Meta had zero investment in Instagram before the acquisition, and after the acquisition, added many promotions and links within the Facebook app to Instagram to grow Instagram. *See* Meta SMF ¶¶ 723-738. The FTC has no measure of quality with which it can measure whether quality-adjusted price has increased or decreased. *See id.* at ¶ 129 ("Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.))). Professor Hemphill acknowledged that he did not identify "any competitive benchmark for Meta's level of ad load," *id.* at ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that [redacted] PX9000 at ¶ 715 & n.1325 (Hemphill Rep.). Further

disputed on the ground that Professor Hemphill found that [redacted]. *See id.* at ¶ 719 & Ex. 54 ("Instagram Feed Ad Load"). Professor Hemphill also agreed that increasing output with stable economic price – both undisputed facts here – is evidence of decreasing quality-adjusted prices. *See* Meta SMF ¶ 130 (quoting Ex. 283 at 233:3-12, 16-22, 234:7-235:1 (Hemphill Dep. Tr.)). Meta has spent billions investing in its services. *See id.* at ¶ 126. Professor Hemphill conceded that Meta has improved the quality of its services by innovating and releasing new features, like Stories and Reels. *See id.* at ¶ 127 (when asked, "You would agree with me that the addition of Stories to the Instagram and Facebook apps was a quality improvement, correct?," Professor Hemphill testified: "Yes. I would – I would agree with that and indeed emphasize the introduction of Stories by Facebook and Instagram as a product improving competitive response to the threat posed by Snapchat." (quoting Ex. 283 at 231:10-19 (Hemphill Dep. Tr.))); *see also id.* ("Q. . . . And the addition of Reels was a quality improvement, correct? . . . A. It's a quality improvement, I think I would agree with that, albeit one that is less directly improving of the provision of personal social networking services." . . . Professor Hemphill later added: "Q. . . . And just to be clear, you agree that the addition of Reels was an innovation of Facebook and Instagram's personal social networking services, correct? . . . A. It was an innovation bringing the competition to TikTok in the way that we talked about and which I agree serves to, to some degree, improve the personal social networking offering for all users." (quoting Ex. 283 at 231:20-232:4, 263:17-264:4 (Hemphill Dep. Tr.))). To the extent this statement incorporates the FTC's statements in paragraphs 1919-1943, Meta incorporates its responses to those statements here.

1. With the acquisition having relieved competitive pressure, Meta reduced efforts to innovate and improve Facebook.

1919. As detailed above, freed of competitive pressure from Instagram because of the acquisition, Meta reduced efforts to innovate and improve Facebook.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1918 and in Meta's responses to the subparagraphs below.

a. Meta scrambled to innovate and improve on Facebook's offering after recognizing the threat that Instagram posed. *See supra* CMF at § III.B.2 ("Meta Recognized the Competitive Threat that Instagram Posed to Facebook's Monopoly Power in Personal Social Networking Services"); § III.B.4 ("Meta Initially Attempted to Compete with Instagram").

Meta Response: Disputed in part. Undisputed that Meta innovated and improved Facebook around the time of Instagram's introduction. Disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this subparagraph incorporates the FTC's statements in Sections III.B.2 and III.B.4, Meta incorporates its responses to those statements here. Further disputed to the extent this statement implies Meta innovated and improved Facebook's offering only "after recognizing the threat that Instagram posed." Meta has continuously innovated and improved Facebook's offering before and after the Instagram acquisition (as the FTC has acknowledged). *See* Meta SMF ¶¶ 6-7, 17-54; Ex. 2

at pp. 255-262, tbl. 35 (Carlton Rep.) (listing and describing 165 new Facebook features added between September 2011 and July 2023).

b. As a direct result of its acquisition of Instagram, Meta dropped the Photos and Facebook Camera initiatives that it had been developing on Facebook. *See supra* CMF at § III.D.1(a).

Meta Response: Disputed. Disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this subparagraph incorporates the FTC's statements in Section III.D.1(a), Meta incorporates its responses to those statements here. Further disputed on the ground that the statements in Section III.D.1(a) do not describe a "Photos" initiative or assert that Meta "dropped" the "Facebook Camera initiative" because Meta acquired Instagram. Regarding Camera, Facebook did not cease or change plans to develop and launch Camera after acquiring Instagram. Meta released Camera on May 24, 2012. *See* PX12416 at -001 (Meta, *Introducing Facebook Camera*). Meta then began incorporating Camera's features into the Facebook mobile app afterwards – as Mr. Stoop explained, "as soon as we were able to free up the resources to do it, we went for it ASAP." PX6079 at 163:7-10 (Stoop Dep. Tr.); *see also id.* at 158:6-17 (testifying that by September 2012, Meta had integrated Camera's production flow into the Facebook Android app), at 163:11-14 (testifying that integrating Camera's production flow into the Facebook Android app increased photos shared on Android by 45%), and at 167:2-21 (testifying that by November

2012, Meta had integrated key Camera features to the Facebook iOS app). Camera features Meta incorporated into the Facebook iOS app include Camera's multi-photo post format, full-screen photo-viewing, photo selection grids, photo editing features, filters, tagging features, and Camera's feedback interface. *Id.* at 161:19-162:25. Meta had always intended to integrate Camera's features into its Facebook mobile app; acquiring Instagram did not affect this plan. *See id.* at 72:18-23; PX12405 at -956 (FTC-META-004130954) ("We are building [Camera] to be modular, and intend most if [*sic*] [Camera] to be reused in fbiphone."). After the acquisition closed, Meta continued to promote and add new features to Camera. *See* PX12409 at PX12409-015 (FTC-META-000294202) (identifying new and forthcoming features to Facebook Camera as of September 2012: "[j]ust shipped album support," "[a]bout to ship digital zoom," "[m]ore picture-taking features are on their way"). Meta deprecated Camera as a standalone app on May 9, 2014 – years after the Instagram acquisition and after incorporating the Camera features into the Facebook mobile app. *See* PX13800 at -593 (FTC-META-011636593).

c. Meta would have attempted to improve the photo-sharing experience available to Facebook users if Meta had not acquired Instagram. As Mr. Zuckerberg testified, if Meta had not acquired Instagram, "we would have [] continued working on the camera app, continued integrating more of these features into the Facebook app over time"; he noted that "we have a track record of being [] relatively effective at building new things and competing." PX6029, Zuckerberg (Meta) IH Tr., at 326:13-25.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact because it is not supported by the material cited and is missing necessary context. When asked whether Meta "would have tried to build something better" if it had not acquired Instagram, Mr. Zuckerberg clarified that Meta did release Camera despite acquiring Instagram. PX6029 at 326:3-12 (Zuckerberg IH Tr.). Meta continued innovating Camera after the acquisition to integrate those features into the Facebook mobile app, as planned. *See* PX6079 at 158:6-17, 161:19-162:25 (Stoop Dep. Tr.); PX12409 at -015 (FTC-META-000294202) (identifying new and forthcoming features to Facebook Camera as of September 2012: "[j]ust shipped album support," "[a]bout to ship digital zoom," "[m]ore picture-taking features are on their way"). *See* Meta Resp. to Counter SMF ¶ 1919(b).

1920. Meta underscored how the acquisition removed a competitive constraint on Facebook via Mr. Zuckerberg specifically directing Mr. Systrom that Instagram was not to attempt to attract Facebook users or otherwise "transfer[] behavior from Facebook to Instagram." PX2364, Meta email chain: M. Zuckerberg to K. Systrom, et al. re: "Instagram Growth," (Oct. 10, 2012), FB_FTC_CID_06315737, at -738.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact because the FTC omits all context from the document and mischaracterizes its contents. In the cited email, Mr. Zuckerberg directs executives to implement several changes to attract Facebook users to use Instagram, including to "[e]nable Instagram users to send invites to their Facebook friends," which "will increase growth

meaningfully and sustainably"; "[e]nable Instagram to access [Facebook's] coefficient APIs to rank a user's Facebook friends and help them follow the people they care about most," which "will definitely help people ramp up faster [on Instagram], which will help active user growth sustainably"; "[r]un promotions" for Instagram on Facebook, "especially for people who have a bunch of friends on Instagram and are more likely to become engaged" and "in competitive markets and growth markets, especially on Android where Instagram's growth has been a bit slower than expected." PX2364 at -738 (FB_FTC_CID_06315737) (Mr. Zuckerberg: "To add more color here, I think there are lots of things that we can do to optimize flows that will be the most sustainable over long periods of time. These things may not feel sexy, but they'll sustainably decrease friction in the user growth funnel and sustainably increase the viral coefficient."). Mr. Zuckerberg added to these directions, "One thing we should be careful about is that we're not explicitly trying to move behavior from Facebook's photos products to Instagram. . . . We might learn in the future that upselling Instagram in these cases is good for engagement in both products, but for now I think we should primarily focus on amplifying Instagram and not transferring behavior from Facebook to Instagram." *Id.* Mr. Systrom responded, "Agreed. I think we should not try to transfer either – I think IG can be an added fun element for people that already post photos to FB. We're square, filtered, and public and that simply isn't the case for all FB photos." *Id.* at -739. After acquiring Instagram, Meta invested heavily in promoting and growing Instagram, including by dedicating many promotions and links to Instagram within the Facebook app, directing Facebook users to use Instagram instead. *See* Meta SMF ¶¶ 723, 726-727; *see also id.* at ¶ 724 (stating that Instagram averaged over 110.7 million

U.S. monthly active users in Q4 2016 and [redacted] U.S. monthly active users in H1 2022).

1921. Facebook's continued investment and effort, spurred by Instagram, would have benefited consumers, both because Facebook's photo-sharing offering would be improved and because users would be able to choose between Instagram's and Facebook's different approaches to photo sharing. With ongoing competition with Instagram, competitive pressure would have brought similar consumer benefits as to other aspects of Facebook. PX9000, Hemphill Report at ¶ 1140.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The cited paragraph from Professor Hemphill's report does not cite any supporting evidence. Conversely, evidence shows that Meta did continue to invest in and improve its photo-sharing features, including by updating Camera and incorporating its features into Facebook, after acquiring Instagram. *See* Meta Resps. to Counter SMF ¶¶ 1919(b), 1919(c). Consumers can now choose between Facebook and Instagram's photo-sharing features. *See* Meta SMF ¶¶ 17, 739-747 (describing new features on Instagram and Facebook post-acquisition).

2. Meta has raised the quality-adjusted price on Instagram by increasing its ad load.

1922. Meta's control of Instagram also enabled Meta to raise the quality-adjusted price of Instagram by increasing ad load, including over the concerns and objections of Instagram's founders, thereby harming consumers. *Infra* CMF at ¶¶ 1923-32.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent

this paragraph incorporates the FTC's statements in paragraphs 1923-1932, Meta incorporates its responses to those statements here. Further disputed on the ground that the reference to "quality-adjusted price" is vague, ambiguous, and unsupported. Instagram is a free product, and none of the material cited in paragraphs 1923-1932 provides evidence regarding any "quality-adjusted price." The FTC has no measure of quality with which it can measure whether quality-adjusted price has increased or decreased. *See* Meta SMF ¶ 129 ("Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.))).

a) Meta has used control of Instagram to increase Instagram's ad load significantly, including over the concerns and objections of Instagram's co-founder.

1923. By virtue of owning Instagram, Meta controls Instagram's ad load. *See* PX6185, Li (Meta) Dep. Tr., at 49:1-6 ("Q. Has Meta increased ad load on Instagram feed over time? A. Yes. Q. Has Meta increased ad load on Instagram Stories over time? A. Yes."); *see also* PX12745, Meta email chain: S. Li to M. Zuckerberg et al. re: "Ad load update," (Feb. 22, 2021), FTC-META-003895339, at -539 (Meta senior executives, including Mr. Zuckerberg, Mr. Mosseri, and Ms. Li, reviewing "ad load policies" circa December 2020, including policies for "Instagram Feed," "Instagram Story," and "Instagram Explore" surfaces).

<u>Meta Response</u>: Undisputed, except the quoted language in PX12745 appears at -359.

1924. Meta has exercised its control over Instagram's ad load by increasing it significantly over the years.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1918 and in Meta's responses to the subparagraphs below.

a. Ad load on Instagram Feed in Q2 2022 was over [redacted] what it was in Q2 2015. PX9000, Hemphill Report at ¶ 719, Ex. 54 (reporting that ad load on Instagram Feed has increased from 0.3% in Q2 2015 to [redacted] in Q2 2022).

Meta Response: Disputed in part. Undisputed that Professor Hemphill presented the cited chart in his report. Disputed for the reasons stated above in Meta's response to paragraph 1924, and because the information in the chart indicates that [redacted]. Further disputed that the reference to an increase of "[redacted]" is relevant or valid, given that the data analyzed begins in Q2 2015, when Instagram had only started displaying some limited advertising on Feed in November 2013 and when advertisers could only purchase self-serve advertising on Instagram in September 2015, *see* Meta SMF ¶¶ 716-719, rendering the comparison misleading. Mr. Mosseri testified that "[w]henever you launch a new surface, you usually don't launch it with any ads" or "with a very low ad load," because "(1) you want to make sure you give the surface some time to grow, [and] (2) it's on the advertiser's side," because "it takes a while for advertisers to be comfortable and opt into the surface, and then once they do, to

get better at it. So [ad load] will ramp up over time." Ex. 143 at 283:15-284:12 (Mosseri Dep. Tr.).

b. Ad load on Instagram Stories in Q2 2022 was [redacted] what it was in Q1 2017. PX9000, Hemphill Report at ¶ 719, Ex. 55 (reporting that ad load on Instagram Stories has increased from 0.5% in Q1 2017 to [redacted] in Q2 2022).

Meta Response: Disputed in part. Undisputed that Professor Hemphill presented the cited chart in his report. Disputed for the reasons stated above in Meta's responses to paragraph 1924 and subparagraph 1924(a).

1925. Meta's trend of increased ad load included two episodes—in 2015 and 2018—in which Meta significantly increased ad load on Instagram over the concerns and objections of Instagram co-founder Kevin Systrom. *Infra* CMF at ¶¶ 1932, 1932(a)-(f).

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraph 1932 and subparagraphs 1932(a)-(f), Meta incorporates its responses to those statements here. Neither this statement nor anything contained in the cited paragraphs includes any evidence from which specific ad load increases in 2015 or 2018 can be identified or measured. Further disputed because Professor Hemphill conceded both that he did not identify "any competitive benchmark for Meta's level of ad load," Meta SMF ¶ 146 (quoting Ex. 283 at 242:11-18 (Hemphill Dep. Tr.)), and that Meta's competitors have also "rais[ed] ad load over time," PX9000 at ¶ 716 (Hemphill Rep.). Moreover, Facebook's and Instagram's ad loads at times have been similar to the ad loads of [redacted]

[redacted]. Meta SMF [redacted]; *see also* Ex. 2 at ¶ 151 (Carlton Rep.). Further disputed because the periods this statement cites are dated and misleading because they omit subsequent events, including Professor Hemphill's finding that [redacted]. *See* PX9000 at ¶ 719, Ex. 54 (Hemphill Rep.).

1926. In 2015, Meta was "worried that they needed to accelerate revenue more quickly" on Instagram in order to make up for a projected revenue shortfall on Facebook. PX6027, Systrom (Meta/Instagram) IH Tr., at 214:3-6; PX6133, Systrom (Meta/Instagram) Dep. Tr., at 192:13-17, 195:13-17 ("Q. Did you understand that revenue concerns were driving Mr. Bosworth's desire to push Instagram in the direction of direct response? . . . A. Yes."); *see also* PX15239, Meta email chain: A. Bosworth to K. Systrom, et al. re: "Instagram targets," (June 9, 2015), FTC-META-009150884, at -887 ("If we weren't a little under the gun for revenue in 2015 I might not push so hard but given we are[,] I think that it is fair to be explicit about it.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and Mr. Systrom provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including because the referenced testimony and document quotations are incomplete and misleading. Disputed that the first citation supports the statement that "[i]n 2015, Meta was 'worried that they needed to accelerate revenue more quickly' on Instagram." Instagram started displaying advertising in November 2013, Meta SMF ¶ 716, and Mr. Systrom testified that Instagram decided to focus on a more scalable solution than its initial "one-off sponsored-posts-and-videos model" nine months to a year later, PX6027at 213:1-12 (Systrom IH Tr.). Mr. Systrom

also testified that Instagram would have increased ad load as an independent firm. *Id.* at 216:15-19 ("Q. And even as an independent company, had you gotten to the programmatic insertions, would that mean increasing the amount of ad lots on Instagram? A. That's correct."). With respect to the effect of the change at issue, Mr. Systrom testified that "we obviously kept growing very quickly after introducing advertising," "we were generating billions of dollars fairly quickly and still growing," and that "net-net, you know, it was a positive thing . . . that fit, overall, the company." *Id.* at 218:1-2, 218:5-9.

1927. To make up for Facebook's revenue shortfall, Meta pushed for Instagram "to aggressively ramp up ad-load in H2 [2015] by sourcing self-serve [advertising] demand from FB." PX2959, Meta email chain: F. Simo to M. Zuckerberg, et al. re: "Feed Ads Product Update, June 21st," (June 21, 2015), FB_FTC_CID_06183993, at -995. This new (to Instagram) self-serve advertising model, which Mr. Systrom described as "programmatic," meant "[m]ore ads, more revenue, more quickly" on Instagram. PX6027, Systrom (Meta/Instagram) IH Tr., at 216:10-217:19.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and Mr. Systrom provided the quoted testimony. Disputed that that this statement creates a genuine dispute of material fact. PX2959 does not refer to pushing Instagram or making up for a revenue shortfall; it instead states, "Instagram plans to aggressively ramp up ad-load in H2 by sourcing self-serve demand from FB." PX2959 at -995 (FB_FTC_CID_06183993). Further disputed that the quoted testimony provides appropriate context to Mr. Systrom's testimony. He testified: "I understood . . . , and we got to work on making this new strategy work the best possible way we could. And it

ended up being very, very successful." PX6027 at 215:2-6 (Systrom IH Tr.). Mr. Systrom also testified that Instagram would have increased ad load as an independent firm. *Id.* at 216:15-19 ("Q. And even as an independent company, had you gotten to the programmatic insertions, would that mean increasing the amount of ad lots on Instagram? A. That's correct."). Mr. Systrom testified regarding Meta's actions that "we obviously kept growing very quickly after introducing advertising," "we were generating billions of dollars fairly quickly and still growing," and that "net-net, you know, it was a positive thing . . . that fit, overall, the company." *Id.* at 218:1-2, 218:5-9.

1928. From Q2 2015 to Q2 2016, Instagram Feed's average ad load in North America increased more than [redacted], from less than 1% [redacted]. PX9000, Hemphill Report at ¶ 1151, Ex. 81.

<u>Meta Response</u>: Disputed in part. Undisputed that Professor Hemphill presented the cited chart in his report. Disputed that the chart or this statement creates a genuine dispute of material fact. The data analyzed begins in Q2 2015, when Instagram had only started displaying some limited advertising on Feed in November 2013 and when advertisers could only purchase self-serve advertising on Instagram in September 2015, *see* Meta SMF ¶¶ 716-719, making the comparison misleading. Mr. Mosseri – head of Instagram – testified that "[w]henever you launch a new surface, you usually don't launch it with any ads" or "with a very low ad load," because "(1) you want to make sure you give the surface some time to grow, [and] (2) it's on the advertiser's side," because "it takes a while for advertisers to be comfortable and opt into the surface, and then once they do, to get better at it. So [ad load] will ramp up over time." Ex. 143 at 283:15-

284:12 (Mosseri Dep. Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 1918.

1929. In 2018, as part of an effort to fix engagement problems with Facebook, Meta senior leadership, including Mr. Zuckerberg, directed the further increase of Instagram's ad load.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The material cited in the subparagraphs below is incomplete and misleading, and does not support the statement in this paragraph, including for the reasons stated in Meta's responses to the subparagraphs below, and because Mr. Cox – now the Chief Operating Officer at Meta – testified that, in 2018, he "would have advocated" for "Instagram to get to exactly the same ad load policy as Facebook Blue" because Facebook and Instagram were "similar products." PX6080 at 250:5-10 (Cox Dep. Tr.). Mr. Cox also testified that "in general, [his] position was that [Facebook and Instagram] should have roughly similar ad load." *Id.* at 253:17-18. Mr. Cox explained that increases in ad load on Instagram were expected because "since Instagram began, there were no ads on Instagram, and there were a lot of ads on Facebook. [redacted] And so to get there, we've been having to increase ad load on Instagram more than we have on Facebook relative to the current ad load. That happened, you know, lots of iterations along the way. Ad quality improved, and the products improved, and the products matured." *Id.* at 251:17-25.

Mr. Zuckerberg also testified that, [redacted]. PX6127 at 123:22-124:10 (Zuckerberg Dep. Tr.). [redacted]

[redacted] *Id.* at 124:16-18. Mr. Zuckerberg testified further that, at the time of the cited email, [redacted] *Id.* at 128:8-129:1.

a. In a February 2018 email, Mr. Zuckerberg stated in an email that Meta was "badly mismanaging" Facebook and Instagram's ad loads, with "absolutely no reason why IG ad load should be lower than FB at a time when . . . we're having engagement issues in FB." Mr. Zuckerberg noted that "[i]f we were managing our company correctly, then at a minimum we'd immediately balance IG and FB ad load -- this week or this month, not this year." PX15112, Meta email chain: M. Zuckerberg to S. Li, et al. re: "Position 2," (Jan. 30, 2018), FB_FTC_CID_05394180, at -187.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1929. Further disputed because the quoted language, standing alone, is misleading and missing necessary context. Mr. Zuckerberg testified that, [redacted]. Ex. 142 at 123:22-124:10 (Zuckerberg Dep. Tr.). [redacted] *Id.* at 124:16-18. Mr. Zuckerberg testified further that the point was [redacted] *Id.* at 128:8-129:1.

b. Chris Cox testified in his deposition that circa 2018, he "would have advocated" for "Instagram to get to exactly the same ad load policy as Facebook Blue" because Facebook and Instagram were "similar products," "Facebook was struggling with engagement with certain demographics in a way that Instagram wasn't," and Mr. Cox "wanted to make sure we weren't putting all the revenue pressure on one app when we could have done it equally." PX6080, Cox (Meta) Dep. Tr., at 250:5-15.

Meta Response: Disputed in part. Undisputed that Mr. Cox provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1929, and because the quoted testimony is incomplete and misleading. Mr. Cox further testified "in general, my position was that [Facebook and Instagram] should have roughly similar ad load," PX6080 at 253:17-18 (Cox Dep. Tr.), and "since Instagram began, there were no ads on Instagram, and there were a lot of ads on Facebook. [redacted] And so to get there, we've been having to increase ad load on Instagram more than we have on Facebook relative to the current ad load. That happened, you know, lots of iterations along the way. Ad quality improved, and the products improved, and the products matured," *id.* at 251:17-25.

c. In talking points for a March 2018 Facebook Board meeting, Mr. Zuckerberg expressed the view that Facebook's higher ad load acted like a "tax" that contributed to a "headwind" for Facebook. PX15129, Meta document: "Board Update" (Mar. 2018), FB_FTC_CID_10958409, at -409 ("The Facebook app has historically driven most of Instagram's growth [redacted]

[redacted], and has born [sic] a higher ad load tax. This has contributed to a headwind for Facebook in that it sends some of its engagement to Instagram. Now I'm asking Instagram to match what Facebook is doing.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1929, and because the quotations are misleading and missing necessary context. Mr. Zuckerberg testified at length about this document at his deposition, including about the section quoted in this subparagraph, which is titled "[m]anaging our family of apps." Ex. 142 at 123:1-134:8 (Zuckerberg Dep. Tr.); PX15129 at -409 (FB_FTC_CID_10958409). Mr. Zuckerberg explained that, at the time of this document, there was a "very imbalanced dynamic where the Facebook App was not only serving . . . the majority of our business but was also just sending a lot of value and growth to the other apps without . . . any notion of kind of balance between that." Ex. 142 at 125:16-21 (Zuckerberg Dep. Tr.). Mr. Zuckerberg further testified:

> So if you go back, like, ten years ago, showing more ads probably meant that the experience was worse because we were showing a higher percent of ads. Whereas today, the experience may not actually be worse to show more ads because we're better at showing ads to people who like seeing ads.
>
> The quality of the ads that we're showing, in a lot of cases, actually is approaching the quality of the organic content because it's improved. So the actual kind of tax on the user experience is minimized, and it is also not directly proportional to the number of ads that we're showing today.
>
> But I think that the point I'm making here, again, is still just that [redacted].

Id. at 128:8-129:1 & errata. Mr. Zuckerberg also explained that the reference in the document to "asking Instagram to match what Facebook is doing" referred not only to advertising, but also "to having links from Instagram back to Facebook and to other services to basically allow when people are using Instagram to encourage them to use our other services so that way kind of everything can grow in the way that we'd used Facebook for over time." *Id.* at 131:25-132:8. According to Mr. Zuckerberg, by the time other apps, including Instagram, were larger, he "felt like it would make a lot more sense not to only burden one app with having to carry all that weight for the company but have all of these apps, which were now successful, increasingly do that." *Id.* at 140:6-16.

d. In fall 2018, Mr. Zuckerberg [redacted]. PX2227, Meta email chain: M. Zuckerberg to A. Mosseri, et al. re: "Dynamic ad load / IG," (Oct. 15, 2018), FB_FTC_CID_05413360, at -364.

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1929, and because this subparagraph's paraphrased summary of the document is misleading and missing necessary context. The document is an 11-page email thread about the functioning of dynamic ad load, from which a small snippet has been misstated. In the document, Mr. Mosseri – head of Instagram – wrote [redacted] PX2227 at -364-365 (FB_FTC_CID_05413360).

Mr. Zuckerberg's cited response includes the statement, [redacted] *Id.* at -364; *see also id.* (Mr. Mosseri wrote, [redacted]). The document therefore refers to [redacted]. Moreover, the document includes that [redacted]. *Id.* at -364.

e. Mr. Systrom confirmed that the 2018 increase stemmed from an "idea to raise ad load on Instagram to facilitate a drop in ad load on Facebook Blue" from Mr. Zuckerberg. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 207:6-9.

Meta Response: Disputed in part. Undisputed that Mr. Systrom testified agreeing to the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1929, and because the quoted statement does not refer to any specific implemented increase in ad load on Instagram. In the passage quoted, Mr. Systrom was testifying regarding "proposals" from a February 2018 email chain titled "Investigation into increasing IG ad load to help FB," not an actual 2018 increase in Instagram's ad load. PX6133 at 211:2-4 (Systrom Dep. Tr.) ("Q. Did you have a reaction to the proposals that – that Mr. Shah came up with . . . ?"); *see also id.* at 206:10-14 (describing email about which Mr. Systrom testified as "Investigation into increasing IG ad load to help FB"). Mr. Systrom testified that "[i]t doesn't look like I responded directly" to the "proposals" put

forth. *Id.* at 211:2-7. Mr. Systrom also testified that "it's completely reasonable to want all the apps in the family of apps to have similar ad load." *Id.* at 211:23-25. Mr. Systrom was not asked if any of the proposals were adopted.

f. As Mr. Systrom expressed it, "[t]he idea [was] that we needed to make as much revenue; but by dropping ad load on the Facebook Blue app, we would be increasing user engagement potentially or saving user engagement on the Blue app, which was hurting at the time while remaining revenue neutral." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 206:25-207:5.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1929 and subparagraph 1929(e), and because the quoted statement does not refer to any specific implemented increase in ad load on Instagram.

1930. Between Q4 2017 and Q4 2018 in North America, Meta [redacted]. PX9000, Hemphill Report at ¶ 1156.

Meta Response: Undisputed that Professor Hemphill offered the paraphrased opinion in his report (but in paragraph 1157).

1931. Between Q4 2017 and Q4 2018 in North America, Meta [redacted]. PX9000, Hemphill Report at ¶ 1156.

Meta Response: Undisputed that Professor Hemphill offered the paraphrased opinion in his report (but in paragraph 1157).

1932. Mr. Systrom was uncomfortable and displeased with Meta's dramatic increases of ad load on Instagram.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The evidence cited below does not show that increases in Instagram ad load were "dramatic," a vague and undefined term without reference to any level, or that Mr. Systrom was "uncomfortable and displeased." Further disputed for the reasons stated above in Meta's response to paragraph 1918.

a. Mr. Systrom noted that in 2015-2016, Instagram was being asked to "move much more quickly on our advertising plan than we were comfortable with, given the concerns about [the Instagram user] community." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 195:13-17.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1932, and because the testimony quoted is misleading and missing necessary context. Mr. Systrom testified that both he and Mr. Zuckerberg "signed onto the plan." PX6133 at 205:14-24 (Systrom Dep. Tr.). At his investigative hearing, Mr. Systrom explained that he "understood and got the tradeoffs," regarding Instagram's advertising plans, "and we got to work on making this new strategy work the best possible way we could. And it ended up being very, very successful." Ex. 284 at 215:3-6 (Systrom IH Tr.). Mr. Systrom explained that the customization of advertising on Facebook's advertising system was "[w]orlds of a difference" from the limited customization Instagram was capable of and that in his "opinion, yes, it absolutely increased the user experience to have targeted advertising rather than . . . untargeted advertising." *Id.* at 222:23-223:2, 223:19-

224:6; *see also id.* at 218:7-9 (describing the change in Instagram's advertising plan as "net-net … a positive thing . . . that fit, overall, the company.").

b. Mr. Systrom was concerned that via the 2015-2016 ad load increases, Instagram "was going from very little advertising to lots of advertising very quickly." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 187:23-188:4.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1932, and because the testimony quoted is misleading and missing necessary context. Mr. Systrom also testified that he was "in alignment" with "the eventual outcome," PX6133 at 188:15-17 (Systrom Dep. Tr.), and that, "in retrospect," his fears regarding the differences in ads users would see were "far overblown," *id.* at 190:4-13. At his investigative hearing, Mr. Systrom explained that he "understood and got the tradeoffs," regarding Instagram's advertising plans, "and we got to work on making this new strategy work the best possible way we could. And it ended up being very, very successful." Ex. 284 at 215:3-6 (Systrom IH Tr.); *see also id.* at 218:1-9 (testifying that Instagram "obviously kept growing very quickly," the engagement hit was "not to the point where it made it not worth it," and "net-net . . . it was a positive thing . . . that fit, overall, the company").

c. Mr. Systrom noted in a June 2015 email that "the majority of" Instagram users "had never seen an ad on Instagram" or were seeing "one or two ads maybe every week" under Instagram's initial advertising model. "[T]he ramp" from that to having users "see[] ads every single day" at up to a "10 percent ad load"

"concerned" Mr. Systrom. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 188:5-15 (testifying about PX15239, Meta email chain: K. Systrom to A. Bosworth, et al. re: "Instagram targets," (June 10, 2015), FTC-META-009150884, at -886.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1932, and because the testimony quoted is misleading and missing necessary context. Mr. Systrom also testified that he was "in alignment" with "the eventual outcome," PX6133 at 188:15-17 (Systrom Dep. Tr.), and that, "in retrospect," his fears regarding the differences in ads users would see were "far overblown," *id.* at 190:4-13. At his investigative hearing, Mr. Systrom explained that he "understood and got the tradeoffs," regarding Instagram's advertising plans, "and we got to work on making this new strategy work the best possible way we could. And it ended up being very, very successful." Ex. 284 at 215:3-6 (Systrom IH Tr.); *see also id.* at 218:1-9 (testifying that Instagram "obviously kept growing very quickly," the engagement hit was "not to the point where it made it not worth it," and "net-net . . . it was a positive thing . . . that fit, overall, the company").

d. In a June 2015 email regarding ad load on Instagram, Mr. Systrom complained to Mr. Zuckerberg that:

> [w]e [the Instagram team] feel like we're going at breakneck speeds and have changed fundamental things about our product that I'm not sure we'd change otherwise. I think there's a point at which we reach lightspeed and people naturally worry that we're going over a cliff. Going over a

> cliff for short term financial performance isn't worth it in my opinion.

PX15233, Meta email chain: K. Systrom to M. Zuckerberg, et al. re: "Instagram targets," (June 10, 2015), FB_FTC_CID_08019259, at -260.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1932, and because the quotation is misleading and missing necessary context. Immediately after the quoted text, Mr. Systrom wrote: "I think the question is: will we go over a cliff? I think you're presenting more evidence that that's not the case." PX15233 at -260 (FB_FTC_CID_08019259). The back-and-forth communication between Mr. Systrom and Mr. Zuckerberg in the document confirms that Mr. Zuckerberg made clear that plans would change if "we really were going to decrease the eventual size of the [Instagram] community or hurt engagement long term or really hurt our reputation." *Id.* at -261. Mr. Zuckerberg continued with a proposal to be implemented, while "also monitor[ing] all the key signals carefully so we can know if we need to make" a decision to "delay business growth further." *Id.* In response, Mr. Systrom wrote, "Yes. We're in alignment, and with what I know now I'm more confident we'll be able to do this. Thank you for adopting a model I think will achieve everything we want on a business side, but also get the team there most quickly." *Id.*

e. In February 2018, Mr. Systrom complained to Mr. Zuckerberg that the 2018 increase in Instagram's ad load "would be a terrible tradeoff." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 212:9-22. Mr. Systrom noted that a "25 percent penalty [on] time spent on Instagram" as a result of the proposed increase in

Instagram's ad load "for less than 1 percent of total Facebook revenue . . . that's what I was mostly referring to when I said it's a terrible trade-off." *Id.* at 213:8-11.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony (but "referring" should be "reacting"). Disputed for the reasons stated above in Meta's response to paragraph 1932, and because the quotation is misleading and missing necessary context. In the testimony quoted, Mr. Systrom was discussing "proposals" from a February 2018 email chain titled "Investigation into increasing IG ad load to help FB," not an actual 2018 increase in Instagram's ad load. PX6133 at 211:2-4 (Systrom Dep. Tr.) ("Q. Did you have a reaction to the proposals that – that Mr. Shah came up with . . . ?"); *see also id.* at 206:10-14 (describing email about which Mr. Systrom testified as "Investigation into increasing IG ad load to help FB"). Mr. Systrom also testified that "[i]t doesn't look like I responded directly" to the "proposals" put forth. *Id.* at 211:2-7. Mr. Systrom testified that "it's completely reasonable to want all the apps in the family of apps to have similar ad load." *Id.* at 211:23-25.

Mr. Systrom was not asked if any of the proposals were adopted.

f. Mr. Systrom described the 2018 increase in Instagram's ad load as "tactical" on Meta's part and "typical" "of [Meta's] behavior at this time," which was to "not support" Instagram's growth. *Id.* at 211:14-22.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1932, and because the quotation is misleading and missing necessary

context. Mr. Systrom was testifying regarding "proposals" from a February 2018 email chain titled "Investigation into increasing IG ad load to help FB," not an actual 2018 increase in Instagram's ad load. PX6133 at 211:2-4 (Systrom Dep. Tr.) ("Q. Did you have a reaction to the proposals that – that Mr. Shah came up with . . . ?"); *see also id.* at 206:10-14 (describing email about which Mr. Systrom testified as "Investigation into increasing IG ad load to help FB"). Mr. Systrom testified about his "feeling[s]," not specific facts regarding any ad load increase. *Id.* at 211:8-17 ("What I recall was feeling . . . this was tactical, in a way."). Mr. Systrom also testified that "it's completely reasonable to want all the apps in the family of apps to have similar ad load." *Id.* at 211:23-25.

b) Meta's ad load increases harmed usage and user satisfaction on Instagram, underscoring the reduction in quality and consumer harm.

1933. Meta's ad load increases on Instagram harmed usage and user satisfaction, underscoring the harm to consumers. *Infra* CMF at ¶¶ 1934-37.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraphs 1934-1937, Meta incorporates its responses to those statements here. The reference in this statement to "underscoring the harm to consumers" is vague and ambiguous. Meta has grown Instagram and increased its usage since the acquisition in 2012. *Compare* Meta SMF ¶¶ 657-658, *with id.* at ¶¶ 723-728.

1934. Meta reported "tense moments in early 2016 after 4 straight quarters of sharp decline as we started ramping up self-serve ad load." PX2981, Meta Workplace Post: [redacted] post to Instagram Business Platform Dev. (Oct. 18, 2017), FB_FTC_CID_07868007, at -007.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including because the quotation from the document is incomplete, misleading, and missing necessary context. As to engagement, the document reported that, by Q1 2017, "DAP and Time Spent gap [redacted] QoQ [quarter over quarter] has remained somewhat constant for 6 quarters in a row." PX2981 at -007 (FB_FTC_CID_07868007). The document notes that "[t]his is significant if you recall" the quotation in the statement (concerning "tense moments"). *Id*. Thus, according to the document cited, any perceived "sharp decline[s]" from "early 2016" had resolved in the quarters leading up to the first quarter of 2017. At his investigative hearing, Mr. Systrom explained that he "understood and got the tradeoffs," regarding Instagram's shift to programmatic advertising through Facebook, "and we got to work on making this new strategy work the best possible way we could. And it ended up being very, very successful." Ex. 284 at 215:3-6 (Systrom IH Tr.); *see also id.* at 218:1-9 (testifying that Instagram "obviously kept growing very quickly," any engagement effect was "not to the point where it made it not worth it," and "net-net . . . it was a positive thing . . . that fit, overall, the company").

1935. Circa the 2015-2016 ad load increases, Mr. Systrom felt that "the top execs at Facebook" (including Ms. Sandberg, Mr. Bosworth, and Mr. Fischer) were not "expressing enough concern about [user] sentiment and engagement." PX6133, Systrom (Meta/Instagram)

Dep. Tr., at 194:2-195:5 (testifying regarding PX15239, Meta email chain: K. Systrom to A. Bosworth re: "Instagram targets," (June 10, 2015), FTC-META-009150884, at -885).

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to subparagraph 1932(d), and because the quoted testimony is misleading and missing necessary context. Immediately after testifying regarding the cited email chain, Mr. Systrom testified regarding PX15233, which he explained was a "follow-up from [Mr. Zuckerberg] specifically and a smaller conversation directly with him" regarding the prior email (PX15239). PX6133 at 195:21-196:14 (Systrom Dep. Tr.).

1936. A Meta 2018 earnings call prep presentation noted that Meta had [redacted]. PX2975, Meta presentation: "Ads Sentiment and Supply Q4 2018 Earnings Prep" (*Jan. 9, 2019), FB_FTC_CID_12202042, at -043, -063-68.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact because the paraphrased summary of the document is incomplete, misleading, and missing necessary context. The document shows that [redacted]. PX2975 at -063-068 (FB_FTC_CID_12202042).

1937. Increases in ad load on Instagram had a negative impact on user sentiment.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because the reference in this statement to "negative impact on user sentiment" is vague and ambiguous. Professor Hemphill testified that he did not analyze "what caused . . . observed declines" in user sentiment other than observing that the timing of the declines varied across the user-sentiment attributes asked about. Ex. 283 at 223:22-224:5 (Hemphill Dep. Tr.). "[V]irtually anything can drive" trends in answers to Meta's brand tracking surveys – from major news events about Meta and "a changing composition" of Meta's users, to "how users feel" about "things going on in the world generally" or "within tech or media." PX6087 at 79:8-15 (Cobb Dep. Tr.); *see also* Ex. 2 at ¶¶ 168-171 (Carlton Rep.) (observing that Professor Hemphill "provides no methodology" or "quantitative assessment" distinguishing those other factors from any alleged changes in price or quality).

a. [redacted] PX3500, Meta document: "CACTUS" (undated), FTC-META-002461014, at -014-15 (internal Meta memo explaining the "Core Ads Consumer Tracking Umbrella Survey (CACTUS)"); PX9000, Hemphill Report at ¶ 775, Ex. 70 ([redacted]) (citing Meta data produced in response to RFP 55, e.g., FTC-META-010478092).

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1937, and because Dr. Cobb – Meta's in-house survey expert who serves as Vice President of Research for Monetization, Public Affairs, and Demography and Survey Science, *see* PX6087 at 17:22-25 (Cobb Dep. Tr.), and who is "responsible for managing CACTUS," *id.* at 84:5-10 – testified that [redacted], *see id.* at 85:7-9, 91:20-22. Dr. Cobb testified:

> Take this first [CACTUS] question that you have here, how satisfied or dissatisfied you are with the ads you see on Facebook. [redacted]
>
> Secondly, with respect to this question, is that [redacted]

Id. at 92:13-93:17. The FTC's proffered experts performed no analysis showing that increased ad load has caused increased user dissatisfaction with the ad load

level on Facebook or Instagram, and substantial record evidence shows that no causal relationship exists. *See*, *e.g.*, PX15513 at -622 (FTC-META-010526617) ([redacted]); Ex. 142 at 138:19-139:3 (Zuckerberg Dep. Tr.) ("[I]n looking at how [ad load] impacts engagement, you want to look at how people act, not just what they say. . . . I think what our metrics would show is that people, in fact, do engage with [ads] quite a bit and that the gap between that and some of the other organic content has been shrinking over time."); Ex. 2 at ¶¶ 164-167 & tbls. 24-26 (Carlton Rep.) (collecting evidence of "ad quality increasing over time").

b. [redacted] PX9000, Hemphill Report at ¶ 776, Ex. 71 (displaying results over time of an Instagram Ad Sentiment Survey question asking respondents the extent they "agree or disagree with the following statement: There are too many ads on [Instagram]") (citing Meta data produced in response to RFP 55, e.g., FTC-META-012193111).

<u>Meta Response</u>: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 1937 and subparagraph 1937(a).

c. A 2020 Meta presentation entitled "Instagram Ads Consumer Sentiment Report (2020 H2)" noted that [redacted] PX3501 at -002, -011,

Meta presentation: "Instagram Ads Consumer Sentiment Report (2020 H2)" (undated), FTC-META-012244424.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 1937 and subparagraph 1937(a), and because a document [redacted] is not probative of any relevant fact at issue.

3. With the acquisition having relieved competitive pressure, Meta has reduced innovation on Instagram and hampered its growth.

1938. Under Meta's control, Instagram has also been subjected to Meta's other increases in quality-adjusted price along dimensions of product quality other than ad load, including friends and family sharing, privacy, reliability, ease of use, and overall satisfaction. *See supra* CMF at § II.C.3.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section II.C.3, Meta incorporates its responses to those statements here. Professor Hemphill testified that Meta adding features to Instagram (like Stories and Reels) was a "quality improvement." Meta SMF ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Regarding privacy and data control on Meta's services, Professor Hemphill testified: "Q. But you don't have an opinion that the quality of privacy or the quality of user control over personal information declined [between June 2018 and June 2022], do you? . . . A. I would agree that I don't have some specific opinion that there was some specific switch that they

flipped downward and then suddenly saw this drop." *Id*. at ¶ 51 (quoting Ex. 283 at 222:1-15 (Hemphill Dep. Tr.)). Professor Hemphill testified regarding the net quality of Meta's services: "Q. . . . It's fair to say that you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." *Id*. at ¶ 129 (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)).

1939. Meta additionally took specific actions to reduce innovation on Instagram and hamper its growth. *Infra* CMF at ¶¶ 1938, 1940-43.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraphs 1938 and 1940-1943, Meta incorporates its responses to those statements here. Meta has invested billions innovating and improving Instagram, releasing dozens of new features. *See* Meta SMF ¶ 710 (investment), ¶ 724 (growth), ¶¶ 739-747 (features), ¶¶ 755-762 (infrastructure); *see also id.* at ¶ 126 (research and development). Professor Hemphill testified that Meta adding features to Instagram (like Stories and Reels) was a "quality improvement." *Id.* at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Regarding growth, Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in

the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." *Id*. at ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)).

1940. Shortly after the acquisition, Meta took away Instagram's growth team, hampering Instagram's ability to innovate and grow. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 83:19-84:3. An independent Instagram would have retained its growth team rather than eliminating it. PX15224, Meta messages: K. Systrom and P. Deng, (June 30, 2014), FB_FTC_CID_02981735, at -736 (According to Mr. Systrom, "no startup would simply pull growth people."); *see also infra* CMF at § V.A.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact because the materials cited do not support the statement in this paragraph. Meta never "took away" Instagram's growth team because Instagram did not have a growth team before the acquisition; it only built one after the acquisition and with Meta's support. Ex. 302 at 171:3-12 (Krieger IH Tr.) (testifying that in 2013, Instagram was "able to start up a growth team for the first time"); *id.* at 174:19-23 (testifying that Instagram's first growth product manager came over from Facebook). Mr. Krieger testified that as Instagram "integrated more deeply with Facebook, a lot of the collaborations happened between our growth team and Facebook's growth team," which he acknowledged "would, of course, not have been available to us had we remained independent." *Id.* at 177:8-15.

In the cited testimony, Mr. Systrom stated that "in 2014," two years after the acquisition, Instagram had been given "a couple" of additional "growth team members from Facebook [who were] assigned to Instagram" that were then reassigned as "a reprioritization." PX6133 at 83:19-84:3 (Systrom Dep. Tr.). Mr. Systrom never testified

that Meta "eliminat[ed]" Instagram's growth team. In fact, regarding Instagram's growth team, Mr. Systrom confirmed: "Q. . . . So the people on the Instagram Growth team either are people who came over to Instagram from Facebook or people who were hired through the Facebook hiring process? A. That's correct. Q. And, again, those people were employees of Facebook and were paid by Facebook? A. Yes." *Id.* at 291:1-8. Moreover, Meta grew Instagram from 110.7 million U.S. monthly active users in the fourth quarter of 2016 – after the decision to reassign the "couple" of employees at issue in this paragraph – to [redacted] U.S. monthly active users in the first half of 2022. *See* Meta SMF ¶ 724. When asked to "identify a start-up acquisition in the United States of a mobile app that resulted in more user growth than the Instagram acquisition," the FTC's startup-acquisition expert could not name a single such acquisition. Ex. 310 at 130:20-131:9 (Rim Dep. Tr.). To the extent this paragraph incorporates the FTC's statements in Section V.A, Meta incorporates its responses to those statements here.

1941. Meta chronically understaffed Instagram relative to its needs, including by repeatedly refusing to allocate engineering resources that Instagram needed to build new features, such as Stories and Video.

Meta Response: Disputed. Disputed the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because Meta has invested billions innovating and improving Instagram, releasing dozens of new features. *See* Meta SMF ¶ 710 (investment), ¶ 724 (growth), ¶¶ 739-747 (features), ¶¶ 755-762 (infrastructure); *see also id.* at ¶ 126 (research and development). Meta helped Instagram to grow and

develop new features, including by allowing Instagram "to skip several years of development" as a result of being part of Meta. Ex. 151 at 251:9-20 (Systrom Dep. Tr.).

a. In 2016, Meta initially refused to allocate engineers for Instagram to develop a version of Snapchat Stories—which was a project that Kevin Systrom regarded as a "life or death" matter. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 73:7-75:25; *see infra* CMF at § IV.C.3.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1941, and because the cited testimony is missing necessary context. Mr. Systrom testified that Meta *did* allocate engineers after realizing "it was very important" to the Stories launch, PX6133 at 75:3-4 (Systrom Dep. Tr.), which there is no dispute occurred in 2016. *See* Meta SMF ¶ 743. Mr. Systrom explained that "that's typically the process in these things. Things get turned down, and then the projects that make enough noise and plead a strong enough case get funded. And we were one of those." PX6133 at 75:8-12 (Systrom Dep. Tr.). In 2016, the Stories feature that Meta launched on Instagram had more than 100 million daily users within three months. *See* Meta SMF ¶ 743. Meta continued to update and improve Instagram Stories over the years, and, as of February 2023, [redacted] of all time spent on Instagram was spent on the Stories feature. *Id.* To the extent this subparagraph incorporates the FTC's statements in Section IV.C.3, Meta incorporates its responses to those statements here.

b. In 2017, Meta allocated to Instagram none of the 300 engineers that Meta was hiring to work on video, contrary to Instagram's expectation that Instagram would

play "a key part" in the video initiative. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 81:2-16. Mr. Systrom considered this to be "unacceptable and offensive." PX15241, Meta email: K. Systrom to M. Krieger, et al. re: "ACTION NEEDED: Video Headcount," (Sept. 13, 2017), FB_FTC_CID_02625931 at -932.

Mr. Systrom pleaded with Mr. Zuckerberg to reverse the allocation decision, but Mr. Zuckerberg refused and Instagram's founders were never told why they were denied these resources. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 77:19-78:22.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1941, and because the statement in this subparagraph describes a single episode of a disagreement about allocating individuals hired to work on one project at Meta to Instagram to work on video, and does not support the broad generalization in paragraph 1941. Meta invested billions in innovating Instagram, including by launching video on Instagram after the acquisition and subsequent video features. *See* Meta SMF ¶¶ 740-741, 743-744. Professor Hemphill testified that Meta adding video features to Instagram (like Stories and Reels) is a "quality improvement." *Id*. at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Disputed that the quotations in subparagraph 1941(b) above provide appropriate context to Mr. Systrom's testimony, in which he also stated: "Q. And over the years, many engineers came from Facebook over to Instagram?

A. That's correct." Ex. 151 at 267:18-22 (Systrom Dep. Tr.). Mr. Systrom also testified: "You know, the more features that we launched, whether it was videos

or eventually, like I said, Stories . . . , those types of features always increased engagement over time." Ex. 284 at 138:24-139:5 (Systrom IH Tr.). Mr. Systrom also testified: "Q. . . . Did Facebook pay for Instagram to develop new features? . . . [A.] Of course. Q. . . . And did that drive user growth? A. Of course." Ex. 151 at 304:12-18 (Systrom Dep. Tr.).

c. In 2018, Meta further underfunded Instagram when it allocated only around 50 new engineers to Instagram's core consumer engineering team for the next fiscal year, a large drop from the more than 150 that Instagram had received the previous year. PX6027, Systrom (Meta/Instagram) IH Tr., at 269:2-9 ("And I remember our – our allocation for new engineers was, like – might have been 50 something. And, typically, we were in the hundreds or much larger. So, effectively, the growth of our – of our engineering team was stunted as well. That was not on the list, but that was one of things that happened in this time period."); PX3504, at -004, Meta email: J. Parikh to M. Schroepfer re: "Finalizing ENG allocation," (Sept. 17, 2018), FB_FTC_CID_02963741 (showing the growth in Instagram's allocation of engineering headcount for "Core Consumer/Growth/Infra" fell from 161 to 55 from fiscal year 2018 to 2019.).

Meta Response: Disputed in part. Disputed for the reasons stated above in Meta's responses to paragraph 1941 and subparagraph 1941(b), and because the statement in this subparagraph describes a single episode of Meta providing fewer engineers to Instagram than the year before and does not support the broad generalization in paragraph 1941. Further disputed because the second document the FTC cites in this subparagraph shows that, in 2018, Meta added 161 engineers

to Instagram's Core Consumer/Growth team, thereby increasing the number of Instagram's engineers by 50%; and that, in 2019, Meta added 55 engineers to Instagram's Core Consumer/Growth team, thereby increasing the number of Instagram engineers by 11%. *See* PX3504 at -004 (FB_FTC_CID_02963739). The material does not suggest that Instagram needed a larger increase in 2019 to continue its undisputed growth. The document also shows a similar trend in 2019 with respect to Facebook, Facebook Messenger, and WhatsApp, with the overall increase in engineering headcount for Facebook going down from 49% in 2018 to 15% in 2019. *Id.* Mr. Systrom's statement that the increases in Instagram's engineering headcount were "typically . . . in the hundreds or much larger" undermines the FTC's claims that Instagram was "chronically understaffed." PX6027 at 269:4-5 (Systrom IH Tr.). And when asked whether "reducing Instagram's headcount budget [in 2019] adversely affect Instagram's growth," Mr. Systrom acknowledged: "It's hard for me to know because I wasn't around to see it." *Id.* at 269:15-18. Mr. Systrom observed that Instagram "is much larger than it was when I left." *Id.* at 245:10-11.

d. Mr. Systrom testified that the 2018 reduction in Instagram's core consumer engineering team adversely affected Instagram's growth by impeding work on growth-related engineering projects. PX6027, Systrom (Meta/Instagram) IH Tr., at 269:15-21.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1941 and subparagraphs 1941(b) and 1941(c), and because the FTC provides an incomplete and misleading paraphrasing of Mr. Systrom's

deposition testimony. When asked whether "reducing Instagram's headcount budget adversely affect Instagram's growth," Mr. Systrom stated: "It's hard for me to know because I wasn't around to see it," and again reiterating that "I did not see the outcome." PX6027 at 269:15-21 (Systrom IH Tr.).

1942. As detailed elsewhere, Meta did not want to prioritize Instagram's growth because Instagram's growth risked cannibalizing user engagement from Facebook and thereby jeopardizing Meta's long-term strategic "bets." *See supra* CMF at § III.D.1(b).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. To the extent this paragraph incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here. Further disputed because, regarding growth on Instagram, Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." Meta SMF ¶ 734 (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.)). Meta has invested billions innovating and improving Instagram, releasing dozens of new features, and building the Instagram growth team. *See id.* at ¶ 710 (investment), ¶¶ 723-724 (growth), ¶¶ 739-747 (features), ¶¶ 755-762 (infrastructure); *see also id.* at ¶ 126 (research and development). Professor Hemphill testified that Meta adding features to Instagram (like

Stories and Reels) was a "quality improvement." *Id.* at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)).

a. Mark Zuckerberg believed that user time on Facebook was more valuable to Meta than user time on Instagram because Meta's strategic "bets" were tied to high levels of user engagement on Facebook. PX2577, Meta Document: "2017 Q2 sharing and cannibalization downturn agenda first meeting" (June 23, 2017), FB_FTC_CID_11293867, at -867 ("[O]f our 5 medium-term bets (WhatsApp, Messenger, Video, Search, and Marketplace), 4 of them are tied to engagement on Facebook. That means that every minute a person spends on Facebook today is considerably more valuable for our future than a minute spent in other apps, even if monetization between our apps were equal, which it isn't. If a minute of engagement shifts, we're not just trading News Feed engagement for another product, we're also trading away all of that future value that is leveraged on the Facebook today. The future is what I'm most focused on; not short-term cannibalization.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 1865 and 1942, and because this subparagraph mischaracterizes the paraphrased and quoted document. The document does not suggest that Mr. Zuckerberg believed that growing Facebook was more important than growing Instagram or Meta generally. The document is from 2017, five years after the Instagram acquisition, and as the quoted language from the document states, time spent on Facebook was valuable *at the time* because four of Meta's company-wide "medium-term bets" *at the time* were tied to engagement

on Facebook. PX2577 at -867 (FB_FTC_CID_11293867) ("The future is what I'm most focused on; not short-term cannibalization."). Mr. Krieger's testimony concurs with this account. *See* PX6015 at 204:1-3, 205:4-21 (Krieger IH Tr.) (testifying that around 2017-2018, "a lot of the sort of big future bets from Facebook the company were built off of Blue," including Facebook Watch, Facebook Marketplace, Facebook Groups, and Oculus "[t]o some degree," so Facebook "wanted to, given the importance of those bets, make sure that Facebook Blue was – was as healthy as possible.").

b. Mr. Krieger confirmed that Mr. Zuckerberg believed "that a lot of the big future bets from Facebook the company were built off of [Facebook] Blue." PX6015, Krieger (Meta/Instagram) IH Tr., at 205:9-11.

Meta Response: Disputed in part. Undisputed that Mr. Krieger provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1942 and subparagraph 1942(a), and because the quoted testimony is incomplete and misleading. Mr. Krieger testified that, *in 2017-2018 specifically*, "a lot of the sort of big future bets from Facebook the company were built off of Blue," including Facebook Watch, Facebook Marketplace, Facebook Groups, and Oculus "[t]o some degree," so Facebook "wanted to, given the importance of those bets, make sure that Facebook Blue was – was as healthy as possible." PX6015 at 204:1-3, 205:4-21 (Krieger IH Tr.). This statement also omits deposition testimony Mr. Kreiger provided regarding these growth enhancements; Mr. Krieger testified that Instagram worked "with the Facebook growth team," and "[t]he decisions that they made in collaboration with us had positive effects

on our growth." Ex. 153 at 343:25-344:24 (Krieger Dep. Tr.). He also testified: "By being able to build out our growth team, we were able to staff projects to experiment with whether certain changes in the product might help with growth, whether they were . . . machine-learning changes" or "changes to the sign-up experience, or changes to our push notifications and how those were used for reengagement. So having a larger team meant we could take more swings at . . . lifting growth." *Id*. at 348:10-19.

1943. Further, Meta exhibits diseconomies of scale that have harmed Instagram's innovation and growth because additional layers of control within Meta made it difficult to implement product improvements.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because Meta grew Instagram from 110.7 million U.S. monthly active users in the fourth quarter of 2016 to [redacted] U.S. monthly active users in the first half of 2022. *See* Meta SMF ¶ 724. When asked to "identify a start-up acquisition in the United States of a mobile app that resulted in more user growth than the Instagram acquisition," the FTC's startup-acquisition expert could not name a single such acquisition. Ex. 310 at 130:20-131:9 (Rim Dep. Tr.). Meta has invested billions innovating and improving Instagram, releasing dozens of new features. *See* Meta SMF ¶ 710 (investment), ¶ 724 (growth), ¶¶ 739-747 (features), ¶¶ 755-762 (infrastructure); *see also id.* at ¶ 126 (research and development). Professor Hemphill testified that Meta adding features to Instagram (like Stories and Reels) was a "quality improvement." *Id.* at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Meta helped Instagram to

grow and develop new features, including by allowing Instagram "to skip several years of development" as a result of being part of Meta. Ex. 151 at 251:9-20 (Systrom Dep. Tr.).

a. Mr. Zuckerberg recognized that diseconomies of scale are a problem for Meta, saying that "there are too many cooks in the kitchen" and "that every layer of a hierarchy adds latency and risk aversion in information flow and decision-making." PX9000, Hemphill Report at ¶ 1167.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 1943, and because the FTC omits necessary context from the quoted statement. According to Professor Hemphill, *see* PX9000 at ¶ 1167 (Hemphill Rep.), the Wall Street Journal reported in 2023 that Mr. Zuckerberg made the above-quoted statement in the context of layoffs at Meta (not isolated to or even about Instagram growth or innovation) because of many factors (including macroeconomic factors) unrelated to growth or product innovation at Instagram. Meta has invested billions innovating and improving Instagram, releasing dozens of new features.

b. The head of Instagram, Adam Mosseri, [redacted]. PX3505, Meta email: A. Mosseri to G. Rosen re: "WKLY Cross-Product Leads," (Apr. 28, 2022), FTC-META-005701701, at -701; PX6078, Mosseri (Meta) Dep. Tr., at 61:14-61:18.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1943, and because the FTC omits necessary context from the quoted

statement. Mr. Mosseri was remarking that [redacted], PX3505 at -701, -704 (FTC-META-005701701) – the opposite of the FTC's contentions regarding Instagram resources. The conversation in the document is in the context of a [redacted]. *See id.* at -701-704.

c. Another Meta executive noted that given Meta's size, it has become difficult for engineers to innovate with their "lots of great ideas" given the amount of time and effort needed to go through Meta's processes. PX3503, Meta email: J. Parikh to M. Schroepfer, et al. re: "FB's Innovation Model," (June 11, 2017), FB_FTC_CID_02936457, at -457.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1943, and because the FTC omits necessary context from the quoted and paraphrased document. In the document, Mr. Parikh did not state that it has become more "difficult" to "innovate" generally at Meta because of its size. Instead, Mr. Parikh stated that it has become more "intimidating for more engineers to find 'whitespace' to innovate" as opposed to "stay[ing] in the mainstream product areas and work[ing] on incremental things." PX3503 at -457 (FB_FTC_CID_02936457). In addition, this document is from June 2017, before most of the Instagram growth described above in Meta's response to paragraph 1943.

C. With Instagram and WhatsApp neutralized as competitive threats, Meta has underinvested and reduced quality across multiple dimensions.

1944. With Instagram and WhatsApp neutralized as competitive threats, Meta has been able to preserve and entrench its monopoly power and the consumer harms associated with it. These harms include raising the quality-adjusted price of Facebook and Instagram since the acquisitions, harming innovation and reducing quality along numerous dimensions, including ad load, friends and family content, privacy, integrity, reliability, ease of use. *Infra* CMF at ¶¶ 1945-2017; PX9000, Hemphill Report at § 4.4; PX9007, Hemphill Rebuttal Report at §§ 3.4, 3.5.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and cites scores of paragraphs from Professor Hemphill's reports without explanation or elaboration. Further disputed that Meta "neutralized" Instagram and WhatsApp; Meta grew both apps following the acquisitions. *Compare* Meta SMF ¶¶ 657-658, *with id.* at ¶¶ 723-724 (regarding Instagram growth pre- and post-acquisition); *compare id*. at ¶¶ 772-778, *with id.* at ¶¶ 833-835 (regarding WhatsApp growth pre- and post-acquisition). Meta released dozens of innovations across Instagram and WhatsApp following the acquisitions. *See id.* at ¶¶ 739-747 (Instagram); ¶¶ 839-850 (WhatsApp). Professor Hemphill testified that Meta adding features to Instagram (like Stories and Reels) was a "quality improvement." *Id.* at ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Further disputed that there is any evidence showing that Meta has reduced the quality of its services; Professor Hemphill testified regarding the quality of Meta's services: "Q. . . . It's fair to say that

you made no effort to construct any sort of quantitative quality index for Facebook and Instagram, true? . . . A. I don't see how that would – I don't see how that would be done as, you know, it's not something that I have done, I don't see how one would do that." *Id*. at ¶ 129 (quoting Ex. 283 at 232:16-233:2 (Hemphill Dep. Tr.)).

1945. Meta also eliminated consumer choice and innovation in PSN services, by foreclosing innovations that Instagram or WhatsApp would have introduced in trying to attract users away from Facebook. PX9000, Hemphill Report at ¶¶ 1076-80 (explaining the loss of innovation from Instagram); *id.* at ¶ 1100 (foreclosing of innovation from WhatsApp).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and is a broad overgeneralization. Further disputed because the cited materials do not identify a single "innovation in PSN services" that Instagram or WhatsApp would have developed but for the Meta acquisitions. Regarding the quality of Meta's services, Professor Hemphill testified that Meta adding features to Instagram (like Stories and Reels) was a "quality improvement." Meta SMF ¶ 127 (quoting Ex. 283 at 231:10-232:4 (Hemphill Dep. Tr.)). Disputed that Meta "eliminated consumer choice and innovation" as to Instagram and WhatsApp; Meta grew both apps following the acquisitions. *Compare* Meta SMF ¶¶ 657-658, *with id.* at ¶¶ 723-724 (regarding Instagram growth pre- and post-acquisition); *compare id*. at ¶¶ 772-778, *with id.* at ¶¶ 833-835 (regarding WhatsApp growth pre- and post-acquisition). Meta released dozens of innovations across Instagram and WhatsApp following the acquisitions. *See* Meta SMF ¶¶ 739-747 (Instagram), ¶¶ 839-850 (WhatsApp). Further disputed that there

is a market for "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

1. Quality has declined on Facebook and Instagram across numerous product quality dimensions, all while Meta reaps enormous profits.

1946. As detailed elsewhere, following Meta's acquisitions of Instagram and WhatsApp, quality has declined on both Facebook and Instagram, and across numerous product quality dimensions. *See supra* CMF at § II.C.3(b).

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section II.C.3(b), Meta incorporates its responses to those statements here.

1947. While quality has declined, Meta reaps enormous profits. *See supra* CMF at § II.C.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section II.C, Meta incorporates its responses to those statements here.

2. Having insulated itself against competition by acquiring Instagram and WhatsApp, Meta has been able to raise ad load significantly on Facebook and Instagram, harming consumers.

1948. In addition to giving Meta direct control over Instagram's ad load—which Meta has used to raise Instagram's ad load by orders of magnitude, *see supra* CMF at § IV.B—the acquisitions have also facilitated Meta's ad load increases across Facebook and Instagram

by insulating Meta from the downward pressure that competition would have put on ad load. *See infra* CMF at ¶¶ 1949-61.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraphs 1949-1961 and Section IV.B, Meta incorporates its responses to those statements here.

a) Competition impacts the level of ad load on providers of PSN services.

1949. As a general matter, competition incentivizes firms to improve their products' quality and to develop new and better products. PX9007, Hemphill Rebuttal Report at ¶ 727.

Meta Response: Disputed in part. Undisputed that competition can provide an incentive for firms to improve their products' quality and to develop new and better products. Disputed that this statement creates a genuine dispute of material fact because the impact of increased competition on quality is ambiguous and depends on specific circumstances. *See* Ex. 2 at ¶ 322 & n.486 (Carlton Rep.).

1950. Users dislike viewing ads—viewing them as a "tax" on the user experience—and they perceive increased ad load as a decrease in product quality. *See supra* CMF at § II.C.3(a)(1).

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section II.C.3(a)(1), Meta incorporates its responses to those statements here.

1951. When ad load on a given app gets too high, users respond to increases in ad load by decreasing their app usage or shifting it to a competing app.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because the materials cited below explain that some users may shift usage in response to certain ad loads, but not that this is a certainty. Consumers have varied preferences regarding ads, as Professor Hemphill testified: "Q. You'd agree that individuals vary in their receptivity to ads? . . . A. Yes, I think that's – I think that's right. In the discussion of – yes, I think that there's some evidence in the record about differences in user receptivity to ads, yes." Meta SMF ¶ 148 (quoting Ex. 283 (Hemphill Dep. Tr.)). He also testified: "Q. . . . Some individuals have a greater disutility associated with seeing ads than other users; is that fair? . . . A. Yes, I would – I would expect that – the amount of disutility from ads would vary across users." *Id.* The FTC's advertising expert agreed that advertising can benefit users. *See*, *e.g.*, Ex. 498 at 3 (MetaFTC-DX-1159) (the FTC's proffered expert, Professor Aral, stating, "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value"). Evidence also shows that not just quantity (ad load) but quality of the advertising is a factor in user engagement. Mr. Zuckerberg testified: "So if you go back, like, ten years ago, showing more ads probably meant that the experience was worse because we were showing a higher percentage of ads. Whereas today, the experience may not actually be worse to show more ads because we're better at showing ads to people who like seeing ads. The quality of the ads that we're showing, in a lot of cases, actually is approaching the quality of the organic content because it's

improved. So the actual kind of tax on the user experience is minimized, and it is also not directly proportional to the number of ads that we're showing today." PX6127 at 128:8-129:1 (Zuckerberg Dep. Tr.).

a. Mr. Mosseri testified that users who are shown "too many ads" may "go to the competition." PX6078, Mosseri (Meta) Dep. Tr., at 273:4-24.

Meta Response: Disputed in part. Undisputed that Mr. Mosseri provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1951, and because this statement omits necessary context from the quoted testimony. Mr. Mosseri continued: "I actually think the net effect of ads on how much the experience is degraded, if at all, is every bit as much due to the relevance of the ads as it is to the prevalence of the ads. People – if you showed people things they are really interested in, it won't affect their usage much at all." PX6078 at 276:9-15 (Mosseri Dep. Tr.).

b. Former Kakao CEO Professor Rim explained that, where users are using multiple social networks, "if our ad load is higher than our competition, then there's a possibility that the users might not like the situation and leave it." PX6182, Rim (FTC) Dep. Tr., at 271:19-273:2.

Meta Response: Disputed in part. Undisputed that Professor Rim provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1951.

1952. Meta observed some of this ad load pressure between its Facebook and Instagram products, with executives recognizing that increasing ad load on Facebook or Instagram

beyond their currently level might result in users cutting back their use of one app and shifting their usage to the other app.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because they lack any supporting evidence and mischaracterize the material cited in the subparagraphs below. Further disputed because there is [redacted]: "If ad load were an important component of competition between the apps in Prof. Hemphill's claimed market, however, we would expect that when ad load increased on Facebook, not only would time on Facebook decrease, but time on Facebook's alleged competitors, e.g., Instagram, would increase as users switched from one app to the other. [redacted]

Ex. 2 at ¶ 145 (Carlton Rep.) (emphasis in original).

a. Mr. Zuckerberg has described "less ad[] load" as a "'subsidy' in and of itself" that "makes IG more appealing" than Facebook. Mr. Zuckerberg called ad load an "unfair advantage" for Instagram that was in turn "creat[ing] a mystery headwind for" Facebook. *See* PX12347, Meta messages: A. Mosseri to M. Rabkin, (Oct. 15, 2018).

Meta Response: Disputed. Disputed that the document contains the language as quoted. The document is a message between Mr. Mosseri and Mr. Rabkin that does not contain any statements by Mr. Zuckerberg. *See* PX12347, FB_FTC_CID_02868345, at -345 (comments of Mr. Rabkin); *id.* at -346-347 (comments from Mr. Rabkin about his thoughts). Further disputed for the reasons stated above in Meta's response to paragraph 1952.

b. In talking points for a March 2018 Facebook Board meeting, Mr. Zuckerberg expressed the view that Facebook's higher ad load acted like a "tax" that contributed to a "headwind" for Facebook. PX15129, Meta document: "MZ Board Note_March 2018 – AB 02.28.18" (undated), FB_FTC_CID_10958409, at -409. (Mr. Zuckerberg's March 2018 talking points for a meeting of the Board of Directors, stating: "The Facebook app has historically driven most of Instagram's growth [redacted], and has born [sic] a higher ad load tax. This has contributed to a headwind for Facebook in that it sends some of its engagement to Instagram. Now I'm asking Instagram to match what Facebook is doing.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 1952 and subparagraph 1929(c).

c. In his deposition testimony Mr. Zuckerberg agreed that Facebook's "ad load tax" reduced engagement compared to a but-for world in which Facebook did not bear a higher ad load relative to Instagram. PX6127, Zuckerberg (Meta) Dep. Tr., at 131:8-13 (discussing PX15129): "Q. Okay. So the ad load tax reduced engagement on Facebook, in your view, compared to what the engagement would

have been on Facebook absent the higher ad load tax that Facebook bore relative to Instagram? A. I think that's correct.").

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1952 and subparagraph 1952(b), and because the quotation is misleading and missing necessary context. Immediately after the cited testimony, Mr. Zuckerberg testified that reviewing "ads weighted engagement loss" would be "a much more precise way" of assessing the issue and that he was "just using a somewhat colloquial term" in the document. PX6127 at 131:13-18 (Zuckerberg Dep. Tr.).

d. In discussing [redacted] in April 2019, [redacted] wrote that [redacted] PX12676, Meta email chain: [redacted] to J. Hegeman, et al. re: "LRP Ad Load follow-up," (Apr. 16, 2019), FB_FTC_CID_05422784, at -785-786.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1952.

1953. Analysis of the data and modeling put forth by Professor List and Professor Carlton additionally indicates that increased competition would reduce ad load on Facebook and Instagram.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they are vague and argumentative generalizations, and for the reasons stated in Meta's responses to the subparagraphs below.

a. Based on his analysis and revision of Professor List's modeling, Professor Hemphill observed that, "[w]ith an advertiser demand elasticity of 5 the predicted impact of a de-merger is a decrease in ad load for Facebook ranging from [redacted] to [redacted] . . . [and] [f]or Instagram the predicted decrease in ad load is between [redacted] and [redacted]." PX9007, Hemphill Rebuttal Report at ¶ 141.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, because Professor Hemphill's revision to Professor List's de-merger model is based on an erroneous assumption regarding the model. Professor Hemphill assumed that Professor List "did not refine his model to consider longer term user engagement effects" but instead "extends his initial model by assuming that Meta has advertiser-side market power." PX9007 at ¶ 137 (Hemphill Rebuttal Rep.). That is incorrect, as Professor List explained. *See* PX6178 at 214:21-215:4 (List Dep. Tr.) ("I make assumptions that they're maximizing profits. This is a longrun model. Professor Hemphill's rebuttal presumes this is a shortrun model. He's wrong. This is a longrun model. It's a

model of longrun equilibrium. I'm taking longrun elements."); *id.* at 215:5-17, 217:4-218:6. Professor List further explained that, as a result of this faulty assumption, Professor Hemphill's revision of the model produces absurd results, such as the conclusion that more user minutes on Meta apps would significantly increase Meta's revenues (which come from advertising) without any increase in ad revenues. *See id.* at 239:7-241:21 ("Facebook and Meta make money by selling ads. They don't make money by time. You have to have the ad market included in that part of the model. If you don't, you're going to get crazy results like, you know what, only 30 percent of Facebook revenues will come from ad sales and only 10 percent of Instagram revenues will come from ad sales. That's the type of lunacy that you get from not being thoughtful in adding functions at the end of something and understanding that this is already a longrun model.").

b. Professor Hemphill observed that "[w]ith a more competitive advertising market, the predicted de-merger decreases in ad load are larger; when advertiser demand is perfectly elastic, the de-merger impact is a reduction in ad load ranging from [redacted] to [redacted] for Facebook and [redacted] to [redacted] for Instagram." *Id.* at ¶ 141.

<u>Meta Response</u>: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed for the reasons stated above in Meta's response to subparagraph 1953(a).

c. These empirical results are consistent with Professor List's finding that advertiser-side competition can imply that the impact of a de-merger is a decrease in ad load. *See* PX9018, List Report, App'x, P-13.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact because Professor List explained that his de-merger analysis "contradict[s] Prof. Hemphill's claim" that "Meta's acquisition of Instagram resulted in higher ad loads, which implies that a de-merger of Facebook and Instagram would be expected to reduce ad load." PX9018 at App'x P-1 (List Rep.). As stated in Professor List's report, using assumptions based on Facebook and Instagram as they are today, "the results of the de-merger analysis . . . indicate that a de-merger of Facebook and Instagram would be expected to raise, not lower, ad load on Facebook and Instagram." *Id.* at ¶¶ 190-191 & tbl. III-2. Table III-2 of Professor List's report indicates higher ad load under multiple scenarios analyzed in his de-merger analysis, and "[o]nly in the case in which there is zero advertiser-side diversion between Facebook and Instagram would the de-merger be expected to result in a lower ad load, and even then, the estimated decrease in ad load on both platforms would be 1% or less." *Id.* at ¶ 191. Professor List's analysis is also conservative, as it "does not account for losses in efficiency that may result from a de-merger of Facebook and Instagram[,]" which "are likely to harm users (and advertisers)." *Id.* at ¶ 190 n.104. The reference to a phrase from the Appendix to Professor List's report does not accurately represent Professor List's findings, which also appear in the Appendix to the report. *Id.* at App'x P-13. Further disputed because Professor Hemphill's "empirical results" are based on his erroneous revision of Professor List's de-merger model, as described above in Meta's response to subparagraph 1953(a).

1954. In a market with more competition for PSN services, if Meta were to increase ad load above a competitive level, users could shift their demand to a rival provider of PSN services to such a degree that Meta's revenue increase from the ad load increase would be more than counterbalanced by the loss in revenue from reduced user demand, making the ad load increase unprofitable to Meta. PX9000, Hemphill Report at ¶ 1143.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1918. The cited paragraph in Professor Hemphill's report cites no supporting evidence for its speculative and conclusory assertion, and there is no evidence in the record that identifies or defines the competitive level of ad load. Further disputed that there is a market for "PSN services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

b) Meta's ability to raise ad load on Instagram allowed Meta to account for higher ad loads on Facebook and set higher ad loads across both apps.

1955. Meta's acquisition of Instagram gave Meta control over both Facebook's and Instagram's decision-making about when to implement advertising and how high ad load would be. This control allowed Meta to set higher ad loads on both Facebook and Instagram than would have obtained but-for the acquisition. *See* PX9007, Hemphill Rebuttal Report at ¶ 603.

Meta Response: Disputed in part. Undisputed that Meta controls the level of ad load on both Facebook and Instagram. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they are vague and argumentative generalizations, and for the reasons stated above in Meta's response to paragraph 1918 and in Meta's responses to the subparagraphs below. Further disputed on

the ground that "higher" has no referent and therefore is vague and ambiguous. Further disputed on the ground that the only support the FTC cites for this claim (and those in the subparagraph below) is Professor Hemphill's reports, in which he ignored the two-sided nature of Meta's services – one selling ads to advertisers, the other offering a free service to users. *See* PX9018 at ¶¶ 185-187 (List Rep.). The only economic model in evidence to address both sides of Meta's business shows that other factors outweigh those Professor Hemphill considers (limited to the user side) such that Meta shows fewer ads across Facebook and Instagram than the two would show as independent services. *See id.* at ¶¶ 189-191 & tbl. III-2 (de-merger simulation considering two-sided platform business).

a. The acquisition allowed Meta to set higher ad loads on Facebook because Meta no longer had to worry about users responding to an ad load increase by shifting their usage from Facebook to an independent Instagram. Because it now owned Instagram too, Meta knew it would recapture ad revenues as users responded to increased ad load on Facebook by switching to Instagram. Had Instagram remained independent, Meta would have lost 100% of the revenue that arose from such switching. *See* PX9000, Hemphill Report at ¶ 1143 ("In a more competitive PSN marketplace, if Meta were to set ad load higher than the competitive level, users could shift their demand to a rival firm—such as Instagram . . . In other words, in a more competitive marketplace, the greater availability of substitutes . . . would constrain Meta from increasing ad load to the extent it actually did.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1955. Further disputed to the extent there [redacted]

[redacted]: "If ad load were an important component of competition between the apps in Prof. Hemphill's claimed market, however, we would expect that when ad load increased on Facebook, not only would time on Facebook decrease, but time on Facebook's alleged competitors, e.g., Instagram, would increase as users switched from one app to the other. [redacted] Ex. 2 at ¶ 145 (Carlton Rep.) (emphasis in original). Further disputed for the reasons set out in Professor List's de-merger analysis. *See* PX9018 at ¶¶ 185-191 (List Rep.).

b. The acquisition allowed Meta to set higher ad loads on Instagram because, similarly, it knew it would recapture ad revenues as users responded to an ad load increase by shifting their usage from Instagram to Facebook. *Id.*

<u>Meta Response</u>: Disputed for the reasons stated above in Meta's response to subparagraph 1955(a).

c. Absent Meta's acquisition of Instagram, competition between Facebook and Instagram for users would have disciplined ad load increases on both apps. *See*

Id. at ¶ 1158; *see also* PX9007, Hemphill Rebuttal Report at ¶ 627. This discipline on ad load would have benefited users. *See id.* at ¶ 753.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1955. Unlike paying a monetary tax, users can skip past advertisements rather than engaging with them. Also unlike paying a monetary tax, advertising is content with which consumers can engage, benefiting consumer welfare. Ex. 2 at ¶¶ 133-138 (Carlton Rep.); *see also* Ex. 4 at ¶ 49 (Tucker Rep.). Consumers have varied preferences regarding ads, as Professor Hemphill testified: "Q. You'd agree that individuals vary in their receptivity to ads? . . . A. Yes, I think that's – I think that's right. In the discussion of – yes, I think that there's some evidence in the record about differences in user receptivity to ads, yes." Meta SMF ¶ 148 (quoting Ex. 283 (Hemphill Dep. Tr.)). He also testified: "Q. . . . Some individuals have a greater disutility associated with seeing ads than other users; is that fair? . . . A. Yes, I would – I would expect that – the amount of disutility from ads would vary across users." *Id.* The FTC's advertising expert agreed that advertising can benefit users. *See*, *e.g.*, Ex. 498 at 3 (MetaFTC-DX-1159) (the FTC's proffered expert, Professor Aral, stating, "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value").

1956. Moreover, Meta was able to increase ad load on Instagram because it saw slowing down Instagram's growth as *beneficial* to Facebook. *See supra* CMF at § III.D.1(b).

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local

Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

1957. For example, Meta imposed ad load increases on Instagram, including a drastic increase in 2018, to avoid harming engagement on Facebook. *See supra* CMF at § IV.B.2.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. Further disputed because Professor Hemphill conceded both that he did not identify "any competitive benchmark for Meta's level of ad load," Meta SMF ¶ 146 (quoting Ex. 283 (Hemphill Dep. Tr.)), and that Meta's competitors have also "raised ad load over time," PX9000 at ¶ 715 (Hemphill Rep.). To the extent this paragraph incorporates the FTC's statements in Section IV.B.2, Meta incorporates its responses to those statements here.

a. Mr. Systrom confirmed that the 2018 increase stemmed from an "idea to raise ad load on Instagram to facilitate a drop in ad load on Facebook Blue" from Mr. Zuckerberg. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 207:6-9.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1957, and because Mr. Systrom's testimony does not refer to any specific implemented increase in ad load. In the passage quoted, Mr. Systrom was testifying regarding "proposals" from a February 2018 email chain titled "Investigation into increasing IG ad load to help FB," not an actual 2018 increase in Instagram's ad load. PX6133 at 211:2-4 (Systrom Dep. Tr.) ("Q. Did you have

a reaction to the proposals that – that Mr. Shah came up with . . . ?"); *see also id.* at 206:10-14 (describing email about which Mr. Systrom testified as "Investigation into increasing IG ad load to help FB"). Mr. Systrom testified that "[i]t doesn't look like I responded directly" to the "proposals" put forth. *Id.* at 211:2-7. Mr. Systrom also testified that "it's completely reasonable to want all the apps in the family of apps to have similar ad load." *Id.* at 211:23-25. Mr. Systrom was not asked if any of the proposals were adopted.

b. As Mr. Systrom expressed it, "[t]he idea [was] that we needed to make as much revenue; but by dropping ad load on the Facebook Blue app, we would be increasing user engagement potentially or saving user engagement on the Blue app, which was hurting at the time while remaining revenue neutral." *Id.* at 206:25-207:5.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 1957 and subparagraph 1957(a), and because the statement does not refer to any specific implemented increase in ad load.

1958. Meta also imposed the 2018 ad load increase [redacted]. Mr. Zuckerberg stated that [redacted] PX2227, Meta email chain: M. Zuckerberg to A. Mosseri re: "Dynamic ad load / IG," (Oct. 15, 2018), FB_FTC_CID_05413360, at -364.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1955 and 1957,

and because the quoted language is misleading and missing necessary context. The document is an 11-page email thread about the functioning of dynamic ad load, from which a small snippet has been extracted from part of a discussion of potentially implementing dynamic ad load on Facebook and Instagram. *See* PX2227, at -364 (FB_FTC_CID_05413360). The document does not discuss any specific increase in ad load and refers to testing or "scoping" throughout. *See*, *e.g.*, *id.* at -360-362.

1959. Chris Cox explained that [redacted] PX6080, Cox (Meta) Dep. Tr., at 217:7-12 ([redacted]).

<u>Meta Response</u>: Undisputed that Mr. Cox provided the quoted testimony.

c) Meta consistently declined to improve user sentiment with respect to ad load, recognizing it would harm profits.

1960. Facebook and Instagram users are unhappy with Meta's increases in ad load, as indicated by declining user sentiment about the levels of ad load on Facebook and Instagram. *Supra* CMF at § II.C.3(a).

<u>Meta Response</u>: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below. To the extent this paragraph incorporates the FTC's statements in Section II.C.3(a), Meta incorporates its responses to those statements here.

a. [redacted] PX3500, Meta document: "Core Ads Consumer

Tracking Umbrella Survey (CACTUS)" (undated), FTC-META-002461014; PX9000, Hemphill Report, Ex. 70.

Meta Response: Disputed for the reasons stated above in Meta's response to subparagraph 1937(a).

b. A Meta July 2017 Meta presentation entitled "Perceptions of Commerciality" noted that users' responses to a CACTUS (Core Ads Consumer Tracking Umbrella Survey) question about "too many ads on Facebook" were indicative of a broader "problem": a perception that Facebook is becoming "more commercial." PX3506 at -004, -008, -011, Meta presentation: "Perceptions of Commerciality, Deep Dive WIP 07|19|2017" (July 19, 2017), FB_FTC_CID_03559714.

Meta Response: Disputed for the reasons stated above in Meta's response to subparagraph 1492(f).

c. [redacted] PX9000, Hemphill Report at ¶ 776, Ex. 71.

Meta Response: Disputed for the reasons stated above in Meta's response to subparagraph 1937(b).

d. A 2020 Meta presentation [redacted] PX3501 at -005, -011, Meta presentation: "[redacted]" (undated), FTC-META-012244424.

Meta Response: Disputed for the reasons stated above in Meta's response to subparagraph 1937(c).

1961. Despite declining user sentiment related to ad load, Meta has increased ad load on Facebook and Instagram, recognizing that reductions or halts to increases would hurt its profits. *Supra* CMF at § II.C.2; PX9000, Hemphill Report at ¶¶ 717-726, 1141-1159; PX9007, Hemphill Rebuttal Report at ¶¶ 733-34; *see also* PX9007, Hemphill Rebuttal Report at ¶ 735 (Meta refusing to give users the choice to opt out of sharing third-party data, when giving users this option would negatively impact [redacted] of Instagram's revenue).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because it is a vague and argumentative generalization, and for the reasons stated above in Meta's responses to paragraphs 1951, 1952, and 1955. To the extent this paragraph incorporates the FTC's statements in Section II.C.2, Meta incorporates its responses to those statements here.

3. Meta has underinvested in the friends and family use case on Facebook and Instagram, harming consumers.

1962. As discussed above, friends and family sharing on Facebook and Instagram is important to users, impacting user engagement, user sentiment, and user retention. *Supra* CMF at § II.C.3-4.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Sections II.C.3-4, Meta incorporates its responses to those statements here.

1963. Notwithstanding that, Meta has underinvested in the friends and family use case on Facebook and Instagram. *Supra* CMF at § II.C.3-4.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Sections II.C.3-4, Meta incorporates its responses to those statements here.

1964. Meta's underinvestment in friends and family sharing has harmed consumers of Facebook and Instagram, leading to user frustration and lower user sentiment. *Supra* CMF at § II.C.3-4.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Sections II.C.3-4, Meta incorporates its responses to those statements here.

1965. Consistent with Meta's lax attention to investing in friends and family sharing, Meta's development and launch of the Stories feature on Instagram was not encouraged by Meta, but was driven by Instagram co-founder Kevin Systrom.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the statement that Meta's development and launch of Stories on Instagram was "not encouraged by Meta" is unsupported by evidence as explained in Meta's responses to the subparagraphs below; the evidence shows that Meta invested billions in Instagram's services, bringing

substantial innovation to Instagram; and the FTC proffers no evidence that quality or output would be superior for consumers but for Meta's acquisitions, for the reasons stated above in Meta's response to paragraph 1918. The evidence also shows that Meta helped Instagram to grow and develop new features, including by allowing Instagram "to skip several years of development" as a result of being part of Meta. Ex. 151 at 251:9-20 (Systrom Dep. Tr.); *see also* Meta SMF ¶¶ 723-738 (growth); *id.* at ¶¶ 739-747 (features). Further disputed that Meta had a "lax attention to investing in friends and family sharing" for the reasons stated above in Meta's response to paragraph 1501.

a. Mr. Systrom observed the impetus for interest in adding Stories to Instagram: "Snapchat [had been] extremely successful in their initial phase of growing. We saw lots of Instagram users as well for similar use cases as they used Instagram. And we believed unless we offered an informal way of sharing your life on the go, that we would be likely left behind." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 73:17-25; *see also* PX15162, Meta email: K. Systrom to Instagram re: "Instagram HPM" (Oct. 6, 2013), FB_FTC_CID_06002247, at -248 (analyzing Snapchat's launch of its Stories feature and remarking that "I do believe [Snapchat's Stories feature] puts pressure on us to get our private/directed features right more quickly so that we are the go-to solution for consumers to capture and share the world's moments").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1965.

b. Mr. Systrom confirmed that it was members of the Instagram team, not Meta leadership, that "pushed very hard" to add Stories, with Mr. Systrom personally "[making] the call." PX6027, Systrom IH Tr., at 250:13-251:14.

Meta Response: Disputed in part. Undisputed that Mr. Systrom testified that a small team working on Instagram "pushed very hard" to add Stories. PX6027 at 250:13-251:14 (Systrom IH Tr.). Disputed for the reasons stated above in Meta's response to paragraph 1965. Further disputed because the team members that he identified as responsible for pushing for the development of Stories were two employees who worked for Meta prior to the acquisition of Instagram and one employee that Meta hired after the acquisition of Instagram. Mr. Systrom testified that "the engineer's name was [redacted]." *Id.* at 250:18. [redacted] started working at Meta in 2009, and started assisting Instagram as a result of Meta's acquisition of Instagram. *See* LinkedIn, [redacted]. Mr. Systrom testified that "[redacted] was one of the engineers on that team." *See* PX6027 at 250:20 (Systrom IH Tr.). [redacted] started working at Meta in July 2010 and started assisting Instagram as a result of Meta's acquisition of Instagram. *See* LinkedIn, [redacted]. And Mr. Systrom testified that the "product manager's name was [redacted]." *See* PX6027 at 250:17-18 (Systrom IH Tr.). [redacted] joined Instagram after Meta's acquisition of Instagram. *See* LinkedIn, [redacted]. Further disputed because the cited excerpt is incomplete. Mr. Systrom testified that individuals at Meta "got excited enough" about the project to approve it. *See* PX6027 at 251:12-19 (Systrom IH Tr.).

c. Meta leadership was "very skeptical" and recalcitrant about adding Stories to Instagram, and "it took an enormous amount of energy" to convince Meta that Stories should be staffed. After Mr. Systrom "made the call to add Stories," he "remember[ed] telling the Facebook folks, who were very skeptical, that it was a good idea. . . . And it took an enormous amount of energy to get Facebook on the same page that we should do the project at all and that it should be staffed." *Id.* at 251:2-14.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 1965. Further disputed because Meta created the Stories feature on Instagram in 2016, *see* Meta SMF ¶ 743, and Mr. Systrom testified that Meta allocated additional resources for the project to allow Instagram to facilitate the Stories launch. Ex. 151 at 74:5-15 (Systrom Dep. Tr.) ("A. . . . After that meeting, it was decided that we could have – I want to say it was on the order of 10 to 15 people to work on that project. Q. Was 10 to 15 as many as you had asked for? A. At that time, I believe so."). Meta has continued to update Stories on Instagram, for example, adding a feature for users to curate a list of Instagram users who can view new Stories in November 2018. *See* Meta SMF ¶ 743 (and FTC's response). Meta continued to update and improve Instagram Stories over the years, and as of February 2023, [redacted] of all time spent on Instagram was spent on the Stories feature. *Id.* at ¶¶ 743-744 (and FTC's responses).

d. Instagram developed Stories internally, beginning work as early as October 2015. *See generally* PX3456, Meta document: "Caturday" (Oct 7. 2015), FTC-META-008597001 (shared document outlining Stories product).

Meta Response: Disputed in part. Undisputed that a Meta employee created a sketch of a "Stories" product document in October 2015. The document states that it was created by [redacted]. *See* PX3456 at -003 (FTC-META-008597001). [redacted] started working at Meta in 2009 and started assisting Instagram as a result of Meta's acquisition of Instagram. *See* LinkedIn, [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1965.

e. Instagram's Stories team faced headcount challenges, forcing Mr. Systrom to petition Mr. Zuckerberg for additional engineers. Mr. Systrom eventually received the additional headcount that he was seeking, but Mr. Systrom observed that "[a]s far as I can tell, I'm the only one pleading to go after [Snapchat] with as much vigor and tenacity – so I'm puzzled that the answer isn't an emphatic yes and then some." PX3454, Meta email chain: K. Systrom to M. Zuckerberg re: "Kodachrome," (June 27, 2016), FB_FTC_CID_06210163, at -165. Mr. Systrom also referred to Instagram Stories (then referred to, internally, as "Kodachrome") as "the single best bet FB Inc. has to competing with [Snapchat]." *Id.* at -166.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1965. Further disputed that Mr. Systrom referred to Instagram Stories

as the "single best bet FB Inc. has to competing with Snapchat." He identified features in addition to Stories. *See* PX3454 at -166 (FB_FTC_CID_06210163).

f. Despite these staffing challenges, Instagram was still the first Meta team to implement a Stories feature, doing so in August 2016. PX0662, *Introducing Instagram Stories*, Instagram (Aug. 2, 2016), https://about.instagram.com/blog/announcements/introducing-instagram-stories.

Meta Response: Disputed in part. Undisputed that Meta implemented a Stories feature on Instagram in August 2016. *See* Meta SMF ¶ 743. Disputed for the reasons stated above in Meta's response to paragraph 1965.

4. Meta has poor privacy and data protection practices, harming consumers.

1966. Though Meta understands that its users have expressed clear preferences to have their privacy protected, Meta persists in maintaining poor privacy and data protection practices, harming consumers. *Infra* CMF at ¶¶ 1967-2001; PX9000, Hemphill Report at ¶¶ 1175-1183; PX9007, Hemphill Rebuttal Report at ¶¶ 754-780.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. Meta has released dozens of new privacy controls for its users between 2012 and 2022, including Granular Data Permissions (2012), Clear History (2019-2020), and Privacy Center (2022) – among many others. *See* Meta SMF ¶¶ 45-50. Meta also added privacy features to Instagram and WhatsApp, and it is purely speculative what Instagram's and WhatsApp's privacy practices would have been absent the acquisitions. *Compare id.* at ¶ 800 (pre-acquisition privacy features on WhatsApp), *with id.* at ¶¶ 851-854 (post-acquisition privacy features on WhatsApp). Further disputed given Professor Hemphill's testimony: "Q. But you don't have an opinion that the quality of privacy or

the quality of user control over personal information declined [between June 2018 and June 2022], do you? . . . A. I would agree that I don't have some specific opinion that there was some specific switch that they flipped downward and then suddenly saw this drop." *Id.* at ¶ 51 (quoting Ex. 283 at 222:1-15 (Hemphill Dep. Tr.)); *see also* PX9007 at p. 19, Ex. 1 (Hemphill Rebuttal Rep.). The record also shows that "consumer preferences regarding data privacy are heterogeneous," and that intensified competition therefore does not necessarily lead to any consumer benefits regarding privacy and data-collection practices. *See* Ex. 1 at ¶¶ 266, 269-285 (Ghose Rep.); *see also* Ex. 2 at ¶¶ 174, 320-323 (Carlton Rep.). Further, the FTC fails to identify any relevant benchmark by which to assess Meta's privacy and data collection practices or the asserted consumer harm. *See* Ex. 1 at ¶¶ 267-276 (Ghose Rep.); *see also* Ex. 2 at ¶¶ 174, 320-323 (Carlton Rep.). Evidence instead shows that "Meta's user privacy features and policies have been similar to, and sometimes ahead of, those of other major digital platforms." Ex. 1 at ¶¶ 268, 286-326 & pp. 163-165, Ex. H-1, Ex. H-2, and Ex. H-3 (Ghose Rep.). Further disputed that the results of sentiment surveys – which measure brand reputation – provide evidence regarding Meta's privacy policies. *See* Ex. 2 at ¶ 168 (Carlton Rep.) (sentiment surveys "do not provide evidence regarding product quality"); *see also id.* at ¶¶ 169-171 (explaining that there is no connection between sentiment surveys and objective product quality metrics); Ex. 283 at 217:1-20 (Hemphill Dep. Tr.) ("brand reputation could be affected by other things," not just objective product quality). Regarding sentiment surveys about the collection of personal information specifically, Professor Hemphill testified: "There's not some separate detailed numerical analysis, if that's what you're getting at, finely parsing the decreases that we see across all of these more specific

measures." *Id.* at 220:13-221:7. Finally, Professor Hemphill acknowledged that "the detailed parsing of what caused these observed declines [in sentiment surveys] is not something I've done a separate investigation into." *Id.* at 223:16-224:5. To the extent this paragraph incorporates the FTC's statements in paragraphs 1967-2001, Meta incorporates its responses to those statements here.

a) Meta understands that its users care about privacy and perceive reduced privacy as a decrease in product quality.

1967. As Meta has repeatedly recognized in ordinary course documents, users care about online privacy. *See* PX3507, Meta presentation: "Privacy" (Mar. 2, 2012), FTC-META-010493733, at -739 ("90% of users worry about their privacy online"); PX13203, Meta document: "Consumer Consent" (June 2021), FTC-META-006354207, at -211 ("People want and expect privacy when they use internet platforms."); PX1047, Meta discussion board post: "Open Q&A with Mark" (Nov. 4, 2011), FB_FTC_CID_00231756, at -756 ("Privacy is the #1 issue for users").

Meta Response: Disputed in part. Undisputed that some of the documents contain some of the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1966, and because its unqualified and vague generalization about the preferences that unidentified and undifferentiated users of an unidentified service purportedly hold regarding the undefined concept of online privacy is not supported by the documents. The cited page of PX3507 does not include the quoted phrase (which appears instead to mischaracterize a pie chart on that page that displays the results of an undescribed survey asking an unidentified group "How often do you worry about your privacy online?"). PX3507 at -739 (FTC-META-010493642). The cited pages of the other two documents

– from 2011 (PX1047) and 2021 (PX13203) – include the quoted phrases, but neither they nor PX3507 support this paragraph's unqualified and vague generalization.

1968. Meta recognizes that user concerns about privacy cause users to distrust Meta and its products. PX3508, Meta document: "Support for Personalized Ads" (Jan. 22, 2020), FTC-META-004951830 at -832 (Meta,) ([redacted]); *see also id.* at -830 ([redacted]).

<u>Meta Response</u>: Disputed. Disputed that this statement creates a genuine dispute of material fact. The sole cited exhibit is a document from January 2020 [redacted] PX3508 at -830 (FTC-META-004951830). The document does not support this paragraph's unqualified and vague generalizations about the purported concerns and views of unidentified and undifferentiated users of an unidentified service, and Meta's knowledge of these purported concerns and views. Instead, the document states – one bullet below what the FTC's statement quotes – regarding consumers: [redacted] *Id.* at -836.

1969. [redacted]

[redacted] PX3151 at -008, -010, Meta presentation: "[redacted]" (undated), FTC-META-012244466.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1966. Further disputed because the document [redacted]. *See* PX3151 at -008 (FTC-META-012244466). The document [redacted] *id.* at -023, but [redacted] *id.* at -026. [redacted]

1970. Meta has developed metrics to specifically track user sentiment regarding privacy and Meta's collection and use of personal information, recognizing these factors' impact on users' broader sentiment.

Meta Response: Disputed in part. Undisputed that Meta analyzes user sentiment of its services, including with respect to privacy. Disputed that this statement creates a genuine

dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1966.

a. Meta's CAMP ("Cares About My Privacy") metric "measures the privacy-component of" Meta's CAU ("Cares About Users") metric. Meta developed the CAMP metric with the understanding that "privacy is a major influencer of CAU." PX2342, Meta email chain: [redacted] to M. Nowak & D. Ferrante re: "Privacy Sentiment Metric Background," (Nov. 18, 2015), FB_FTC_CID_12230086, at -086.

Meta Response: Undisputed that Meta developed a CAMP metric and that the document contains the quoted language.

b. Meta has [redacted]. *See supra* CMF at ¶ 1511; *infra* CMF at ¶ 1999(a).

Meta Response: Disputed. Disputed because this subparagraph cites no evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore fails to create a genuine dispute of material fact. To the extent this subparagraph incorporates the FTC's statements in paragraph 1511 and subparagraph 1999(a), Meta incorporates its responses to those statements here.

1971. Meta also recognizes that users generally do not like the use of their personal data for targeted ads.

Meta Response: Disputed. Disputed that this paragraph's unqualified and vague generalization about the preferences that unidentified and undifferentiated users of an

unidentified service purportedly hold regarding personalized advertising creates a genuine dispute of material fact. Further disputed because the FTC's proffered monetization expert, Professor Aral, has acknowledged that consumers have heterogeneous views of using personalized data for advertising: "Lots of people want targeted advertising and research shows they value free access to FB," which "creates tons of non-monetary value." Ex. 498 at 3 (MetaFTC-DX-1159). Further disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. An internal Meta survey from 2018 found that "[d]iscomfort is high with all pieces of information being used for targeting across companies," and noted "extremely high" discomfort for "[c]ontact info, location, financial info, [and] user-generated content" being used for targeting." PX12973 at -004, Meta presentation: "What we did: Ask about ad targeting comfort" (Aug. 20, 2018), FTC-META-005217698.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1971, and because the survey this subparagraph describes as "internal" was an "[o]ff-platform, unbranded survey run through Ipsos" assessing the views of "60,000 US, UK, FR, BR, and DE people who used Amazon, Google, and Facebook at least once." PX12973 at -003 (FTC-META-005217697). Further disputed because the document does not support this subparagraph's unqualified and vague generalization about the preferences that unidentified and undifferentiated users of an unidentified service purportedly hold regarding personalized advertising.

b. An internal Meta study, summarized in a November 2021 Meta internal memo, found that [redacted] and [redacted] PX13204, Meta document: "Ads Consent & Value: H2 2021 Learnings," (*Nov. 23, 2021), FTC-META-006357796, at -798.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1971, and because the cited exhibit does not support this subparagraph's unqualified and vague generalization about the preferences that unidentified and undifferentiated users of an unidentified service purportedly hold regarding personalized advertising. Further disputed on the basis that "consumers may state that they highly value 'privacy' (however that might be defined) but their actual choices do not appear to be affected by privacy concerns." Ex. 2 at ¶ 174 (Carlton Rep.). The document states: "[redacted] PX13204 at -797 (FTC-META-006357796).

c. A Meta literature review dated November 2021 [redacted]

PX13215, Meta document: "[WIP] Ads Consent & Value Lit Review" (*Nov. 4, 2021), FTC-META-006357664, at -665.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1971, and because this statement mischaracterizes the cited exhibit by omitting relevant italics, language, and context. The document addresses the distinction between the concepts of "[p]ersonalization, relevance and discovery," PX13215 at -665 (FTC-META-006357664) (emphasis in original); *see also id.* at -666 ( ), -670 (explaining that).

d. A Meta literature review dated December 2021 showed that

[redacted] PX3509, Meta document: "12/2 R&P Review: Ads Consent & Value," (Dec. 2, 2021), FTC-META-006327409, at -416.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1971, and because the interpolated phrase does not appear in the document and the quotation omits relevant context. The document describes a single study that finds: [redacted] PX 3509 at -416 (FTC-META-006327409). Further disputed because "consumers may state that they highly value 'privacy' (however that might be defined) but their actual choices do not appear to be affected by privacy concerns." Ex. 2 at ¶ 174 (Carlton Rep.).

1972. Similarly, [redacted]

[redacted]. PX15006, Meta presentation: "WhatsApp Status Ads Options" (*Oct. 9, 2019), FB_FTC_CID_12454659, at -667.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including because the statement omits important context about the document. The document [redacted]. PX15006 at -667 (FB_FTC_CID_12454659). [redacted] *Id.* The document does not support this paragraph's claim that [redacted]

1973. User responses to Apple's App Tracking Transparency ("ATT") policy additionally indicates that most users do not like their personal data used in targeted advertising.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1971, and in Meta's responses to the subparagraphs below, which do not support the broad generalization in this paragraph.

a. In 2021, Apple launched its App Tracking Transparency (ATT) policy, which required iOS app developers to ask users' permission "to use Apple's IDFA and other personal identifiers from other companies' apps and websites for advertising purposes." PX14829, Snap document: "Advertising and Monetization Update: Snap Inc. February 25, 2021 Board of Directors Meeting" (Feb. 25, 2021), SNAP – FTC – No. 191-0134 – 0000129404, at -426 (describing IDFA as an "Identifier for Advertising" that is "loosely analogous to the use of third party cookies on the web" used to "measure and track interactions with third party applications and to tie those interactions back" to the app's user).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1973.

b. Following Apple's August 2020 announcement of ATT, Meta recognized that a public discussion focused around user privacy could further harm Meta's reputation and, to the extent Apple's ATT policy increased user privacy and limited Meta's ability to exploit user data, the policy threatened its advertising profits. PX3165, Meta email chain: [redacted] to M. Zuckerberg, et al. re: "PRESS: iOS14 initial coverage," (Aug. 26, 2020), FTC-META-002391954, at -959; *infra* CMF at ¶ 1973(b)(iii).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1973 and in Meta's responses to the subparagraphs below, and because the document supplies a summary of press reports that do not support this subparagraph's allegations regarding Meta's state of mind, its assumption that

ATT increased user privacy in any respect, or its characterization of Meta as looking to exploit user data. To the extent this subparagraph incorporates the FTC's statement in subparagraph 1973(b)(iii), Meta incorporates its response to that statement here.

i. After Apple's August 2020 announcement of the ATT policy and Meta's concerns about the policy's threat to Meta's advertising platform, Ms. Sandberg asked David Wehner, "How can our stock be up today?" in recognition of the threat. PX3165, Meta email chain: S. Sandberg to D. Wehner re: "PRESS: iOS14 initial coverage," (Aug. 26, 2020), FTC-META-002391954, at -954.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1973 and subparagraph 1973(b), and because the document does not support this subparagraph's characterization of Ms. Sandberg's state of mind.

ii. In the months that followed Apple's August 2020 announcement of the ATT policy, Meta's communications team sought to encourage press coverage of the policy, "without spinning into a moment focused solely on a battle around privacy," and thus attempted to mitigate an "outsized focus on the impact to Facebook's business." PX3166, Meta email chain: [redacted] to M. Zuckerberg, et al. re: "EOD Coverage: Apple iOS 14 Moment (Wednesday 12/16)," (Dec. 16, 2020), FTC-META-010262053, at -055.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1973, and because the subparagraph describes a single document and omits necessary surrounding context: "We achieved our primary goal: broad coverage highlighting the upcoming harm to businesses/the ecosystem and calling out the anti-competitive nature of Apple's iOS 14 policy, without spinning into a moment focused solely on a battle around privacy." PX3166 at -055 (FTC-META-010262053).

iii. Meta executives recognized that, with regard to its public response to Apple's ATT policy, one of Meta's priorities was avoiding "blowback on ourselves on the privacy issue." *Id.* at -054.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1973 and subparagraph 1973(b), and because the subparagraph describes a single document and omits necessary surrounding context. A single Meta employee wrote: "Today played out in the upper end of what we could have hoped for – we drove our message through, we got people thinking differently about the topic, and did so with (relatively) minimal blowback on ourselves on the privacy issue." PX3166 at -054 (FTC-META-010262053).

c. Facebook and Instagram users have, through Apple's ATT policy, [redacted].

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1973 and in Meta's responses to the subparagraphs below, which do not support the statement in this subparagraph, including its assumption that the ATT policy protects user privacy.

i. [redacted] PX10074 at -002, Ltr. from G. Block to N. Brenner re: FTC v. Meta Platforms, Inc., Case No. 1:20-cv-03590-JEB – FTC's Request for Production No. 104 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 1973, and because the document does not support this subparagraph's assumption that the ATT policy protects user privacy, or its further assumption that [redacted]. *See* PX10074 at 3 (Ltr. (May 31, 2023)).

ii. [redacted] *Id.* at -002-003.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to subparagraph 1973(c)(i).

iii. [redacted] *Id.* at -003.

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to subparagraph 1973(c)(i).

1974. The decision of Meta users to opt out of sharing certain data via the Apple ATT policy also came with specific notice that opting out would diminish the relevance of their advertising, underscoring that users valued their data privacy over the purported ad relevancy claim.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because they do not cite any evidence that supports the vague and argumentative statement that "users valued their data privacy over the purported ad relevancy claim."

a. Meta provided users with an additional informational prompt during the App Tracking Transparency authorization request process. The prompt espoused the supposed benefits of Meta collecting users' off-platform personal data, including that Meta's collection of this data would result in "more personalized" advertising. *See* PX6091, Levy (Meta) Dep. Tr., at 35:12-45:16; *see also*

PX13189 at -001-006, Dan Levy, *Speaking Up for Small Businesses*, Meta Newsroom, https://about.fb.com/news/2020/12/speaking-up-for-small-businesses/ (last updated June 30, 2021) (describing Apple's App Tracking Transparency and Meta's preceding informational prompt).

Meta Response: Undisputed that the documents contain the quoted and paraphrased language.

b. Meta [redacted]. *See* PX12978 at -010 (Meta, "iOS App Tracking Transparency, Impact and Implications," June 25, 2021) (noting that [redacted]); *see also* PX6087, Cobb (Meta) Dep. Tr., at 192:7-202:7 (discussing PX12978 and testifying that the presentation's author, [redacted], was Vice President of Analytics for Meta's monetization team).

Meta Response: Undisputed.

c. Despite this informational prompt, and its touting of "more personalized" advertising, [redacted] of users still chose to opt out of sharing their off-platform data with Meta. *See supra* CMF at ¶¶ 1973(c)(i)-(iii).

Meta Response: Disputed. Disputed because this subparagraph cites no evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore fails to create a genuine dispute of material fact. To the extent this subparagraph incorporates the FTC's statements in subparagraphs 1973(c)(i)-(iii), Meta incorporates its responses to those

statements here. Meta further disputes this subparagraph's characterization of the ATT policy, which (as reflected in subparagraph 1973(c)) requires users affirmatively to opt in to IDFA, rather than (as this subparagraph suggests) permitting users to opt out.

b) Privacy is a dimension of competition for online services, including among providers of PSN services.

1975. Firms that provide PSN services, as well as firms that more broadly collect and use users' personal information, compete on the basis of privacy. *Infra* CMF at ¶¶ 1976-1985.

Meta Response: Disputed. Disputed because this paragraph cites no evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore fails to create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraphs 1976-1985, Meta incorporates its responses to those statements here. Further disputed that Meta (or any other firm) is a "PSN service[]" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

(1) Firms that provide PSN services compete on the basis of privacy.

1976. Meta's own successful entry into the market for PSN services was related to differentiating from incumbent Myspace on the basis of privacy. Facebook's early privacy decisions, such as setting sharing to private as default, led users to believe that Facebook would better protect their privacy than would the competition. PX9007, Hemphill Rebuttal Report at ¶ 760.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. It cites no evidence that Meta's early success was "related to differentiating from incumbent Myspace on the basis of privacy" as opposed to

Facebook's superior features, user experience, and infrastructure compared to Myspace. It also cites no evidence to support the statement about what "users" "believe[d]." Further disputed that there is a market for "PSN services" for the reasons stated in Meta's Introduction to the FTC's Counterstatement.

1977. Facing competition from Google+, Meta was forced to respond by improving its privacy offering. *See supra* CMF at § IV.A.1.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Section IV.A.1, Meta incorporates its responses to those statements here.

1978. Snapchat has differentiated its PSN offering from Meta's apps by focusing on privacy and data protection, with a "privacy-by-design" narrative driving its features and monetization decisions.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Snapchat competes only with other firms the FTC has designated as "PSNS" firms. Snap's senior director of growth, David Levenson, testified that Snap competes for time spent with TikTok, YouTube, Facebook, Instagram, WhatsApp, iMessage, Twitter, Pinterest, BeReal, and Discord. *See* Ex. 97 at 15:7-9, 28:11-13 (Levenson (Snap) Dep. Tr.) ("Q. . . . [D]oes Snap compete with TikTok for overall time spent on the app? A. Yes."), 28:14-16 (same for YouTube), 28:17-19 (same for Facebook), 28:20-22 (same for Instagram), 29:1-3 (same for WhatsApp), 29:4-6 (same for iMessage), 29:7-9 (same

for Twitter), 29:10-12 (same for Pinterest), 29:13-15 (same for BeReal), 29:16-18 (same for Discord). Mr. Levenson also testified that "[a]ny application that takes your eyeballs off of Snapchat competes with overall time spent with Snapchat." *Id*. at 29:22-30:2. Further disputed that Snapchat (or Meta) is a "PSN" offering for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed because this paragraph's vague statements regarding privacy and data protection omit context about Snap's data practices, including that the FTC itself has required Snapchat to establish a privacy program for the protection of user data. *See* Meta SMF ¶ 52.

a. In a 2018 interview, Snap CEO Evan Spiegel stated that "we built our business on this idea of data minimization." PX0497 at -015-16, *Full Video and Transcript: Snap CEO Evan Spiegel at Code 2018*, Vox (June 8, 2018), https://www.vox.com/2018/5/30/17397120/snap-ceo-evan-spiegel-transcript-code-2018 (relating that "the way that you treat user privacy is really important," from Snap's origins Snap "cared about data retention," Snap's approach is "getting rid of personal information rather than storing it, hoarding it forever," and "we built our business on this idea of data minimization").

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

b. Ashish Wahi, Director of Product at Snap, testified that Snap's "Trust & Safety Policies" include a "Safety-by-Design" program that requires "all product specs that get written at Snapchat [to] have a very specific privacy section that is reviewed before -- as the product is being designed and architected, and it's

reviewed, and has to be approved by privacy legal before it can launch." PX6157, Wahi (Snap) Dep. Tr., at 15:7-8, 276:10-17.

Meta Response: Undisputed that the witness provided the quoted testimony.

c. In 2018, Snap launched Snap Kit—a collection of four APIs opening up Snap's features and platform to third-party developers for the first time—without allowing developers access to private account data. PX0496 at -001, *Introducing Snap Kit*, Snap Newsroom (June 14, 2018), https://newsroom.snap.com/introducing-snap-kit ("Today we're introducing Snap Kit to help developers build products powered by some of the best parts of Snapchat. Snap Kit brings the experiences you love on Snapchat into some of your favorite apps, without compromising your private account data.").

Meta Response: Undisputed.

d. Snap's communications team emphasized how Snap's "privacy by design narrative" related to Snap Kit's 2018 launch was "positioning this as a major differentiator for us, and a potential boost for our growth." [redacted]

Meta Response: Undisputed that the document contains the quoted language.

1979. Snapchat's features emphasize privacy and data protection.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

in Meta's responses to the subparagraphs below, and because they do not cite any evidence that supports the vague statement in this paragraph.

a. Snapchat's friend suggestions respect certain privacy-oriented "guardrails," despite a likely negative impact on growth of user networks. PX6119, Andreou (Snap) Dep. Tr., at 186:20-188:14 (explaining, for example, that Snapchat friends lists are private, despite likely costs to growth, because Snap "really tried to hold strong to this belief that just because you were friends with someone didn't mean that you had the right to know all the people that they knew.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, because the cited discussion concerns Snapchat's decision not to make a user's list of friends visible to all of that user's other friends; it does not support the vague generalizations regarding user privacy stated in this subparagraph or paragraph 1979.

b. Sharing of Snapchat Stories defaults to private sharing and most Snapchat users maintain that default. [redacted]

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, because the cited transcript discusses that, by default, only those Snapchat users who are another user's bidirectional friends can view that viewer's Story on Snapchat. *See* PX6119 at 210:11-19 (Andreou (Snap) Dep. Tr.). It does not support the vague generalizations regarding user privacy stated in this subparagraph or paragraph 1979.

1980. Snap's attention to privacy carries over to how its advertising practices handle data collection.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because they do not cite any evidence that supports the vague statement in this paragraph.

a. An "Advertising and Monetization Update" provided for a February 2021 meeting of Snap's Board asserted that "[o]ur privacy-by-design principles have steered us away from some of the practices Apple is seeking to prevent" with the launch of its App Tracking Transparency policy. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this subparagraph supports this paragraph's vague generalizations regarding user privacy. The cited exhibit states Snap's expectation that the [redacted] PX14829 at -427 (SNAP – FTC – No. 191-0134 – 0000129404).

b. To enable ad measurement and personalization without using personally identifiable information, Snap "developed an alternative solution called Advanced Conversions" that "employs a range of privacy-enhancing technologies so advertisers can measure campaign outcomes in a way that's aggregated and adherent to privacy protocols across apps and websites." [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this subparagraph supports this paragraph's vague generalizations regarding user privacy. The cited exhibit states Snap's expectation that the [redacted] PX14829 at -427 (SNAP – FTC – No. 191-0134 – 0000129404).

1981. Snap's "privacy-by-design principles" have prioritized the privacy and data protection of users over the maximization of raw advertising revenue. PX14829, Snap document: "Advertising and Monetization Update: Snap Inc. - February 25, 2021 Board of Directors Meeting" (Feb. 25, 2021), SNAP – FTC – No. 191-0134 – 0000129404, at -426 ("Our privacy-by-design principles have steered us away from some of the practices Apple is seeking to prevent. As we compare the targeting and optimization practices we have deployed versus some other ad platforms, we have taken a far more limited approach. This has had the effect of reducing our performance relative to our competitors that take less privacy centric approaches.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact. The document does not support this paragraph's vague generalization regarding user privacy, data protection, and revenue.

1982. Snap believes that Apple's App Tracking Transparency policy is "a benefit in the direction of Snap" insofar as "companies like Facebook and Google have taken substantially more aggressive targeting and optimization approaches." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact to the extent it implies Meta has lesser privacy and data protection than Snapchat. The FTC did not identify any relevant benchmark by which to assess Meta's privacy and data collection practices or the asserted consumer harm. *See* Ex. 1 at ¶¶ 267-276 (Ghose Rep.); *see also* Ex. 2 at ¶¶ 174, 320-323 (Carlton Rep.). Evidence instead shows that "Meta's user privacy features and policies have been similar to, and sometimes ahead of, those of other major digital platforms." Ex. 1 at ¶¶ 268, 286-326 & pp. 163-165, Ex. H-1, Ex. H-2, and Ex. H-3 (Ghose Rep.).

(2) More broadly, firms that are engaged in the collection and use of personal information also compete on the basis of privacy.

1983. Apple attempts to compete on the basis of privacy with other firms that collect users' personal information, and markets itself as doing so. [redacted] (testifying that Apple has focused on "building privacy into our products . . . with consideration from the beginning as we build and design all of our products"); [redacted] (testifying that Apple has marketed Apple's iMessage as protecting privacy with end-to-end encryption, by not allowing users to see

another user's contacts, and by storing messages on users' devices as opposed to on a central server).

Meta Response: Disputed in part. Undisputed that Mr. Shah provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact to the extent it implies Meta has lesser privacy and data protection than Apple. The cited discussion about iMessage concerns Apple developing end-to-end encryption for that service, which Meta has also added to WhatsApp. *Compare* Meta SMF ¶ 800 (pre-acquisition privacy features on WhatsApp), *with id.* at ¶¶ 851-854 (post-acquisition privacy features on WhatsApp). Further, the FTC fails to identify any relevant benchmark by which to assess firms' privacy and data collection practices or the asserted consumer harm. *See* Ex. 1 at ¶¶ 267-276 (Ghose Rep.); *see also* Ex. 2 at ¶¶ 174, 320-323 (Carlton Rep.). With regard to Meta, evidence shows that "Meta's user privacy features and policies have been similar to, and sometimes ahead of, those of other major digital platforms." Ex. 1 at ¶¶ 268, 286-326 & pp. 163-165, Ex. H-1, Ex. H-2, and Ex. H-3 (Ghose Rep.). Further disputed that the document supports this paragraph's vague generalizations regarding how Apple markets itself or competes with unidentified entities in unidentified markets and with respect to user privacy.

1984. Google has taken steps to position itself as more privacy-centric by aiming to phase out the use of third-party cookies on its Chrome browser and to more broadly reduce "cross-site and cross-app tracking," through an initiative that Google has dubbed the "Privacy Sandbox." *See* PX9007, Hemphill Rebuttal Report at ¶ 768.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact to

the extent it implies Meta has lesser privacy and data protection than Google. The cited paragraph in Professor Hemphill's rebuttal report concerns Google adding user privacy settings and controls to the Chrome web browser. Meta has released dozens of new privacy controls for its services between 2012 and 2022, including Granular Data Permissions (2012), Clear History (2019-2020), and Privacy Center (2022) – among many others. *See* Meta SMF ¶¶ 45-50. Further, the FTC fails to identify any relevant benchmark by which to assess firms' privacy and data collection practices or the asserted consumer harm. *See* Ex. 1 at ¶¶ 267-276 (Ghose Rep.); *see also* Ex. 2 at ¶¶ 174, 320-323 (Carlton Rep.). With regard to Meta, evidence instead shows that "Meta's user privacy features and policies have been similar to, and sometimes ahead of, those of other major digital platforms." Ex. 1 at ¶¶ 268, 286-326 & pp. 163-165, Ex. H-1, Ex. H-2, and Ex. H-3 (Ghose Rep.). Further disputed that the cited paragraph in Professor Hemphill's rebuttal report supports this paragraph's vague generalizations comparing Google with an unidentified alternative and user privacy competition with unidentified entities in unidentified markets and user privacy.

1985. In line with its founders' priorities, WhatsApp has had a strong association with privacy and data protection.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because they do not cite any evidence that supports the vague statement in this paragraph.

a. Disagreements over the protection of users' privacy played a role in the WhatsApp founders leaving Meta. PX6010, Koum (Meta/WhatsApp) IH Tr., at

192:2-6. WhatsApp's Brian Acton left Meta in 2018 and established Signal with the dedicated mission to protect users' privacy. PX6009, Acton (Meta/WhatsApp) IH Tr., at 242:1-12; PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 145:1-4.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 1985, and because this paraphrased description of Mr. Koum's testimony omits important context: "Q. Why did you leave? A. There were a number of reasons. I think some of them are pretty well known and public about our disagreements on privacy and then product direction. I think the other part of it is also that Facebook is a big company and big companies have their challenges. They can be slow. They can be bureaucratic. They can be political." PX6010 at 192:2-10 (Koum IH Tr.).

b. Brian Acton testified that had "WhatsApp stayed independent," "WhatsApp would have continued to develop ways to protect user privacy." PX6009, Acton (Meta/WhatsApp) IH Tr., at 246:5-8.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed that this speculation about what might have happened creates a genuine dispute of material fact as to actual effects of the Meta acquisition.

c. Jan Koum testified that "user privacy decreased" "[a]s a result of Facebook's ownership of WhatsApp." PX6010, Koum (Meta/WhatsApp) IH Tr., at 181:14-18.

Meta Response: Undisputed that Mr. Koum provided the quoted testimony.

c) Meta has deprioritized privacy and data protection, harming consumers.

1986. Meta enjoys a lack of competitive constraints on privacy and data protection. In association, Meta has adopted a lax approach to privacy, which has led to declining user sentiment on privacy and multiple privacy breaches, violations, and scandals. *Infra* CMF at ¶¶ 1987-2001.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and is a broad overgeneralization, and for the reasons stated above in Meta's response to paragraph 1966. To the extent this paragraph incorporates the FTC's statements in paragraphs 1987-2001, Meta incorporates its responses to those statements here.

(1) Meta is competitively unconstrained on privacy and data protection.

1987. Meta displays a lack of competitive constraints on privacy and data protection. *Infra* CMF at ¶¶ 1988-1991.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraphs 1988-1991, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 1986, and in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and is a broad overgeneralization.

1988. Meta and other industry players have observed that due to Meta's monopoly positioning, it lacks constraints on privacy.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1986, in Meta's responses to the subparagraphs below, and in Meta's Introduction to its Response to the FTC's Counterstatement – namely, that this paragraph is argumentative, asserts legal conclusions, does not state any facts, and is a broad overgeneralization.

a. In June 2010, consultant Maslansky Luntz & Partners reported, in a report commissioned for Meta titled "The Language of Privacy," that "[f]or hundreds of millions of people today who want to connect with their friends and family, you are the first – and more importantly, only – choice." PX3511 at -071, Meta presentation: "The Language of Privacy" (June 15, 2010), FB_FTC_CID_06480526. Observing "the public reaction to your recent policy changes," the consultant offered that "[t]hey distrust you because they feel they need you. People increasingly see you as a pseudo-monopoly, which means they feel they have less control than in a typical commercial relationship. As in any relationship, such a dynamic creates anxiety and distrust." *Id.* (emphasis omitted).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1988, and because this 2010 document, authored by a communications firm, does not support this subparagraph's statements about participants in an

unidentified industry, Meta's alleged monopoly position in an unidentified market, and its possession of that position many years after the document was written.

b. In May 2010, Eliot Schrage, Meta's Vice President of Communications and Public Policy, noted that one vector of privacy-related criticism for Meta came via Meta's "size and prominence . . . [A]ll the concerns above are compounded by the fact of our market leadership. Our success makes it hard for people to leave and critics become more vocal when they resent having to stay with a service that they don't understand, can't control, and mistrust." PX3510, Meta email chain: E. Schrage to [redacted] re: "[pr-fb] Privacy assessment and strategy," (May 10, 2010), FB_FTC_CID_05258308, at -309.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1988 and subparagraph 1988(a).

c. In May 2010 (prior to Google's entry into PSN services with Google+), Google employees observed that "Facebook, being the monopoly that they are, can get away from anything on the UI front. The latest row about privacy illustrates this nicely. Their users have nowhere else to go." PX7068, Google email chain: K. Bharat to S. Felder et al. re: "some early AM2 coverage," (May 29, 2010), GOOG-META-01378559, at -559.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that these two sentences, authored by a single Google employee in 2010 who "consciously [took] a devil's advocate role," PX7068

at -559 (GOOG-META-01378559), support this statement for the reasons stated above in Meta's responses to paragraph 1988 and subparagraph 1988(a).

1989. Meta has expressed in internal documents that it is best to leave users' privacy controls alone and focus on a narrower and more constrained vision of privacy protection, as changes to privacy controls would only bring to wider attention users' dissatisfaction with Meta's use of consumer data.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they are vague and argumentative generalizations, and for the reasons stated in Meta's responses to the subparagraphs below.

a. Mr. Schrage noted to other Meta executives that "[w]e trumpet user control as a key element of privacy, yet many of the changes were perceived as reducing control or placing greater burdens on users" and "we are highlighting the tradeoffs between granularity of control and simplicity and ease of use, and acknowledge that if we have erred too much on the side of granularity we will correct this in the future." PX3497, Meta email chain: E. Schrage to [redacted] re: "PPPMF 5/7/10 (a/c privileged)," (May 7, 2010), FB_FTC_CID_08753174, at -176.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement in this subparagraph creates a genuine dispute of material fact regarding paragraph 1989's vague and argumentative generalizations about privacy and the reasons Meta changes its privacy controls. Further disputed that this 2010 document provides any

probative evidence of Meta's privacy practices in the last 14 years since this document was written.

b. Jay Parikh, Meta's former Vice President of Engineering, wrote to Mr. Zuckerberg: "I'm glad you mentioned that keeping only the data we need isn't a tenable place for us to be as it will hurt our products, and I also don't think we're going to get much credit for it." PX3512, Meta email: J. Parikh to M. Zuckerberg re: "privacy note," (Oct. 17, 2018), FB_FTC_CID_06283872, at -872; PX6061, Parikh (Meta) Dep. Tr., at 27:10-20.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement in this subparagraph creates a genuine dispute of material fact regarding paragraph 1989's vague and argumentative generalizations about privacy and the reasons Meta changes its privacy controls.

c. Meta's Chief Privacy Officer Erin Egan wrote Meta's position is that "formalistic disclosures and consents are the wrong way to regulate privacy." PX3202, Meta email chain: E. Egan to J. Olivan et al. re: "Pre-approval for Data Privacy Day Top-of-Feed Campaign," (Jan. 23, 2018), FB_FTC_CID_08209557, at -557_0002.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement in this subparagraph creates a genuine dispute of material fact regarding paragraph 1989's vague and argumentative generalizations about privacy and the reasons Meta changes its privacy controls. Further disputed because the document quoted in this

subparagraph is missing necessary context. It further states: "When we do things like daily dialogues, it accomplishes both goals: (1) it shows regulators that we're working to educate people about privacy – something we cannot do effectively if we don't communicate about privacy in product; and (2) demonstrates that offering friendly notices and information and information about controls is better than formalistic dialogues and consents." PX3202 at -557_0002 (FB_FTC_CID_08209557).

1990. The Cambridge Analytica scandal, *see supra* CMF ¶¶ 1507-1511; *infra* CMF at ¶¶ 2001(a)-(d), initially triggered additional investments from Meta in bolstering user privacy. For example, in an August 2018 email discussion between [redacted] and Meta's former Vice President of Engineering Jay Parikh, [redacted] noted that "Privacy was a big to do," with Meta previously "front and center on this stuff." PX11061, Meta email: J. Parikh to [redacted] re: "[1:1 [redacted]/Jay] Notes on convo with [redacted]," (Aug. 29, 2018), FTC-META-003670391, at -393. Mr. Parikh concurred that Cambridge Analytica had made privacy "the hottest thing for a hot second" at Meta, generating accompanying "intensity and priority for the things that came out of [Cambridge Analytica]." *Id.* at -391.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact. The FTC's proffered industry expert, Professor Lampe, testified about a post on Twitter concerning Cambridge Analytica in which he wrote: "Other tech companies should thank their stars that it was Facebook in the hot seat and not them. Facebook is only different in their scope, not in their behaviors." Ex. 281 at 277:14-278:14 (Lampe Dep.

Tr.); *see also* Ex. 334 (MetaFTC-DX-1152). He stated, "I would agree that in the specific narrow case of Cambridge Analytica there would be no difference" between Meta and other companies. Ex. 281 at 278:15-279:1 (Lampe Dep. Tr.). To the extent this paragraph incorporates the FTC's statements in paragraphs 1507-1511 and subparagraphs 2001(a)-(d), Meta incorporates its responses to those statements here.

1991. After the public scrutiny from the Cambridge Analytica scandal "died down," Meta let up on its investments in user privacy, making its efforts short-lived.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1966 and in Meta's responses to the subparagraphs below.

a. In January 2018, Meta's Head of Growth, Javier Olivan, acknowledged that Meta was not "great at privacy." PX3202, Meta email: J. Olivan to [redacted], et al. re: "Pre-approval for Data Privacy Day Top-of-Feed Campaign," (Jan. 22, 2018), FB_FTC_CID_08209557, at -557_0004 ("Ultimately it boiled down to the fact that we were trying to create the perception that we were great, when the reality was we had lots of 'skeletons in the closet'. I don't understand how trying to create the perception of excellence at privacy with a campaign done by ourselves saying we are great at privacy helps GDPR – when the reality is different"); PX6017, Olivan (Meta) IH Tr., at 24:21-25:5.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1991, and because this subparagraph mischaracterizes the document. In it, Mr. Olivan responds to a question about a proposed "top-of-feed campaign

in support of Data Privacy Day" that Ms. Sandberg was poised to mention at a speech in Brussels, "given the history of privacy topics and their impact on sentiment and core metrics" and in light of the company's attempt "at landing GDPR in May" 2018 (when GDPR went into effect). PX3202 at -557_0005 (FB_FTC_CID_08209557). Statements regarding public relations strategy before the European Union do not support this paragraph's vague and argumentative generalizations regarding user privacy.

b. In January 2018, Meta's Vice President of Product Growth and Internationalization, Alex Schultz, shared his understanding that making users feel that Meta cares about their privacy "just isn't a metric we want to optimize for anymore." PX3202, Meta email: J. Olivan to [redacted], et al. re: "Pre-approval for Data Privacy Day Top-of-Feed Campaign," (Jan. 19, 2018), FB_FTC_CID_08209557, at -557_0006 ("Specifically our previous pushes to drive up CAMP [Cares About My Privacy] have created some longer term issues [Mr. Olivan] wasn't excited about with more people turning on more restrictive privacy settings with no clear upside. CAMP also just isn't a metric we want to optimize for anymore from my understanding."); PX6025 (Schultz (Meta) IH) at 30:2-30:24 (stating role, which included responsibility for analytics).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1991, and because this statement mischaracterizes the document. The document concerns a proposed "top-of-feed campaign in support of Data Privacy Day" that Ms. Sandberg was poised to mention at a speech in Brussels, "given the

history of privacy topics and their impact on sentiment and core metrics" and in light of the company's attempt "at landing GDPR in May" 2018 (when GDPR went into effect). PX3202 at -557_0005 (FB_FTC_CID_08209557). Statements regarding public relations strategy before the European Union do not support this paragraph's vague and argumentative generalizations regarding user privacy.

c. In August 2018, Meta Vice President of Engineering Jay Parikh acknowledged that "[i]t is absolutely true that we've backed off somewhat on our intensity and priority for the things that came out of [Cambridge Analytica]." PX11061, Meta email: J. Parikh to [redacted] re: "[1:1 [redacted]/Jay] Notes on convo with [redacted]," (Aug. 29, 2018), FTC-META-003670391, at -393. Mr. Parikh noted further that after Cambridge Analytica, user privacy "was the hottest thing for a hot second, but now feels like it isn't." *Id.* at -391. This was in response to [redacted] note that observed, in part: "I'm somewhat worried that Privacy was a big to do and now that we're seeing that the news has died down and that we're not as front and center on this stuff, I do feel that Mark [Zuckerberg] has waned a bit on their commitment and to some extent, so has Sheryl." *Id.* at -393.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1991. Further disputed that this document supports the overbroad statement in paragraph 1991 that Meta reduced investments in protecting user privacy.

d. In October 2018, Mr. Parikh wrote to Mr. Zuckerberg: "[redacted]

[redacted]" PX3513, Meta email: J. Parikh to M. Zuckerberg re: "privacy note," (Oct. 17, 2018), FB_FTC_CID_06217983, at 997-98.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1991. Further disputed that this document supports the overbroad statement in paragraph 1991 that Meta reduced investments in protecting user privacy.

(2) Meta's lax approach to privacy has led to declining user sentiment on privacy.

1992. Internal Meta studies reveal that Meta users' privacy-related sentiment has been poor and declining, with users expressing concerns about Meta's control over and use of user data, concerns over the security (or lack thereof) of personal information, and distrust over Meta's handling of privacy issues writ large.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they are vague and argumentative generalizations, and because Meta's sentiment surveys – which measure brand reputation – provide evidence regarding Meta's privacy policies. *See* Ex. 2 at ¶ 168 (Carlton Rep.) (sentiment surveys "do not provide evidence regarding product quality"); *see also id.* at ¶¶ 169-171 (explaining that there is no connection between sentiment surveys and objective product quality metrics); Ex. 283 at 217:1-20 (Hemphill Dep. Tr.) ("brand reputation could be affected by other things," not just objective product quality). Regarding sentiment surveys about the collection of personal information specifically, Professor Hemphill testified: "There's not some separate

detailed numerical analysis, if that's what you're getting at, finely parsing the decreases that we see across all of these more specific measures." Ex. 283 at 220:13-221:7 (Hemphill Dep. Tr.). He further testified about consumer sentiment and privacy: "Q. But you don't have an opinion that the quality of privacy or the quality of user control over personal information declined over that period, do you? . . . A. I would agree that I don't have some specific opinion that there was some specific switch they flipped downward and then suddenly saw this drop." *Id.* at 222:1-9. Finally, Professor Hemphill acknowledged that "the detailed parsing of what caused these observed declines [in sentiment surveys] is not something I've done a separate investigation into." *Id.* at 223:16-224:5.

a. [redacted] PX9007, Hemphill Rebuttal Report at ¶ 67, Ex. 1.

<u>Meta Response</u>: Disputed in part. Undisputed that the quoted language appears in Professor Hemphill's rebuttal report, except both quotes should include the word [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1992, and because [redacted].

b. A 2014 Meta study, relying on interviews and focus groups, reported study participants' views that "[f]requent privacy setting changes appear designed to confuse and make controlling one's privacy more difficult." PX3148 at -006,

Meta presentation: "Trust Research Findings: Privacy Deep Dive" (Sept. 15, 2014), FB_FTC_CID_03543368.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1992, and because the description of the document is incomplete and misleading. The document states that "given the small sample sizes, no statistical inferences should be drawn from the findings in this report." PX3148 at -005 (FB_FTC_CID_03543368). Further disputed because Meta has released dozens of new privacy controls between 2012 and 2022, including Granular Data Permissions (2012), Clear History (2019-2020), and Privacy Center (2022) – among many others. *See* Meta SMF ¶¶ 45-50. Meta has also added privacy features to WhatsApp, including encryption and other features. *Compare id.* at ¶ 800 (pre-acquisition privacy features on WhatsApp), *with id.* at ¶¶ 851-854 (post-acquisition privacy features on WhatsApp).

c. A 2014 Meta study, relying on interviews and focus groups, reported "growing concern that user data is collected, used, sold, and 'stored forever.'" PX3148 at -006, Meta presentation: "Trust Research Findings: Privacy Deep Dive" (Sept. 15, 2014), FB_FTC_CID_03543368.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1992 and subparagraph 1992(b), and because the description of the document is incomplete and misleading. It states that "given the small sample

sizes, no statistical inferences should be drawn from the findings in this report." PX3148 at -005 (FB_FTC_CID_03543368).

d. A 2014 Meta study, relying on interviews and focus groups, reported that "Facebook is not considered credible" by study participants regarding the information it provides to users regarding its collection and use of personal data. PX3148 at -010, Meta presentation: "Trust Research Findings: Privacy Deep Dive" (Sept. 15, 2014), FB_FTC_CID_03543368 ("Data use policy and privacy are inextricably linked and are about Facebook sharing and selling data . . . People want to be informed – in simple, clear, easy to understand and find terms . . . Again, Facebook is not considered credible for this type of information, so trust building will need to be gradual.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1992 and subparagraphs 1992(b) and 1992(c).

e. A 2014 Meta study, relying on interviews and focus groups, recognized that "[e]xplaining how ad targeting works does not help" build trust regarding Facebook's collection and use of personal data. PX3148 at -011, Meta presentation: "Trust Research Findings: Privacy Deep Dive" (Sept. 15, 2014), FB_FTC_CID_03543368.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 1992 and subparagraphs 1992(b) and 1992(c).

f. A 2015 internal Meta presentation reported that 68 percent of participants in a survey stated that they were "[n]ervous and unsure about sharing my personal information" with Facebook." PX3149 at -008, Meta presentation: "Trust" (July 28, 2015), FB_FTC_CID_07640105.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1992.

g. A 2015 internal Meta presentation reported that 73 percent of participants in a survey were "nervous about the security of [their] personal information" due to concerns that it was being sold to "third parties and advertisers." PX3149 at -016, Meta presentation: "Trust," (July 28, 2015), FB_FTC_CID_07640105 (showing that 73% of participants selected the response, "Selling my information to third parties and advertisers," when asked "why specifically are you nervous about the security of your personal information?").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, in response to the following question: "Any why [sic] specifically are you nervous about the security of your personal information? Please select all that apply." PX3149 at -016 (FB_FTC_CID_07640104). Disputed for the reasons stated above in Meta's response to paragraph 1992.

h. A 2016 Meta slide deck, titled "Innovation research review," reported that 80% of U.S. participants in a survey expressed that they were somewhat or very concerned about their privacy on Facebook. PX3150, Meta presentation: "Innovation Research Review" (Jan. 2016), FB_FTC_CID_08027859, at -907.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1992.

i. A 2016 Meta slide deck, titled "Innovation research review," reported results from a survey of U.S. Facebook users, finding that only 29% agreed that Facebook "[p]uts me in control of my privacy and what personal info is shared"; that only 22% agreed that Facebook "[v]alues the privacy of its users"; that only 23% agreed that Facebook "[i]s honest and open about how my personal information is used"; that only 22% agreed that Facebook "[p]rotects my privacy"; and that only 19% agreed that Facebook "[p]rotects my personal information." PX3150, Meta presentation: "Innovation Research Review" (Jan. 2016), FB_FTC_CID_08027859, at -908 (asking survey participants "How much do you agree or disagree that the following statements apply to Facebook?").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, in describing a third-party survey conducted in April 2015. Disputed for the reasons stated above in Meta's response to paragraph 1992.

j. A Meta survey found that users' [redacted]. PX3164 at -007, Meta presentation: "[redacted]" (Sept. 21, 2018), FB_FTC_CID_02407519 ([redacted]

[redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1992.

1993. External studies conducted by other apps reveal that Meta users' privacy-related sentiment has been poor and declining.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they are vague and argumentative generalizations, and because sentiment surveys – which measure brand reputation – "do not provide evidence regarding product quality." Ex. 2 at ¶ 168 (Carlton Rep.); *see also id.* at ¶¶ 169-171 (explaining that there is no connection between sentiment surveys and objective product quality metrics). Professor Hemphill conceded that "brand reputation could be affected by other things," not just objective product quality. Ex. 283 at 217:1-20 (Hemphill Dep. Tr.). Regarding sentiment surveys about the collection of personal information specifically, Professor Hemphill testified: "There's not some separate detailed numerical analysis, if that's what you're getting at, finely parsing the decreases that we see across all of these more specific measures." *Id.* at 220:13-221:7. He also acknowledged that "the detailed parsing of what caused these

observed declines [in sentiment surveys] is not something I've done a separate investigation into." *Id.* at 223:16-224:5.

a. A 2021 study by TikTok found that users "who report losing trust" in Facebook and WhatsApp said they were most concerned about "privacy and data protection," "information collected without their permission," and "inadequate moderation of misinformation and abusive behavior." PX13746, [redacted] TIK-00001472, at -473.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 1993, and because this subparagraph mischaracterizes the document, [redacted] Further disputed that this subparagraph supports paragraph 1993's vague generalization [redacted].

b. A 2021 study by TikTok found that, among users who took a break from Facebook, 56% reported "My privacy and data are not adequately protected" and 54% reported "Collection of my information beyond what I gave permission for"

as reasons. PX13746, [redacted], TIK-00001472, at -477.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language comparing Meta's service to TikTok. Disputed for the reasons stated above in Meta's responses to paragraph 1993 and subparagraph 1993(a).

c. A 2021 study by TikTok found that, among Facebook users who churned, i.e., left Facebook, 57% reported "My privacy and data are not adequately protected" and 56% reported "Collection of my information beyond what I gave permission for" as reasons. PX13746, [redacted] TIK-00001472, at -477.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language comparing Meta's service to TikTok. Disputed for the reasons stated above in Meta's responses to paragraph 1993 and subparagraph 1993(a).

1994. Internal and external studies reveal that Meta rates poor on privacy compared to other online platforms.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because they are vague and argumentative generalizations, and for the reasons stated above in Meta's responses to paragraphs 1992 and 1993. Further disputed because evidence shows that "Meta's user privacy features and policies have been similar to, and sometimes ahead of, those of other major digital platforms." Ex. 1 at ¶¶ 268, 286-326 & pp. 163-165, Ex. H-1, Ex. H-2, and Ex. H-3 (Ghose Rep.).

a. A 2015 internal Meta presentation reported survey results that Facebook "lags behind all major social players" when survey participants were asked to rate how well the statement, "Keeps my personal information safe," described each brand. PX3149 at -006, Meta presentation: "Trust" (July 28, 2015), FB_FTC_CID_07640105.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1994.

b. A 2015 internal Meta presentation reported that 50 percent of participants in a survey stated that Facebook requires them "to share too much personal information"—a higher percentage than for other major digital platforms. PX3149 at -007, Meta presentation: "Trust" (July 28, 2015), FB_FTC_CID_07640105 (comparing survey responses regarding Facebook, Twitter, Google, Apple, Microsoft, and Amazon).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1994. Further disputed that this subparagraph accurately characterizes the document, which addresses "each company's personal information requirements" and not any particular platform's requirements. PX3149 at -007 (FB_FTC_CID_07640104). Further disputed that this subparagraph supports paragraph 1994's vague generalization regarding privacy.

c. A 2020 benchmarking analysis of "nine major social platforms," conducted by Business Insider Intelligence and titled "The Digital Trust Report 2020," found

that Facebook was the least trusted of the nine platforms. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 1994. Further disputed that the document supports paragraph 1994's vague generalization regarding [redacted]. Evidence instead shows that "Meta's user privacy features and policies have been similar to, and sometimes ahead of, those of other major digital platforms." Ex. 1 at ¶¶ 268, 286-326 & pp. 163-165, Ex. H-1, Ex. H-2, and Ex. H-3 (Ghose Rep.). Moreover, "what users *say* they want in surveys is often at odds with what their real-world behavior reveals, a phenomenon" commonly described "as the 'privacy paradox.'" Ex. 1 at ¶ 283 (Ghose Rep.) (emphasis in original); *see also id.* at ¶¶ 284-285, 322-326 (describing observed user behavior showing "that 'negative sentiment' towards an app regarding its privacy policies does not necessarily lead to a substantial decrease in usage, regardless of how much competition the app faces"). The success of Meta's Family of Apps further demonstrates that evidence of the sort this subparagraph cites is uninformative about any fact material to this case.

d. A 2020 benchmarking analysis of "nine major social platforms," conducted by Business Insider Intelligence and titled "The Digital Trust Report 2020," found

that survey participants were least likely to agree that Facebook "protects my data and privacy." [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the document supports paragraph 1994's vague generalization regarding [redacted], for the reasons stated above in Meta's response to paragraph 1994.

e. A Meta survey found that [redacted]. PX3164 at -011, Meta presentation: "[redacted]" (Sept. 21, 2018), FB_FTC_CID_02407519 ([redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the document supports paragraph 1994's vague generalization regarding privacy, or any other claim that Meta's privacy practices are poor, for the reasons stated above in Meta's response to paragraph 1994.

(3) Meta's lax approach to privacy has also led to multiple privacy breaches, violations, and scandals.

1995. Meta's lax approach to privacy has also led to multiple privacy breaches, violations, and scandals, including the recent data harvesting scandal by Cambridge Analytica. *Infra* CMF at ¶¶ 1996-2001.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in paragraphs 1966-2001, Meta incorporates its responses to those statements here. Further disputed that this statement accurately characterizes the Cambridge Analytica incident, including by describing it as "recent"; the incident took place around the 2016 U.S. presidential election and was publicly reported for the first time in 2018. *See* PX9000 at ¶ 782 (Hemphill Rep.). Further disputed because the FTC does not cite any evidence, and adduced none, to show that the Cambridge Analytica incident – which involved a third-party actor violating Meta's policies – was connected to any specific Meta underinvestment in privacy, let alone one that relates to the Instagram or WhatsApp acquisitions. The FTC's proffered industry expert, Professor Lampe, testified about a post on Twitter concerning Cambridge Analytica in which he wrote: "Other tech companies should thank their stars that it was Facebook in the hot seat and not them. Facebook is only different in their scope, not in their behaviors." Ex. 281 at 277:14-278:14 (Lampe Dep. Tr.); *see also* Ex. 334 (MetaFTC-DX-1152). He stated, "I would agree that in the specific narrow case of Cambridge Analytica there would be no difference" between Meta and other companies. Ex. 281 at 278:15-279:1 (Lampe Dep. Tr.). Publicity about the Cambridge Analytica incident had a minimal impact on users and engagement, which confirms that it was not perceived by users as a change in quality-adjusted price. *See* PX9000 at ¶ 783 (Hemphill Rep.). As Meta's expert, Professor Carlton, opined: "Even if it were appropriate to treat ad load (or privacy) as the same as a pecuniary price (which, as I have explained, is

incorrect) and if Meta really were pricing as a monopolist (*i.e.*, pricing such that demand was elastic), and if Cambridge Analytica really did represent a significant increase in quality-adjusted price, then there should have been substitution away from Meta. Instead, if one believes the scandal represented a meaningful change in 'price,' then Prof. Hemphill's recognition of the lack of consumer substitution away from Meta following the scandal indicates that demand was not elastic and that Meta had *not* been exercising monopoly power." Ex. 2 at ¶ 173 (Carlton Rep.) (emphasis in original); *see also* Ex. 283 at 185:16-20 (Hemphill Dep. Tr.) ("there's going to be competition for marginal users in an already monopolized market" and "[t]he very nature of the monopolized market brings in more distant substitutes into the picture"); PX9000 at ¶ 177 (Hemphill Rep.) ("a profit-maximizing monopolist will raise price to a point at which demand is elastic, even if market demand is inelastic at the lower competitive price"). The record also shows that "consumer preferences regarding data privacy are heterogeneous," and that intensified competition therefore does not necessarily lead to any consumer benefits regarding privacy and data-collection practices. *See* Ex. 1 at ¶¶ 266, 269-285 (Ghose Rep.); *see also* Ex. 2 at ¶¶ 174, 320-323 (Carlton Rep.).

1996. In November 2011, Meta settled charges from the FTC that Meta had deceived consumers by failing to keep its privacy promises. *See* PX9000, Hemphill Report at n.2170.

<u>Meta Response</u>: Undisputed that Meta reached a settlement with the FTC in 2011.

1997. Meta has operated under a consent order with the FTC since 2012 related to violations of its privacy promises to consumers. *See* Decision and Order, *In the Matter of Facebook*,

Inc., Dkt. No. C-4365 (F.T.C. July 27, 2012), https://www.ftc.gov/sites/default/files/documents/cases/2012/08/120810facebookdo.pdf.

Meta Response: Undisputed that Meta has operated under the terms of a consent order with the FTC since 2012.

1998. In July 2019, due to additional breaches, the FTC imposed a $5 billion penalty on Meta, along with a set of extensive new privacy requirements. *See* PX9000, Hemphill Report at ¶ 1178 nn.2170-71. In a press release, the FTC stated that "[t]he $5 billion penalty against Facebook is the largest ever imposed on any company for violating consumers' privacy and almost 20 times greater than the largest privacy or data security penalty ever imposed worldwide. It is one of the largest penalties ever assessed by the U.S. government for any violation." PX0686 at -001, *FTC Imposes $5 Billion Penalty and Sweeping New Privacy Restrictions on Facebook*, FTC (July 24, 2019), https://www.ftc.gov/news-events/news/press-releases/2019/07/ftc-imposes-5-billion-penalty-sweeping-new-privacy-restrictions-facebook.

Meta Response: Undisputed that the document contains the quoted language.

1999. Meta has tied declines in Facebook's sentiment metrics in the United States to publicized breaches of user privacy.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 1970.

a. Meta employees recognized in 2019 that its [redacted]

[redacted] PX3394, Meta email chain: [redacted] to T. Alison, et al. re: "Profile + Product Foundation sync on Goodwill" (Mar. 23, 2019), FTC-META-002496984, at -986-87.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1970 and 1999, and because this subparagraph mischaracterizes the document, which is an email from a single Meta employee. Further disputed that this subparagraph supports paragraph 1999's vague characterization of user sentiment and privacy, including for the reasons stated above in Meta's response to paragraph 1995. The Cambridge Analytica incident had a minimal impact on users and engagement, which confirms that it was not perceived by users as a change in quality-adjusted price: "Even if it were appropriate to treat ad load (or privacy) as the same as a pecuniary price (which, as I have explained, is incorrect) and if Meta really were pricing as a monopolist (*i.e.*, pricing such that demand was elastic), and if Cambridge Analytica really did represent a significant increase in quality-adjusted price, then there should have been substitution away from Meta. Instead, if one believes the scandal represented a meaningful change in 'price,' then Prof. Hemphill's recognition of the lack of consumer substitution away from Meta following the scandal indicates that demand was not elastic and that Meta had *not* been exercising monopoly power." Ex. 2 at ¶ 173 (Carlton Rep.) (emphasis in original).

b. In April 2021, a "Sentiment Update" from Meta's Demography and Survey Science team reported that, following public reporting on April 2, 2021 that

personal data was scraped from Facebook accounts "by malicious actors," [redacted] PX3152 at -007, -009, Meta presentation: "Sentiment Update" (Apr. 16, 2021), FTC-META-004953588.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 1970 and 1999. Further disputed that this subparagraph supports paragraph 1999's vague characterization of user sentiment and privacy.

2000. In May 2023, the European Union fined Meta $1.3 billion for violating its data privacy rules. *See* PX9000, Hemphill Report at ¶ 1181.

Meta Response: Disputed. Disputed that this statement – regarding a foreign regulator's actions in respect of a geographic market not at issue in this lawsuit – creates a genuine dispute of material fact. Although the European Data Protection Board issued the order referenced in this paragraph, Meta disputes this paragraph's vague characterization of the privacy rules at issue in the order, which concerned the cross-border transfer of data about European Union users to the United States. *See* Ex. 516 (Meta, *Our Response to the Decision on Facebook's EU-US Data Transfers*).

2001. The Cambridge Analytica scandal was a major breach of user trust related to privacy and data protection.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

in Meta's response to paragraph 1995 above and in Meta's responses to the subparagraphs below.

a. In the Cambridge Analytica scandal, Cambridge Analytica, a data analysis and consulting company, used Facebook APIs to extensively harvest Facebook user information. *Supra* CMF at § II.C.4(a)(1).

Meta Response: Disputed. Disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this subparagraph incorporates the FTC's statements in Section II.C.4(a)(1), Meta incorporates its responses to those statements here. Further disputed that this subparagraph supports paragraph 2001's generalizations regarding the Cambridge Analytica incident.

b. When news of the behavior broke publicly in March 2018, it produced a sharp drop in user sentiment, underscoring the user dissatisfaction and consumer harm. *Supra* CMF at § II.C.4(a)(1).

Meta Response: Disputed. Disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this subparagraph incorporates the FTC's statements in Section II.C.4(a)(1), Meta incorporates its responses to those statements here. Further disputed that this subparagraph supports paragraph 2001's generalizations regarding the Cambridge Analytica incident.

c. Users' response to the Cambridge Analytica scandal "provides further evidence of users' lack of substitution despite declining quality," with "[t]he lack of a short-term engagement response, despite a sharp drop in perceived quality, [being] a further indication of the weakness of competitive constraint." *Supra* CMF at § II.C.4(a)(1); PX9000, Hemphill Report at ¶ 41. This lack of response "is further evidence of inelastic demand for Facebook." *Id.* at ¶ 685.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because evidence shows that it is contrary to fundamental principles of economics. *See* Ex. 2 at ¶¶ 172-174 (Carlton Rep.). Specifically, the Cambridge Analytica incident did not have a significant impact on users or engagement, which confirms that it was not perceived by users as a change in quality-adjusted price. *See* PX9000 at ¶ 783 (Hemphill Rep.). As Meta's expert, Professor Carlton, opined: "Even if it were appropriate to treat ad load (or privacy) as the same as a pecuniary price (which, as I have explained, is incorrect) and if Meta really were pricing as a monopolist (*i.e.*, pricing such that demand was elastic), and if Cambridge Analytica really did represent a significant increase in quality-adjusted price, then there should have been substitution away from Meta. Instead, if one believes the scandal represented a meaningful change in 'price,' then Prof. Hemphill's recognition of the lack of consumer substitution away from Meta following the scandal indicates that demand was not elastic and that Meta had *not* been exercising monopoly power." *Id.* at ¶ 173 (emphasis in original); *see also* Ex. 283 at 185:16-20 (Hemphill Dep. Tr.) ("there's going to be competition for marginal users in an already monopolized market" and "[t]he very

nature of the monopolized market brings in more distant substitutes into the picture"); PX9000 at ¶ 177 (Hemphill Rep.) ("a profit-maximizing monopolist will raise price to a point at which demand is elastic, even if market demand is inelastic at the lower competitive price"). The record also shows that "consumer preferences regarding data privacy are heterogeneous," and that intensified competition therefore does not necessarily lead to any consumer benefits regarding privacy and data-collection practices. *See* Ex. 1 at ¶¶ 266, 269-285 (Ghose Rep.); *see also* Ex. 2 at ¶¶ 174, 320-323 (Carlton Rep.). Further disputed that this subparagraph supports paragraph 2001's generalizations regarding the Cambridge Analytica incident. To the extent this subparagraph incorporates the FTC's statements in Section II.C.4(a)(1), Meta incorporates its responses to those statements here.

d. Moreover, the evidence refutes any suggestion that the Cambridge Analytica response is a demonstration of a "privacy paradox" or indication that consumers do not care that much about privacy.

<u>Meta Response</u>: Disputed for the reasons stated in Meta's responses to the subparagraphs below.

i. Extensive evidence indicates that Facebook and Instagram users genuinely care about privacy and data protection. *Supra* CMF at § V.C.4(a) [errata: "CMF at § V.C.4(a)" should be "CMF at § IV.C.4(a)"].

<u>Meta Response</u>: Disputed. Disputed because this subparagraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not

create a genuine dispute of material fact. To the extent this subparagraph incorporates the FTC's statements in Section V.C.4(a), Meta incorporates its responses to those statements here.

ii. Further, there are significant switching costs associated with using a different PSN app. PX9007, Hemphill Rebuttal Report at ¶ 152. Given this, despite the serious harm associated with the breach and Meta's lax privacy practices, many users would stay because switching costs are greater or they lack any other place to go to satisfy demand for PSN services. *Id.* at ¶¶ 152-53. That is what the user response to the scandal indicates. *Id.* at ¶¶ 151-53; *see also* PX9010, Lampe Rebuttal Report at ¶¶ 215-16.

Meta Response: Disputed. Disputed that the FTC has properly defined "PSN app" or that there is a distinct demand for "PSN services," for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact because evidence shows that users can and do easily switch to and away from mobile apps, including Meta's apps, and that this ease of switching drives fierce competition. *See* Ex. 1 at ¶ 237 (Ghose Rep.) ("There is a single app store for each of the two operating systems (the Apple App Store for iOS and Google Play Store for Android), which allows consumers to search for, compare, and download apps in one place. Practically all popular apps are available on either app store and can be downloaded within a few seconds.

If a user is dissatisfied with an existing app, downloading an alternative one is typically easy."); *id.* at ¶ 238 ("Once downloaded, switching from one app to another is only one swipe or tap away, irrespective of the type of device."); *id.* at ¶ 240 ("[W]hile an incumbent app may have more information about a user that can be used to personalize the app for them, a new entrant can quickly gain access to much of the same information, meaning the advantage of the incumbent app is minimized."); Ex. 8 at 53:13-15 (D. Weinstein (Alphabet) Dep. Tr.) ("In the online world, it is certainly easy to move away from one service to another"); *see also* Meta SMF [redacted]. The second sentence is disputed for the reasons stated above in Meta's response to subparagraph 2001(c). Further disputed that this subparagraph supports paragraph 2001's generalizations regarding the Cambridge Analytica incident.

iii. An academic study of the impacts of Cambridge Analytica additionally found that while people did not change their Facebook use due to the

incident, they did reconsider their use during that time. PX9010, Lampe Rebuttal Report at ¶ 215.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The claim that users reconsidered use of Meta's services belies the FTC's statement in subparagraph 2001(d)(ii) that users did not have a choice following the Cambridge Analytica incident. *See* Ex. 2 at ¶¶ 172-174 (Carlton Rep.) (addressing the Cambridge Analytica incident). Further disputed that this subparagraph supports paragraph 2001's generalizations regarding the Cambridge Analytica incident.

5. Meta has underinvested in integrity, producing serious integrity harms to consumers.

2002. Meta has underinvested in integrity, including by failing to allocate critical resources to its integrity teams, harming consumers. *Infra* CMF at ¶¶ 2003-08; PX9000, Hemphill Report at ¶¶ 762-68, 1170-74; PX9007, Hemphill Rebuttal Report at ¶ 630.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The FTC offers no evidence comparing Meta's investment in integrity systems to a competitive benchmark or a but-for world without the acquisitions. *See* Ex. 7 at ¶ 173 (Subrahmanian Rep.). The FTC's proffered integrity expert, Professor McCoy, testified that it is possible that Instagram's integrity today is superior to what Instagram would have achieved in a but-for world without the acquisition, and he acknowledged that did not know what integrity problems Instagram would face, what integrity systems Instagram would use, or how many users or integrity engineers Instagram would have in that but-for world. *See* Meta SMF ¶ 754 (citing Ex. 313 at

176:1-11, 192:22-193:16 (McCoy Dep. Tr.)); *see also* PX9013 at ¶ 32 (McCoy Rebuttal Rep.) ("The farther we move away from 2012, the more difficult it is to assess what kind of integrity problems Instagram would have had and what kind of resources and solutions it would have been able to deploy independent of Meta.").

The evidence establishes that Meta has invested substantially in its integrity systems, including by improving Instagram's integrity systems following the Meta acquisition for the reasons stated below in Meta's responses to paragraphs 2183, 2233, 2234, and 2236(a)-(b). *See* Meta SMF ¶¶ 748-753; *see also* Ex. 7 at ¶¶ 30-36 & figs. 1-2 (Subrahmanian Rep.) (recognizing that Meta has invested more than [redacted] in integrity and security since 2016, and that in 2022, Meta had [redacted], including full-time employees and contingent workers, working on integrity and security); *see also id.* at ¶¶ 169-176. As explained in Meta's response to paragraph 2183, the FTC does not dispute that Meta has used the following tools and techniques as part of its integrity work on Facebook and Instagram: a rule engine known as Sigma, Counter SMF ¶ 2211(b); blocklists, including a tool known as Blackhole, *id.* at ¶ 2212(c); rate limiting systems, including tools known as Karma and Tally, *id.* at ¶ 2213(c); checkpoint systems, including a location-detection tool known as Delta, CAPTCHAs, and phone or email verification to authenticate user identities, *id.* at ¶ 2214(b); an interface system known as Sentry, *id.* at ¶ 2215(b); automated first-level review of flagged content, *id.* at ¶ 2216(a); content moderation and review teams, which include Meta employees and third-party reviewers, *id.*; a content review interface known as SRT (and an earlier version known as CRT), *id.*; an image- and video-matching technology known as PhotoDNA, *id.* at 2217(a); user controls, including unfriending, unfollowing, blocking,

and the Hidden Words feature, *id.* at ¶ 2218(a); user reporting tools that allow users to report potential policy violations, *id.* at ¶ 2219(a); warning labels and messages, *id.* at ¶ 2220(a); third-party integrity professionals, including counterterrorism professionals, fact-checkers, content moderators, auditors, and oversight board members, *id.* at ¶ 2221(a); partnerships with non-governmental organizations, including the UK Revenge Porn Helpline, the National Center for Missing and Exploited Children, and the 988 Suicide and Crisis Lifeline, *id.* at ¶ 2222(a); co-founding the Global Internet Forum to Counter Terrorism, *id.*; a specialized cybercrime team to investigate e-crimes, human trafficking, and other threats, *id.* at ¶ 2223(a); quarterly reports publishing integrity metrics, *id.* at ¶ 2224(a); a text-understanding engine known as DeepText, *id.* at ¶ 2225(a)(i); a behavior-based, machine-learning system known as Deep Entity Classification, *id.* at ¶ 2225(a)(ii); language models, *id.* at ¶ 2225(a)(iii); an AI image-matching tool known as SimSearchNet (or SSN), *id.* at ¶ 2225(a)(iv); an advanced version of SSN known as SimSearchNet++ (or SSN++), *id.*; an AI classification system known as Reinforced Integrity Optimizer, *id.*; a Transformer architecture known as Linformer, *id.*; a multimodal AI model known as Whole Post Integrity Embeddings (or WPIE), *id.*; *see also id.* at ¶ 2225(a)(v); a cross-problem model, *id.* at ¶ 2225(a)(vi); an AI tool that recognizes objects in photos and videos known as X-Ray, *id.* at ¶ 2225(b); a photo-matching algorithm known as PDQ, *id.*; a video-matching algorithm known as TMK+PDQF, *id.*; a tool that automates the process of hashing content, matching created hashes against a database, and taking action on matched content known as Hasher-Matcher-Actioner, *id.*; investing "heavily" in AI research, *id.* at ¶ 2225(c)(i)-(ii); multilingual AI tools such as XLM-R, *id.* at ¶ 2225(f)(i); a method for pretraining natural

language processing systems known as RoBERTa, *id.* at 2225(f)(ii); and [redacted] known as Media Match Service, *id.* at ¶ 2225(b); Meta SMF ¶ 752(c).

Further disputed that the materials cited support the statement in this paragraph. Paragraphs 762-768 of PX9000 (Professor Hemphill's report) discuss two questions from a survey Meta conducts of its users; neither of those questions nor any user response to those questions provides evidence to support the claim that Meta "underinvested in integrity, including by failing to allocate critical resources to its integrity teams, harming consumers." This user survey measures Meta's brand reputation, not the objective quality of its services. *See* PX6031 at 217:4-8 (Cobb Dep. Tr.); *see also* PX9019 at ¶ 168 (Carlton Rep.) (surveys relied on by Hemphill "are surveys regarding Meta's corporate reputation and do not provide evidence regarding product quality"). Paragraphs 1170-1174 of PX9000 (Professor Hemphill's report) rely on selective citations to documents taken out of context and post-date the Instagram acquisition by at least five years. Paragraph 630 of PX9007 (Professor Hemphill's rebuttal report) cites no additional information or evidence beyond that already cited in PX9000 (Professor Hemphill's report) other than the fact that Meta paid a fine in Europe, which is unrelated to its investment in integrity systems following the acquisitions at issue. To the extent the FTC incorporates its statements in paragraphs 2003-2008, Meta incorporates its responses to those statements here.

2003. On various occasions, Meta has failed to allocate the resources that Instagram needed to protect users of Instagram related to integrity. *See infra* CMF at § V.D.4(e).

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2002. To the extent this paragraph incorporates the FTC's statements in Section V.D.4(e), Meta incorporates its responses to those statements here.

2004. Meta executives have recognized that Meta has underinvested in integrity, both generally across the firm and with respect to Instagram specifically, with Meta refusing to provide Instagram with resources to improve integrity issues.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2002 and in Meta's responses to the subparagraphs below. Further disputed because the FTC's reliance on four isolated incidents in 2017 to 2019 is incomplete and misleading. The evidence shows that "integrity became the number one area of growth [at Meta] in 2017 and 2018" as Meta "hired across all functions – engineering and product, operations, policy" because integrity "is a team effort." PX10940 at -013 (FTC-META-006840603). In 2018, Meta "more than doubled the number of people who [worked] on safety and security [as compared to 2017] . . . to more than 30,000." *Id.* at -007; *see also* Ex. 7 at p. 23, fig. 2 (Subrahmanian Rep.). Mr. Rosen testified that, when he became Meta's vice president of integrity in February 2017, Meta "had smaller teams" working on integrity, "as did the whole industry" because integrity "wasn't really a focus area for technology companies." PX6058 at 14:8-13, 15:19-16:3, 30:11-22 & errata (Rosen Dep. Tr.). After he took over, Meta evolved the collaboration model between its centralized and app-specific integrity teams, and the Central Integrity team started to drive more integrity projects across

Meta's Family of Apps, including Instagram, which allowed Meta to "pool the systems, the sets of people that work on it, and their knowledge" and understanding of integrity issues. *See id.* at 174:6-22; *see also id.* at 104:8-13 ("[Meta] built a team on Instagram that was using [Meta's] platforms and tools, and we wanted to shift the collaboration model . . . to take on accountability, responsibility, directly as a central team and actually be the drivers of the work."); *id.* at 190:7-9 ("What I know is that we did shift the collaboration model and helped to drive Instagram integrity work."); *see also* Ex. 7 at ¶ 157 & nn.461-462 (Subrahmanian Rep.) (collecting evidence regarding shift in collaboration); *id.* at ¶¶ 172, 179 ("To the limited extent these documents show a difference in integrity between Facebook and Instagram, none provides evidence that such difference were due to a lack of investment by Meta in Instagram relative to Facebook or any other benchmark.").

a. Kevin Systrom, co-founder and Head of Instagram, related an instance where he requested additional "trust and safety and ops" "new heads" for Instagram (out of "the very large allocation . . . for the entire company"), so that Instagram would "[have] enough engineers and . . . operations personnel to review things like misinformation." The response from Meta was "that zero would go to Instagram." Mr. Systrom attempted to appeal to Meta's head of trust and safety, Guy Rosen, but the appeal, with Mr. Zuckerberg as the ultimate decision-maker, was unsuccessful. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 76:1-77:18.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that this statement supports the statement in paragraph 2004 that Meta has underinvested in integrity or creates a genuine

dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2002 and 2004.

b. In an April 2017 email exchange with Mark Zuckerberg concerning Instagram's integrity headcount, Mr. Systrom requested additional engineers to focus on Instagram integrity issues, including the prevention of user harassment and business fraud. Mr. Zuckerberg assessed that Facebook's integrity issues were "more extreme" than Instagram's, with "funding [Facebook's integrity issues] as more urgent in the near term." Mr. Zuckerberg closed his email by stating that he probably could not get Instagram all the requested engineers "in the near term." Mr. Systrom considered Mr. Zuckerberg's assessment to be inaccurate and to reflect Mr. Zuckerberg's lack of familiarity with Instagram's operations. Afterwards, Mr. Systrom related to Marne Levine and Kevin Weil: "I don't think Mark understands the urgency of working on integrity related issues at IG." PX15225, Meta email chain: K. Systrom to M. Levine, et al. re: "Integrity HC@ IG" (Apr. 19, 2017), FB_FTC_CID_03123472, at -472-73; PX6133, Systrom (Meta/Instagram) Dep. Tr., at 96:18-98:19.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the cited materials support the statement in paragraph 2004 that Meta has underinvested in integrity or create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2002 and 2004. Further disputed because the FTC's characterization of the evidence is incomplete and misleading. Mr. Zuckerberg wrote, in relevant part: "Here's what I'll do: I mentioned in small group a few

weeks ago that of the ~50 unallocated engineers, I'm going to allocate ~25 to integrity initiatives, ~12 to video and ~12 to groups / communities. Since I had not been tracking that IG had additional integrity needs, I asked the PAC, feed integrity and ads integrity teams to propose how to allocate the ~25 people. I'll now make sure we include IG in this mix." PX15225 at -473 (FB_FTC_CID_03123472). Mr. Zuckerberg continued: "I should call out though that we're facing more extreme issues on FB right now with the murder, bad activity in private groups, etc. So I do view funding that as more urgent in the near term. I may also shift some of the video and groups headcount to integrity initiatives to make sure they're funded. This is just meant to say that I probably can't get you 13 engineers in the near term, even though I'm supportive of these projects and agree we should allocate more to them as more engineers become available." *Id.*

c. In a February 2019 email thread concerning a headcount request from Instagram, [redacted] noted that a proposed headcount scenario would "still leave very important IG work undone. IG Well-being has historically been very understaffed and there are major gaps on the IG Well-being side that are unstaffed." PX10900, Meta email chain: [redacted] to G. Rosen, et al. re: "Feb HC Ask (IG Ask)" (Feb. 18, 2019), FB_FTC_CID_02851869, at 872.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the document supports the statement in paragraph 2004 that Meta underinvested in integrity or creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs

2002 and 2004. Further disputed because the FTC's characterization of the evidence is incomplete, misleading, and missing necessary context. The FTC asked Mr. Rosen about the outcome of this request, and he explained: "we meaningfully shifted how we operated on Instagram in terms of the collaboration between the central team and the surface team, my central teams. I had to – it wasn't about staffing as much as it was actually changing the mindset of – ensuring that we're truly – the problem teams are really taking accountability across the family of apps. And by the end of the year [2019], they made very meaningful progress towards that goal. . . . It was important for us." PX6058 at 131:10-133:9 (Rosen Dep. Tr.).

d. A 2019 presentation by Guy Rosen, Meta's Head of Trust and Safety, stated that before 2017, integrity issues like hate speech, misinformation, and terrorism were "not a major focus area for our company. We were underinvested. We had just a few small teams working heroically to fight abuse." PX10940 at -009, Meta Presentation: "Guy Rosen / VP, Integrity" (2019), FTC-META-006840603; *see* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 77:5-11 (confirming Mr. Rosen's title).

Meta Response: Disputed in part. Undisputed that Mr. Rosen became the vice president of integrity at Meta in February 2017, and the chief information security officer in June 2022, *see* PX6058 at 14:4-7, 15:19-16:3 (Rosen Dep. Tr.), and that the document contains the quoted language. Disputed that document supports the statement in paragraph 2004 that Meta underinvested in integrity or creates a genuine dispute of material fact, including for the reasons stated above in Meta's

responses to paragraphs 2002 and 2004. Further disputed because the FTC's characterization of the document and testimony is incomplete, misleading, and missing necessary context. When asked about the quoted statement at his deposition, Mr. Rosen explained that, in 2017, Meta "had smaller teams" working on integrity, "as did the whole industry" because integrity "wasn't really a focus area for technology companies." *Id.* at 14:8-13, 15:19-16:3, 30:11-22 & errata. The FTC also omits that the cited presentation states that "integrity became the number one area of growth in 2017 and 2018," with Meta "hir[ing] across all functions – engineering and product, operations, policy" – because integrity "is a team effort." PX10940 at -013 (FTC-META-006840603). Indeed, Meta "more than doubled the number of people who work on safety and security [from 2017 to 2018] to more than 30,000." *Id.* at -007.

2005. Diseconomies of scale have limited the attention that Meta has paid to integrity issues on Instagram, with Meta executives (including Mark Zuckerberg) preferencing Facebook's integrity issues instead. *See supra* at CMF at ¶ 2004.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2002. The FTC's reliance on two isolated incidents – one in 2017, and another in 2019 – is incomplete and misleading, including for the reasons stated above in Meta's response to paragraph 2004. To the extent this paragraph incorporates the FTC's statements in paragraph 2004, Meta incorporates its responses to that paragraph and its subparagraphs here.

a. In a June 2017 email discussing a request from Instagram for resources to address certain integrity issues, Adam Mosseri, Vice President of Product Management for Facebook, noted: "I think IG is underinvested in integrity relative to [its] scale and importance to the business." PX12330, Meta email chain: A. Mosseri to [redacted] re: "Quick sync w/ Adam Mosseri" (June 26, 2017), FB_FTC_CID_02843701, at -701; PX6078, Mosseri (Meta) Dep. Tr., at 7:24-8:7(confirming Mr. Mosseri's title).

Meta Response: Disputed in part. Undisputed that, in 2017, Mr. Mosseri was a vice president of product management at Facebook, and that the document contains the quoted language. Disputed that the cited material supports the statement that Meta underinvested in integrity or creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2002, 2004, and 2005. Further disputed because the FTC's characterization of the evidence is incomplete and misleading. The cited email states that, in June 2017, "the IG PAC team ha[d] 13 people on it," and was "supposed to add 4 more heads in [the second half of 2017]" based on "the FY17 plan the team did back in Q4'16." PX12330 at -701 (FB_FTC_CID_02843701); *see also* PX6078 at 17:17-20 (Mosseri Dep. Tr.) ("Q. . . . [w]hat is the 'IG PAC team' referring to? A. That would be the Instagram integrity surface team."). The evidence shows that, at the time of this email, Instagram also leveraged Meta's Central Integrity team – which was the largest integrity team at Meta – "in a bunch of different ways," including for "model tuning technologies." PX6078 at 13:22-14:7, 23:19-23 & errata (Mosseri Dep. Tr.). When asked about the

document at his deposition, Mr. Mosseri explained that, in 2018, the surface-specific integrity team at Instagram had grown to around 40 people. *Id.* at 21:12-13, 22:7-11, 27:18-24.

b. A little less than two years later, in a February 2019 email exchange discussing the lack of resources focused on Instagram's integrity issues, Meta's Head of Trust and Safety, Guy Rosen, noted that "there is a growing realization [that Instagram integrity] is underfunded." PX10928, Meta email chain: G. Rosen to [redacted] re: "Publicly disclosing SSI numbers on Instagram" (Feb. 12, 2019), FB_FTC_CID_05090799, at -799.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the cited material supports the statement that Meta underinvested in integrity or creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2002, 2004, and 2005.

2006. Meta's integrity practices and underinvestment have produced serious integrity problems on Instagram. *Infra* CMF at §§ V.D.5(e)-(f), V.D.6.

Meta Response: Disputed. Disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. Further disputed for the reasons stated above in Meta's responses to paragraphs 2002 and 2004. To the extent the statement in this paragraph incorporates the FTC's statements in Sections V.D.5(e)-(f) and V.D.6, Meta incorporates its responses to those statements here.

2007. Meta's integrity practices and underinvestment have also led to declining user sentiment related to integrity on Facebook and Instagram, underscoring the consumer harm.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2002 and because there is no evidence that there is an objective, causal relationship between any claimed change in user sentiment about Meta's brand reputation and integrity or a decline in the quality of Meta's integrity efforts. *See* PX9019 at ¶ 170 (Carlton Rep.) ("[P]erceptions of Meta's reputation are not the same thing as the quality of the product that users consume."), ¶ 169 ("Survey responses about whether Facebook is 'good for the world' . . . can be expected to change for many reasons unrelated to antitrust concerns.").

a. Meta understands that its [redacted]. PX3384 at -009, Meta presentation: "[redacted]" (Sept. 2017), FB_FTC_CID_124004216 ([redacted]); *id.* at -037 [redacted]; PX3378 at -039, Meta presentation: "Sentiment" (Jan 2018), FTC-META-005220959.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the materials cited support the statement, including for the reasons stated above in Meta's responses to paragraphs 2002 and

2007. Further disputed that the materials cited establish that there is an empirical causal relationship between [redacted]

b. Meta has found that [redacted] PX3384 at -013, Meta presentation: "[redacted]" (Sept. 2017), FB_FTC_CID_124004216. [redacted] PX3378 at -009, Meta presentation: "Sentiment" (Jan 2018), FTC-META-005220959.

Meta Response: Disputed in part. Undisputed that the materials cited support the statement that [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 2002 and 2007.

c. Meta's [redacted]. PX9000, Hemphill Report at ¶ 768, Ex. 67 ([redacted]), Ex. 68 [redacted]; *see also supra* CMF at § 2.C.3(b).

Meta Response: Disputed in part. Undisputed that Professor Hemphill prepared graphics claiming to show that the [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 2002 and 2007. Further disputed to the extent the statement in this subparagraph suggests there [redacted]; Professor Hemphill's graphics show [redacted]. To the extent the statement in this subparagraph incorporates

the FTC's statements in Section II.C.3(b), Meta incorporates its responses to those statements here.

2008. In a more competitive marketplace, the greater availability of substitutes would mean that users who were dissatisfied with the quality of Meta's PSN services along these dimensions could more readily shift their demand to other PSN platforms. That would give Meta more incentive to improve the quality of its services to retain its customers, and users would enjoy the benefits. Conversely, users are harmed by underinvestment in integrity. PX9000, Hemphill Report at ¶ 1174.

Meta Response: Disputed. Disputed that the FTC's recitation of Professor Hemphill's report creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2002. The cited paragraph of Professor Hemphill's report cites no supporting materials, nor does he explain or elaborate on his conclusory statement – it is *ipse dixit.* The evidence shows that "[i]t is well known in the economics literature that the quality of product in such an industry can increase, decrease, or remain the same as competition increases in a market." PX9019 at ¶¶ 126-128 (Carlton Rep.).

6. Meta has contemplated but declined to provide greater value to users through rewards and incentives.

2009. Meta has contemplated providing greater value to its users [redacted], but Meta has ultimately declined, choosing instead to prioritize revenue. *Infra* CMF at ¶¶ 2010-16; PX9000, Hemphill Report at ¶¶ 1185-1192; PX9007, Hemphill Rebuttal Report at ¶¶ 782-88.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact. The material cited does not support the statement that Meta has prioritized revenue over providing greater value to consumers or that it has

"declined" to provide "greater" value to its users, even if Meta has not implemented [redacted]. Meta has invested billions of dollars in developing Facebook, and it has added more than 100 new features to Facebook since 2012. *See* Meta SMF ¶¶ 17, 126. Meta has likewise invested billions of dollars in developing Instagram, placing it on Meta's infrastructure, growing it to more than [redacted] U.S. monthly active users, and releasing dozens of new features. *See id.* at ¶ 710 (investment), ¶ 724 (growth), ¶¶ 739-747 (features), ¶¶ 755-762 (infrastructure); *see also id.* at ¶ 126 (research and development). Professor Hemphill conceded that new features are quality improvements. *See id.* at ¶ 127. To the extent this statement incorporates the FTC's statements in paragraphs 2010 to 2016, Meta here incorporates its responses to those statements and materials cited.

2010. Meta's advertising business involves the collection of user data. *See* PX6084, Hegeman (Meta) Dep. Tr., at 164:7-174:7 (reviewing the on-site and off-site data that Facebook and Instagram collect from users and confirming that Meta earns billions of dollars a year from advertising); *see also* PX0435 at -015 (Meta SEC Form 10-K, dated Feb. 1, 2023) (listing "reduced availability of data signals used by our ad targeting and measurement tools" as a business risk related to Meta's product offerings and reviewing the use of user data in analysis of Meta's advertising revenue).

Meta Response: Disputed in part. Undisputed that Meta uses some data about users to personalize users' advertising experiences. Disputed that this statement creates a genuine dispute of material fact. The FTC mischaracterizes ten pages of deposition testimony and omits necessary context. Within the above-cited passage of Mr. Hegeman's deposition testimony, he stated: "Q. And submitting to this tracking is a condition of people using

Facebook Blue, correct? A. I believe there is – well, so there's a control that would allow people to opt out of having that data used to personalize their ads." PX6084 at 168:6-10 (Hegeman Dep. Tr.). Further disputed that the cited page of Meta's February 1, 2023 SEC Form 10-K (PX0435 at -015) contains a review of the use of user data or an analysis of Meta's advertising revenue.

2011. User engagement on Meta's PSN apps depends upon user-generated content. *See* PX2687, Meta presentation: "Tech Talk – Measuring Network Effects" (May 16, 2017), FB_FTC_CID_03686481, at -486 (stating that "[h]ow you use Facebook depends entirely on how your friends use Facebook," with "[t]his [being] much less true for many other services (Google, Netflix)"); PX3436, Meta presentation: "Facebook Secret Sauce" (Nov. 10, 2008), FB_FTC_CID_03249636, at -638 ("It is not until all your friends are on the network that you can really enjoy the benefits with associated greater engagement."); PX2093, Meta presentation: "Performance Operating Plan 2009" (Feb. 1, 2009), FB_FTC_CID_08063830, at -833 ("We have spent the last five years building the most powerful growth/engagement flywheel in history. . . . A scalable Facebook business model will be characterized by a flywheel relationship between growth, engagement, and monetization, where all three notions reinforce one another.").

Meta Response: Disputed in part. Undisputed that some users on Facebook and Instagram engage with content generated by other users on Facebook and Instagram. Disputed that this statement creates a genuine dispute of material fact. None of the quoted language concerns Instagram. To the extent the above-quoted material is referring to content generated by a user's friends on Facebook, none of the documents demonstrate that Facebook users are dependent on content from their friends for

engagement. One of the documents discusses content by advertisers, stating that "when advertising is relevant and effectively presented, users perceive it as content and find it valuable," contradicting the statement that users depend on content from friends for engagement. PX3436 at -639 (FB_FTC_CID_03249636) (describing strategy to "make advertising valuable to users"). All the cited material (from 2008, 2009, and 2017) precedes changes that Meta made in response to competition from TikTok, YouTube, and others to improve recommendations to users of unconnected content and interest-based content discovery. *See* Meta SMF ¶ 38 (for the fourth quarter of 2023, explaining that Facebook "[i]n-feed recommendations of posts from accounts that you're not connected to drive incremental engagement" (quoting Ex. 331 at 7 (Meta Q4 2023 Earnings Call))); *id.* at ¶¶ 128, 249-250 (discussing recent changes in content recommendations to respond to competition from TikTok and YouTube). More recent data post-dating the material the FTC cites – which also pre-date the emergence of TikTok in the United States – show that the vast majority of time spent on Facebook and Instagram is not associated with sharing with friends or family. *See id.* at ¶¶ 11, 56 (Professor Carlton's calculations for time spent on Facebook and Instagram).

2012. Meta has previously considered [redacted], demonstrating the feasibility of increased compensation.

<u>Meta Response</u>: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated in Meta's responses to the subparagraphs below, and because none of the cited materials suggest that Meta decided against any of the compensation proposals discussed in the

subparagraphs below for any reasons related to competition, the Instagram acquisition, or the WhatsApp acquisition.

a. Meta executives have had internal discussions about [redacted]. *See* PX12666, Meta email chain: [redacted] to C. Cox, et al. re: "[redacted]" (Mar. 10, 2021), FTC-META-010014631, at -631-33; PX12664, Meta presentation: "[redacted]" (Sept. 15, 2020), FTC-META-002385695, at -725.

<u>Meta Response</u>: Disputed in part. Undisputed that in September 2020 and March 2021, some Meta employees [redacted]. Disputed for the reasons stated above in Meta's response to paragraph 2012. Further disputed that this statement describes [redacted]; PX12664 clarifies that [redacted] PX12664 at -700 (FTC-META-002385693); *see also id.* at -725 (page the FTC cites above; referring to [redacted]).

b. John Hegeman, Meta's Vice President of Monetization, described [redacted]

[redacted]

PX6084, Hegeman (Meta) Dep. Tr., at 7:15-16, 194:19-197:10.

Meta Response: Disputed in part. Undisputed that Mr. Hegeman provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2012, and because Mr. Hegeman's testimony [redacted]. Rather, Mr. Hegeman testified that [redacted] PX6084 at 195:9-13, 196:11-13 (Hegeman Dep. Tr.).

c. Mr. Hegeman stated that [redacted]. PX6084, Hegeman (Meta) Dep. Tr., at 197:11-198:17, 204:4-205:6.

Meta Response: Disputed in part. Undisputed that Mr. Hegeman stated in his deposition that [redacted]. Disputed for the reasons stated above in Meta's responses to paragraph 2012 and subparagraph 2012(b).

2013. But Meta recognized that [redacted]

[redacted] PX12664, Meta presentation: "[redacted]" (Sept. 15, 2020), FTC-META-002385695, at -745-46.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact because it is incomplete and misleading. Nothing in the document demonstrates that in the "but-for world" – where the Instagram and WhatsApp transactions did not happen – consumer welfare would be even greater than in the real world. The portion of the document cited contains [redacted] PX12664 at -725-727, -729 (FTC-META-002385693). The cited portion in the statement [redacted] *Id.* at -746. Immediately underneath the portion quoted in the statement, the document states, [redacted] *Id.* The document further identified [redacted] *Id.* at -733, -738.

2014. Meta has thus far declined to provide users with [redacted]. PX6084, Hegeman (Meta) Dep. Tr., at 197:11-198:17 ([redacted]); PX12666, Meta email chain: [redacted] to C. Cox, et al. re: "[redacted]," (Mar. 10, 2021), FTC-META-010014631, at -631 (describing [redacted]).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact. The materials cited do not state, support, or even suggest that Meta has [redacted]. The statement does not present any evidence that in the "but-for world" – where the Instagram and WhatsApp transactions did not happen – consumer welfare would be even greater than in the real world, where Meta has generated hundreds of billions of dollars of consumer surplus. *See* Meta SMF ¶¶ 711-713, 824. As to the possibility of Meta [redacted] – not the subject of the materials cited in this FTC paragraph – no app that monetizes user time and attention by selling advertisements has ever implemented such a program. *See* Ex. 2 at ¶¶ 325-328 (Carlton Rep.). As Meta's expert Professor Tucker explained, the suggestion that widespread monetary payment to users is plausible ignores economic fundamentals and how attention platforms operate. *See* Ex. 4 at ¶¶ 58-70 (Tucker Rep.).

2015. Other apps have developed workable approaches for compensating users based on their content creation, demonstrating the feasibility of increased compensation.

Meta Response: Disputed in part. Undisputed that other apps have programs to compensate some users for creating content. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, for the reasons stated in Meta's responses to the subparagraphs below. Further disputed to the extent the statement suggests that Meta does not have programs for compensating certain users for certain content creation. Meta compensates certain content creators for the generation of content on Facebook and Instagram. *See* Ex. 2 at ¶¶ 51, 55 (Carlton Rep.) (describing Meta content-creator compensation programs). As to the possibility of Meta [redacted], no app in the FTC's alleged "PSNS" market that monetizes user time and attention by selling advertisements has ever implemented such a program, nor has any other ad-supported done so to any meaningful degree. *See* Ex. 2 at ¶¶ 325-328 (Carlton Rep.). As Meta's expert Professor Tucker explained, the suggestion that widespread monetary payment to users is plausible ignores economic fundamentals and how attention platforms operate. *See* Ex. 4 at ¶¶ 58-70 (Tucker Rep.).

a. YouTube, TikTok, Snap, and Pinterest have all created programs to share advertising revenues with professional content creators. PX9000, Hemphill Report at ¶¶ 1188-1189.

Meta Response: Undisputed that YouTube, TikTok, Snap, and Pinterest, like Meta, have programs to share some advertising revenues with professional content creators. *See* Ex. 2 at ¶¶ 51, 55 (Carlton Rep.).

b. Snap and Twitter have extended their revenue sharing programs to encompass users beyond professional creators.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2015, and for the reasons stated in Meta's responses to the subparagraphs below. Further disputed that on the ground that the FTC does not define what qualifies a Snap or Twitter user as a "professional creator[ ]."

i. Snap's Crystal Awards program pays users for video content. Someone with as few as 1,000 followers can receive payments from Snap, and the payments can be as small as $100 over a two-year period. PX9007, Hemphill Rebuttal Report at ¶ 785. Snap quickly dealt with "copycat content" by adjusting the Crystal Awards program's terms to attract more diverse content; submissions have since hit new records. *Id.* at ¶ 786.

Meta Response: Disputed in part. Undisputed that some Snap Spotlight creators with at least 1,000 followers may be eligible to receive payments from Snap within two years after earning enough Crystals for at least a $100 payment (among other requirements). Disputed that paragraph 786 of Professor Hemphill's rebuttal report cites any material supporting the statements about copycat content or submission records.

ii. In July 2023, Twitter broadened its revenue sharing program to include creators with as few as 500 followers. Rewards are based on a user's cumulative posts over a three-month period, and payments can be as low as $10. *Id.* at ¶ 786.

Meta Response: Disputed in part. Undisputed that the Twitter (now X) revenue sharing program discussed in paragraph 786 of Professor Hemphill's rebuttal report requires creators to have at least 500 followers.

Disputed that the statement accurately describes the requirements for creators participating in this revenue sharing program. Creators must also subscribe to X Premium or Verified Organizations (paid subscription services) and have at least 5 million organic impressions on cumulative posts within the last three months (among other requirements). *See* PX9007 at ¶ 786 n.1278 (Hemphill Rebuttal Rep.) (citing Twitter's website listing these requirements).

c. Contemporaneous news reports have discussed the role of competition in Twitter's extension of its revenue sharing program, pointing out that this extension came on the heels of Meta's introduction of Threads and the ensuing "[i]ntensifying [c]ompetition." *Id.* at ¶ 787 & n.1281.

Meta Response: Undisputed that the Forbes news article cited in footnote 1281 of Professor Hemphill's rebuttal report discusses Twitter competing with Meta for creator content and users.

d. Startups have also launched that offer compensation to users for their personal data and to view advertising. PX9000, Hemphill Report at ¶ 1190.

Meta Response: Disputed in part. Undisputed that some startups offer compensation to users who share or sell data for advertising purposes. Disputed that the cited material supports the statement that some startups compensate users to view advertising, a point that paragraph 1190 of Professor Hemphill's report does not address, or spend time engaging with non-ad content on an ad-supported service (like Facebook, Instagram, YouTube, TikTok, and others). The cited paragraph from Professor Hemphill's report cites a news article about a startup

called Caden Inc. ("Caden"), which – according to the article Professor Hemphill cites – will compensate users to share data that Caden can then sell or provide to advertisers; Caden does not give users ad-supported services for entertainment and other uses like Meta (or YouTube, TikTok, and others). The cited paragraph from Professor Hemphill's report also cites an opinion piece – "Should Tech Companies Be Paying Us For Our Data?" (Forbes) – that does not identify any startup that compensates users (let alone to use a service that gives them ad-supported services for entertainment and other uses). Other than citing an article about data broker Caden (which article references a similar company called CitizenMe Ltd.), the cited paragraph in Professor Hemphill's report does not identify any startup or other company that pays users for data.

2016. The acquisitions of Instagram and WhatsApp have prevented improved consideration for users regarding their data and content creation. PX9000, Hemphill Report at ¶ 1192; PX9007, Hemphill Rebuttal Report at ¶¶ 782, 788; *see also* PX0684 at -114, *Completed acquisition by Facebook, Inc (now Meta Platforms, Inc) of Giphy, Inc. Final Report*, Competition and Mkts. Auth. (Nov. 30, 2021), https://assets.publishing.service.gov.uk/media/61a64a618fa8f5037d67b7b5/Facebook__Meta__GIPHY_-_Final_Report_1221_.pdf ("In addition, as discussed in the Market Study, whilst Facebook's social media services are provided at zero monetary price, it is plausible that the price charged in more competitive circumstances would be negative, with consumers rewarded for their engagement with the service because of the user-level data they provide in so doing.").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, because the statement does not cite any evidence linking Meta's acquisitions of Instagram and WhatsApp to any supposed user consideration regarding their data or content creation. The cited paragraphs in Professor Hemphill's reports do not cite any evidence supporting that link. And the U.K. Competition and Markets Authority concerns Meta's acquisition of Giphy, not Instagram or WhatsApp, and in the quoted language merely speculates about the possibility of rewarding users for their engagement based on the data they provide. No app in the FTC's alleged "PSNS" market that monetizes user time and attention by selling advertisements has ever implemented such a program, nor has any other ad-supported done so to any meaningful degree. *See* Ex. 2 at ¶¶ 325-328 (Carlton Rep.). Further disputed to the extent this statement suggests that Meta does not have programs for compensating certain users for certain content creation. Meta compensates certain content creators for the generation of content on Facebook and Instagram. *See id.* at ¶¶ 51, 55 (describing Meta content-creator compensation programs).

V. Meta Has Not and Can Not Meet Its Burden to Demonstrate Extraordinary Cognizable Procompetitive Benefits Stemming From Its Acquisitions of Instagram and WhatsApp

A. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Succeed and Grow.

2017. Meta's acquisition of Instagram was not necessary for Instagram to succeed and grow. *Infra* CMF at § V.A.1.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement

incorporates the FTC's statements in Section V.A.1, Meta incorporates its responses to those statements here.

Further disputed that any of the statements in Section V.A create a genuine dispute of material fact because they do not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the statements in Section V.A suggest that, absent the acquisition, Instagram would have been able to succeed and grow as successfully as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See* Ex. 153 at 392:5-22 (Krieger Dep. Tr.) (Mr. Krieger agreeing that there is no way to determine with certainty what Instagram could have done in the "parallel world" absent the acquisition); Meta SMF ¶ 727. The FTC has no evidence of how Instagram would have fared but for the acquisition, as its experts conceded. *See* Meta SMF ¶¶ 733-734; *see also id.* at ¶ 738 (response to Meta request for admission). Conversely, there is extensive evidence that Meta's investments in Instagram have benefited Instagram through new features, improved performance, and user growth. *See id*. at ¶¶ 710-726, 739-762; *see also*, *e.g.*, Ex. 151 at 261:9-14 (Systrom Dep. Tr.) (testifying that by being part of Meta, Instagram "g[o]t to do the best of both worlds where we g[o]t to try to grow and, at the same time, advance[d] our development by potential years in some areas"); Meta Resps. to Counter SMF ¶ 2055 (describing feature-development benefits to Instagram), ¶ 2063 (describing benefits from leveraging Facebook's knowledge), ¶¶ 2101, 2104-2105, 2109 (describing monetization benefits to Instagram), ¶ 2183 (describing integrity benefits to Instagram), ¶ 2277 (describing infrastructure benefits to Instagram).

1. Meta's acquisition of Instagram was not necessary for Instagram to continue its rapid growth.

a) Instagram was growing rapidly before Meta acquired it and had plans for continued growth that did not require acquisition by Meta.

2018. From its launch through the day its acquisition by Meta was consummated, Instagram grew rapidly as an independent firm. *See supra* CMF at § III.B.1(b).

Meta Response: Disputed in part. Undisputed that Instagram grew its user base prior to its acquisition by Meta. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017, and because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.B.1(b), Meta incorporates its responses to those statements here.

2019. Before agreeing to be acquired by Meta, Instagram's founders planned to continue growing Instagram as an independent company.

Meta Response: Disputed in part. Undisputed that Instagram's founders planned to continue trying to grow Instagram as an independent company prior to the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

a. Just over a month after Instagram launched, Meta employees met with Instagram's founders and discussed Instagram's goals. PX3444, Instagram email chain: K. Systrom (Instagram) to [redacted] (Meta), et al. re: "Thanks for coming

over to lunch," (Nov. 11, 2010), FB_FTC_CID_08715217, at -517. In a follow-up email after the meeting, [redacted] wrote: "[h]oping we can find a way for you guys to realize your vision at facebook." PX3444, Instagram email chain: [redacted] (Meta) to K. Systrom (Instagram), et al. re: "Thanks for coming over to lunch," (Nov. 11, 2010), FB_FTC_CID_08715217 at -517. Mr. Systrom responded to this follow-up to note that "[r]ight now I think we're pretty set on staying independent. We had some discussions and decided it'd be best for us right now in what we want to build." PX3444, Instagram email chain: K. Systrom (Instagram) to [redacted] (Meta), et al. re: "Thanks for coming over to lunch," (Nov. 11, 2010), FB_FTC_CID_08715217 at -517.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2019.

b. When asked whether he had "specific plans for how to continue growing Instagram as an independent company," Mr. Systrom testified: "Yes. In fact, we only had plans for growing it as an independent company. It was the odd event of selling the company that we had to then figure out what to do." PX6027, Systrom (Meta/Instagram) IH Tr., at 200:13-19.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2019, and because the quoted language does not show that Instagram had any specific plans to maintain its growth. On the contrary, when asked: "Did you have a specific plan or vision for the product itself, like how you would

position it in the market in the future," Mr. Systrom replied, "[o]ther than what we were doing at the time, not specifically." PX6027 at 202:3-7 (Systrom IH Tr.).

c. Mr. Systrom openly communicated his intention for Instagram to remain independent, including to potential hires. *See* PX10548, Instagram email: K. Systrom to A. Cole re: "Options pt2," (Oct. 8, 2011), FB_FTC_CID_08710082, at -082 ("I have to be very clear that I'm not interested in selling this company any time soon with the way things have been going. I'm excited to grow a long term viable business that stands the tests of time. Hope you are too ;)"); *see also* PX6047, Cole (Meta/Instagram) Dep. Tr., at 80:2-81:4 (confirming that Mr. Systrom's statement was "consistent with my understanding at the time").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that Ms. Cole provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2019, and because the cited document and deposition testimony do not show that Mr. Systrom "openly communicated" his intention to keep Instagram independent; on the contrary, the cited document consists of a single, private email between Mr. Systrom and a potential hire, and Ms. Cole's testimony relates to her understanding, not to anything Mr. Systrom communicated.

d. Mr. Systrom testified that, in February 2012, "we were focused on building Instagram independently. We believed we had an amazing product that people loved." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 36:20-25 (discussing

language from PX2759, Instagram messages: K. Systrom to [redacted], (Feb. 13, 2012), FB_FTC_CID_08721020).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2019.

e. In February 2012, Mr. Systrom told Instagram investor, [redacted], that he would "raise 70 [$70 million]" and "build an army" to ensure Instagram's continued rapid growth. PX2759, Instagram messages: K. Systrom to [redacted], (Feb. 13, 2012), FB_FTC_CID_08721020, at -022 ("[B]ottom line I don't think we'll ever escape the wrath of mark . . . it just depends how long we avoid it . . . . [T]hat's why we need to raise 70 build an army and keep our heads down."); *see also* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 38:15-39:6 ("Q. What did you mean by 'raise 70'? A. Raise $70 million from venture capitalists. . . . [Q.] What did you mean by 'build an army'? A. Lots of employees. Q. Okay. And what was the significance of hiring lots of employees? A. To be able to work more quickly on more things and execute.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2019.

f. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2019.

g. On February 25, 2012, Mr. Systrom told an Instagram investor:

> I'm not interested in selling the company right now at any price. We've got a rocket on our hands, and I want to see it through. I had drinks with [redacted] (Twitter)] last night and he gets it. Talked with Zuck on the phone and he gets it too. Let's keep these guys warm, but let's go for the next couple years and see where the journey takes us.

PX2664, Instagram email chain: K. Systrom (Instagram) to [redacted] (Baseline Ventures) re: "Thoughts," (Feb. 25, 2012), FB_FTC_CID_03002183, at -184.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2019.

2020. Before the acquisition, Instagram had plenty of money, the ability to raise more if needed, and access to industry knowledge and technical know-how. *See supra* CMF at § III.B.1(c).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.B.1(c), Meta incorporates its responses to those statements here.

2021. Mr. Systrom was confident that Instagram would have continued to grow without Meta. PX6027, Systrom (Instagram/Meta) IH Tr., at 200:7-9 ("[Q.] Could you have continued to grow Instagram without Facebook? A. Absolutely.").

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that the statement in this paragraph creates a genuine dispute of material fact because it does not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent this statement suggests that, absent the acquisition, Instagram would have been able to grow as much as it did as part of Meta. That is purely speculative and does not create a genuine dispute of material fact. *See* Ex. 153 at 392:5-22 (Krieger Dep. Tr.) (Mr. Krieger agreeing that there is no way to determine with certainty what Instagram could have done in the "parallel world" absent the acquisition). Conversely, there is extensive evidence that Meta's investments in Instagram have benefited Instagram's growth. *See* Meta SMF ¶¶ 723-728; *see also*, *e.g.*, Ex. 151 at 261:9-14 (Systrom Dep. Tr.) (testifying that by being part of Meta, Instagram "g[o]t to do the best of both worlds where we g[o]t to try to grow and, at the same time, advance[d] our development by potential years in some areas").

2022. Although Instagram's founders were focused on growing Instagram as an independent firm, Instagram was also well-positioned to grow if acquired by another company, such as Google, Twitter, or Apple. *See supra* CMF at § III.B.1(e).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement

incorporates the FTC's statements in Section III.B.1(e), Meta incorporates its responses to those statements here.

b) Meta's own executives acknowledged that Instagram was growing rapidly without Meta's ownership, and that even post-acquisition most of Instagram's growth was not due to Meta.

2023. Meta executives and employees recognized that Instagram was already on a trajectory of rapid growth before the acquisition closed.

Meta Response: Disputed in part. Undisputed that, prior to the acquisition, Meta recognized that Instagram was growing rapidly. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

a. In February 2012, Mr. Zuckerberg predicted that Instagram could have had 100 to 200 million registered users in only one to two years. PX3154, Meta message: M. Zuckerberg to [redacted], (Feb. 11, 2012), FB_FTC_CID_01548248, at -249.

Meta Response: Disputed in part. Undisputed that, in 2012, Mr. Zuckerberg wrote: "If this framework holds true, then we should expect apps like Instagram to be able to grow quite large. If it has 15m users now, it might be able to reach 100-200m in the next 1-2 years." PX3154 at -249 (FB_FTC_CID_01548248). Disputed for the reasons stated above in Meta's response to paragraph 2017.

b. On April 3, 2012, Mr. Zuckerberg reviewed data on Instagram's growth and wrote to Mr. Schroepfer that:

> [Instagram's] growth rate is crazy. 6% weekly is really fast when growing off their current base. . . . What this means for us is that we really need to launch something soon. We should push the team to crank and get this out. If we launch soon, we can hopefully get to comparable scale to what they have now relatively quickly. If we take a lot longer then they may really be unreachable.

PX2965, Meta message: M. Zuckerberg to M. Schroepfer, (Apr. 3, 2012), FB_FTC_CID_08621082, at -082.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language except for the last sentence, which should read: "If we take a lot longer then [sic] they may really be unreachable." PX2965 at -082 (FB_FTC_CID_08621082). Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1689 and 2017.

c. On April 6, 2018, Mr. Zuckerberg acknowledged to Meta employees that Instagram was "growing really quickly," had "a lot of momentum," and that it was "kind of going to be tough to dislodge them." PX15180, Meta video clip: "Open Q&A with Mark – April 6, 2012" (Apr. 6, 2012), FB_FTC_CID_01528077, at 4:26-51, FB_FTC_CID_01528077 ("[B]ack to Instagram . . . we need to dig ourselves out of a hole . . . the bad news is that [Instagram is] growing really quickly. They have a lot of momentum, and it's kind of going to be tough to dislodge them."); *see also* PX3348, Meta Workplace Post: [redacted] post to FYI (Company Announcements), (Apr. 9, 2012), FTC-META-005162967, at -967 (indicating meeting took place April 6, 2012).

Meta Response: Disputed in part. Undisputed that the video contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017.

d. On April 5, 2012, Mr. Zuckerberg justified the proposed Instagram acquisition to [redacted] on the basis that "Instagram can hurt us meaningfully" by shifting a "key

use case" – i.e., photo-sharing – away from Meta. PX1202, Meta messages: M. Zuckerberg to [redacted], (Apr. 5, 2012), FB_FTC_CID_06290875, at -876.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017, and because the statement in this paragraph mischaracterizes the document. The cited document does not show Mr. Zuckerberg's justification for the Instagram acquisition. The document involves a discussion between [redacted] and Mr. Zuckerberg about whether, if Meta were to acquire a company, it should prioritize acquiring Instagram, Foursquare, or Pinterest. *See* PX1202 at -875 (FB_FTC_CID_06290875). In the text quoted in this subparagraph, Mr. Zuckerberg explained why he might prioritize the acquisition of Instagram over Foursquare or Pinterest. He later wrote, however, that "Pinterest and Foursquare are likely more valuable markets than photos. For e-commerce and local, respectively." *Id*. at -876.

e. Testifying about an April 4, 2012 email she wrote to Mr. Zuckerberg, Ms. Sandberg said two things made her want to buy Instagram more: "they [we]re growing quickly, and its super-engaging. They were getting almost as many likes per day as Facebook on a fourth of the content. That means they had a very engaging product. So it was small, but it was good." PX6022, Sandberg (Meta) IH Tr., at 247:14-18; PX2514, Meta email chain: S. Sandberg to M. Zuckerberg re: "Competition update," (Apr. 4, 2012), FB_FTC_CID_06148711, at -711 ("This makes me want Instagram more").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017.

f. Mr. Zuckerberg justified the Instagram acquisition to the Meta board of directors noting "the success that Instagram had achieved in generating growth and engagement in its user base." PX2373, Meta document: "Minutes of a Special Meeting of the Board of Directors of Facebook, Inc." (Ap. 8, 2012), FB_FTC_CID_01497147, at -147.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017.

g. In an April 13, 2012 discussion with employees, Mr. Zuckerberg stated that Instagram had independently grown into a standalone "mega-network" and was "on the path to win" had Meta not acquired it. PX2501, Meta Workplace Post: [redacted] post to [redacted], (Apr. 15, 2015), FB_FTC_CID_01527429, at -429-30.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to subparagraph 1635(e) and paragraph 2017.

2024. While the HSR investigation of the Instagram acquisition was pending, Meta agreed to a $200 million break-up fee in exchange for an extension of the acquisition agreement because it feared that—due to how fast Instagram was growing—Meta would have to pay even more for Instagram if the contract lapsed and the acquisition had to be renegotiated.

Meta Response: Disputed in part. Undisputed that, during the HSR investigation of the Instagram transaction, Meta agreed to a $200 million break-up fee in exchange for an extension of the acquisition agreement. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

a. On April 19, 2012, Mr. Zuckerberg told the Meta board of directors that he "apologized for the embarrassing press around the board not being too involved in the process," but he had to move quickly because "Kevin [Systrom] and his board were somewhat ambivalent throughout the process." PX3409, Meta email chain: M. Zuckerberg (Meta) to P. Thiel (Board), et al. re: "on HSR and insurance," (Apr. 19, 2012), FB_FTC_CID_11531186, at -187.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017.

b. Mr. Zuckerberg told the board that "if the deal doesn't close in 90 days then it expires. We think there's a reasonable chance that with Instagram's growth it would cost us more to buy them at that time – if they sell at all – and therefore we are trying to extend this 90 day window now." *Id.* at -187.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017.

c. To secure the extension, Meta agreed to pay Instagram a $200 million fee if the deal did not close by December 15, 2012. PX3409, Meta email chain: J. Breyer

(Board) to M. Zuckerberg (Meta) re: "on HSR and insurance," (Apr. 19, 2012), FB_FTC_CID_11531186, at -187. Meta board member and venture capital investor Jim Breyer observed that he had only ever seen "a material break up fee such as this in one instance," and that a "$200 million fee might be high for only a short 5 month extension." *Id.* at -186. But Mr. Zuckerberg justified the amount, noting that "[Instagram's] investors don't really want to extend at all. They may think that if the deal terminates they can likely negotiate a better deal in 90 days." PX3409, Meta email chain: M. Zuckerberg (Meta) to P. Thiel (Board), et al. re: "on HSR and insurance," (Apr. 19, 2012), FB_FTC_CID_11531186, at -186.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017.

2025. After the acquisition closed, Meta executives again observed that Instagram had been on a trajectory of rapid growth without Meta.

Meta Response: Disputed in part. Undisputed that, after the acquisition, Meta recognized that Instagram was growing rapidly. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

a. In November 2012, Mr. Zuckerberg acknowledged that Instagram's threatening growth trajectory was the genuine reason that Meta acquired Instagram, writing to Sandberg that "Instagram was growing so much faster than us we had to buy them for $1 billion." PX15138, Meta messages: M. Zuckerberg to S. Sandberg, (Nov. 8, 2012), FTC-META-012281992, at -992.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the cited document shows that there was a "genuine reason" why Meta acquired Instagram. That language is vague and ambiguous and does not appear in the cited document. Moreover, in the document, Mr. Zuckerberg discussed various personnel issues with Ms. Sandberg, not the reason for the purchase of Instagram. PX15138 at -992, -993 (FTC-META-012281992). Evidence shows that Meta leadership offered a variety of reasons for Meta's acquisition of Instagram. In February 2012, for example, Mr. Zuckerberg wrote that acquiring Instagram could "make sense since photos by themselves aren't a great business," and that Facebook users posting Instagram content to Facebook "drives a lot of activity." PX1135 at -941 (FB_FTC_CID_01543939). One month later, Mr. Zuckerberg emailed Mr. Systrom about "Instagram joining Facebook," stating that he was "really excited about what [Meta] can do to grow Instagram as an independent brand and product." PX12704 at -885 (FB_FTC_CID_01527881). Mr. Zuckerberg added that Instagram could "do some amazing things" with the "infrastructure [Meta] built . . . around storing and serving photos, querying them, etc." *Id*. (referencing "the value of using all of the infrastructure that we've built up rather than having to build everything from scratch"). Further disputed for the reasons stated above in Meta's response to paragraph 2017.

b. Mr. Zuckerberg later testified that "in the context of mobile photo sharing," Instagram was the leader at the time of the acquisition, and he agreed that "[o]ne of the reasons that Meta acquired Instagram was that its mobile photo sharing was

growing faster than the Facebook application's mobile photo sharing." PX6127, Zuckerberg (Meta) Dep. Tr., at 91:1-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2017.

c. Meta's then-head of corporate development, Amin Zoufonoun, testified that "Instagram was growing nicely" at the time of the acquisition and maintained a satisfied and engaged user base. PX6028, Zoufonoun (Meta) IH Tr., at 19:1-11; *see id*. at 150:25-151:2 ("Instagram was growing nicely. People really -- the users liked it. It had nice engagement.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2017.

d. In January 2013, Mr. Zoufonoun wrote that "we acquired Instagram because we believed they had escape velocity in terms of user traction (growth, engagement) and had/would become a 'core' social, mobile service in a strategically important area for us (photo sharing) . . . ." PX2375, Meta Workplace Post: A. Zoufonoun post to Dan's Weekly Updates, (Jan. 23, 2013), FB_FTC_CID_03250616, at -616.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2017.

2026. In May 2018, Mr. Zuckerberg requested "an estimate of the total growth FB is driving for IG," and Meta's head of analytics observed that the vast majority of Instagram's growth could not be attributed to Meta and Instagram could have achieved similar growth through other means.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017, and because the cited evidence in the subparagraphs below does not support the statement in this paragraph that Instagram "could have achieved similar growth through other means."

a. On May 3, 2018, Mr. Schultz, then Vice President for Product Growth, Analytics, and Internationalization, reported to his analytics team that Mr. Zuckerberg had asked for an estimate of "the total growth FB is driving for IG." PX6025, Schultz (Meta) Dep. Tr., at 13:2-4; PX11094, Meta email chain: A. Schultz to J. Olivan, et al. re "hold outs on growth of IG driven by fb," (May 3, 2018), FB_FTC_CID_04323139, at -139. Mr. Schultz observed that Instagram could replace a lot of the value of Facebook promotions "quickly":

> To be honest I'm inclined to say: "100MMs probably around 10-30% but it's v. hard to say for sure. Especially on the impact of the social graph AND if we take those efforts away IG can just buy ads and do their own contact importing so it may be easy for them to replace a lot of value quite quickly. A ton of IG's acceleration is just initiating a real growth team and operating for growth and a lot is just acceleration in the growth of the internet, some from reliance on jio, some from i.org and some from other operator actions we were totally uninvolved with."

Id.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2026.

b. On May 4, 2018, Mr. Schultz responded to Mr. Zuckerberg's request for an estimate, providing analysis based on a test of "holdouts" (referring to a test in which certain changes are not implemented for some users). Mr. Schultz reported that "[t]he **overall holdout** on all promotions and notifications has reduced IG MAP by ~3%." PX12102, Meta email chain: A. Schultz to M. Zuckerberg, et al. re "follow up re: cannibalization," (May 4, 2018), FB_FTC_CID_05996506, at -508-09.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2026.

c. In his May 4, 2018 analysis Mr. Schultz emphasized three points: (1) "[t]he **vast majority of IG's growth is IG product market fit driven** and driven by external forces"; (2) "[e]ven if IG cannibalizes facebook every study we have done shows that it's **incremental to total family time**"; and (3) "[t]here are other competitors to facebook blue than IG," citing *only* LINE in Japan and Snapchat in the United States. *Id.* at -509.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2026.

d. In response to Mr. Schultz's three points of emphasis, including that the vast majority of Instagram's growth was "product market fit driven," Ms. Sandberg wrote to other executives: "We need Mark to understand this. Who is discussing it with him?" PX12102, Meta email chain: S. Sandberg to M. Schroepfer, et al. re: "follow up re: cannibalization," (May 5, 2018), FB_FTC_CID_05996506, at -506.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2026.

e. Mr. Olivan reported that Mr. Zuckerberg's "take is that [Instagram] could have equally fought on stories @500M MAP. Again – hard argument to argue, but could have been very risky to try to win with the minimum size possible. . . ." PX12102, Meta email chain: J. Olivan to S. Sandberg, et al. re: "follow up re: cannibalization," (May 5, 2018), FB_FTC_CID_05996506, at -506. Mr. Olivan continued, stating that "[in my humble opinion] the ultimate core disagreement boils down to whether you are ok or not with an end state where IG becomes much bigger than FB . . . ." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2026.

2027. Meta's own ordinary course analyses do not indicate that Meta's acquisition was necessary for Instagram to achieve growth.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017, and because the cited evidence in the subparagraphs below does not support the statement in this paragraph that Meta's acquisition did not benefit Instagram's growth. In fact, the documents discussed in the subparagraphs below show that Meta benefited Instagram's growth efforts, including in portions the FTC quotes. In addition, in PX2473, Mr. Schultz wrote: "In the first 2 years (2012-2015) Kevin [Systrom] refused to have a growth team while you asked us to help. . . . Then in 2016 we really started to get traction. The acceleration in 2016 was the result of the connections pivot and cross promotion. That was when they started using fb data too. So I would say that from ~June 2016 to June 2018 we had a meaningful impact on the growth of Instagram using Facebook cross promotion and growth behaviors." PX2473 at -270 (FB_FTC_CID_08846269). Later in the thread, Mr. Olivan wrote that Meta "caused a lot of the right decisions [regarding Instagram] faster" because Mr. Systrom's intuition was "wrong on some areas where we had the experience of what worked: this goes from key details in reg/nux, notifications, interface support like web or friend graph all the way to higher level things like having a growth team vs. not or trying to re-invent ads formats and advertiser flows vs just plugging in to FB." *Id.* at -269.

a. On July 18, 2018, Mr. Zuckerberg emailed executives his edits on the "Draft Earnings Script" for Meta's 2018 earnings call, in which he added language claiming that "[o]ur analysis suggests without these integrations, Instagram's community would only be ~300-400 million people today instead of 1 billion."

PX3447, Meta email chain: M. Zuckerberg to R. Whetstone, et al. re: "Draft Earnings Script," (July 18, 2018), FB_FTC_CID_12727855, at -856.

Meta Response: Undisputed that the document contains the quoted language.

b. In response to Mr. Zuckerberg's draft language on "analysis" showing that Instagram's growth was due to Meta, Alex Schultz, then Vice President of Product Growth, Analytics, and Internationalization, PX6025, Schultz (Meta) Dep. Tr., at 13:2-4, responded that he "didn't understand where this line comes from" and that "[i]t isn't analysis I am aware of," PX3447, Meta email chain: A. Schultz to M. Zuckerberg, et al. re: "Draft Earnings Script," (July 19, 2018), FB_FTC_CID_12727855, at -855. Mr. Zuckerberg responded that it was his "understanding" that Facebook drove "~25%" of Instagram's growth annually, and this made sense "intuitively" because without Meta Instagram would "be in the range of every other social app (Twitter, Snapchat, Pinterest, LinkedIn, etc [sic]) and that's 200-400 million actives." PX15179, Meta email chain: M. Zuckerberg to A. Schultz re: "Draft Earnings Script," (July 19, 2018), FB_FTC_CID_08956094, at -095.

Meta Response: Undisputed that the document contains the quoted language.

c. Mr. Schultz responded to Mr. Zuckerberg's request on July 19, 2018, and concluded: "So I definitely agree value was attributed. I don't think it's the majority of their users. In June 2016 when I really think they started to implement our recommendations and you can see the acceleration in YoY growth

in the graph below they already had 533MM MAU." PX2473, Meta email chain: A. Schultz to M. Zuckerberg re: "Draft Earnings Script," (July 19, 2018), FB_FTC_CID_08846269, at -270-71.

Meta Response: Undisputed that the document contains the quoted language.

d. Mr. Schultz again responded to Mr. Zuckerberg:

> I don't think we had a meaningful impact on their growth before 2015-16 and I do think the growth curves suggest it. Their growth accelerated to 100MM year on year I think when they released android which was April 2012 and then stayed close to that level for the next few years.

PX2473, Meta email chain: A. Schultz to M. Zuckerberg re: "Draft Earnings Script," (July 19, 2018), FB_FTC_CID_08846269, at -270.

Meta Response: Undisputed that the document contains the quoted language.

e. Expressing concern over Mr. Zuckerberg's proposed earnings call language, Meta employees and executives suggested to Mr. Zuckerberg that the earnings call script be changed to remove mention that Instagram is "twice as big as it would have" been without Meta. *See* PX3449, Meta email chain: C. Cox to S. Sandberg, et al. re "Earnings: A/C Privilege," (July 22, 2018), FB_FTC_CID_12472640, at -640 ("I would recommend a version that doesn't say 'twice as big as it would have'"); *id.* ("[T]hat is what we all suggested on Friday.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed as incomplete and missing necessary context. Mr. Cox wrote, "I would recommend a version that doesn't say 'twice as big as it would have' and instead just describe that we are proud of how the companies

have integrated and how we've been able to help them [ ] grow [on] security, infra[structure], and the business platform." PX3449 at -640 (FB_FTC_CID_12472640).

f. On July 23, 2018, a Meta executive again wrote to Mr. Zuckerberg saying "[w]e have not been able to track down any source for" the statement "[o]ur analysis suggests Instagram has been able to use Facebook's infrastructure to grow more than twice as quickly as it would have on its own." PX11670, Meta email: D. Wehner to M. Zuckerberg re: "IG stat in your script," (July 23, 2018), FB_FTC_CID_06164751, at -751. Mr. Wehner proposed Zuckerberg use other language given the lack of evidence. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed as incomplete and misleading. The other language that Mr. Wehner proposed that Mr. Zuckerberg use was: "we believe Instagram has been able to use Facebook's infrastructure to grow more than twice as quickly" or "Instagram has been able to use Facebook's infrastructure to grow much more quickly as it would have on its own." PX11670 at -751 (FB_FTC_CID_06164751).

g. Having been told by his own executives that the statement was without support from any analyses, Mr. Zuckerberg nevertheless told investors that "[w]e *believe* Instagram has been able to use Facebook's infrastructure to grow more than twice as quickly as it would have on its own." PX0026, *Q2 2018 Facebook Inc Earnings Call – Final*, FD (Fair Disclosure Wire) (July 25, 2018),

https://s21.q4cdn.com/399680738/files/doc_financials/2018/Q2/Q218-earnings-call-transcript.pdf (emphasis added).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that Mr. Zuckerberg was told that this statement lacked support. As discussed in subparagraph 2027(f) above, the language Mr. Zuckerberg used was exactly what Meta employee Mr. Wehner proposed that he use. PX11670 at -751 (FB_FTC_CID_06164751).

c) Meta did not need to acquire Instagram to help it grow in the manner that it did.

2028. Meta has long offered application programming interfaces ("APIs") to third parties because it benefits both Facebook and users.

Meta Response: Disputed in part. Undisputed that Meta has offered APIs to third parties, and that it sometimes benefits both Facebook and users. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent it suggests that both Facebook and its users always benefit from third parties' use of Meta's API's; none of the evidence below supports that claim.

a. Meta has offered companies the option to use certain Meta APIs since at least the introduction of Facebook Platform in 2007. *See, e.g.*, PX0081 at -002, *Facebook Unveils Platform for Developers of Social Applications*, Facebook (May 24, 2007), https://newsroom.fb.com/news/2007/05/facebook-unveils-platform-for-developers-of-social-applications (announcing API release and referencing "previously released APIs").

Meta Response: Undisputed.

b. Meta's APIs "allow developers to read information . . . and to write to our platform, that's sharing information from the developer to Facebook." PX6020, Osofsky (Meta) IH Tr., at 32:14-17. And Meta's APIs have included options like the "friends.get API" that "allowed a developer to request a user's permission to share the list their friends . . . the list of the people they were friends with on Facebook." *Id.* at 33:3-9.

Meta Response: Undisputed.

c. In 2010, Meta launched Open Graph, which was "a set of APIs which enabled developers to create social experiences." *Id.* at 38:21-39:1; PX0064, Bret Taylor, *The Next Evolution of Facebook Platform*, Facebook (Apr. 21, 2010), https://developers.facebook.com/blog/post/377/ (announcing Open Graph, new social plugins, and a new version of "Graph API").

Meta Response: Undisputed.

d. Meta has made APIs available to third parties, explaining that "we [Meta] were generally interested in having our APIs used by mobile app developers" in order to "make our developer platform relevant on mobile operating systems," and because "we also were interested in making it easy for our users to bring some of their content and connections to other applications that they wanted to – that they might want to use and make those applications more interesting or relevant for users." PX6065, Rose (Meta) Dep. Tr., at 238:25-239:12.

Meta Response: Undisputed.

e. Allowing third parties to access Meta APIs was valuable to Meta because it provided Meta with insight into the growth of third-party applications. *See, e.g.*,

PX6027, Systrom (Meta/Instagram) IH Tr., at 190:4-8 ("[B]ecause we [Instagram] were connected to Open Graph, [Meta] could see, roughly, how fast we were growing because of the number of people finding friends or the number of people sharing photos . . . .")

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, as it is not supported by the cited testimony. Mr. Systrom provided the quoted testimony after being asked: "What's your view of why Facebook offered twice Instagram's valuation"; he was not asked why Open Graph was valuable to Meta. PX6027 at 189:22-23 (Systrom IH Tr.).

f. As of July 2012, Meta openly promoted its Open Graph partnerships with "thousands" of companies, including several that Meta now claims as competitors. *See, e.g.*, PX0002 at -004, *Q2 2012 Facebook Inc Earnings Call – Final*, FD (Fair Disclosure Wire), (July 26, 2012), (Mark Zuckerberg: "Apps like Spotify, Netflix, Pinterest, foursquare, Instagram, Airbnb, Tumblr, [Vide] [sic] . . . and thousands more have integrated with Open Graph to provide better social experiences to their user bases.").

Meta Response: Undisputed.

g. In the same July 2012 earnings call, Mr. Zuckerberg outlined how "Open Graph integrations enable Facebook users to share more of the content they want with their friends." *Id*. Mr. Zuckerberg continued, noting that "[t]his helps to make our service more engaging overall, since there's more content to consume," and because "we found that our largest developers also tend to become our largest

advertisers, as they look to further boost the distribution they're getting from us." *Id.*

Meta Response: Undisputed.

h. According to Mr. Zuckerberg the "the ability to take other pieces of content and reshare them has always been an important part of Facebook." PX6029, Zuckerberg (Meta) IH Tr., at 94:20-22.

Meta Response: Undisputed.

2029. Before and after the acquisition closed, Instagram used certain Meta APIs, including some described as being part of Meta's "Open Graph."

Meta Response: Undisputed.

a. Before the acquisition closed, Instagram's "main use" of Meta APIs "was to link your account, find your friends, and then start cross-posting." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 117:16-25; *see also* PX6015, Krieger (Meta/Instagram) IH Tr., at 102:23-103:17 (describing Instagram's use of "'find your friends on Facebook' integration," and "support for Open Graph likes"); *see, e.g.*, PX15222, Instagram email: K. Systrom to J. Osofsky re: "Update and overview of current work," (Apr. 9, 2012), FB_FTC_CID_08724703, at -703 (proposing certain open graph integrations to Instagram).

Meta Response: Undisputed that the witnesses provided the quoted testimony.

b. Cross-posting (or crossposting) refers to the act of posting the same content in multiple places or apps. Meta offers to developers, APIs that enable users to automatically post content from non-Meta applications into certain Meta

applications, and Meta itself allows users to post content from Instagram to Facebook and vice versa. *See, e.g.*, PX0644, *Sharing*, Facebook, (Last accessed May 9, 2024) https://developers.facebook.com/docs/sharing ("Enable people to post to Facebook from your app."); PX0645, *Crossposting*, Meta for Media (Last accessed May 15, 2024), https://www.facebook.com/formedia/tools/crossposting-from-instagram-to-facebook/.

Meta Response: Undisputed.

c. Meta provides the cross-posting APIs because cross-posting from third-party apps benefits Facebook by increasing the amount of engaging content available on users' Facebook feeds. On the other side, developers use Meta's cross-posting APIs because they know attribution will increase their visibility with Meta's users, providing a distribution benefit. *See, e.g.*, PX0002 at -004, *Q2 2012 Facebook Inc Earnings Call – Final*, FD (Fair Disclosure Wire), (July 26, 2012), (describing how Open Graph "helps to make our service more engaging overall, since there's more content to consume," and because "we found that our largest developers also tend to become our largest advertisers, as they look to further boost the distribution they're getting from us").

Meta Response: Undisputed.

d. Mr. Zuckerberg agreed that, pre-acquisition, Meta was attempting to convince Instagram to "increase the degree of integration it had with the Facebook app" prior to the acquisition, where that integration "allowed Instagram users to post their Instagram photos to Facebook." PX6029, Zuckerberg (Meta) IH Tr., at 251:16-24.

Meta Response: Undisputed.

e. Meta was "very interested" in having Instagram users "not only post photos to Facebook, pre-acquisition but that post acquisition that remain intact." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 117:2-8.

Meta Response: Undisputed that the witness provided the quoted testimony.

f. On September 11, 2012—after the Instagram acquisition closed—Mr. Zuckerberg stated that Meta's plans to integrate Instagram were merely "to try to do the things we would have done if they were an Open Graph partner but now we can prioritize them more highly but they can do it directly because they have access to our code directly." PX15178, TechCrunch Disrupt Fireside Chat with Facebook Founder and CEO Mark Zuckerberg (Sept. 11, 2012), at minute 21:04-13, https://www.youtube.com/watch?v=o2wPzjH2xwA&list=PLHRxVckaE8daTWvm6ZJcP9nPYCKd1NY5p&index=8.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted statement. Disputed because this subparagraph mischaracterizes Mr. Zuckerberg's statement. Mr. Zuckerberg does not say that Meta's plans were "merely" to operate as if Instagram were an Open Graph partner. In fact, in the cited video, Mr. Zuckerberg explained that "we want to help [Instagram] grow to hundreds of millions of users" and that Facebook wanted to help Instagram "with whatever we can." PX15178 at 20:43-20:54.

2030. Meta provided third parties with many of the growth resources it claims to have provided to Instagram following the acquisition, and until 2018, as part of Meta, Instagram had

access to growth resources that was similar to the access afforded to third parties. *See infra* CMF at ¶ 2031.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraph 2031 and its subparagraphs, Meta incorporates its responses to those statements here. Further disputed on the ground that "growth resources" is vague and undefined.

2031. In 2018, Meta eliminated Instagram's ability to utilize growth resources that were available to third parties, and thus Instagram had less favorable access to growth resources than third parties were afforded.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017 and to the below subparagraphs, and because Meta grew Instagram from approximately 3.9 million active U.S. users at the time of the acquisition's announcement to more than 110.7 million such users by the fourth quarter of 2016, and [redacted] such users by the first half of 2022. *See* Meta SMF ¶¶ 658, 724. Meta did so by giving Instagram more than half a dozen proprietary growth tools and building its growth team from scratch, and innovating dozens of new features for Instagram. *See id.* at ¶¶ 723, 739-745. The Instagram co-founders testified that Meta grew Instagram, which otherwise might have "failed." *See id.* at ¶¶ 726-727, 747. The FTC concedes it undertook no evaluation of how Instagram would have fared but for the acquisition and access to Meta's distribution platform. *See id.* at ¶¶ 733, 738.

a. Advertisements

i. Instagram "[purchased] no paid advertising, or any advertising for that matter" before being acquired by Meta. PX6027, Systrom (Meta/Instagram) IH Tr., at 116:3-4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2031.

ii. After the acquisition, Instagram paid for ads and used the same tools as other third parties. PX6047, Cole (Meta/Instagram) Dep. Tr., at 158:20-159:5 (noting that Instagram used the same ad-buying tools and process as third parties); *id.* at 161:14-23 ("Q. Did Instagram get a discount on the ad rate? . . . A. We – we got an ad budget that we had to manage and we ran through the option just like any other advertiser. Q. Instagram didn't necessarily pay less for an ad than a third-party advertiser buying the same ad would? A. Not to my recollection."); PX6027, Systrom (Meta/Instagram) IH Tr., at 263:15-16 ("[W]e did advertising on Facebook for Instagram, like as a – almost like a third party.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2031. Further disputed because Meta paid for Instagram's ad budget, and also ran ads for Instagram on Facebook. *See* Meta SMF ¶ 723.

iii. In 2018, Meta removed Instagram's advertising budget. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 154:10-156:6 (describing outcome of

integrations listed in PX15237, Meta email: J. Olivan to K. Systrom re: "table with integrations / impact," (June 13, 2018), FB_FTC_CID_02616285, at -286); PX2145, Meta email: M. Krieger to Instagram HPM re: "Instagram HPM 7/23," (July 24, 2018) ("Instagram's growth has slowed dramatically during the first week after turning off all promotions and ads in FB."); *see supra* CMF at § III.D.1(b).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2031. Further disputed because none of the cited evidence shows that Meta removed Instagram's advertising budget. In the testimony cited in this subparagraph, Mr. Systrom testified about a "plan" and said, "I don't know the exact amount [the budgets] went to." PX6133 at 156:5-6 (Systrom Dep. Tr.). This does not show that Instagram's advertising budget was, in fact, removed. The cited document refers to a temporary pause of Instagram "ads in FB," not all advertising. PX2145 at -521 (FB_FTC_CID_02597521). To the extent this statement incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

iv. Third parties can still purchase advertisements on Facebook to advertise their apps. *See generally supra* CMF at ¶¶ 1437-39; *see also* PX0646 at -001, *Overview - Facebook App Ads*, Meta for Devs. (last visited May 13, 2024), https://developers.facebook.com/docs/app-ads/overview ("The Facebook Ads for Apps Overview describes the components and tools you will use to run ads on Facebook for your apps.").

Meta Response: Disputed in part. Undisputed that, today, third parties can purchase advertisements on Facebook to advertise their apps. Disputed for the reasons stated above in Meta's response to paragraph 2031. To the extent this statement incorporates the FTC's statements in paragraphs 1437-1439, Meta incorporates its responses to those statements here.

b. "Bookmark"

i. Mr. Rose testified that Meta allowed developers to reach Meta users by paying for "a bookmark inside of Facebook to make it easier for [users] to return to that game or that application the next time around." PX6065, Rose (Meta) Dep. Tr., at 211:7-10.

Meta Response: Undisputed that the witness provided the quoted testimony.

ii. As early as September 2013—two years before the launch of the Instagram Bookmark in 2015—third-party developers could pay to "start showing Neko ads as Sponsored Bookmarks" on Facebook. PX12486, Meta email: M. Vernal to [redacted], et al. re: "Platform HPM," (Sept. 24, 2013), FB_FTC_CID_06009425, at -425; *see also* PX6065, Rose (Meta) Dep. Tr., at 211:4-14 ("[W]e allowed developers to reach our users . . . [with] a bookmark inside of Facebook . . . And at some point, I believe we experimented with having a way for developers to buy advertising inventory in that area of the website.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2031.

iii. In 2018, Meta removed Instagram's access to bookmarks. PX6027, Systrom (Meta/Instagram) IH Tr., at 265:7-266:8 (describing ways in which removing bookmark adversely affected Instagram's growth); *see also supra* CMF at § III.D.1(b).

Meta Response: Disputed in part. Undisputed that, in 2018, Meta removed Instagram's access to bookmarks. Disputed for the reasons stated above in Meta's response to paragraph 2031. Further disputed because the statement omits context from Mr. Systrom's testimony: "I was told, though don't have the proof because I had left, that growth rebounded in a different way and that most of the quality of our growth – the quality growth that we were getting wasn't from [bookmarks]. But I – I don't actually know because I wasn't there to see." PX6027 at 265:8-266:8 (Systrom IH Tr.). To the extent this statement incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here. Further disputed because the Instagram co-founder testified that bookmark would not have been available to Instagram but for the acquisition. *See* Meta SMF ¶ 723(c).

c. "Cross-posting" and "attribution"

i. Both before and after the acquisition, Instagram allowed users to post content from Instagram to Facebook, and Instagram "had attribution in feed for when you shared something to Facebook . . . like any other app that shares, has the same attribution." PX6027, Systrom (Meta/Instagram) IH Tr., at 262:22-265:6.

Meta Response: Undisputed.

ii. As of February 2012, approximately 15% of photos posted to Instagram were also posted to Facebook and 15% were also posted to Twitter.

[redacted] ("[C]ontent is shared across platforms with approximately 15% of photos pushed to Twitter and another 15% to Facebook with email a distant third.").

Meta Response: Undisputed that the document contains the quoted language.

iii. When users of third party applications, using Meta's cross-posting APIs, cross-post content onto Facebook, the content they post onto Facebook can receive "attribution" showing the content came from the source application. *See, e.g.*, PX6027, Systrom (Meta/Instagram) IH Tr., at 262:22-265:6 (noting Instagram and "any other apps" receive attribution); see also PX6015, Krieger (Meta/Instagram) IH Tr., at 204:4-12 (discussing attribution).

Meta Response: Undisputed.

iv. In 2018, Meta removed attribution links for Instagram content also posted to Facebook. *See supra* CMF at III.D.1(b).

Meta Response: Disputed in part. Undisputed that in 2018, Meta removed attribution links for Instagram content also posted to Facebook. Disputed for the reasons stated above in Meta's response to paragraph 2031. To the extent this statement in this subparagraph incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

v. Meta still allows third party applications to post content on Facebook. *See* PX0644 at -001, *Sharing*, Facebook, https://developers.facebook.com/docs/sharing ("Enable people to post to Facebook from your app.").

Meta Response: Disputed in part. Undisputed that, today, some third-party applications can post content on Facebook. Disputed for the reasons stated above in Meta's response to paragraph 2031.

d) Instagram could have implemented effective growth strategies without being acquired by Meta.

2032. Before and after the acquisition closed, Instagram was not dependent on Meta for growth.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017 and to the below subparagraphs, and because the evidence shows that Instagram's growth pre-acquisition depended on Meta's distribution. *See* Meta SMF ¶¶ 659-669. Further disputed because after the acquisition

closed, Instagram was part of Meta; the statement that it did not depend on Meta for growth is nonsensical.

a. Prior to the acquisition's close, Instagram was on a trajectory of rapid growth. *See supra* CMF at §§ III.B.1(b), V.A.1(a).

Meta Response: Disputed in part. Undisputed that prior to the acquisition's close, Instagram was growing rapidly. Disputed for the reasons stated above in Meta's response to paragraph 2032. To the extent this subparagraph incorporates the FTC's statements in Sections III.B.1(b) and V.A.1(a), Meta incorporates its responses to those statements here.

b. Mr. Systrom confirmed that Instagram was "[n]ot at all" dependent on Facebook for growth. PX6027 Systrom (Meta/Instagram) IH Tr., at 245:7.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2032, and because this quote takes Mr. Systrom's testimony out of context. He had just testified: "So I think if Facebook had deemed us as a competitor, had we not been part of that, it likely would have been much harder for us to do some of the things that made it easy to grow by distributing content on Facebook." PX6027 at 244:25-245:4 (Systrom IH Tr.).

c. Mr. Systrom testified that he attributed "somewhere between a third and a half of our growth" prior to acquisition to "the fact that people discovered us on other platforms" due to cross-posts. *Id.* at 121:1-9.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2032, and because the quote is missing necessary context. Mr. Systrom

also testified in the same answer, "I think it was essential, let me put it that way, that we would not have grown nearly as quickly without distribution on other platforms." PX6027 at 121:1-3 (Systrom IH Tr.). He also testified regarding "a third and a half": "But, again, that's speculation. I don't have data to support that." *Id.* at 121:11-12.

d. Mr. Systrom testified that:

> growth in the U.S., I think, came, eventually, mostly from word of mouth, less – like if – if we had stopped sharing on other platforms completely, like no link, no photo, just cut off sharing completely, I think we would have still grown quite quickly, you know, call it 2015 and on.

Id. at 122:7-13.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2032, and because the quote is missing necessary context. Just prior to the quoted testimony, Mr. Systrom explained that "international growth was primarily driven by sharing on other platforms[.]" PX6027 at 122:3-4 (Systrom IH Tr.).

e. Mr. Systrom testified that "Twitter and Facebook were likely the most influential in distributing content and raising awareness of Instagram . . . . and it was probably proportional, roughly, to the size of those two platforms[.]" *Id.* at 123:18-124:9.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2032, and because the quote is incomplete. After offering the quoted testimony, Mr. Systrom testified: "Obviously Facebook was a lot larger, and they

probably contributed more to the awareness, if I were to guess." PX6027 at 124:6-8 (Systrom IH Tr.).

f. In an October 2012 email, Mr. Systrom wrote that, while "the traffic we get from [Facebook] links in feed are pretty high quality . . . . Maybe once you're really big they become less useful for discovery." PX3451, Meta email chain: K. Systrom to [redacted], et al. re: "Instagram/photo links," (Oct. 21, 2012), FB_FTC_CID_06209832, at -832.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2032, and because the quotation is incomplete and misleading. Mr. Systrom wrote in full: "I'd say the traffic we get from fb links in feed are pretty high quality – they are, after all *what got us to where we are today*. Maybe once you're really big they become less useful for discovery, but I think generally developers care about these links for distribution[.]" PX3451 at -832 (FB_FTC_CID_06209832) (emphasis added).

2033. After Meta removed Instagram's access to growth promotions in 2018, Instagram developed workarounds and recovered its growth through other means. *See* PX6015, Krieger (Meta/Instagram) IH Tr., at 210:15-23 ("[W]e reoriented the whole growth team . . . to focus on . . . making up the difference and finding new ways of . . . achieving growth. . . . [And] they had been fairly successful in regaining . . . some of that delta through different techniques, different approaches, different optimizations.").

Meta Response: Disputed in part. Undisputed that after Meta temporarily suspended some promotions for Instagram in 2018, Instagram continued growing using other growth

resources provided by Meta – resources Instagram would not have had access to but for the acquisition. *See* Meta SMF ¶¶ 736-737. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

2034. Instagram did not need to be part of Meta to engage in other growth strategies.

Meta Response: Disputed in part. Undisputed that an independent Instagram may have been able to engage in growth strategies. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

a. As Meta executive Alex Schultz recognized, absent the acquisition "Instagram could just buy ads and do their own contact importing, so it may be easy for them to replace," much of the value from access to Meta promotions. PX11094, Meta email chain: A. Schultz to J. Olivan, et al. re: "hold outs on growth of IG driven by fb," (May 3, 2018), FB_FTC_CID_04323139, at -139.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except it should read, "IG can just buy ads and do their own contact importing so it may be easy for them to replace." PX11094 at -139 (FB_FTC_CID_04323139). Disputed for the reasons stated above in Meta's response to paragraph 2017.

b. Similarly, Snapchat grew despite restricted access to Facebook APIs because "Snapchat and all these messaging apps ended up using the mobile address books to help people find their friends and message them on these devices." PX6065, Rose (Meta) Dep. Tr., at 248:7-23 ("Q. Did Facebook ultimately end up

restricting Snapchat's access to the Facebook APIs that we've been discussing? A. I don't remember. It didn't end up mattering because, again, Snapchat and all these messaging apps ended up using the mobile address books to help people find their friends and message them on these devices.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2017.

c. Foursquare used address books, the "Google contacts API," and "the Twitter API," to help users find friends. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2017.

2. Instagram could have grown in other ways, even if Meta had acted contrary to the interests of consumers and restricted Instagram's ability to access Meta's APIs.

a) Eliminating Instagram's ability to cross-post photos onto Facebook would have harmed consumers and been contrary to Meta's representations.

2035. Setting aside its interest in maintaining monopoly power, Meta had an incentive to allow Instagram to cross-post to Facebook because cross-posting from Instagram provided visually compelling content for Facebook.

Meta Response: Disputed in part. Undisputed that allowing Instagram users to cross-post to Facebook benefited both Instagram and Facebook users. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

Further disputed because this paragraph improperly asserts legal conclusions regarding "monopoly power," as stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Cross-posting from third-party apps, including Instagram, benefits Facebook and Facebook's users by supplying more engaging content for Facebook users' feeds. *See supra* CMF at § V.A.1.

Meta Response: Disputed in part for the reasons stated above in Meta's responses to the FTC's statements in Section V.A.1.

b. Mr. Zuckerberg testified that Meta was attempting to convince Instagram to "increase the degree of integration it had with the Facebook app" prior to the acquisition, where that integration "allowed Instagram users to post their Instagram photos to Facebook." PX6029, Zuckerberg (Meta) IH Tr., at 251:16-24.

Meta Response: Undisputed.

c. Mr. Zuckerberg testified that "the ability to take other pieces of content and reshare them has always been an important part of Facebook." *Id.* at 94:20-22.

Meta Response: Undisputed.

2036. Mr. Systrom testified he knew of no company that was "cut-off" specifically from cross-posting for violating Meta's "no-replication" policy. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 116:18-22 ("Q. And do you have any recollection of companies being cut off from cross-posting as a result of violating the 'No replication' policy?" A. I don't specifically around cross-posting, no.").

Meta Response: Undisputed that Mr. Systrom provided the quoted testimony, except the question was: "And do you have a recollection of companies being cut off from cross-posting as a result of violating the 'No replication' policy?" PX6133 at 116:18-22 (Systrom Dep. Tr.).

2037. In fact, Meta has never taken away a third-party app's ability to cross-post because that app "competes" with Facebook. PX1514, Meta messages: [redacted] to [redacted], et al. (Aug. 22, 2013), FB_FTC_CID_00595203, at -213 ([redacted]: "[T]here's a meme that fb will take away login if your app competes . . . ." [redacted]: "The meme is wrong. We have never took away login. Just friends.get [aka Find Friends]. And never sharing [aka cross-posting]. We always give sharing.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017.

2038. According to Meta itself, cutting off Instagram from cross-posting was contrary to its strategy and Meta would not have been incentivized to cut off Instagram's access from that feature had Instagram remained independent. *See* PX2616, Meta document: T. Barnett (Covington & Burling) to C. Perez (FTC) re: "Facebook, Inc.'s Proposed Acquisition of Instagram, Inc., Transaction No. 20120739" (May 8, 2012), FB_FTC_CID_02005352, at -363("[T]he posited theory of harm is contrary to Facebook's strategy of enhancing the growth and development of social apps, including mobile apps. If Facebook were seeking to eliminate Instagram as a potential competitor, Facebook should be expected to be trying to constrain the future growth of Instagram and

all other similar applications. In reality, however, Facebook has invested heavily in the Facebook Platform and has described it as an absolutely critical component of its future strategy and success.”).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the acquisition was not for the purpose of eliminating Instagram as a potential competitor. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 2017, and because whether Facebook would have had an incentive to continue to promote Instagram’s growth in the but-for world is inherently speculative.

2039. According to Meta, “the Facebook Platform is available to any application developers that wish to enable their users to share content back to Facebook, thereby publicizing the availability and capabilities of their applications.” *See Id.* at -363.

Meta Response: Undisputed.

2040. Cutting off Instagram’s ability to cross-post would have harmed, not benefited, competition and consumers.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta’s responses to paragraphs 2017, 2031, and 2032, and because the FTC cites no evidence that supports the speculative statement, undefined as to time period, in this paragraph. Further disputed on the ground that this statement and the statements in the subparagraphs below confuse “cross-post[ing]” with other types of cross promotions not available to all third-party apps.

a. Cross-posting from third-party apps, including Instagram, benefits Facebook users by delivering more engaging content into their feeds. *See supra* ¶ 2029(c). Hence, cutting off Instagram's ability to cross-post would have harmed Facebook's users by reducing the amount of engaging content they received in their feeds.

Meta Response: Disputed in part. Undisputed that cross-posting from third-party apps, including Instagram, can sometimes benefit Facebook users. Disputed for the reasons stated above in Meta's response to paragraph 2040.

b. Cutting off cross-posting from Instagram to Facebook also would have hurt Instagram users by removing functionality from Instagram. Indeed, Mr. Krieger testified that when Meta took adverse action against Instagram in 2018 by removing a "find your friend" functionality, related to concerns that Instagram was cannibalizing Facebook, this made Instagram "worse" for users. *See* PX6015, Krieger (Meta/Instagram) IH Tr., at 208:6-15. Instagram's founders also testified that when Meta removed Instagram's ability to cross-post to Facebook with attribution in 2018, Instagram initially saw a loss in engagement, consistent with a loss for users. *See* PX6027, Systrom (Meta/Instagram) IH Tr., at 265:11-267:22; PX6146, Krieger (Meta/Instagram) Dep. Tr., at 209:19-24 (agreeing that "changes that Facebook made with respect to cross-promotion in this time frame [2018] led to a decline in [Instagram's] net growth").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2040 and because the cited evidence does not relate solely to cross-posting but also to other promotions not available to all third-party apps. In the testimony quoted in

the second sentence of the FTC's response to this subparagraph, Mr. Krieger was testifying about how Instagram no longer having access to Facebook's friend "coefficient data" affected Instagram's "find your friend" feature – not about Meta removing the feature, which Meta never did. *See* PX6015 at 207:21, 208:6-15 (Krieger IH Tr.). In the testimony from Mr. Krieger quoted in the third sentence of the FTC's response to this subparagraph, Mr. Krieger was testifying not just about effects from Meta's removal of Instagram attribution when cross posting content, but about "the combination of changes that Facebook made." PX6146 at 209:19-24 (Krieger Dep. Tr.). Similarly, in Mr. Systrom's testimony cited in the third sentence of the FTC's response to this subparagraph, Mr. Systrom was testifying not just about effects from Meta's removal of Instagram attribution when cross-posting content, but also about the loss of friend coefficient data and Meta's removal of an in-app "bookmark" on Facebook linking directly to Instagram. PX6027 at 265:11-267:22 (Systrom IH Tr.). About the effects from Meta's removal of Instagram attribution specifically, Mr. Systrom testified that he "remember[ed] that being a hit" (though he did not "know the exact . . . numbers"), but "the hit wasn't permanent because Instagram has continued to grow since." *Id.* at 266:21-267:4. Neither access to friend coefficient data nor an in-app bookmark link would be available to all third-party apps. *See* Ex. 151 at 294:6-9 (Systrom Dep. Tr.) ("Q. Okay. If Instagram had remained an independent company, Facebook wouldn't have provided a bookmark? A. I doubt it."), 300:8-25 (testifying that "there were no restrictions" on "employees working on the Facebook app from accessing Instagram user data and vice versa" and "the pulling of data across those two is a great example of accretive value to the family [of apps]").

2041. Cutting off Instagram's ability to cross-post would have harmed, not benefited, competition and consumers. *See supra* CMF at § V.A.1(c).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.A.1(c), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 2040 and its subparagraphs.

b) Instagram could have grown in other ways even if Meta cut off Instagram's ability to cross-post to Facebook.

2042. Mr. Systrom testified that cross-posting to other platforms became less significant over time, as "[t]he percentage shared to platforms went down over time . . . primarily because people were finding more use in just sharing to their friends on Instagram and didn't feel the need to repost somewhere else." PX6027, Systrom (Meta/Instagram) IH Tr., at 119:16-20.

Meta Response: Undisputed that the witness provided the quoted testimony.

2043. Mr. Systrom testified that the percentage of Instagram posts shared to other platforms "was inversely proportional to the size of the Instagram network, which is to say, to the larger we got, the less interested people were in sharing it elsewhere because they got all the distribution they needed on Instagram," which led the percentage to "decline[] pretty significantly during the course of being at – at Facebook." *Id*. at 120:1-7.

Meta Response: Undisputed that the witness provided the quoted testimony.

2044. After the acquisition closed, Twitter removed Instagram's access to certain Twitter APIs and Instagram recovered the lost growth through other means.

Meta Response: Undisputed.

a. Twitter cut off Instagram's access to the Twitter "find friends feature . . . soon after [Instagram] announced [it] would be acquired." *Id.* at 283:21-284:16; *see also* PX3457, Meta email chain: K. Systrom to [redacted] re "Twitter Update [privileged]," (July 12, 2012), FB_FTC_CID_12320636, at -639 ("Twitter has informed me that they will be removing access to a key part of their API for Instagram. Namely, it will not longer be possible to 'Find your friends' via Twitter on Instagram.").

Meta Response: Undisputed, except "not longer" should read "no longer." PX3457 at -639 (FB_FTC_CID_12320636).

b. After the acquisition, Mr. Zuckerberg encouraged Instagram to stop supporting another Twitter integration, "Twitter Cards," and Instagram did stop supporting this integration. *See* PX6027, Systrom (Meta/Instagram) IH Tr., at 283:21-287:17.

Meta Response: Undisputed.

c. After these integrations were removed, Instagram users could still post photos to Twitter, but the post appeared simply as a link to Instagram. *Id.* at 287:1-9.

Meta Response: Undisputed.

2045. Instagram could have implemented effective growth strategies that did not rely on cross-posting photos to Facebook. *See supra* CMF at § V.A.1(d).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement

incorporates the FTC's statements in Section V.A.1(d), Meta incorporates its responses to those statements here.

3. Meta's acquisition of Instagram impeded Instagram's growth.

2046. Meta's acquisition of Instagram impeded Instagram's growth. *See supra* CMF at § III.D.1(b).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

2047. After the close of the Instagram acquisition, Meta took steps to ensure that Instagram's growth did not reduce Facebook's user engagement or growth, even if this meant sacrificing growth on Instagram. *See supra* CMF at § III.D.1(b).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

2048. Meta directed Instagram to differentiate its social graph from Facebook's in order to reduce the risk that Instagram would "cannibalize" user engagement from Facebook. *See supra* CMF at § III.D.1(b).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement

incorporates the FTC's statements in Section III.D.1(b), Meta incorporates its responses to those statements here.

2049. Meta significantly ramped up Instagram's ad load, over the objections of Instagram's founders. *See supra* CMF at §§ II.C.3(a), IV.B.2.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections II.C.3(a) and IV.B.2, Meta incorporates its responses to those statements here.

2050. In 2018, Meta removed Instagram's access to certain growth promotions that it believed were beneficial to Instagram, because of concerns that Instagram's growth was harmful to Facebook. *See supra* CMF at §§ IV.C, V.A.1(c).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections IV.C and V.A.1(c), Meta incorporates its responses to those statements here.

2051. The Meta acquisition caused Instagram to lose Twitter as a distribution channel. *See supra* CMF at ¶ 2044.

Meta Response: Undisputed that, after the acquisition closed, Twitter removed Instagram's access to certain Twitter APIs.

2052. As part of Meta, Instagram lost the ability to makes its own decisions about employee hiring, headcount allocation, and infrastructure capacity.

Meta Response: Disputed in part. Undisputed that, by definition, after its acquisition by Meta, Instagram was no longer an independent company. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017 and in Meta's responses to the subparagraphs below.

a. As part of Meta, Instagram lost authority to hire independently and Mr. Zuckerberg retained final say over headcount allocations. *See* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 66:4-67:25; *see also id.* at 76:12-77:4 (discussing Mr. Systrom unsuccessfully obtaining additional "trust and safety" personnel).

Meta Response: Disputed in part. Undisputed that, by definition, after its acquisition by Meta, Instagram was no longer an independent company. Disputed for the reasons stated above in Meta's response to paragraph 2017, and because the cited testimony does not say that Instagram lost authority to hire independently or that Mr. Zuckerberg "retained final say over headcount allocations." The evidence shows that, after the acquisition, Instagram retained "IG-dedicated recruiters" and "manage[d] the candidates throughout the process as we do when we find specialists for IG." PX11032 at -800 (FB_FTC_CID_06207799).

b. Mr. Zuckerberg used access to headcount to force Instagram's founders to direct their product development according to Mr. Zuckerberg's preferences. *See, e.g.*, PX3458, Meta email chain: M. Zuckerberg to S. Sandberg & M. Schroepfer re: "Instagram," (June 27, 2016), FB_FTC_CID_06207421, at 421-22 ("In general,

I'm less inclined to increase their headcount if I don't think they're going to make the right product decisions, so these things are all related.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2017, and because the cited document does not say that Mr. Zuckerberg would "force" anything as described in this subparagraph. What the cited document instead shows is that, like all businesses, Meta had to prioritize its limited resources. In the cited document, Mr. Zuckerberg wrote, "[f]or more context on headcount, I am in favor of Instagram getting more heads, but I am currently prioritizing three teams above them: teens, camera, and new head-to-head competitor app." PX3458 at -421 (FB_FTC_CID_06207421).

c. After the acquisition, Instagram became subject to the Meta infrastructure capacity allocation process that [redacted]. *See infra* CMF at § V.E.3(b).

Meta Response: Disputed in part. Undisputed that, by definition, after its acquisition by Meta, Instagram was no longer an independent company. Disputed on the ground that this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.E.3(b), Meta incorporates its responses to those statements here. For the reasons stated in those responses, Meta placed Instagram on Meta's proprietary hyperscale infrastructure, yielding significant quality improvements post-acquisition. *See* Meta SMF

¶¶ 755-761. Further disputed for the reasons stated above in Meta's response to paragraph 2017.

d. After the acquisition, Meta imposed capacity restrictions that forced Instagram to devote engineers to reclaiming capacity through efficiency engineering rather than devoting engineering time to new features or other user-facing improvements. *See infra* CMF at § V.E.3(b).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.E.3(b), Meta incorporates here its responses to those statements and its response above to subparagraph 2052(c). Further disputed for the reasons stated above in Meta's response to paragraph 2017.

2053. Meta repeatedly refused to give Instagram the engineers and other human resources that Instagram needed to sustain its growth.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017 and in Meta's responses to the subparagraphs below. Evidence shows that Meta gave Instagram significant growth resources. *See* Meta SMF ¶¶ 723-738. The FTC's integrity expert admitted that he could not conclude that Instagram would have better addressed integrity issues (or that it would have more integrity engineers) but for the acquisition. *See id.* at ¶ 754.

a. Mr. Systrom testified that "there was a theme of us asking for and not receiving head count in the most important themes of work at the company." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 91:7-9.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2053 and because the quoted testimony is missing necessary context. Mr. Systrom's testimony was about a specific "Integrity-focused head count request" for 13 engineers. PX6133 at 90:5-21 (Systrom Dep. Tr.).

b. In 2014, Meta allocated and then withdrew Instagram's growth team. *Id.* at 83:25-84:3 ("[T]here was a reprioritization [a]nd, apparently, we were no longer to receive support from those growth people, I believe.").

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2053, and because the quoted testimony is missing necessary context. Mr. Systrom's testimony was about "a couple of growth people" that were reassigned from Instagram in 2014. PX6133 at 83:19-22 (Systrom Dep. Tr.). He did not testify that Meta "withdrew Instagram's growth team," which is untrue; Meta built Instagram's growth team from scratch, *see* Meta SMF ¶ 726.

c. In 2015, Mr. Systrom asked for more headcount and understood he would receive 60% of what he requested. PX3459, Meta email chain: M. Krieger to K. Systrom & M. Levine re: "Instagram Eng Headcount Comparables," (Sept. 13, 2015), FB_FTC_CID_02613194, at -195 ("it seems to me that Mark has his mind pretty made up to settle around 60%."). Mr. Systrom described the situation writing "I

don't sense that there's much empathy yet for how understaffed we are." Meta email chain: K. Systrom to M. Krieger & M. Levine re: "Instagram Eng Headcount Comparables," (Sept. 13, 2015), FB_FTC_CID_02613194, at -195. In Mr. Systrom's headcount request compared Instagram's headcount to Meta's and even with adjustments concluded that "we think we're under-invested in important areas, even when adjusted for MAP." PX3459, Meta email chain: M. Krieger to K. Systrom & M. Levine re: "Instagram Eng Headcount Comparables," (Sept. 13, 2015), FB_FTC_CID_02613194, at -196; *see also id.* at -194 ("[M]ark seems fairly committed to 70-75 for IG (note that this is in contrast to oculus which is getting 120 SWE and even more hardware.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2053, and because the statements in this subparagraph are missing necessary context. This document discusses that, as of September 2015, Instagram had been allocated 105 engineers, which would increase to 127 by the end of 2015 – approximately 10 times the total number of all Instagram employees at the time Meta announced the acquisition just a few years prior. PX3459 at -196 (FB_FTC_CID_02613194). This statement also omits Mr. Zuckerberg's observation that Instagram benefits from work non-Instagram engineers perform – "economies of scale" – "on core infra, data infra, site integrity, ads, growth, etc." that are company-wide and for "all teams benefit going forward. While it's true that each team will need[] its own small versions of those teams, the centralized versions are often 10-20x larger and eliminate the

need for each team to do a majority of what they'd have to do." *Id.* Instagram and Facebook both benefited from engineers working on "core" (or company-wide) infrastructure that supports all Meta services. The Instagram personnel on this email thread also noted about Mr. Zuckerberg's response regarding Instagram-specific engineers, "there is support for staffing and funding our work on the merits of the work itself." *Id.* at -194.

d. In 2015, Instagram's [redacted] reported that web registration—along with Net Ego ads—was among growth efforts that were "either unfunded or understaffed." PX3161, Meta email chain: [redacted] to A. Schultz, et al. re: "follow ups from igram growth meeting," (July 14, 2015), FB_FTC_CID_05298503, at -506 (including "Web Registration" as #2 on a list "detailing the top-10 projects that are either unfunded or understaffed").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2053.

e. In 2016, as Instagram was developing Stories, Mr. Systrom reported "[w]e also have areas that are 'starving,'" and while "[w]e want to take on Snapchat proactively AND we want to focus on content production in general. In order to do this, we've moved people off teams that are already understaffed to work on [Stories] and content production." PX11032, Meta email chain: K. Systrom to M. Schroepfer & M. Krieger re: "Summary of IG incremental 45 heads plan," (June 22, 2016), FB_FTC_CID_06207799, at -800; *see also* PX3458, Meta email chain: M. Zuckerberg to S. Sandberg & M. Schroepfer re: "Instagram," (June 27, 2016),

FB_FTC_CID_06207421, at -421 (noting Mr. Zuckerberg was "currently prioritizing three teams above [Instagram]"); *see also infra* CMF at ¶ 2098.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2053 and because this statement omits that, in response to Mr. Systrom's email, Mr. Schroepfer forwarded Mr. Systrom's email to Mr. Zuckerberg and others saying, "I think the core of this is a good ask" and that "I do think we need to do more here." PX11032 at -799 (FB_FTC_CID_06207799). To the extent this statement incorporates the FTC's statement in paragraph 2098, Meta incorporates its response to that statement here.

f. In 2017, Instagram requested more headcount to address integrity problems on Instagram, but Mr. Zuckerberg opted to prioritize what he saw as "more extreme issues on FB right now." *See* PX15225, Meta email chain: M. Zuckerberg to K. Systrom re: "Integrity HC @ IG," (Apr. 14, 2017), FB_FTC_CID_03123472, at -472; *see also* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 98:13-19 (discussing PX15225 and noting "this is a classic example of receiving a no from Mark").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 2053 and subparagraph 2053(a), and because the quoted language is incomplete. Mr. Zuckerberg explained, "[t]his is just meant to say that I probably can't get

you 13 engineers in the near term, even though I'm supportive of these projects and agree we should allocate more to them as more engineers become available." PX15225 at -472 (FB_FTC_CID_03123472).

g. In 2018, Meta again did not meet Instagram's headcount request and Mr. Systrom testified that this decision "stunted" the growth of Instagram's engineering team in 2018, which made "it much harder to work on projects and projects that relate to growth." PX6027, Systrom (Meta/Instagram) IH Tr., at 268:23-269:21.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2053, and because the statement is misleading and incomplete. After Mr. Systrom was asked: "Did reducing Instagram's headcount budget adversely affect Instagram's growth," he replied, "[i]t's hard for me to know because I wasn't around to see it." PX6027 at 269:15-21 (Systrom IH Tr.).

2054. An independent Instagram would have made different decisions about hiring, headcount, and capacity – decisions that would have prioritized Instagram's growth needs instead of subordinating Instagram to Facebook's needs.

Meta Response: Disputed in part. Undisputed that an independent Instagram may have made different decisions about hiring, headcount, and capacity. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2017 and in Meta's responses to the subparagraphs below. Evidence shows that Instagram benefited greatly – and at times more than Facebook – as a result of Meta's investments in Instagram's growth. *See*, *e.g.*, Ex. 475 at -019 (FB_FTC_CID_04140018) ("We got to

500M people on Instagram 1 year faster than Facebook – also because we're riding on the back of Facebook's growth engine which is pretty awesome."). No proffered FTC expert witness has even speculated that Instagram's growth would have been greater if Meta had not purchased Instagram and supported its growth. *See* Meta SMF ¶ 733 (The FTC's acquisition expert testified: "Q. . . . Do you know one way or the other whether there's any evidence in the record simulating how personal social networking consumers would have been in the counterfactual without Meta acquiring Instagram? . . . A. . . . I do not know if there is any kind of evidence what you're mentioning." (quoting Ex. 310 at 122:16-123:10 (Rim Dep. Tr.))); *id.* at ¶ 734 (Professor Hemphill testified: "Q. . . . You nowhere give the opinion in your reports that in the but-for world market-wide output in the market for PSNS would have been higher than in the actual world, correct? . . . A. . . . No, I can't, as I sit here, think of a specific place where I offer the view that out – output would be even higher in the but-for world, no. . . . I'm not offering a bottomline view that it would have been even higher." (quoting Ex. 283 at 281:10-282:4 (Hemphill Dep. Tr.))).

a. As Mr. Systrom testified, had Instagram remained independent "[w]e would never have . . . removed our growth team down to zero, meaning no support, because, of course, any start-up, any company you are going to have a growth team." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 88:9-13 (discussing PX15224, Meta messages: P. Deng to K. Systrom, (June 30, 2014), FB_FTC_CID_02981735).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2054.

b. Prior to the acquisition, Mr. Systrom made the final decisions about how resources would be deployed at Instagram. After the acquisition, Systrom could only appeal to Meta for the resources Instagram needed, which sometimes resulted in an "unsatisfactory" outcome in Mr. Systrom's eyes. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 70:7-71:16 ("Q. So just to compare that to the time before Instagram was acquired by Facebook, when Instagram was independent, who made the ultimate decisions about how resources would be deployed at Instagram? A. I did. Q. And if you decided Instagram needed more engineers, were you in power to bring more engineers on board? A. Before the acquisition? Q. Before the acquisition. A. Yes. Q. After you joined Meta, head count was determined by Meta via the processes you just mentioned? A. Yes. . . . Q. Were there ever times when you viewed the outcome of that process, in terms of head count Instagram was assigned, as unsatisfactory? A. There were times.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2054.

c. Mr. Systrom testified that "there were certainly times where we wanted to fund projects we thought were existential, and we were not able to get support for them." *Id.* at 71:20-23.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2054, and because this statement omits necessary context. The first example that Mr. Systrom gave of an "existential" project was "Instagram Stories wanting to build a competitor to Snapchat at the time," PX6133 at 71:18-72:2 (Systrom Dep. Tr.), which Meta indisputably built and released for Instagram using Meta resources, *see* Meta SMF ¶ 744. Mr. Systrom also testified this contributed to Instagram's growth. *See id.* at ¶ 747. Mr. Systrom also concluded the answer the FTC snips by testifying: "I should be clear, though, wanting more people and not getting people was kind of a common refrain among executives at Facebook. So I'm not sure that my – my situation was specific to Instagram. There were certainly times where Mark decided not to invest in certain teams for whatever reason." PX6133 at 72:24-73:6 (Systrom Dep. Tr.).

d. Testifying about Meta decision to remove cross-promotions for Instagram, Mr. Systrom testified that in the "counterfactual" where Instagram was not acquired by Facebook, "[w]e would have hired employees. We would have built a growth team, we would have done lots of these things." *Id.* at 303:20-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2054, and because Mr. Systrom also testified that "being part of Facebook allowed Instagram to skip several years of development." Meta SMF ¶ 727 (quoting Ex. 151 at 251:9-21 (Systrom Dep. Tr.)).

2054.1 For the forgoing reasons, *see supra* CMF at §§ V.A., III.B.1., there is every indication that Instagram's torrid pre-acquisition growth pace would have continued if it had not been acquired by Meta. But an independent Instagram—or an Instagram owned by another acquirer—could have served as a significant competitive constraint on Facebook even without growing to be as large as it is today. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 606-11.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. The cited paragraphs of the Hemphill rebuttal report likewise do not cite any specific evidence. Further disputed because the statement is argumentative and inherently speculative. To the extent the statement incorporates the FTC's statements in Sections V.A and III.B.1 and paragraphs 606-611, Meta incorporates its responses to those statements here.

a. Mr. Zuckerberg acknowledged this before the acquisition, telling a colleague that "Instagram can hurt [Facebook] meaningfully without becoming a huge business[.]" PX1202, Meta messages: M. Zuckerberg to [redacted], (Apr. 5, 2012), FB_FTC_CID_06290875, at -876.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because what this statement claims Mr. Zuckerberg "acknowledged" (i.e., "this") is ambiguous. Further disputed for the reasons stated above in Meta's response to paragraph 2054.1.

B. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Add Features.

2055. Meta's acquisition of Instagram was not necessary for Instagram to add features. *Infra* CMF at § V.B.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.B, Meta incorporates its responses to those statements here.

Further disputed that any of the statements in Section V.B create a genuine dispute of material fact, because they do not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the statements in Section V.B suggest that, absent the acquisition, Instagram would have been able to add features as successfully as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See* Ex. 153 at 392:5-22 (Krieger Dep. Tr.) (Mr. Krieger agreeing that there is no way to determine with certainty what Instagram could have done in the "parallel world" absent the acquisition). Conversely, evidence shows that the acquisition enabled Instagram to develop and launch new features more quickly and efficiently than it could have absent the acquisition. *See* Ex. 5 at ¶ 196 (Nieh Rep.) ("Instagram was only two years old when Meta acquired it. Meta has now operated Instagram for the past 11 years. During that time, the Instagram application has been almost completely rewritten. The vast majority of Instagram's new feature development has occurred while Instagram has been integrated with Meta, relying on Meta's

infrastructure and other extensive resources that are dedicated to Meta's Family of Apps. Instagram was able to rely on Meta's talent pool and hiring expertise for its product teams; offload the infrastructure-related issues related to developing and launching new features to Meta's Infrastructure Organization; and use Meta's developer tools, logging and data analytics, continuous deployment systems, and AI systems. Meta's infrastructure, engineering resources, and technical capabilities helped Instagram develop and launch new features and functionality more rapidly and efficiently at massive scale." (internal citations omitted)).

Meta's talent pool and hiring expertise helped Instagram launch new features and functionality. *See id.* Instagram had 13 employees at the time of the acquisition. *See* Meta SMF ¶ 657. At the time Mr. Systrom and Mr. Krieger left Instagram in 2018, Instagram had more than 1,000 employees, approximately 500 of whom were engineers. *See* Ex. 151 at 275:25-276:2 (Systrom Dep. Tr.); Ex. 153 at 298:16-19 (Krieger Dep. Tr.). It is purely speculative whether Instagram could have achieved such growth on its own, absent the acquisition. Evidence shows that Instagram was struggling to hire engineers prior to the acquisition. *See* Ex. 5 at ¶ 99 (Nieh Rep.) ("According to Mr. Krieger, Instagram also was 'underwater' from an engineering resources perspective, and it 'is very hard to scale it with just the small team we had.' Mr. Krieger referred to this condition as the 'recruiting cycle of death,' which he explains 'as a negative feedback cycle where you're not able to keep pace – you're not able to scale the team. And because you're not able to scale the team, your existing work keeps getting harder.'" (footnotes omitted)); Ex. 151 at 264:10-18 (Systrom Dep. Tr.) (testifying that, prior to the acquisition, Instagram was "so busy working on the site that we did not have nearly

enough time nor interest to grow the team"). Mr. Krieger and Mr. Systrom testified that Instagram benefited from having access to Meta's employees and hiring expertise. *See* Ex. 153 at 300:5-7, 301:4-7 (Krieger Dep. Tr.) (testifying that "it was very helpful to be able to recruit from within Facebook and the – and the bootcamp process" and that after the acquisition "the majority of [Instagram's] hires were Facebook either bootcamp hires or transfers"), 303:8-15 (confirming that between 2012 and 2015 the majority of the engineers working on Instagram came from Meta as either transfers or through Meta's bootcamp process); Ex. 151 at 269:6-9 (Systrom Dep. Tr.) (agreeing that Instagram benefited from the experience of Meta's employees), 271:6-272:10 (agreeing with statements he made in a December 2014 interview that "so much of [Instagram's] growth and [Instagram's] success is because of our very tight-knit relationship with [Meta]," that Instagram benefited from the expertise of Meta's employees who had seen growth "and they are able to take that expertise and share it and, therefore, accelerate it," and that, "[a]s an independent company, it would have taken a lot longer to get to this point"). Mr. Systrom acknowledged that Meta paid for Instagram to develop new features. *See* Meta SMF ¶ 747.

Instagram also benefited from being able to offload to Meta infrastructure-related issues related to developing and launching new features. *See* Ex. 5 at ¶¶ 88-89, 196 (Nieh Rep.) ("[W]hen Instagram . . . became part of Meta, [it was] able to obtain access to the many software services that Meta provides as well as the experts that manage – and in many cases designed and developed – those services. This saved Instagram . . . many engineering years of effort, and allowed [Instagram] to maintain the focus on their products without the disadvantages of using a managed software service or of diverting

attention from their products to develop and run these software services on their own."). Mr. Krieger explained that being able to "offload some core pieces of work" to Meta was one of the reasons Instagram decided to migrate to Meta's infrastructure. *See id.* ¶ 150 (citation omitted). Mr. Systrom agreed that, generally, "being part of Facebook allowed Instagram to skip several years of development." Ex. 151 at 251:17-20 (Systrom Dep. Tr.).

Regarding Meta's improvements to Instagram's infrastructure, Mr. Systrom testified: "Q. . . . Facebook helped with the [Instagram] infrastructure? A. Yes. Q. How? A. They had a handful of experts at systems that came into our team very early on as soon as the deal closed past review that were helpful in thinking about how to architect our systems. . . . Q. During your negotiations with Mr. Zuckerberg, did he tell you that Facebook could help Instagram with its infrastructure? A. Yes." *Id.* at 244:24-245:22; *see also id.* at 246:3-12 ("Q. Did you think it was an advantage to Instagram to be able to use Facebook's expertise in scaling rather than have to develop that expertise itself? . . . A. . . . It was really nice to have people who had seen exactly what we were going through before sitting there giving you advice and – and helping. Yeah, that was – that was really nice."); *id.* at 250:23-24 ("They certainly gave us resources that allowed us to thrive, yes."). Mr. Krieger also testified extensively about how Meta's infrastructure expertise and resources helped Instagram's performance. He testified that, "going into 2012, as [Instagram] started getting into 5, 10, 20 million users, we were constantly hit with new infrastructure challenges." Ex. 302 at 127:19-22 (Krieger IH Tr.). Mr. Krieger testified that Instagram's struggle to manage its infrastructure problems pre-acquisition contributed to why he and Mr. Systrom agreed to the acquisition. *See id.*

at 158:20-159:17 ("[W]e had talked recently about the infrastructure challenges. Like, it had been difficult last time since launch till then in terms of the scaling the infrastructure or trying to hire the team. So I think we were both pretty underwater on that. And so getting to partner with Facebook, they had a much larger infrastructure and a much more built-out team, was appealing. And I had a ton of respect for their engineering team already at the time. . . . [W]e were so underwater from an engineering perspective that having assistance was very appealing."). Mr. Systrom testified that he "wish[ed] [he] had more time to spend on the product" prior to the acquisition, but "Mike [Krieger] and I were spending most of our time keeping the servers running." Ex. 151 at 219:1-23 (Systrom Dep. Tr.). And Mr. Krieger testified that Instagram's performance stabilized and improved after the acquisition by moving onto Meta's infrastructure and leveraging Facebook's expertise. *See* Ex. 302 at 231:15-24 (Krieger IH Tr.); *see also* Meta SMF ¶¶ 756, 761.

Instagram was able to launch more than 30 new features and services on Instagram between May 2013 and March 2021. *See* Meta SMF ¶ 739; *see also id.* at ¶¶ 740-747 (describing Instagram's post-acquisition new features). Extensive evidence shows that the acquisition enabled Instagram to launch specific features more quickly and efficiently than it could have absent the acquisition, including video, Live, Stories, ranked feed, and Direct. *See* Meta Resps. to Counter SMF ¶¶ 2065, 2068, 2071, 2075, 2084. For example, regarding Instagram's launch of video, Mr. Krieger wrote in an internal post: "There is no way this project would have gone as well as it had without the support from Infra and specifically [the] traffic team." Ex. 219 at -298 (FTC-META-012220298); *see also* Meta SMF ¶ 740. Mr. Parikh, Meta's former head of

infrastructure, testified that it took Meta "a year, year and a half" to develop the capacity for live video on Facebook, "[a]nd then when Instagram wanted to offer live, it only took them a couple of months because they were able to rely on the shared service." Ex. 158 at 144:17-145:25 (Parikh IH Tr.). Mr. Krieger testified that Instagram was able to build Stories "on top of some world-class infrastructure that [Meta] provided, including TAO," which helped Instagram "to launch to the scale that we did on day one." Ex. 153 at 372:7-373:1 (Krieger Dep. Tr.). And Mr. Systrom agreed that being part of Meta allowed Instagram to "skip some of the early mistakes" with ranked feed, enabling Instagram to "speed its development" and not waste "a year on an unfruitful direction." Ex. 151 at 256:22-257:13 (Systrom Dep. Tr.). Ranked feed – which Mr. Zuckerberg had advised Mr. Systrom to implement to increase time spent on Instagram feed to be comparable with time spent on Facebook feed – increased time spent and engagement on Instagram. *See* Meta SMF ¶ 742 (citing Ex. 151 at 267:18-22 (Systrom Dep. Tr.) and quoting Ex. 153 at 383:16-384:2 (Krieger Dep. Tr.)); Ex. 284 at 252:3-25 (Systrom IH Tr.).

1. Prior to the acquisition, Instagram had established itself as an innovative competitor to Facebook that had added attractive features.

2056. Prior to the acquisition, Instagram was already widely lauded – including by Mark Zuckerberg, other Meta senior executives, and venture capital investors – for its innovation, talent, and deployment of attractive features.

Meta Response: Disputed in part. Undisputed that, prior to the acquisition, Meta and others regarded Instagram highly. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055.

a. Prior to its acquisition by Meta, "Instagram . . . from the outset [was] praised as exemplifying the speed, reliability, and simplicity necessary to succeed in the mobile environment." PX2618, Meta White Paper: "Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -372.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2055.

b. Prior to its acquisition by Meta, Instagram had "developed a mobile product that was simple, elegant, fast, and engaging." PX15545 at -014, Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 4, 5, and 7 (Nov. 30, 2022).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2055.

c. Prior to its acquisition by Meta, "Instagram was the clear leader in user experience and photo sharing. They redefined how polished and fun a mobile app to share photos with could be." PX6079, Stoop (Meta) Dep. Tr., at 85:19-22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2055.

d. Mr. Zuckerberg testified that Instagram's founders "were very talented product leaders doing something impressive." PX6029, Zuckerberg (Meta) IH Tr., at 250:5-6.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2055.

e. Mr. Zuckerberg also acknowledged that he "probably underestimated the value and insight that we would get from Kevin's [Systrom] perspective. He is a very thoughtful product thinker." PX6029, Zuckerberg (Meta) IH Tr., at 281:13-16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2055.

f. Mr. Zuckerberg stated that Instagram had a "really unique and innovative" feature—photo filters—that "at the time no one else had." PX6127, Zuckerberg (Meta) Dep. Tr., at 52:4-12; *see also id.* at 52:12-14 ("And they did other things well too. I think the interface for displaying the photos on Instagram was really nice.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2055.

g. Apple named Instagram the App of the Year for 2011. [redacted]

Meta Response: Disputed in part. Undisputed that, in 2011, Apple named Instagram its app of the year. Disputed for the reasons stated above in Meta's response to paragraph 2055.

h. Former Meta Vice President of Corporate Development Amin Zoufonoun testified that, prior to the acquisition, Instagram's "users really liked it. It had nice engagement. It had beautiful features, and it had a feed product." PX6028, Zoufonoun (Meta) IH Tr., at 20:7-9, 150:25-151:3.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2055.

2057. Instagram had a rich and innovative feature set from its launch. *See* PX6015, Krieger (Meta/Instagram) IH Tr., at 37:1-38:5, 42:17-20, 44:9-14, 48:7-19.

Meta Response: Disputed in part. Undisputed that Instagram offered some popular features at its launch, including the features listed in the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055. Further disputed on the ground that "rich and innovative feature set" is vague and undefined.

a. Users could upload photos either from a camera feature within the Instagram app or from their phone's photo library. *See id.* at 37:3-6.

Meta Response: Undisputed.

b. Users could apply 16 different filters to their photos. *See id.* at 37:6-9.

Meta Response: Undisputed.

c. Users could add captions, geotagging, and locations to photos. *See id.* at 37:10-12.

Meta Response: Undisputed.

d. Users could share photos to Instagram followers. *See id.* at 37:13-14.

Meta Response: Undisputed.

e. Users could cross-post to Facebook and Twitter. *See id.* at 37:13-16.

Meta Response: Undisputed.

f. Users could view content in a feed and a "Popular" tab showing popular content. *See id.* at 37:21-38:5.

Meta Response: Undisputed.

g. Users could import contacts from their phone, Facebook, or Twitter. *See id.* at 42:17-20.

Meta Response: Undisputed.

h. Users could search for users to follow. *See id.* at 48:7-19.

Meta Response: Undisputed.

i. Users could control their privacy settings. *See id.* at 44:9-14.

Meta Response: Undisputed.

2058. Instagram's feature set differentiated the app and satisfied its users' demand for personal social networking services. *See supra* CMF at ¶¶ 1595-1606.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 1595-1606, Meta incorporates its responses to those statements here. Further disputed because nothing cited in paragraphs 1595-1606 demonstrates that users demanded "personal social networking services" or that Instagram satisfied its users' demand for "personal social networking services."

Disputed that Instagram is a "personal social networking service[]" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

2059. Before the acquisition, fueled in part by its robust feature set, Instagram had proven to be a powerful competitive threat to Meta in personal social networking services. *See supra* CMF at § III.B.1; *see also supra* CMF at § III.B.2.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections III.B.1 and III.B.2, Meta incorporates its responses to those statements here. Further disputed on the ground that the phrases "fueled in part by its robust feature set" and "a powerful competitive threat" are vague and undefined. Disputed that Meta and Instagram are "personal social networking services" for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

2060. Instagram continued to add features and iterate on existing features after its launch.

Meta Response: Disputed in part. Undisputed that Instagram added features after its launch. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055.

a. "[S]hortly after launch," Instagram users could also share to "Tumblr and Foursquare." PX6015, Krieger (Meta/Instagram) IH Tr., at 37:1-37:18.

Meta Response: Undisputed.

b. "Within the first six months [Instagram] added the ability to add hashtags." *Id.* at 46:1-3.

Meta Response: Undisputed that the witness provided the quoted testimony.

c. Instagram also launched a new "feed of activity from the people that you were following, not just the photos they were posting but, for example, if a friend or somebody you follow liked some photos from a new photographer they just discovered, it would show up in this following feed." *Id.* at 46:4-10.

Meta Response: Undisputed that the witness provided the quoted testimony.

d. Instagram introduced the ability to "mention other users using an at (@) symbol, and they would get notified. And, if you clicked on their name, it would go to their profile." *Id.* at 46:15-18.

Meta Response: Undisputed that the witness provided the quoted testimony.

e. Instagram expanded its filter offerings. *Id.* at 46:11-12 ("We added more filters and had more updates related to that.").

Meta Response: Undisputed that the witness provided the quoted testimony.

2061. In an internal communication from 2012, Mr. Zuckerberg and Meta team members noted Instagram's unique and innovative features, focusing on Instagram's filters.

Meta Response: Disputed in part. Undisputed that Meta employees discussed Instagram's features, including its filters. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055.

a. Mr. Zuckerberg observed that "[t]he new "lux" feature in the latest build of Instagram is pretty amazing," and asked "to get an assessment of how much work

it would take to build." PX3455, Meta messages: M. Zuckerberg to D. Stoop and J. Pottebaum, (Apr. 13, 2012), FB_FTC_CID_07851981, at -981.

Meta Response: Undisputed.

b. Instagram's implementation of photo filters was innovative and technically sophisticated: "They don't just look at one pixel at a time, I think they look at both a histogram of the image, for the overall properties, and for each pixel look at neighboring pixels, for edge detection and possibly noise reduction . . . . The hard part is to figure out the right set of logic to say 'do this on a dark image, when neighboring pixels aren't blah . . . do something else.'" PX3455, Meta message: J. Pottebaum to M. Zuckerberg, (Apr. 13, 2012), FB_FTC_CID_07851981, at -982.

Meta Response: Undisputed that the document contains the quoted language.

2. Meta's acquisition of Instagram was not necessary for Instagram to launch the asserted features.

a) As a general matter, Instagram was able to, and planned to, launch additional innovative features had it not been acquired by Meta.

2062. At the time of the acquisition, Instagram had plans for additional product development, including adding video and a new "explore" tab. PX6015, Krieger (Meta/Instagram) IH Tr., at 160:17-21 ("we thought video would be an interesting thing to add onto that for sure"); *id*. at 161:1-9 (relating that Instagram was interested in adding features that "eventually became a tab we called explore . . . ."); *see also* PX6134, Systrom (Meta/Instagram) Dep. Tr., at 392:16-20 ("Q. Absent the acquisition would Instagram have continued to innovate? A. I hope so, as many other independent companies had and

do."); PX3221, Instagram presentation: "Instagram Board Meeting" (Jan. 10, 2011), FB_FTC_CID_02978434, at -444 ("Video is the next big opportunity to capture the world around us.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language and that Instagram had plans for additional product development at the time of the acquisition. Disputed that Instagram had plans for adding video to Instagram at the time of the acquisition. Mr. Systrom testified that Instagram was "pretty clear we were focused on photos at the time" and that he "didn't know" whether Instagram "would . . . go into video." Ex. 284 at 148:11-14, 149:21-150:6 (Systrom IH Tr.). Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055.

2063. Following the acquisition, features were originated, built, and shipped fully within the Instagram team with minimal input from Meta. *See* PX6015, Krieger (Meta/Instagram) IH Tr., at 183:8-184 (describing "big projects" for post-acquisition Instagram: "[we would] tell them [what] we were going to work on," Meta would "give input," and then "we would . . . run our internal processor on developing a design and then vetting that design and then building that functionality out and finally shipping to our end users," while the "smaller initiatives . . . originated, were built, and shipped within our team on a more, like, month-to-month basis").

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because the cited testimony does not support the statement in this paragraph. On the contrary, Mr. Krieger testified that Meta leadership

would "often have input" on "lessons learned" from Meta's prior efforts to build features. PX6015 at 183:3-7 (Krieger IH Tr.). Mr. Systrom also testified that Instagram took advantage of know-how from Facebook to develop its own ranked feed. *See* Ex. 151 at 369:5-9 (Systrom Dep. Tr.). Ranked feed increased time spent and engagement on Instagram. *See* Meta SMF ¶ 742 (quoting Ex. 151 at 369:10-13 (Systrom Dep. Tr.) and Ex. 153 at 383:16-384:2 (Krieger Dep. Tr.)). Moreover, being part of Facebook allowed Instagram to "skip some of the early mistakes" with its feed ranking feature, enabling Instagram to "speed its development." Ex. 151 at 256:22-257:13 (Systrom Dep. Tr.).

Further disputed because the FTC's quotation of Mr. Krieger's testimony is incomplete. Mr. Krieger testified that new engineers Meta hired immediately following the acquisition grew Instagram by building new features like photo tagging, growth-specific features like push notifications and new registration flows, and by fixing infrastructure problems. *See* PX6015 at 173:4-24 (Krieger IH Tr.); *see also* Ex. 153 at 377:20-378:6 (Krieger Dep. Tr.) (testifying that Instagram leveraged Facebook's video stack to support IGTV because Facebook had "made a bigger investment in video").

2064. When Mr. Systrom was asked if there were "user features that Instagram could not have added if it had [not] been acquired by Facebook that it did add post-acquisition," he testified: "Not really." PX6027, Systrom (Meta/Instagram) IH Tr., at 255:7-11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony without the alteration. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055. For example, Mr. Systrom agreed that, generally, "being part of Facebook allowed Instagram to skip several years of development." Ex. 151 at

251:17-20 (Systrom Dep. Tr.). Mr. Systrom also agreed that Instagram benefited from the experience of Meta's employees and that it would have taken a "lot longer" for Instagram to achieve the same growth as an independent company. *Id.* at 269:6-9, 271:6-272:10; *see also id.* at 271:6-19 ("[S]o much of our growth and our success is because of our very tight-knit relationship with Facebook."), 369:5-9 (Instagram took advantage of know-how from Facebook to develop its own ranked feed).

b) Meta's acquisition was not necessary for Instagram to launch video.

2065. Instagram launched video in 2013 without relying on Meta or its infrastructure.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Instagram was already relying on and receiving benefits from some of Meta's infrastructure services at the time Instagram launched its video feature. *See* Ex. 5 at ¶ 120 (Nieh Rep) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition."). Mr. Krieger testified that Instagram's lack of resources pre-acquisition was holding it back from "building out more of our video and direct messaging products, among other things." Ex. 153 at 167:8-168:9 (Krieger Dep. Tr.). Extensive evidence shows Instagram's launch of its video feature benefited from Meta's infrastructure and expertise. *See* Meta SMF ¶ 740; Ex. 5 at ¶ 201 (Nieh Rep.). For example, on the day Instagram launched its video feature, Mr. Branson – one of Instagram's infrastructure engineers – wrote in an internal post that "the value of being part of the Facebook family is really starting to shine with this launch." Ex. 219 at -298

(FTC-META-012220298). Mr. Krieger responded, stating: "There is no way this project would have gone as well as it had without the support from Infra and specially [the] traffic team." *Id.*; *see also* Meta SMF ¶ 740. Mr. Krieger also testified that Instagram leveraged Facebook's pre-existing technology to serve its long-form video features like IGTV. *See* Ex. 153 at 377:20-378:6 (Krieger Dep. Tr.) ("[B]y the point we were working on IGTV, the video encoding and serving parts of the video stack were – had been moved to Facebook's video technology, because they had, since our video launch, made a bigger investment in video. And their systems had large teams staffed to work on them, whereas our video team was quite small.").

a. Instagram developed video in 2013 "without the help of Facebook" while Instagram was "still entirely on the Amazon infrastructure," and "hadn't transitioned to Facebook"; Mr. Krieger testified that his understanding was that Instagram did not "use[] any Facebook infrastructure for the video launch." PX6015, Krieger (Meta/Instagram) IH Tr., at 187:14-22; *see also* PX6136, Bennett (Amazon) Dep. Tr., at 209:20-210:15 (indicating that AWS was able to "support a customer doing live video streaming" as early as 2008).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2065, and because the FTC's characterization of Mr. Krieger's testimony is incomplete and misleading. When asked if Instagram "use[d] any [Meta] resources to develop and launch the video feature," Mr. Krieger responded that "[t]he best example of – of that is we – the engineer who helped us build videos had previously worked on Facebook videos." PX6015 at 187:23-188:2; *see also* Ex. 153 at 376:15-22 (Krieger Dep. Tr.)

(testifying that "[redacted], who was on a Facebook team and had worked on the Facebook videos product, transfer[ed] over" to Instagram and that Instagram "benefited from his knowledge of how the Facebook video system worked").

b. Instagram could have "easily" built the required video functionality on AWS without Meta, and, if Meta provided any video infrastructure support, "it wasn't important enough to matter." PX6027, Systrom (Meta/Instagram) IH Tr., at 248:7-20; *see also* PX9011, Bray Rebuttal Report at ¶¶ 326-335.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2065 and subparagraph 2065(a).

c. In a September 2013 internal email, Instagram was "working on some new product features," explaining that it was "in the middle of a 6-week sprint to launch video on Instagram. It will be part of the core experience, videos will be posted and viewed in the feed just like still images." PX10558, Meta email: A. Cole to [redacted] re: "Instagram projections – update," (Sept. 19, 2013), FTC-META-000067050, at -052.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2065.

d. Instagram's implementation of video was largely feature-complete before it moved to Meta's infrastructure. PX6147, Krieger (Meta/Instagram) Dep. Tr., at 377:12-14 (testifying that after Instagram migrated its video to Meta's

infrastructure, Instagram did not add "a ton of functionality" to further develop its video capabilities).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2065, and because the evidence cited in this paragraph does not support the statement. On the contrary, Mr. Krieger testified that Instagram "evolved [its video product] a bit," including by adding "creative tools and the ability to have longer videos on the platform," from "12- to 15-second videos" to "a minute, and then, with IGTV, to much longer." PX6147 at 377:8-19 (Krieger Dep. Tr.).

2066. Video was a widely implemented feature among online platforms by 2013.

Meta Response: Disputed in part. Undisputed that some other online platforms offered video features by 2013. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2065 and because evidence cited in the subparagraphs below does not support the statement in this paragraph. Further disputed because the phrase "widely" is vague and undefined.

a. By the time of Instagram's acquisition of Meta in 2012, video streaming had been ubiquitous for more than five years. PX9011, Bray Rebuttal Report at ¶ 327.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2065. Further disputed because the phrase "ubiquitous" is vague and undefined.

b. Both Snapchat and Twitter launched short-form video before Instagram, which did not launch short-form video until June 2013. *See* PX9001, Bray Report at

¶ 353 ("Snapchat launched a short-form video capability in 2012. Twitter also acquired short-video startup Vine in 2012 and launched it in January 2013."); PX10092, at -016 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)).

Meta Response: Disputed in part. Undisputed that Snapchat launched short-form video in December 2012 and that Twitter launched Vine in 2013. Disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2065.

c. Meta acknowledges that many companies offer video features, including LinkedIn, Tumblr, Snapchat, YouTube, Reddit, Vimeo, Line, Twitter, Nextdoor, TikTok, Pinterest, Skype, and Amazon. PX9001, Bray Report at ¶ 355 n.624 (citing PX4008 at -022, Meta document: "Competition for Users and Advertisers: Presentation to the Federal Trade Commission" (July 2, 2020)).

Meta Response: Disputed in part. Undisputed that, as of today, LinkedIn, Tumblr, Snapchat, YouTube, Reddit, Vimeo, Line, Twitter, Nextdoor, TikTok, Pinterest, Skype, and Amazon offer video features. Disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2065.

c) Meta's acquisition was not necessary for Instagram to launch live video.

2067. Instagram released live video to Stories in November 2016 via its Instagram Live feature. PX10092 at -017, Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023); s*ee also* PX6087, Josh Constine, *Instagram launches disappearing Live video and messages*, TechCrunch (Nov. 21, 2016), https://techcrunch.com/2016/11/21/instagram-live/ ("Today, two big new features begin rolling out to Instagram Stories on iOS and Android over the next few weeks. Instagram

Live lets you broadcast video to your followers in real-time, but they can only watch while you're still streaming.").

Meta Response: Disputed in part. Undisputed that Instagram released live video to Stories in November 2016 via its Instagram Live feature. Disputed that the TechCrunch article is admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h); in addition, PX6087 is not the TechCrunch article, but rather is the deposition transcript of Curtiss Cobb.

2068. Instagram's launch of Instagram Live in the U.S. was slow and degraded due to Meta's capacity limitations for Instagram. *See infra* CMF at ¶ 2097.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraph 2097, Meta incorporates its responses to those statements here.

2069. As of Instagram's 2016 launch of Instagram Live, many other apps had already launched live video.

Meta Response: Disputed in part. Undisputed that some other applications had launched live video by November 2016. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055 and below in Meta's response to paragraph 2097 and because the evidence cited in the subparagraphs below does not support the statement in this paragraph.

a. YouTube launched live-streaming in 2011 and mobile-live streaming in June 2016. PX9001, Bray Report at ¶ 352, n.614.

Meta Response: Disputed in part. Undisputed that YouTube launched live streaming in 2011 and mobile live streaming in 2016. Disputed for the reasons stated above in Meta's response to paragraph 2055.

b. Twitch is a live video streaming service for creators and viewers that launched around 2011. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 2055.

c. Twitter acquired short video startup Vine in 2012 and launched it in January 2013, which subsequently increased its maximum-video length from 6 seconds to 140 seconds in 2016. PX9001, Bray Report at ¶ 353, nn.617-618.

Meta Response: Disputed in part. Undisputed that Twitter launched Vine in 2013 and later increased its maximum video length in 2016. Disputed for the reasons stated above in Meta's response to paragraph 2055.

d. Periscope, a video-streaming startup that offered a live-streaming service, was built by two engineers in 2014 and acquired by Twitter before launch. PX9001, Bray Report at ¶ 352, n.611.

Meta Response: Disputed in part. Undisputed that Twitter acquired Periscope in 2015 before it launched. Disputed for the reasons stated above in Meta's response to paragraph 2055. Further disputed as incomplete and missing necessary context. In 2020, Twitter announced that it was discontinuing

Periscope because Periscope "is in an unsustainable maintenance-mode state, and has been for a while" due to "declining usage" and the fact that "the cost to support the app will only continue to go up over time." *See* Ex. 517 at 2 (Medium, *Farewell, Periscope*, https://perma.cc/MUD2-M28V).

e. Snapchat launched its live video chat feature in May 2014. *See* [redacted] ("The revamped Snapchat . . . [has] the ability to have a real-time video conversation.").

Meta Response: Disputed in part. Undisputed that Snapchat launched a video chat feature in May 2014. Disputed for the reasons stated above in Meta's response to paragraph 2055. Further disputed as incomplete and missing necessary context. Video chat is a different feature than live video. Snapchat did not launch a live video feature until 2018, and the feature was not available to Snapchat's users. *See* Ex. 518 (Vox, *Snapchat Built a Livestreaming Video Feature – but It's for the Olympics, Not for Regular Users*, https://perma.cc/H84S-AGP4).

2070. "[L]aunching a wide variety of video-centric services was within the reach of typical technology startups, including Instagram, without any help from Meta" at the time Instagram launched video. PX9001, Bray Report at ¶ 355.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2065. Further disputed because the phrases "video-centric services" and "typical technology startups" are vague and undefined and because the

record does not establish the development capabilities of a "typical technology startup" in 2013. Further disputed because Mr. Krieger testified that Instagram's lack of resources pre-acquisition was holding it back from "building out more of our video and direct messaging products, among other things." Ex. 153 at 167:8-168:9 (Krieger Dep. Tr.).

d) Meta's acquisition was not necessary for Instagram to launch direct messaging.

2071. Instagram successfully launched direct messaging without relying on Meta or its infrastructure.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Instagram was already relying on and receiving benefits from some of Meta's infrastructure services at the time Instagram launched direct messaging. *See* Ex. 5 at ¶ 120 (Nieh Rep.) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition."). Mr. Krieger testified that Instagram's lack of resources pre-acquisition was holding it back from "building out more of our video and direct messaging products, among other things." Ex. 153 at 167:8-168:9 (Krieger Dep. Tr.).

Further disputed as incomplete and missing necessary context. Instagram launched its first version of Instagram Direct in December 2013, but the feature lacked significant functionality. *See* PX6027 at 248:23-249:7 (Systrom IH Tr.) (explaining that the first version of Instagram Direct "wasn't full messaging" and that Instagram "ended up pivoting it into a full messaging suite . . . a year or year [sic] a half later after the

initial launch of Instagram Direct"); Ex. 519 (The Verge, *Instagram Direct Gets a Huge Update Focused on Messaging Your Friends*, https://www.perma.cc/PCU8-MNDS) (explaining that, for Instagram's first version of Direct, users "couldn't share images from [their] feed using Direct, or respond to a photo with a photo, or start a conversation using text"). Instagram launched the second version of Direct after Instagram had migrated from AWS to Meta's infrastructure. *See* Ex. 5 at ¶ 154 (Nieh Rep.) (Instagram completed the migration of its computing workloads from AWS to Meta's infrastructure in 2014). Mr. Krieger testified that, while the team that built the first version of Direct was "primarily Instagram-based," the second version of Instagram Direct was built by "more of a representative mix of transfers, boot-campers, and our own hires." Ex. 153 at 378:7-379:5 (Krieger Dep. Tr.).

a. It was Mr. Systrom (not Meta) who made the decision to add messaging to Instagram. PX6027, Systrom (Meta/Instagram) IH Tr., at 249:8-11 ("[Q.] Who made the decision to add messaging to Instagram? A. It was me and one of our designers . . . .").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2071.

b. Instagram was "on AWS when it launched the direct-messaging feature" and did not use "any other Facebook resources to develop and launch the direct-messaging feature." PX6015, Krieger (Meta/Instagram) IH Tr., at 188:21-189:5; *see also* PX9011, Bray Rebuttal Report ¶¶ 336-40.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2071.

2072. Instagram was not able to use Meta's direct messaging infrastructure. The Instagram team had to "write much of the messaging code from scratch," because the Meta messaging infrastructure was "specifically built for Facebook," not Instagram. PX6027, Systrom (Meta/Instagram) IH Tr., at 249:20-250:1.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2071.

2073. Instagram would have pursued, and been successful in launching, direct messaging absent Meta's acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2071.

a. According to Mr. Krieger, "direct messaging is a feature that Instagram would have pursued without input from Facebook." PX6015, Krieger (Meta/Instagram) IH Tr., at 188:17-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2071.

b. Mr. Systrom testified that "[w]e would have been able to add messaging – like, if we were independent, it is not gated in any way on Facebook's support." PX6027, Systrom (Meta/Instagram) IH Tr., at 250:2-4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2071.

2074. Professor Nieh's report "does not challenge the conclusions in [Mr. Bray's] Report that Instagram launched direct messaging entirely using AWS's infrastructure, that it did not use other Meta resources to develop and launch direct messaging, and that it would have pursued direct messaging without input from Meta." PX9011, Bray Rebuttal Report at ¶ 337.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2071. Further disputed because Professor Nieh's report discusses how Meta's infrastructure and expertise helped Instagram develop and launch new features, including direct messaging, more quickly and efficiently. *See* Ex. 5 at ¶¶ 196-198, 205-206 (Nieh Rep.).

e) Meta's acquisition was not necessary for Instagram to launch Stories, which launched in spite of Meta's ownership.

2075. The idea to create a Stories feature originated with Instagram. PX6027, Systrom (Meta/Instagram) IH Tr., at 250:13-25 ("Q. Who made the decision to add the Stories feature? A. There's a small team at Instagram that pushed very hard for us to -- to add Stories to the product. . . . I worked with them for a long time trying to figure out the right form, Stories, and then, eventually, I made the call to do it because they felt so

strongly about it."); PX6015, Krieger (Meta/Instagram) IH Tr., at 186:3-15 ("Q. Okay. The idea to create a Stories feature originated with Instagram? A. Yeah. We had a sort of six-to-nine-month process of trying out a lot of different ideas around how to incorporate what we thought of as sort of more lightweight, you know, casual sharing on Instagram. One of those ideas was to incorporate Stories, but we also had other ideas around changing how the main feed worked, creating another space, creating another app. Kind of pursued all those in the design phase and then decided that Stories was the -- was the best way of doing it.").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055. It is purely speculative whether Instagram could have developed Stories absent the acquisition. On the contrary, extensive evidence shows that the acquisition enabled Instagram to develop and launch Stories more quickly and efficiently than it could have absent the acquisition. *See* Ex. 5 at ¶¶ 199-200 (Nieh Rep.). For example, Mr. Krieger testified that an estimated 12 to 15 engineers built Stories, "the majority" of whom "would have been people who had either come in through [Meta's engineer] bootcamp or transfers" from Meta. *See* Ex. 153 at 369:8-370:1 (Krieger Dep. Tr.). Mr. Krieger further testified that Instagram was able to build Stories "on top of some world-class infrastructure that [Meta] provided, including TAO," which helped Instagram "to launch to the scale that we did on day one." *Id.* at 372:7-373:1. Mr. Krieger also testified that having Meta's "good, reliable logging infrastructure in place was really important from launch." *Id.* at 374:5-24.

2076. After Instagram decided to add Stories, Mr. Systrom informed Meta, "who were very skeptical, that it was a good idea." PX6027, Systrom (Meta/Instagram) IH Tr., at 251:2-5 ("And we -- I made the call to add Stories, at which point I remember telling the Facebook folks, who were very skeptical, that it was a good idea.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2075.

2077. Mr. Systrom testified that "[i]t took an enormous amount of energy to get Facebook on the same page that we should do the [Stories] project at all and that it should be staffed, and, eventually, they got excited enough to, I guess, let us try, and then, you know, the rest is history." *Id.* at 251:12-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2075.

2078. According to both of Instagram's founders, Instagram would have been able to develop Stories without Meta. PX6015, Krieger (Meta/Instagram) IH Tr., at 186:16-18 ("Q. And would you have been able to develop the Stories feature without Facebook? A. Yes."); PX6027; Systrom (Meta/Instagram) IH Tr., at 251:24-252:2 ("[Q.] And Instagram could have added Stories on its own had it not been acquired by Facebook? A. Absolutely."); *see also* PX9011, Bray Rebuttal Report at ¶¶ 318-25 (reviewing [redacted] and then Instagram's development and launching of Stories features, concluding "that the Nieh

Report has not shown that Meta's infrastructure provided unique benefits to Instagram's Stories feature that Instagram could not have obtained absent the merger").

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2075.

2079. Instagram developed Stories internally, beginning work as early as October 2015. *See generally* PX3456, Meta document: "Caturday" (Oct. 7, 2015), FTC-META-008597001, at -001-02 (shared document outlining the "new format" of Stories).

Meta Response: Disputed in part. Undisputed that a Meta employee created a sketch of a "Stories" product document in October 2015. The document states that it was created by [redacted]. *See* PX3456 at -003 (FTC-META-008597001). [redacted] started working at Meta in 2009 and started assisting Instagram as a result of Meta's acquisition of Instagram. *See* LinkedIn, [redacted]: *Experience*, [redacted]. Further disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2075, and because the phrase "developed . . . internally" is vague and undefined in the post-acquisition context.

2080. Meta did not provide any resources to Instagram to develop Stories that were "out of the ordinary," "unique," or "necessary." PX6027, Systrom (Meta/Instagram) IH Tr., at 251:20-23 ("Q. Did Facebook provide any resources to Instagram for adding Stories as a feature? A. Not out of the ordinary or unique or -- or necessary that -- no.").

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's

responses to paragraphs 2055 and 2075, and because the terms "out of the ordinary," "unique," and "necessary" are vague and undefined.

2081. Far from helping Instagram develop Stories, Meta's under-resourcing of Instagram hindered its ability to develop Stories. *See, e.g.*, PX6133, Systrom (Meta/Instagram) Dep. Tr., at 95:20-96:10 (explaining that Instagram "would have to take engineers away from [its] growth work on Stories or Feed ranking" to work on integrity projects); *see also infra* CMF at § V.B.3.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2075, and because the evidence cited in this paragraph does not support the statements in this paragraph. Mr. Systrom did not testify that Instagram ultimately had to take engineers away from its growth work on Stories to work on integrity projects, only that he requested additional engineers to avoid that possibility. *See* PX6133 at 95:20-96:5. The document that Mr. Systrom was discussing in his testimony shows that Meta allocated engineers to work on Instagram's integrity initiatives in response to Mr. Systrom's request. *See* PX15225 at -472 (FB_FTC_CID_03123472) (Mr. Zuckerberg stating that he was allocating approximately 25 engineers to integrity initiatives and that he would "make sure we include IG in this mix"); PX6133 at 88:17-19 (Systrom Dep. Tr.) (introducing exhibit PX15225).

2082. Instagram's Stories team faced headcount challenges, forcing Mr. Systrom to petition Mr. Zuckerberg for additional engineers. Mr. Systrom eventually received the additional headcount that he was seeking, but Mr. Systrom observed that "[a]s far as I can tell, I'm the only one pleading to go after [Snapchat] with as much vigor and tenacity – so I'm

puzzled that the answer isn't an emphatic yes and then some." PX3454, Meta email: K. Systrom to M. Zuckerberg re: "Kodachrome," (June 27, 2016), FB_FTC_CID_06210163, at -165. Mr. Systrom also referred to Instagram Stories (then referred to, internally, as "Kodachrome") as "the single best bet FB Inc. has to competing with [Snapchat]." PX3454, Meta email: K. Systrom to M. Zuckerberg re: "Kodachrome," (June 24, 2016), FB_FTC_CID_06210163, at -166.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2075, and because the evidence cited in this paragraph does not support the statements in this paragraph. The cited evidence does not show that Instagram's Stories team "faced headcount challenges"; on the contrary, as the FTC acknowledges, Mr. Systrom received the additional engineers that he requested. Further, the cited document shows that Meta approved Instagram to hire even more engineers to help grow its team. *See* PX3454 at -163 (FB_FTC_CID_06210163) (Mr. Zuckerberg stating that Instagram can "source and recruit more people yourselves" and that, "[i]f you can bring in another 30-45 people this way, that would be great and will fit our finance budget for this year"); *see also id.* at -164 (Mr. Zuckerberg telling Mr. Systrom: "Thanks again for seeing the potential in add'l recruiting. This sets us up well for success and I'm excited to get started. It also shows the team how much you believe in the potential of IG. Thank you."). Further disputed that Mr. Systrom referred to Instagram Stories as the "single best bet FB Inc. has to competing with Snapchat." He identified features in addition to Stories. *See* PX3454 at -166 (FB_FTC_CID_06210163).

2083. Apps such as Snapchat, LINE, Signal, LinkedIn, Twitter, Kakao, and WeChat have all launched Stories-like features before and after Instagram launched Stories. PX9000, Hemphill Report at ¶ 585 n.1178 (Signal); *id.* at ¶¶ 965-77 (LINE, Kakao, and WeChat); PX9007, Hemphill Rebuttal Report at ¶¶ 277-280 (LinkedIn, TikTok, and Twitter); *see supra* CMF at § IV.A.2 (Snap's development of Stories); PX6112, Pattabiraman (LinkedIn) Dep. Tr., at 220:15-221:12 (noting LinkedIn launched then sunset a stories feature); PX6114, Chen (Twitter) Dep. Tr., at 103:16-104:9 (describing Twitter's version of the Stories format, "Fleets").

Meta Response: Disputed in part. Undisputed that other apps have launched features similar to Stories. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2055 and 2075, and because [redacted]. *See* Ex. 5 at ¶ 200 (Nieh Rep.). Further disputed as incomplete and missing necessary context because Twitter discontinued Fleets, its Stories-like feature, in 2021. *See* Ex. 520 (X Blog, *Goodbye, Fleets*, https://perma.cc/JHX2-2ESC). To the extent this statement relies on the FTC's statements in Section IV.A.2, Meta incorporates its responses to those statements here.

f) Meta's acquisition was not necessary for Instagram to develop a ranked feed algorithm.

2084. Instagram developed its own ranked feed algorithm with limited support from Meta, and both Mr. Systrom and Mr. Krieger have confirmed that Instagram could have done the same absent the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. At the time Instagram launched its algorithmic ranked feed, Instagram was relying on and receiving unique benefits from Meta's data centers and many of Meta's infrastructure services. *See* Ex. 5 at ¶ 154 (Nieh Rep.) (Instagram completed the migration of its compute workloads from AWS to Meta's infrastructure in 2014); PX6015 at 192:13-19 (Krieger IH Tr.) (explaining that Instagram was "already . . . inside the [Meta] infrastructure" when it developed ranked feed). Further disputed because extensive evidence shows that the acquisition helped Instagram launch ranked feed more quickly and efficiently than it could have absent the acquisition. For example, when asked if "there [are] any user features that Instagram added at the direction of Facebook," Mr. Systrom replied that "the one that comes closest is the algorithmic feed." PX6027 at 252:3-6 (Systrom IH Tr.). Mr. Systrom agreed that being part of Meta allowed Instagram to "skip some of the early mistakes" with ranked feed, enabling Instagram to "speed its development" and not waste "a year on an unfruitful direction." Ex. 151 at 256:22-257:13 (Systrom Dep. Tr.). Mr. Systrom further testified that developing ranked feed "likely would have just taken more time because of some of the lessons learned inside of Facebook wouldn't have been known." *Id.* at 392:21-393:9; *see also id.* at 368:6-9 (testifying that Mr. Zuckerberg suggested that Instagram adopt ranked feed); *id.* at 369:5-9 (acknowledging that the team that worked on Instagram's ranked feed took advantage of know-how from Facebook); *id.* at 387:21-388:4 (testifying that it was "hard to say" whether Instagram would have

implemented ranked feed absent the acquisition); PX6027 at 253:23-254:5 (Systrom IH Tr.) (testifying that Instagram "[p]ossibly [would] not" have pursued ranked feed as quickly absent the acquisition and explaining that "the critical thing is that Facebook encouraged us to go in this direction" and that, while it would have been possible for Instagram to develop ranked feed independently, doing so would have been "not trivial"); PX6015 at 194:23-195:5 (Krieger IH Tr.) (explaining that to develop ranked feed Instagram "took advantage of . . . the know-how from [Meta's] team"); Ex. 153 at 128:22-129:7, 383:7-12 (Krieger Dep. Tr.) (explaining that in developing ranked feed Instagram "sat down extensively with [the team that built Facebook's ranked feed and] learned a lot from what worked" and that Instagram benefited by "taking the lessons learned from the Facebook ranking team").

a. Instagram developed its own ranked feed algorithm from scratch using its own systems because Meta's ranked feed algorithm was tailored to Facebook. PX6015, Krieger (Meta/Instagram) IH Tr., at 192:24-193:17 ("So the first question we had was, oh, can we just adapt their ranked feed system . . . And their team said, you know, we have so much stuff that is very Facebook-specific in our system. It's going to take you longer to do -- adapt our system than it would be to just build your own. So that's what we ended up doing."); PX6027, Systrom (Meta/Instagram) IH Tr., at 60:25-61:3 ("We were not able to reuse the Facebook algorithm. So we had to develop our own with our own system and everything, effectively, from scratch."); *see also* PX6015, Krieger (Meta/Instagram) IH Tr., at 194:23-195:5 ("Q. Okay. So as far as implementing the ranked feed, did you use any of Facebook's other systems other than, I guess, what you described as, like,

the infrastructure and kind of -- a better service if there were issues? A. No. I think that the primary thing we took advantage of there was the know-how from the team. But the system itself, we wrote ourselves.”).

Meta Response: Disputed. Disputed for the reasons stated above in Meta’s response to paragraph 2084, and because the cited evidence does not support the statements in this paragraph and this subparagraph. Further disputed because the term “from scratch” is vague and undefined in the post-acquisition context.

b. Instagram could have written the algorithm for ranked feed if it had remained independent.

Meta Response: Disputed. Disputed for the reasons stated above in Meta’s response to paragraph 2084, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph.

i. Mr. Krieger testified that Instagram could have written the algorithm for ranked feed without Meta. PX6015, Krieger (Meta/Instagram) IH Tr., at 195:6-15 (“Q. Do you think you could have written the algorithm and the ranked feed on your own without Facebook’s help? A. I believe so. I mean, I think the existence proof would be, you know, Twitter doing their own ranked feed. And I think it was successful for them. Pinterest for sure has a ranked feed. I think there’s existence proof of other systems like this getting built out in the wild.”).

Meta Response: Disputed. Disputed for the reasons stated above in Meta’s response to paragraph 2084, and because the cited evidence does not support the statement in this subparagraph. Mr. Krieger stated that he

"believe[d]" Instagram could have written a ranked feed algorithm without Meta's help; he did not testify that Instagram definitively could have done so. *See* Ex. 153 at 392:5-22 (Krieger Dep. Tr.) (Mr. Krieger agreeing that there is no way to determine with certainty what Instagram could have done in the "parallel world" absent the acquisition).

ii. Mr. Systrom also testified that Instagram did not need Meta's help to implement an algorithmic ranked feed. *See* PX6027, Systrom (Meta/Instagram) IH Tr., at 253:15-18 ("Could we have added this independently had we decided to do it, absolutely, because we had to create our own algorithmic feed from scratch anyway."); *see also* PX9011, Bray Rebuttal Report at ¶¶ 341-343 (reviewing Instagram's development and launch of a ranked feed and "conclud[ing] Meta's advice and input played no significant role in Instagram's successful development of feed ranking").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2084.

2085. Two of the three core engineers responsible for writing Instagram's ranked feed were recruited and hired or acquired by Instagram. PX6147, Krieger (Meta/Instagram) Dep. Tr., at 382:16-383:2 ("Three core engineers on the ranked feed team. One was [redacted], who had come to Instagram directly from an acquisition that we made. The second one was [redacted], who had previously done ranking at YouTube. . . . he

was on Instagram from day one. Oh, I think he was recruited directly to Instagram for the sort of start-up of our Instagram New York team.").

Meta Response: Disputed in part. Undisputed that two of the engineers who originally developed Instagram's ranked feed algorithm were recruited directly to Instagram. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2084.

2086. In 2014, when Instagram was still migrating to and optimizing Meta's infrastructure for its use, other growing mobile applications such as Pinterest and Twitter already had feed ranking systems. PX9011, Bray Rebuttal Report at ¶ 342 ("In 2014, when Instagram was still heavily engaged in migrating to and optimizing Meta's infrastructure for its use, other growing mobile applications such as Pinterest and Twitter already had feed ranking systems, so there was no shortage of available expertise."); *see also* PX6082, Roberts (Pinterest) Dep. Tr., at 242:10-22 (indicating that Pinterest uses machine learning for its feed); PX0554, *Amazon Personalize*, AWS, https://aws.amazon.com/personalize (last visited May 9, 2024) (relating that Amazon's AWS offers services that provide personalized content recommendation tools, "making it easier to integrate personalized recommendations into existing websites, applications, email marketing systems, and more").

Meta Response: Disputed in part. Undisputed that, in 2014, Twitter and Pinterest had feed ranking systems. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2084, and because the cited evidence does not support the statement in this paragraph. Mr. Bray does not cite any evidence in support of his statement that: "In

2014 . . . Instagram was still heavily engaged in migrating to and optimizing Meta's infrastructure for its use," and, therefore, it does not create a genuine dispute of material fact. *See* PX9011 at ¶ 342 (Bray Rebuttal Rep.).

g) Meta's acquisition was not necessary for Instagram's launch of Reels.

2087. Reels is a short-form video sharing feature available on both Instagram and Facebook. Short-form video is also available on TikTok, an entertainment platform offered by ByteDance. PX9000, Hemphill Report at ¶ 269 ("A user can watch short-form videos on Reels for entertainment purposes, much as they do on TikTok or YouTube."); PX9007, Hemphill Rebuttal Report at ¶ 24 ("As I explain, even though Meta has added Reels to Facebook and Instagram (bringing Meta into more direct competition with TikTok for entertaining unconnected short form video consumption), TikTok does not replace the lack of PSN competition facing Meta."); PX0654, Amanda Silberling, *Instagram is offering huge bonuses for posting on Reels, its Tiktok clone*, TechCrunch (Nov. 11, 2021), https://techcrunch.com/2021/11/11/instagram-bonuses-reels-tiktok.

Meta Response: Disputed in part. Undisputed that short-form video is offered on Instagram, Facebook, and other competing products, including TikTok. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055.

2088. Around the same time Instagram launched Reels (in 2020), YouTube also successfully launched a short-form video feature, YouTube Shorts. PX7062, Google email chain: K. Taylor to S. Ali et al. re: "Press Recap: Shorts Global Announcement (Day One)," (Sept. 14, 2020) (announcing the launch of YouTube Shorts and noting: [redacted]

[redacted]), GOOG-META-00682267, at -268-69.

Meta Response: Disputed in part. Undisputed that YouTube launched a short-form video feature. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because [redacted]. YouTube did not launch Shorts in the United States until March 2021, more than seven months after Instagram launched Reels. *Compare* Meta SMF ¶ 88, *with* Ex. 521 (YouTube Official Blog, *Bringing YouTube Shorts to the U.S.*).

2089. The FTC's infrastructure expert, Tim Bray, opined that the Nieh Report "provides no evidence to show that Meta's infrastructure is uniquely capable of supporting Reels." PX9011, Bray Rebuttal Report at ¶ 32.

Meta Response: Disputed in part. Undisputed that Professor Bray offered the quoted opinion. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because paragraph 32 of Mr. Bray's rebuttal report does not cite any evidence. Further disputed because, at the time Instagram launched Reels, Instagram was relying on and receiving unique benefits from Meta's data centers and many of Meta's infrastructure services, including TAO. *See* Ex. 5 at ¶ 154 (Nieh Rep.) (Instagram completed the migration of its compute workloads from AWS to Meta's infrastructure in 2014); *id.* at ¶ 178 (Instagram completed its migration to TAO in 2016).

h) Meta's acquisition was not necessary for Instagram to launch any of the features listed in Appendix C of Professor Carlton's Report.

2090. Table 33 of Appendix C of Professor Carlton's report reproduced a list of "new features and services, and improvements to features and services," which Meta had listed in response to an interrogatory propounded by the FTC. *See* PX9019, Carlton Report, Appendix C, Table 33; PX10092 at -016-18, Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)) (listing features such as "Zoom on posts," "Mute Stories," "Show time usage on Instagram," and "Mute push notifications").

Meta Response: Undisputed.

2091. Many of the features (and updates to features and services) identified in Professor Carlton's report relate to video, direct messaging, Stories, or Reels. *See* PX9019, Carlton Report, Appendix C, Table 33 (listing at least 18 features or feature updates related to video, direct messaging, Stories, or Reels).

Meta Response: Undisputed that some features discussed in Professor Carlton's report relate to video, direct messaging, Stories, or Reels.

2092. Professor Carlton provides no information about those features (or updates to features) beyond their names and the dates they were added. *See* PX9019, Carlton Report, Appendix C, Table 33.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055. Further disputed to the extent the FTC implies that Table 33 of Professor Carlton's report does not sufficiently identify the listed features and feature improvements. Table 33 of Professor Carlton's report cites Meta's Supplemental Response to the FTC's Interrogatory No. 10, which identifies documents and materials

related to the listed features and feature improvements. *See* PX10092 at 45-46 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Information about the features is also publicly available, including on Instagram's website. *See* Meta SMF ¶¶ 741-745.

2093. The FTC's infrastructure expert, Mr. Bray, concluded that there was insufficient evidence to demonstrate that any of the features on the list depended on Meta's acquisition. *See* PX9001, Bray Report at ¶¶ 333-35 (analyzing the list, including observing a lack of any "description of alleged user-experience benefits" or "evidence to show that the release of any of the features on this list depended specifically on Meta infrastructure").

Meta Response: Disputed in part. Undisputed that Professor Bray offered the paraphrased opinion. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055.

2094. In assessing the same list of features, Professor Hemphill concluded that "[Professor] Carlton does not attempt to show that Meta's pace of innovation in PSN services has been as high as it would have been had Meta faced more competition. And as I have already indicated above and elsewhere, Meta itself has assessed that it has been underinvesting in friends and family sharing." PX9007, Hemphill Rebuttal Report at ¶ 749.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1501 and 2055.

3. In fact, Meta hampered the development of Instagram features.

2095. Following the acquisition, Instagram's ability to make features available has been impacted by Meta's capacity limitations. *See infra* CMF at § V.E.3(b).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.E.3(b), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 2055. This statement also ignores the resource and capacity constraints that Instagram would have faced as a separate company on AWS or whatever public cloud service it chose. Further disputed because the term "impacted" is vague and undefined.

2096. In rolling out its Reels feature, Instagram hypothesized that it experienced "[redacted]." PX10799, Meta presentation: "Family Reels and Video Competitive Landscape" (Sept. 2021), FTC-META-000006276, at -287.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because neither the statement nor the document demonstrates that Instagram [redacted] to launch Reels.

2097. Instagram's launch of Instagram Live in the U.S. was slow and degraded due to Meta's capacity limitations.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

above in Meta's response to paragraph 2055, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The FTC does not provide a single example of how Instagram's launch of Live in the U.S. was allegedly "slow" or "degraded" in any manner, let alone that there were any issues due to Meta's capacity. On the contrary, extensive evidence shows that the acquisition enabled Instagram to develop and launch Live more quickly and efficiently than it could have absent the acquisition. *See* Ex. 158 at 144:17-145:25 (Parikh IH Tr.) (explaining that it took Meta "a year, year and a half" to develop the capacity for live video on Facebook, "[a]nd then when Instagram wanted to offer live, it only took them a couple of months because they were able to rely on the shared service"); Ex. 157 at 218:12-22 (Parikh Dep. Tr.) (explaining that, to launch Live, Instagram was "able to leverage all of the work we did on FB Live or a lot of it. So they benefited from the innovation that we had invested in FB Live so that they could launch their own version of IG Live. And that allowed them to launch this thing really super fast and also scale it because they were able to rely on all of the innovation we did in common infrastructure."); Ex. 153 at 377:5-7 (Krieger Dep. Tr.) (explaining that after Instagram's launch of its initial video product Instagram moved its video coding to Meta's systems).

a. Mr. Systrom reported of Instagram's "Live launch[] to the US": "we're introducing stricter rate limits on notifications" and "[w]e'll roll out to 50% of the US starting today (12/12). We'll hold for 36 hours to check capacity, quality and pushability and complete the rest of the US rollout . . . ." PX3461, Meta email: K. Systrom to Instagram HPM re: "Instagram HPM," (Dec. 12, 2016), FB_FTC_CID_05950498, at -498.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2097, and because the FTC's characterization of the document is incomplete and misleading. Further disputed because neither the statement nor the cited document demonstrates that Instagram had to delay its planned roll-out of Live to the U.S. market due to Meta's capacity. On the contrary, the document merely discusses Instagram's plan to ensure the roll-out of Live did not create any issues before launching Live to all U.S. users. *See* PX3461 at -498 (FB_FTC_CID_05950498). Instagram successfully launched Live to the entire U.S. market within two days of beginning the roll-out, consistent with Instagram's roll-out plan. *See* Ex. 476 at -434 (FTC-META-005636434) ("IG Live broadcast was rolled out to 50% of US on 12/12 and to 100% on 12/14").

Further disputed to the extent the FTC's statement suggests that Instagram's decision to implement rate limits on notifications was in any way related to Meta's capacity. The cited document explains that Instagram implemented rate limits to study the potential impact of live notifications on growth: "A correlation was found between live notifications and negative impact to [weekly active users], so we'll be limiting notifs significantly in our US rollout. We'll also be keeping a holdout group of people who never receive Live notifications to better assess impact." PX3461 at -498 (FB_FTC_CID_05950498).

b. Days after the U.S. launch, Mr. Systrom reached out to Messrs. Schroepfer and Parikh about a

> challenge we face as it relates to IG live. In the last few days, we expanded Live to include the US. . . . [W]e have an issue

> that is keeping the team from rolling IG live out more quickly. . . . [T]here is not enough capacity to allow us to continue to roll out . . . .

PX11039, Meta email: K. Systrom to M. Schroepfer & J. Parikh re: "IG Live," (Dec. 16, 2016), FB_FTC_CID_09612670, at -670.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2097, and because the FTC's characterization of the document is incomplete and misleading. The document discusses capacity to support Instagram's launch of Live worldwide; it does not relate to Instagram's launch of Live in the U.S. Explaining his initial email, Mr. Systrom wrote: "The live team feels like they're in a good place and that the infra team is being very helpful. There is no deadline to hit per se, we just have a service that's working well and we'd like to go worldwide with it." PX11039 at -670 (FB_FTC_CID_09612670). Instagram successfully launched Live to the entire U.S. market on December 16, 2016. *See* Ex. 476 at -434 (FTC-META-005636434) ("IG Live broadcast was rolled out to 50% of US on 12/12 and to 100% on 12/14").

Further disputed because neither the statement nor the document demonstrates that Meta's capacity slowed down Instagram's launch of Live worldwide. Evidence shows that Instagram originally planned to launch Live to 7 countries in 2016, but, after the success of Live in the U.S., Instagram wanted to change its launch strategy to launch to additional countries more quickly. *See id.* (Mr. Janardhan explaining that "US launched, is doing well and that was to be the plan until next year. The additional countries is new info. Will sync up with the team and see if we have any contingencies we can spin up for a broader launch.").

Meta accommodated that change. Instagram Live launched worldwide the following month, in January 2017. *See* Ex. 522 (Instagram Blog, *Instagram Live Stories: Available Globally*).

c. Further, evidence shows that Meta under-resourced Instagram's efforts to develop and improve its video features. *See, e.g.*, PX3160, Meta messages: M. Levine to K. Systrom, (Sept. 15, 2017), FB_FTC_CID_03124377, at -378 ("I think the video allocation is one of the best examples we have of undermining IG as core and investment area.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2097, and because the cited evidence does not support the statement in this paragraph, and because the phrases "video allocation" and "undermining IG as core and investment area" are vague and undefined.

2098. Post-acquisition Instagram did not control its staffing and was understaffed by Meta.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2017, 2055, 2102, 2183, and 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The statements in the subparagraphs also ignore the resource and capacity constraints that Instagram would have faced as a separate company. *See* Ex. 151 at 272:19-273:4 (Systrom Dep. Tr.) (agreeing that "all companies need to balance where to spend their investment on head count" and that often "there aren't enough resources to do all the thing[s] the company wants").

Further disputed because the term "understaffed" is vague and undefined. The FTC does not compare Instagram's staffing to any competitive benchmark. The phrase "post-acquisition Instagram" is also vague as to time.

a. Instagram was not allowed to hire engineers without Mr. Zuckerberg's approval. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 165:17-19 ("Q. Was Instagram allowed to hire without Mark's [Zuckerberg] approval? A. No.").

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 2098.

b. Mr. Zuckerberg prioritized Instagram's needs below those of other parts of Meta. *See* PX3458, Meta email chain: M. Zuckerberg to S. Sandberg et al. re: "Instagram," (June 27, 2016), FB_FTC_CID_06207421, at -421 ("For more context on headcount, I am in favor on Instagram getting more heads, but I am currently prioritizing three teams above them: teens, camera and new head-to-head competitor app.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2098, and because the cited evidence does not support the statement in this paragraph. The FTC's characterization of the document is incomplete and misleading. Mr. Zuckerberg explained that the three teams he was prioritizing were "teams that either we're spinning up from scratch or are 2-3x smaller than they need to be, so we need new heads to get those initiatives off the ground. . . . It's worth noting that we aren't prioritizing adding headcount

to the FB app, Messenger or WhatsApp teams working on visual status either." PX3458 at -421 (FB_FTC_CID_06207421).

c. Meta also deprioritized staffing for the development of Stories. PX6027, Systrom (Meta/Instagram) IH Tr., at 251:6-14 ("I remember in one specific meeting . . . where I was lobbying for resources because we had eight people working on [Stories], and we needed far more than eight people to make it successful it took an enormous amount of energy to get Facebook on the same page that we should do the project [Stories] at all and that it should be staffed . . . .").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2075 and 2098, and because the evidence does not support the statement in this paragraph. Mr. Systrom did not testify that Meta deprioritized staffing for the development of Stories. On the contrary, Mr. Systrom testified that Meta "got excited enough to, I guess, let us try [developing Stories], and then, you know, the rest is history. It worked out very well for us." PX6027 at 251:15-17 (Systrom IH Tr.).

d. Mr. Systrom testified that Instagram "would have to take engineers away from [its] growth work on Stories or Feed ranking" to work on integrity projects. *See, e.g.*, PX6133, Systrom (Meta/Instagram) Dep. Tr., at 95:20-96:10.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2098, and because the evidence cited in this paragraph does not support the statements in this paragraph. Mr. Systrom did not testify that Instagram ultimately had to take engineers away from its growth work on Stories to work on integrity projects, only that he requested additional engineers to avoid

that possibility. *See* PX6133 at 95:20-96:5 (Systrom Dep. Tr.). The document that Mr. Systrom was discussing in his testimony shows that Meta allocated engineers to work on Instagram's integrity in response to Mr. Systrom's request. *See* PX15225 at -472 (FB_FTC_CID_03123472) (Mr. Zuckerberg stating that he was allocating approximately 25 engineers to integrity initiatives and that he'd "make sure we include IG in this mix"); PX6133 at 88:17-19 (Systrom Dep. Tr.) (introducing exhibit PX15225).

e. Mr. Systrom testified that "there was a theme of us asking for and not receiving head count in the most important themes of work at the company," like Stories or video. *Id.* at 91:7-9.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2098.

f. In 2016 Mr. Systrom complained that being understaffed was impacting Instagram's ability to compete with Snapchat and develop product features:

> We want to take on Snapchat proactively AND we want to focus more on content production in general. In order to do this, we've move people off teams that are already understaffed to work on [Stories] and content production. I did this in reaction to Mark's ask that we transfer people asap. We moved our best mobile engineer at the company onto KC, including our Direct Android tech lead, our Explore mobile tech lead, our two best iOS engineers at the company, and pivoted our entire video infra team to work on KC instead of IG video.

PX11032, Meta email: K. Systrom to M. Schroepfer, et al. re: "Summary of IG incremental 45 heads plan," (June 22, 2016), FB_FTC_CID_06207799, at -800. "KC" refers to Kodachrome, which was Meta's code name for Instagram Stories.

PX3465, Meta email: K. Systrom to Instagram HPM re: "Instagram HPM," (Feb. 29, 2016), FTC-META-001513075, at -075 ("Kodachrome: this is a codename for the evolution of our multi-post stories project.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2075 and 2098, and because the FTC's characterization of the document is incomplete and misleading. The document relates to Mr. Systrom's "present[ing] a plan to add 45 additional heads to IG over the next half." PX11032 at -800 (FB_FTC_CID_06207799). The FTC does not provide evidence to support that Instagram did not receive the headcount it requested or that the development or launch of Stories was delayed.

g. In June 2016, Mr. Zuckerberg warned Mr. Systrom that Mr. Zuckerberg "[couldn't] promise we'll have additional budget to continue additional out-of-band recruiting in 2017." PX3463, Meta email: M. Zuckerberg to K. Systrom re: "Kodachrome," (June 28, 2016), FB_FTC_CID_06209888, at -888.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2098, and because the evidence cited in this paragraph does not support the statements in this paragraph. The FTC's characterization of the document is incomplete and misleading. The cited document shows that Meta approved Instagram to hire 45 engineers to help grow its team and that the quoted language refers to additional hiring beyond those 45 additional employees. *See* PX3463 at -888 (FB_FTC_CID_06209888) (Mr. Zuckerberg stating that Instagram can "source and recruit more people yourselves" and that, "[i]f you can

bring in another 30-45 people this way, that would be great and will fit our finance budget for this year"); *see also* PX3454 at -164 (FB_FTC_CID_06210163) (Mr. Zuckerberg telling Mr. Systrom: "Thanks again for seeing the potential in add'l recruiting. This sets us up well for success and I'm excited to get started. It also shows the team how much you believe in the potential of IG. Thank you.").

2099. Instagram diverted engineering resources from application development to generate capacity through "efficiency engineering" during much of the time that Instagram was operating on Meta's infrastructure. *See infra* CMF at § V.E.3.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2055, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The FTC does not provide a single example where Instagram diverted engineering resources from application development in order to generate capacity through efficiency engineering, nor does it provide a single example of a feature or feature improvement that Instagram was unable to launch or was delayed due to Instagram supposedly needing to reclaim capacity. The statement also ignores the resource and capacity constraints that Instagram would have faced as a separate company on AWS or whatever public cloud service it chose. The FTC's proffered infrastructure expert, Mr. Bray, acknowledged that it is beneficial to devote engineering time to efficiency efforts. *See* PX9011 at ¶ 101 (Bray Rebuttal Rep.) ("The practice of making an application more efficient is a normal practice at technology companies, and can be used to great effect to use fewer resources

and reduce costs."). To the extent this paragraph incorporates the FTC's statements in Section V.E.3, Meta incorporates its responses to those statements here.

a. Meta uses [redacted]. *See* PX3468, Meta document: [redacted], FTC-META-012487514, at -514-517 ([redacted]).

<u>Meta Response</u>: Undisputed.

b. Mr. Shortway, an "infrastructure-focused" engineer at Instagram, described efficiency engineering as the practice of using engineers to make a feature or application "more efficient on its power utilization so that then you can fund that extra power that you don't have the budget for." PX6055, Shortway (Meta) Dep. Tr., at 16:9-10, 233:17-24. According to Mr. Mortenson, a former Head of Infrastructure at Meta, efficiency engineering is the investment of "significant efficiency work to reclaim servers." PX6062, Mortenson (Meta) Dep. Tr., at 18:25-19:16, 170:14-22.

<u>Meta Response</u>: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2099.

c. In 2015, Instagram's engineers turned to efficiency engineering for capacity: "At our current usage and organic growth rate how long do we have before we are out of capacity? . . . Does [redacted] have an idea on how far we can get with efficiency efforts? What are some dramatic ideas here?" PX3572, Meta email chain: [redacted]

[redacted] to [redacted] re: "capacity crunch 'priorities,'" (Nov. 17, 2015), FTC-META-004713091, at -091.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2099, and because neither the statement nor the cited document demonstrates that Instagram diverted engineering resources from application development to efficiency engineering.

d. In 2017, efficiency engineering at Meta was

> touching every major product/service/tier . . . . The number of unique services running in our datacenters (including Instagram, WhatsApp, and many new Facebook services) has increased significantly, which requires us to broaden the reach of our efficiency programs this year. . . . Without a continued focus on demand control we may literally not have the capacity to continue supporting Facebook's growth.

PX3466, Meta Workplace Post: [redacted] post to Capacity & Efficiency (confidential), (Feb. 22, 2017), FTC-META-003087967, at -967.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2099, and because neither the statement nor the cited document demonstrates that Instagram diverted engineering resources from application development to efficiency engineering. Further disputed because the FTC's characterization of the cited document is incomplete and misleading. The cited document details Meta's efforts to improve the efficiency of its infrastructure and the resulting benefits from those efforts. *See* PX3466 at -967-968 (FTC-META-003087967) (estimating that "all the wins from these efficiency efforts will lead to a saving of [redacted]

[redacted]. More importantly, the focus on efficiency helps improve the platform productivity, COGS metrics, reliability and scalability of the platform.”).

e. By the end of 2018, Meta had recognized that

> [e]fficiency needs to be a feature of building product at Instagram. Determining efficiency work must be a part of planning and explicitly staffed and prioritized by every team. Teams will need to develop new ways to achieve product goals in order to work within the constraints below. In parallel, IG Infra will continue to work on big bets and foundational efficiency work. Collectively, Efficiency is a company effort, requiring all teams to contribute meaningful work. 2019 will be a [very tight year].

PX3470, Meta document: “Efficiency is a Feature” (undated), FB_FTC_CID_08482678, at -678.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta’s response to paragraph 2099, and because neither the statement nor the cited document demonstrates that Instagram diverted engineering resources from application development to efficiency engineering. On the contrary, the document merely discusses a change in Instagram’s approach to efficiency efforts. The document explains that Instagram’s previous “pattern” was “to launch and optimize a product after release” and that Instagram was changing to a new process where “teams . . . bake in their efficiency plans into the product development process and explicitly roadmap efficiency work in planning docs.” PX3470 at -679 (FB_FTC_CID_08482678).

f. In January 2020, Instagram engineers concluded that "[w]ithout efficiency work we will run over budget and can not launch anything." PX3469, Meta presentation: "IG EFFICIENCY with PG leads" (Jan. 2020), FTC-META-004554322, at -324.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2099, and because neither the statement nor the cited document demonstrates that Instagram actually faced capacity shortfalls that limited its ability to launch new features or products.

2100. This hampered development is in keeping with Meta's overall stifling of Instagram's innovation. *See supra* CMF at § IV.B.3.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section IV.B.3, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's responses to paragraphs 2055 and 2095.

C. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Monetize Successfully.

2101. Meta's acquisition of Instagram was not necessary for Instagram to monetize successfully or achieve Meta's claimed monetization-related benefits related to Instagram. *Infra* CMF at §§ V.C.1-5.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and

therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections V.C.1-5, Meta incorporates its responses to those statements here.

Further disputed that any of the FTC's statements in Section V.C create a genuine dispute of material fact, because they do not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the FTC's statements in Section V.C suggest that, absent the acquisition, Instagram would have been able to monetize as successfully as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See* Ex. 153 at 392:5-22 (Krieger Dep. Tr.) (Mr. Krieger agreeing that there is no way to determine with certainty what Instagram could have done in the "parallel world" absent the acquisition); Ex. 287 at 167:5-7 (Aral Dep. Tr.) (FTC's proffered monetization expert, Professor Aral, testified: "I don't state a particular opinion in either report about whether [Instagram] could have or would have monetized more successfully" absent the acquisition).

Conversely, evidence shows that Meta's resources, investments, expertise, and practical experience were critical to helping Instagram monetize more quickly, efficiently, and successfully. *See* Meta SMF ¶¶ 716-721 (describing Instagram's post-acquisition monetization); *see also* Ex. 4 at ¶¶ 88-102 (Tucker Rep.) (describing how Meta's expertise and practical experience helped grow Instagram's advertising business more quickly and efficiently). As Mr. Systrom, Instagram's co-founder, testified: "Q. . . . Would you agree that being part of Facebook allowed Instagram to skip several years of development? A. I do, yes. Q. Okay. Can you describe that. A. I will give you

a very specific example on ads. I believe Instagram, if we were to have been independent, could have easily created an ads product, could have easily created a sales team, could have easily created all the things around ads. What would have taken a lot longer is developing all the technology for onboarding those advertisers, recruiting those advertisers. And, instead, what we were able to do – we still had to do a lot of the work to build that advertising product. But what we were able to do is show up and plug into an existing system that had a lot of hardening that had been done over the years. And that likely took off many, many years of development and organizational work. So there are examples where being part of Facebook allowed us to accelerate the business meaningfully." Ex. 151 at 251:17-252:16 (Systrom Dep. Tr.); *see also* Ex. 477 at -942 (FB_FTC_CID_06200942) ("IG continues to operate autonomously, but leverages the best things about being at FB. We continue to run IG as a startup, but have 'fast forwarded' the hard work of building out infrastructure, ad technology, a sales team, etc."); Ex. 478 at -927 (FB_FTC_CID_06209927) (email from Mr. Systrom to Mr. Zuckerberg noting that "[Instagram has] access to advertisers, a sales force, existing backends, etc – it's all pretty amazing. It's not a slam dunk, but [Instagram is] way ahead of where [it'd] be independently."); Ex. 523 at 5 (MetaFTC-DX-686) (Mr. Systrom: "Think about all the things we've accomplished being part of Facebook. All the things we have plugged into – whether it's hiring, spam fighting, the ad system. We have thousands of salespeople who are basically selling ads for Instagram and we snapped our fingers to access them."); Ex. 191 at -550 (FB_FTC_CID_03360548) ("In 2016 Instagram looked to begin monetizing by building their own ads infra. However, progress was slow. Eventually, IG pivoted to utilizing Facebook's ads tech, and the team

was able to rapidly scale."); Ex. 4 at ¶¶ 88-92 (Tucker Rep.) (describing how Meta helped Instagram attract large advertisers and build a sales team). Mr. Systrom further stated that "[Instagram's] financial success was, in large part, an outcome of Facebook's extraordinary ad ecosystem." Meta SMF ¶ 720 (quoting Ex. 188 at -304 (FB_FTC_CID_02985304)). Evidence shows that Meta's overall investment in Instagram led to significant revenue generation. *See id.* at ¶ 721 ("Instagram generated advertising revenues of [redacted]. Some publicly reported estimates of Instagram's standalone valuation as of 2018 were between $80 billion and $100 billion. Meta expert Professor Steven Kaplan estimated Instagram is worth close to [redacted] today [redacted]." (internal citations omitted)).

Furthermore, as extensive scholarship – including by Professor Aral – has shown, the mere existence of technology does not guarantee its adoption or effective use. *See* Ex. 4 at ¶ 75 & nn.125-131 (Tucker Rep.) (discussing scholarship, including Professor Aral's, finding that infrastructure, organizational capabilities, and digital business models, among other inputs, are crucial to effective adoption of technology). There is also significant evidence that other apps experienced slow progress in attempting to build their advertising platforms, *see id.* at ¶¶ 79-81, and the FTC has not identified any evidence of any app that has built an advertising business as successful as Instagram's.

1. Meta's acquisition of Instagram was not necessary for Meta's claimed monetization-related benefits to accrue to Instagram.

2102. Meta's acquisition of Instagram was not necessary for Meta's claimed monetization-related benefits to accrue to Instagram. PX9003, Aral Report at ¶ 11(b) (concluding "that

Meta's acquisitions of Instagram or WhatsApp were not necessary to achieve the claimed monetization-related benefits that Meta lists for each acquisition"); PX9008, Aral Rebuttal Report at ¶ 15(b) (same).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2101, and because the cited paragraphs in Professor Aral's reports do not cite any evidence to support the quoted language or the statement in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

2103. Meta possessed no exclusive advertising technology or expertise, and Instagram already possessed "a strong foundation for building a successful advertising business" prior to Meta's acquisition. Based on the number of successful advertising businesses developed by other "social apps," combined with Instagram's significant growth and venture-capital support, building a "successful advertising business" was "feasible and achievable" for Instagram. PX9003, Aral Report at ¶¶ 103-06.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2101, and because the cited paragraphs in Professor Aral's report do not cite any evidence to support the quoted language or the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

2104. Meta's acquisition of Instagram was not necessary for Instagram to attract advertising customers, because:

Meta Response: Disputed in part. Undisputed that Instagram could have attracted advertising customers if it had not been acquired by Meta. Disputed for the reasons

stated above in Meta's response to paragraph 2101, and because the paragraphs in Professor Aral's report cited in the subparagraphs below do not cite evidence that supports the statement in this paragraph or its subparagraphs, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

a. "Instagram was well positioned to attract advertisers on its own prior to the acquisition" based on significant brand and advertising agency interest, PX9003, Aral Report at ¶ 144; and

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2101 and 2104, and on the ground that "well positioned" is vague and undefined, and not supported by the cited evidence. The evidence in fact shows that Instagram did not have any advertising business before the acquisition. Ms. Cole, who was in charge of Instagram's business operations before the acquisition, wrote in March 2012 that Instagram was "still a very small company (only 11 people), so [it did not] have the capacity to take on partnerships at [the] time," and hence was not "promot[ing] specific brands/events/contests on [the] platform." Meta SMF ¶ 656 (quoting Ex. 323 at -847 (PX10556, FTC-META-000018842)). Ms. Cole further testified that Instagram did not create custom content for marketers and that brands "were not spending money with Instagram" for their campaigns. Ex. 152 at 121:2-4, 122:16-19 (Cole Dep. Tr.).

Further disputed to the extent this paragraph suggests that Instagram would have attracted advertisers as successfully as it was in fact able to because of the acquisition, which is pure speculation. *See*, *e.g.*, Ex. 140 at 223:10-224:2 (Tucker Dep. Tr.) (Professor Catherine Tucker testifying that "a few brands, you

know, some of them larger, were intrigued by the idea of Instagram. But . . . the way they wanted to engage with Instagram wasn't even clear whether they were even talking about advertising or like paid monetization or simply establishing an Instagram presence. . . . [Y]ou can't therefore assert, as Dr. Aral does, that that was going to lead to, you know, the ability to have that kind of explosive growth or revenue from big brands that we see in Exhibit 5 [Tucker analysis of Instagram revenue growth post-acquisition].").

b. Instagram, which was "well-funded at the time of the acquisition," was well positioned to develop a successful advertising sales team. PX9003, Aral Report at ¶ 147.

Meta Response: Disputed. Disputed for the reasons stated in Meta's responses to paragraphs 2101 and 2104, and on the ground that "well-funded" and "well positioned" are vague and undefined, and not supported by the cited evidence. Further disputed to the extent the statement in this subparagraph suggests that Instagram would have developed a successful advertising sales team absent the acquisition or would have developed as successful an advertising sales team as it was in fact able to develop because of the acquisition, which is pure speculation. The evidence shows that Instagram benefited greatly from Meta's sales team, which, using its credibility and relationships with larger brands and their agencies, encouraged them to advertise on Instagram after the acquisition; gave its own marketing partners, including Kenshoo, Brand Networks, Salesforce Marketing Cloud, Unified, SocialCode, 4C, Nanigans, and Ampush, which place ads on behalf of large, established brands and highlight the benefits of advertising on

Instagram to their clients, first access to the Instagram ads API launched in 2015; and ensured that Instagram users' first experience with Instagram's advertising included larger brands that offered high-quality ads, which was important both to the user experience and to establishing Instagram as a sought-after ad-supported venue. *See* Ex. 4 at ¶ 89 & nn.176-178 (Tucker Rep.).

2105. Meta's acquisition of Instagram was not necessary for Instagram to implement targeted advertising or advertisement auction capabilities because "the necessary technology and know-how" to do so "is widespread in the industry," and "Instagram also was well positioned to obtain the data it would need to serve targeted ads." PX9003, Aral Report at ¶¶ 229-31.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact including for the reasons stated above in Meta's response to paragraph 2101, and because the cited paragraphs in Professor Aral's report do not cite any evidence to support the quoted language in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed on the ground that "well positioned" is vague and undefined, and not supported by the cited evidence. Further disputed to the extent this paragraph suggests that Instagram would have implemented targeted advertising or advertisement auction capabilities as successfully as it was in fact able to because of the acquisition, which is pure speculation. Evidence shows that Meta's expertise and practical experience were critical to the success of Instagram's advertising technology. For example, in February 2015, Meta launched its Marketing Partners program, which created solutions for advertisers that preferred to work with an agency to optimize their campaigns across different ad-supported venues. *See* Ex. 4 at ¶ 90 & n.179

(Tucker Rep.). The program ensured that advertisers on Instagram would have access to, initially, 40 partners with three areas of expertise to facilitate advertising on Instagram: ad tech, community management, and content marketing. *Id.* at ¶ 91 & n.180. This expertise included how best to design ads for the platform, how to target them, and how to measure their performance, to ensure that early experiences for both advertisers and users on Instagram were positive. *See id.*; *see also* Ex. 191 at -550 (FB_FTC_CID_03360548) ("In 2016 Instagram looked to begin monetizing by building their own ads infra. However, progress was slow. Eventually, IG pivoted to utilizing Facebook's ads tech, and the team was able to rapidly scale.").

Further disputed that this paragraph accurately quotes the Aral report, which refers to "user data," not "data" generally. PX9003 at ¶ 231 (Aral Rep.).

2106. Meta's claims to have helped Instagram monetize more quickly and efficiently are unsupported; in fact, the record suggests that "Meta's control of Instagram actually hampered Instagram's ability to quickly roll out an advertising business" by "introduc[ing] a significant number of severe deficiencies to Instagram's attempts and efforts to generate an advertising business." PX9003, Aral Report at ¶ 258 (internal quotation omitted); PX6177, Aral (FTC) Dep. Tr., at 181:1-5.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2101, and because the cited paragraph in Professor Aral's report does not cite any evidence to support the quoted language in this paragraph, nor does Professor Aral provide any such evidence in the cited testimony, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

2. Meta's monetization expert concedes that any benefits that Meta brought to Instagram's monetization have significant limitations.

2107. Professor Catherine Tucker—Meta's proffered monetization expert, *see* PX9015, Tucker Report at ¶ 9—conceded several limitations of any purported monetization benefits Meta brought to Instagram:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and for the reasons stated in Meta's responses to the subparagraphs below.

a. Professor Tucker maintains that many apps other than Meta have successfully launched and scaled digital advertising businesses to such an extent that these businesses compete with Meta effectively for the sale of digital advertising. PX6169, Tucker (Meta) Dep. Tr., at 24:16-20; *id.* at 168:16-169:3 ("So certainly, it's the case that there are many firms that have successfully launched advertising for products and are competing for advertising dollars . . . ."); *id.* at 188:6-13 (agreeing that "enough companies are successful in implementing the necessary ad tech to provide competition to Meta"). As Professor Tucker put it at one point during her deposition, "we have many firms that have successful advertising businesses that compete with Meta." *Id.* at 201:1-3.

Meta Response: Disputed in part. Undisputed that Professor Tucker provided the quoted and paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105. As Professor Tucker explained at length in her report, the intense competition Meta faces to attract advertisers constrains Meta to provide a compelling experience for its users. *See*

PX9015 at ¶¶ 11-31 (Tucker Rep.). The FTC's proffered expert, Professor Aral, agrees. *See* Ex. 287 at 69:10-11 (Aral Dep. Tr.) (agreeing with statement in his book that, "[t]o monetize eyeballs, you have to retain those eyeballs"); *see also id.* at 67:8-12 (agreeing with statement in his book that "the amount and quality of those [ad-supported] platforms' ad inventories scales with the number of consumers they serve and how engaged those consumers are with the content the platforms curate").

b. Professor Tucker conceded that she did not identify in her report any advertising technology "which is unique to Meta," *id.* at 179:19-180:1, and that any technology necessary for a successful digital advertising business "could in theory be implemented by another firm," *id.* at 182:2-7.

Meta Response: Disputed in part. Undisputed that Professor Tucker provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105. Further disputed that the quoted language, which is incomplete and misleading, shows that Professor Tucker "conceded" anything. Professor Tucker's complete testimony as to the first quote was that "it's not the case that I think I identify any technology which is unique to Meta. Instead, if you read my report, what I'm saying is there are these technologies, and what is in the record is that Meta's experience with these technologies, of getting them to work, what we might call learning by doing, is what Instagram benefitted from." PX6169 at 179:22-180:7 (Tucker Dep. Tr.). Professor Tucker's complete testimony as to the second quote was that "I mean, of course, all technologies could in theory be implemented by another firm. But, you know,

what we study and teach in IS and marketing is there's a big difference from theoretically being able to be deployed and actually being able to be deployed successfully." *Id.* at 182:6-11.

c. Professor Tucker conceded that she did not analyze "what technology is contributing to what part of [Instagram's] increase in revenue" and did not "correlate [firms' revenue per user] to any particular one technology." *Id.* at 188:14-189:10.

Meta Response: Disputed in part. Undisputed that Professor Tucker provided the quoted testimony. Disputed that she "conceded" anything for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and because Professor Tucker's report analyzes how the introduction of specific technologies on Instagram – including API access to initial marketing partners, power-editor, and the Marketing Partner program – correlated with significant increases in revenue and impressions on Instagram. *See* PX9015 at p. 92, Ex. 5 (Tucker Rep.).

d. Professor Tucker conceded that other apps including Amazon, Google, Snap, TikTok, Twitter, and YouTube offer advertisers "integrated advertising" solutions that include "measurement," advertising "format[s]," and "a set of self-service tools, all of these things under one umbrella." *Id.* at 169:11-171:15. Professor Tucker also conceded that "some of the larger integrative providers . . . certainly have advertising sales teams," and "these other advertising providers try and partner with advertising agencies and ad tech firms to attract advertising dollars." *Id.* at 175:14-16, 176:10-13.

Meta Response: Disputed in part. Undisputed that Professor Tucker provided the quoted testimony, except that "integrative" should be "integrated." *See* PX6169 at 175:15 & errata (Tucker Dep. Tr.). Disputed that she "conceded" anything for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105.

e. Professor Tucker conceded that Meta is "not at all" the only company that sells advertising to large brands, *id.* at 221:19-21, and that digital advertising venues other than Meta had credibility and relationships with large brand advertisers and their advertising agencies, *id.* at 219:13-220:7; *see also infra* CMF at § V.C.3(b) (listing several large brands and advertising agencies seeking to work with Instagram prior to Meta's acquisition).

Meta Response: Disputed in part. Undisputed that Professor Tucker provided the quoted and paraphrased testimony. Disputed that she "conceded" anything for the reasons stated in Meta's responses to paragraphs 2101, 2104, and 2105.

f. Professor Tucker conceded that in February 2013, "analysts were describing Instagram as an attractive place for advertisers." PX6169, Tucker (Meta) Dep. Tr., at 224:20-225:1.

Meta Response: Disputed in part. Undisputed that Professor Tucker provided the quoted testimony. Disputed that she "conceded" anything for the reasons stated in Meta's responses to paragraphs 2101, 2104, and 2105. Further disputed because the quoted language is incomplete and misleading. Professor Tucker testified, immediately after agreeing to the quoted language, that "I'm using that as context for the other evidence I cite in that paragraph, which is that Instagram

still had no plans to sell ads at that point in its news feed." PX6169 at 225:1-5 (Tucker Dep. Tr.).

g. Professor Tucker conceded that "many firms" offer "performance advertising" (Professor Tucker's equivalent term for "direct response advertising") along with "a pixel tool . . . which is one of the technologies you need to make [performance advertising] work." *Id.* at 177:3-16.

Meta Response: Disputed in part. Undisputed that Professor Tucker provided the quoted testimony. Disputed that she "conceded" anything for the reasons stated in Meta's responses to paragraphs 2101, 2104, and 2105. Further disputed because the quoted language is incomplete and misleading. Professor Tucker's complete testimony states that "many firms offer an equivalent to the Pixel, which enables performance advertising. That doesn't mean they've got the algorithms, know-how, AI in place to optimize on that performance advertising, but, yes, I mean, they have a pixel tool, for example, which is one of the technologies you need to make it work." PX6169 at 177:10-16 & errata (Tucker Dep. Tr.).

2108. Professor Tucker's methodology had significant limitations.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and for the reasons stated in Meta's responses to the subparagraphs below.

a. Professor Tucker's report "doesn't state what factors correlate with a start-up being successful at monetization" or "whether significant venture capital support is a factor in success[ful] monetization." PX6169, Tucker (Meta) Dep. Tr., at

203:19-204:10. Professor Tucker acknowledged that prior to its acquisition by Meta, Instagram had received funding from venture capital. *Id.* at 186:6-8.

Meta Response: Disputed in part. Undisputed that Professor Tucker agreed with the quoted and paraphrased language in her deposition. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105. Further disputed that the statement in this subparagraph is material to the resolution of either party's motion. Professor Tucker was not asked to opine on what factors correlate with a start-up's successful monetization, and in fact she testified, immediately after the quoted language, that, "I can't imagine a way one could ever tease apart that causal relationship, given the amount of correlation and confounding factors involved." PX6169 at 204:10-13 (Tucker Dep. Tr.); *see also* PX9015 at ¶ 9 (Tucker Rep.) (describing her assignment in this case).

b. In her report, Professor Tucker did not "identify any data or metrics showing that Meta's implementation of self-service advertising was superior to other publisher's implementation of self-service advertising[.]" *Id.* at 192:11-17.

Meta Response: Disputed in part. Undisputed that Professor Tucker agreed with the quoted language in her deposition, except that the quoted language omits "on Instagram" (i.e., "Meta's implementation of self-service advertising on Instagram was superior") and "publisher's" should read "publishers'." PX6169 at 192:12-13 (Tucker Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and because the quoted language is incomplete and misleading. As Professor Tucker explained immediately after the quoted language, "So you're right that Exhibit 5 doesn't benchmark against

other firms. I think the point I'm making with self-service advertising is that Dr. Aral says all the technology exists, but if you actually look at Meta's competitors, it takes time, it takes experimentation, it takes knowledge, it takes technical know-how to get self-service technologies to work for advertisers. And I give some examples of some of the challenges that Meta's competitors have had along the way in implementing self-service technologies." *Id.* at 192:16-193:5 & errata; *see also* PX9015 at ¶¶ 77-78 (Tucker Rep.) (describing challenges Meta's competitors have faced in implementing self-service technologies); *id.* at p. 92, Ex. 5 (showing enormous growth in Instagram's revenue and impressions); *id.* at p. 94, Ex. 7 (showing Instagram's [redacted]).

c. Professor Tucker was similarly did not "identify any data or metrics showing that Meta's implementation of video format advertising was superior to other publisher's implementation of self-service advertising[.]" *Id.* at 193:6-13.

<u>Meta Response</u>: Disputed in part. Undisputed that Professor Tucker agreed with the quoted language in her deposition, except that the quoted language omits "on Instagram" (i.e., "Meta's implementation of video format advertising on Instagram was superior"). PX6169 at 193:6-13 (Tucker Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105. Meta's expertise in video ads was critical to the success of Instagram's advertising business. *See* PX9015 at ¶¶ 94-98 (Tucker Rep.).

d. Professor Tucker's report did not "analyze any factors [other than size] that would make Instagram [be in] a better or worse position to acquire and retain ad tech talent." *Id.* at 185:10-14.

Meta Response: Disputed in part. Undisputed that Professor Tucker agreed with the quoted language in her deposition. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and because the quoted language is incomplete and misleading. As Professor Tucker further testified, "because it was so much of a nascent and new industry, finding people who really had the skills and experience to navigate it, you know, they were rare. I mean, [Professor Tucker's report is] just saying that they are rare and, therefore, you can't presume, as Dr. Aral does, that the mere existence of talent means that Instagram would have been able to attract it." PX6169 at 185:17-186:2 (Tucker Dep. Tr.); *see also* PX9015 at ¶ 81 (Tucker Rep.) (describing difficulties in retaining tech talent).

e. Professor Tucker's report does not "say explicitly that [Meta's] acquisition of Instagram benefitted advertisers." *Id.* at 291:13-22.

Meta Response: Disputed in part. Undisputed that Professor Tucker agreed with the quoted language in her deposition. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and because the quoted language is incomplete and misleading. As Professor Tucker further testified, she "d[id] lay out all these technologies which are beneficial to advertisers, being adopted swiftly and efficiently as a result of the acquisition." PX6169 at 291:18-21 & errata (Tucker Dep. Tr.); *see also* PX9015 at ¶¶ 88-102 (Tucker Rep.)

(describing technologies beneficial to advertisers that Instagram was able to adopt swiftly and efficiently as a result of the acquisition).

f. Professor Tucker's report "do[es] not provide a quantification" of the sizes of any "efficiencies" Meta purportedly provided to Instagram. *Id.* at 218:12-219:7.

Meta Response: Disputed in part. Undisputed that Professor Tucker agreed with the quoted language in her deposition. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and because the quoted language is incomplete and misleading. As Professor Tucker further testified, "what I'm saying is that Instagram has been a remarkable success story, you know, an amazing success story, but I do not provide a quantification. I'm saying that, wow, this is one of the most successful advertising venues in the world, it's done incredibly well, but I don't quantify how incredibly well it's done." PX6169 at 218:17-219:2 & errata (Tucker Dep. Tr.).

g. Professor Tucker's report does not "use any language opining that [Meta's acquisition brought] cost savings to Instagram." *Id.* at 218:3-11.

Meta Response: Disputed in part. Undisputed that Professor Tucker agreed with the quoted language in her deposition. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and because the quoted language is incomplete and misleading. Professor Tucker's complete testimony was: "Q. You didn't use any language opining that there were cost savings to Instagram, correct? . . . A. No, sir. I didn't use the precise language of cost savings, though if you read in my report about the source of these – these efficiencies, there it is very evident there would be cost savings, so I didn't use

that particular phrase." PX6169 at 218:3-11 (Tucker Dep. Tr.). In addition, she explained, "when you've got a digital technology, which is essentially non-[rivalrous] in consumption, by implication, there are cost savings. It's just the natural form of the technology. So no, I did not state it explicitly; I thought it was self-evident. . . . I didn't use the term 'cost efficiency,' because in some sense in the digital world, it's a strange thing to talk about. But if you think about where I'm saying the real complementarities lay, which was in the technical know-how, experience, talent to implement these technologies, well, the great thing about that is it's essentially non-[rivalrous], that kind of knowledge. And so as a result, there were natural cost savings, efficiencies." *Id.* at 216:13-18, 217:14-218:1 & errata. She also explained why quantifying monetization efficiencies is difficult for a digital business: "When I think about a place I might [quantify cost savings], such as, say, car manufacturing, this is a digital business where the sources of complementarities are coming from knowledge and know-how, they're not really sort of like measuring plant level efficiencies." *Id.* at 219:7-12.

h. Professor Tucker also did not—and would not—claim that, to the extent other companies had difficulty implementing self-service ad platforms, Instagram would have also experienced those same difficulties. *Id.* at 206:11-19.

Meta Response: Disputed in part. Undisputed that Professor Tucker did not opine that Instagram would have faced the same difficulties other ad-supported platforms faced in implementing self-service advertising platforms. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105, and because the description of Professor Tucker's testimony is incomplete and

misleading. As Professor Tucker explained in her deposition, "I'm not saying that in a hypothetical world where there's an independent Instagram, Instagram would have made exactly the same mistakes or had the same delays as any one of these particular ad venues. I'm just saying that when you look at this technology, its implementation tends to be slow and have these hiccups along the way. And so you can't, as Dr. Aral asserts, just say that the technology exists, and therefore it would be implemented efficiently and quickly." PX6169 at 206:15-207:3 (Tucker Dep. Tr.); *see also* PX9015 at ¶¶ 90-102 (Tucker Rep.) (describing Instagram's post-acquisition successful implementation of self-service advertising).

i. Professor Tucker's report did not analyze why any other companies may have had difficulty in implementing self-service ad platforms. *Id.* at 206:3-6.

Meta Response: Disputed in part. Undisputed that Professor Tucker's report did not analyze *why* the companies the report discusses "stumbled when building their self-service ad platforms." PX6169 at 205:16-206:2 (Tucker Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2105 and subparagraph 2108(h). Further disputed because Professor Tucker's report analyzes *how* various companies stumbled in building their self-service ad platforms. *See* PX9015 at ¶¶ 78-79 (Tucker Rep.) (describing problems and delays with self-service technologies launched by Pinterest, Pandora, TikTok, LinkedIn, and Snapchat).

3. Meta's acquisition of Instagram was not necessary for Instagram to monetize successfully via digital advertising.

a) Instagram's founders always planned to monetize via advertising.

2109. Though Instagram did not have "formal plans" to build an advertising platform prior to Meta's acquisition, Instagram's "monetization plan was always advertising, and it was always showing ads in feed, and it was roughly what it is today." PX6027, Systrom (Meta/Instagram) IH Tr., at 95:13-17.

Meta Response: Disputed in part. Undisputed that Instagram had no formal plans to build an advertising platform prior to the acquisition, that the witness provided the quoted testimony, and that theoretically Instagram could have built an advertising business if it had not been acquired by Meta. Disputed that this statement creates a genuine dispute of material fact, because it does not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent this statement suggests that, absent the acquisition, Instagram would have been able to monetize through advertising as successfully as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See* Ex. 153 at 392:5-22 (Krieger Dep. Tr.) (Mr. Krieger agreeing that there is no way to determine with certainty what Instagram could have done in the "parallel world" absent the acquisition). Evidence shows that Instagram was not building an advertising business before the acquisition. As Mr. Systrom testified immediately before the quoted language in paragraph 2109 above, "we had no immediate [monetization] plans. We didn't have an effort on it. We didn't have engineers. We had zero – zero built around that." PX6027 at 95:4-6 (Systrom IH Tr.); *see also* Ex. 151 at 215:1-4, 325:8-13 (Systrom Dep. Tr.) (Mr. Systrom agreed in his deposition that Instagram

"hadn't begun the process of developing an advertising strategy as of the time that Facebook acquired Instagram" and "did not have a plan for exactly how it was going to monetize"). As Mr. Systrom wrote to a potential advertising partner in July 2011, "At this time we're not looking to add advertising inside the platform, but I'll make sure to reach out if that becomes a priority." Ex. 479 at -650 (FB_FTC_CID_08707650). Ms. Cole, who was in charge of Instagram's business operations before the acquisition, wrote in March 2012 that Instagram was "still a very small company (only 11 people), so [it did not] have the capacity to take on partnerships at [the] time," and hence was not "promot[ing] specific brands/events/contests on [the] platform." Meta SMF ¶ 656 (quoting Ex. 323 at -847 (PX10556, FTC-META-000018842)). Ms. Cole further testified that Instagram did not create custom content for marketers and that brands "were not spending money with Instagram" for their campaigns. Ex. 152 at 121:2-4, 122:16-19 (Cole Dep. Tr.).

Conversely, extensive evidence shows that the acquisition in fact enabled Instagram to build a tremendously successful advertising business. *See* Meta SMF ¶¶ 716-721 (describing Instagram's post-acquisition monetization). For example, Meta helped Instagram attract large advertisers and build a sales team. *See*, *e.g.*, Ex. 4 at ¶¶ 88-92 (Tucker Rep.); Ex. 478 at -927 (FB_FTC_CID_06209927) (email from Mr. Systrom to Mr. Zuckerberg noting that "[Instagram has] access to advertisers, a sales force, existing backends, etc – it's all pretty amazing. It's not a slam dunk, but [Instagram is] way ahead of where [it'd] be independently."); *see also* Ex. 523 at 5 (MetaFTC-DX-686) (Mr. Systrom: "Think about all the things we've accomplished being part of Facebook. All the things we have plugged into – whether it's hiring, spam fighting, the ad system.

We have thousands of salespeople who are basically selling ads for Instagram and we snapped our fingers to access them."); Ex. 4 at ¶ 89 & nn.176-178 (Tucker Rep.) (describing how Meta's sales team, using its credibility and relationships with larger brands and their agencies, encouraged them to advertise on Instagram after the acquisition; gave its own marketing partners, including Kenshoo, Brand Networks, Salesforce Marketing Cloud, Unified, SocialCode, 4C, Nanigans, and Ampush, which place ads on behalf of large, established brands and highlight the benefits of advertising on Instagram to their clients, first access to the Instagram ads API launched in 2015; and ensured that Instagram users' first experience with Instagram's advertising included larger brands that offered high-quality ads, which was important both to the user experience and to establishing Instagram as a sought-after ad-supported venue).

In addition, Meta's expertise with advertising technology helped grow Instagram's advertising business more quickly and efficiently. For example, in February 2015, Meta launched its Marketing Partners program, which created solutions for advertisers that preferred to work with an agency to optimize their campaigns across different ad-supported venues. *See* Ex. 4 at ¶ 90 & n.179 (Tucker Rep.). The program ensured that advertisers on Instagram would have access to, initially, 40 partners with three areas of expertise to facilitate advertising on Instagram: ad tech, community management, and content marketing. *Id*. at ¶ 91 & n.180. This expertise included how best to design ads for the platform, how to target them, and how to measure their performance, to ensure that early experiences for both advertisers and users on Instagram were positive. *See id.*; *see also* Ex. 191 at -550 (FB_FTC_CID_03360548) ("In 2016 Instagram looked to begin monetizing by building their own ads infra. However,

progress was slow. Eventually, IG pivoted to utilizing Facebook's ads tech, and the team was able to rapidly scale."); Ex. 4 at ¶¶ 88-102 (Tucker Rep.) (describing how Meta's ad technology helped Instagram scale its advertising business); *id.* at p. 92, Ex. 5 (analyzing how the introduction of specific technologies on Instagram – including API access to initial marketing partners, power-editor, and the Marketing Partner program – correlated with significant increases in revenue and impressions on Instagram).

Other evidence shows how successful Instagram's advertising business has been. *See* Meta SMF ¶ 721 ("Instagram generated advertising revenues of [redacted]. Some publicly reported estimates of Instagram's standalone valuation as of 2018 were between $80 billion and $100 billion. Meta expert Professor Steven Kaplan estimated Instagram is worth close to [redacted] today [redacted]." (internal citations omitted)); *see also* Ex. 4 at p. 92, Ex. 5 (Tucker Rep.) (showing enormous growth in Instagram's revenue and impressions after the acquisition); *id.* at p. 94, Ex. 7 (showing Instagram's [redacted]). As Mr. Systrom, Instagram's co-founder, stated, "[Instagram's] financial success was, in large part, an outcome of Facebook's extraordinary ad ecosystem." Meta SMF ¶ 720 (quoting Ex. 188 at -304 (FB_FTC_CID_02985304)); *see also* Ex. 151 at 251:17-252:16 (Systrom Dep. Tr.) (Mr. Systrom testified: "Q. . . . Would you agree that being part of Facebook allowed Instagram to skip several years of development? A. I do, yes. Q. Okay. Can you describe that. A. I will give you a very specific example on ads. I believe Instagram, if we were to have been independent, could have easily created an

ads product, could have easily created a sales team, could have easily created all the things around ads. What would have taken a lot longer is developing all the technology for onboarding those advertisers, recruiting those advertisers. And, instead, what we were able to do – we still had to do a lot of the work to build that advertising product. But what we were able to do is show up and plug into an existing system that had a lot of hardening that had been done over the years. And that likely took off many, many years of development and organizational work. So there are examples where being part of Facebook allowed us to accelerate the business meaningfully."). No proffered FTC expert witness has identified any start-up company that has monetized as successfully as post-acquisition Instagram. *See*, *e.g.*, Ex. 287 at 198:1-22 (Aral Dep. Tr.) (FTC's proffered expert, Professor Aral, failing to "identify any other ad-supported app that has grown its advertising revenue at a similar rate [ ] to a similar degree as Instagram").

2110. Instagram's founders often relayed to potential investors and others that monetizing via advertising was a long-term goal:

Meta Response: Disputed in part. Undisputed that, prior to the acquisition, Instagram relayed to some third parties that at some point it intended to monetize, potentially through advertising. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2109 and below in Meta's response to subparagraph 2110(b).

a. A valuation opinion by SVB Analytics, which was provided to Instagram in July 2011, notes that Instagram intended to earn revenue through, among other things, "mobile advertising." PX1187, Instagram document: "SVB Analytics: Valuation for Burbn, Inc" (May 31, 2011), FB_FTC_CID_02992618, at 624.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2109.

b. Instagram told potential Series A and Series B investors that the "path forward" involved advertising. PX6015, Krieger (Meta/Instagram) IH Tr., at 65:19-66:2; *id.* at 71:20-22 ("There's a path forward that would involve advertising and feed. And that—and that was sort of the pitch for investors at the time."); *see also* PX6133, Systrom (Meta/Instagram) Dep. Tr., at 214:15-25 ("In our Series A, we pitched Benchmark Capital. And in our pitch deck, we included multiple slides on potentially including advertising in our Feed going forward, but we hadn't hired a team. We didn't – we hadn't done anything other than pitch our advertising. But we knew it was going to be advertising.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language, except that Mr. Systrom's testimony was that, when Instagram pitched Benchmark Capital in its Series A fundraising, Instagram "hadn't done anything other than pitch *ideas on* advertising." PX6133 at 214:23-24 (Systrom Dep. Tr.) (emphasis added). Disputed for the reasons stated above in Meta's response to paragraph 2109. In addition, as Mr. Systrom's testimony makes clear, all Instagram had done at that point was "pitch ideas on advertising." *Id.* at 214:24.

c. In January 2012, Kevin Systrom relayed to Apple that "[i]n the long run we want to build a platform upon which people can promote their brands . . . we believe in

the long run brands will pay to either be featured, have their content featured, or run targeted 'instagrams' to people as advertisements." PX1186, Instagram email chain: K. Systrom (Meta/Instagram) to [redacted] (Apple) re: "Instagram and Ads," (Feb. 3, 2012), DB_FTC_CID_02988727, at -728.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2109.

2111. Monetization through advertising was a long-term goal for Instagram, instead of an immediate priority. This was in part because Instagram's founders made the strategic decision to focus on increasing user growth before addressing monetization, so that Instagram would first gain a "critical mass" of users that advertisers would seek to reach. PX6027, Systrom (Meta/Instagram) IH Tr., at 96:11-22. As Mr. Systrom wrote in January 2012, "[r]ight now we raised enough money that we can work on building a product people love before going to try to sell to advertisers. We want an audience first ;)". PX1186, Instagram email chain: K. Systrom (Meta/Instagram) to [redacted] (Apple) re: "Instagram and Ads," (Feb. 3, 2012), DB_FTC_CID_02988727, at -728; *see also* [redacted]

Meta Response: Disputed in part. Undisputed that Instagram had a long-term goal to monetize through advertising. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2109 and below in Meta's response to

subparagraph 2111(b). Further disputed that [redacted].

a. Instagram's growth-before-advertising strategy is consistent with advice that Meta itself gave to Mr. Systrom after its acquisition of Meta. PX6027, Systrom (Meta/Instagram) IH Tr., at 96:5-8 ("I was always told at Facebook that until you had, say, 100 million users active, it really didn't make sense for you to be an advertising platform.").

Meta Response: Undisputed that the witness provided the quoted testimony.

b. In a white paper submitted to Germany's Federal Cartel Office in 2016, Meta similarly asserted that

> [t]he key for a new service is . . . to offer an attractive service that provides value to users and which attracts their use and engagement. Services like Snapchat, which proved attractive to users, have no trouble building their user bases and then building advertising products that made sense within the context of their user service. In this way, their user engagement was easily converted into advertiser engagement and value as well.

PX3015, Meta document: "White Paper: Relevant Markets and Lack of Dominance" (2016), FB_FTC_CID_06460276, at -332.

Meta Response: Disputed in part. Undisputed that the quoted language appears in a white paper Meta submitted to Germany's Federal Cartel Office in 2016. Disputed that this language is "similar[ ]" to Mr. Systrom's testimony quoted above in subparagraph 2111(a). Meta's white paper describes the relationship between building a user base and building advertising products; it does not say anything about when it makes sense for an app to try and monetize

through advertising. Further disputed that this subparagraph supports the assertion in paragraph 2111 above regarding Instagram's monetization goals. The quoted language in this Meta white paper submission does not mention Instagram.

2112. Instagram's strategic decision to prioritize short-term user growth over monetization was in line with the standard monetization decision-making calculus for nascent apps with venture capital support that Professor Aral has outlined. As Professor Aral put it, "new apps have good reason to delay their launch of advertising and instead do so only after building and enlarging their user base." PX9003, Aral Report at ¶ 114. Professor Aral noted further that "it is well-known that in the digital advertising industry that venture-capital firms do not pressure newly started apps to monetize immediately, but rather allow and encourage them to engage in the strategic and incremental ramping of monetization." PX9003, Aral Report at ¶ 115; *see also id.* at ¶ 262 (explaining that the timing of launching an advertising business "is a strategic decision with multiple competing tradeoffs, including user growth, user engagement, fundraising to lengthen 'runway' (the amount of time left to operate the business without the need for additional fundraising), and monetization"), PX9008, Aral Rebuttal Report at ¶ 121 (describing the decision to monetize as "tailored, individualized, and involv[ing] tradeoffs between different objectives").

Meta Response: Disputed in part. Undisputed that Professor Aral offered the quoted opinions in his reports, except the quoted language in paragraph 115 should read, "it is well-known in the digital advertising industry." PX9003 at ¶ 115 (Aral Rep.). Disputed that these statements create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2109, and because paragraph 262 of

Professor Aral's report, and the quoted part of paragraph 121 of his rebuttal report, cite no evidence to support his speculation.

2113. Mr. Systrom was certain that Instagram would have successfully monetized independent of Meta's acquisition. PX6027, Systrom (Meta/Instagram) IH Tr., at 200:7-9 ("Q. And could you have successfully monetized Instagram without Facebook? A. Absolutely.").

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony, except the quoted language appears at 200:10-12. *See* PX6027 at 200:10-12 (Systrom IH Tr.). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2109.

b) Before the acquisition, Instagram was drawing significant interest from large brands and their advertisers.

2114. Prior to Meta's acquisition, several large brands affirmatively reached out to Instagram because they were "eager to work with" and interested in "establishing a presence" on Instagram. PX6047, Cole (Meta/Instagram) Dep. Tr., at 113:8-22.

Meta Response: Disputed in part. Undisputed that Ms. Cole provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2109.

2115. These brands spanned a diverse array of industries and included American Express, Gap, GLAMOUR magazine, representatives of [redacted] ("to discuss some ideas around [redacted] and most importantly [redacted]'s Fortune 500 brand partners"), Microsoft, Proctor & Gamble, Refinery29, The North Face, and advertisers working for Chevrolet, HTC, and Visa. PX3036, Instagram email chain: [redacted] (American Express) to K. Systrom re: "American Express Card Acceptance-Advertisement," (Mar. 21, 2012),

FB_FTC_CID_02988193, at -193 (American Express); PX3031, Instagram email chain: [redacted] (AKQA) to K. Systrom re: "Advertising Opportunity for Gap," (June 27, 2011), FB_FTC_CID_08708624, at -626 (Gap); PX3033, Instagram email chain: [redacted] (GLAMOUR) to A. Cole re: "Press Inquiry," (Dec. 9, 2011), FTC-META-004077989, at -989 (GLAMOUR magazine); PX3040, Instagram email chain: [redacted] (LRMR Marketing) to A. Cole re: "Instagram / [redacted]," (Mar. 22, 2012), FTC-META-002753081, at -081 (representatives of [redacted]); PX3032, Instagram email chain: [redacted] (Starcom Worldwide) to K. Systrom re: "Advertising on Instagram for MSFT," (Aug. 1, 2011), FB_FTC_CID_08709003, at -003 (Microsoft); PX3035, Instagram email chain: [redacted] (Federated Media) to K. Systrom re: "Signal Conferences – SF and P&G (yeah, that one)," (Jan. 13, 2012), FB_FTC_CID_08716981, at -981 (Proctor & Gamble); PX3039, Instagram email chain: [redacted] (Refinery29) to J. Riedel re: "Refinery29 + Instagram," (Mar. 19, 2012), FB_FTC_CID_08729073, at -074 (Refinery29); PX3037, Instagram email chain: [redacted] (The North Face) to J. Zollman re: "Greetings From The North Face!," (Mar. 7, 2012), FB_FTC_CID_08663503, at -505 (The North Face); PX3034, Instagram email chain: [redacted] (Goodby, Silverstein & Partners) to J. Riedel re: "Instagram partnership with Chevrolet," (Dec. 1, 2011), FB_FTC_CID_08726640, at -640 (advertisers for Chevrolet); PX3038, Instagram email chain: [redacted] (Deutsch Inc. LA) to A. Cole (Instagram) re: "HTC," (Jan. 18, 2012), FB_FTC_CID_08727184, to -184 (advertisers for HTC); PX3041, Instagram email chain: [redacted] (AKQA) to M. Krieger (Meta/Instagram) re: "Help with an AKWQA Campaign," (July 12, 2011), FB_FTC_CID_02606588, at -591 (advertisers for Visa).

Meta Response: Disputed in part. Undisputed that the listed brands reached out to Instagram about potentially working with Instagram. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2109.

2116. Instagram also received outreach from prominent advertising agencies looking for opportunities for their clients to advertise on and otherwise partner with Instagram. These agencies included AKQA, Digital Brand Architects, OMD, Wieden + Kennedy, and WPP ("the largest ad agency in the world"). PX3041, Instagram email chain: [redacted] (AKQA) to M. Krieger re: "Help with an AKWQA Campaign," (July 12, 2011), FB_FTC_CID_02606588, at -591 (advertisers for Visa); PX3043, Instagram email chain: [redacted] (Digital Brand Architects) to K. Systrom re: "Instagram opportunities for Tory Burch," (Jan. 5, 2012), FB_FTC_CID_08727076, at -078 (Digital Brand Architects); PX3044, Instagram email chain: [redacted] (OMD) to K. Systrom re: "Intro to Instagram / OMD," (Jan. 20, 2012), FTC-META-004109140, at -140 (OMD); PX3045, Instagram email chain: [redacted] (Wieden + Kennedy) to [redacted] re: "Greetings from PDX," (Jan. 12, 2011), FTC-META-007115727, at -730 (Wieden + Kennedy); PX3042, Instagram email chain: [redacted] (WPP) to K. Systrom re: "Congrats," (July 19, 2011), FB_FTC_CID_08708843, at -843 (WPP).

Meta Response: Disputed in part. Undisputed that the listed agencies reached out to Instagram about potential opportunities for their clients to advertise on or otherwise partner with Instagram. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2109.

c) Instagram had venture capital support positioned to support its monetization efforts.

2117. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2109.

2118. [redacted]

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, and 2109.

2119. [redacted]

Meta Response: Disputed in part. Undisputed that the presentation contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2120. In April 2012, a group of investors led by Sequoia Capital raised $50 million for Instagram in a Series B fundraising round. PX9003, Aral Report at ¶ 127; *see also* PX6027, Systrom (Meta/Instagram) IH Tr., at 110:12-112:9.

Meta Response: Undisputed.

2121. Instagram's Series B investors' interest stemmed from the "natural progression to monetization" of Instagram's "primarily visual feed," which meant "a clear opportunity [] for advertising." PX6015, Krieger (Meta/Instagram) Dep. Tr., at 72:3-12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed as incomplete and misleading to the extent this paragraph suggests that Instagram's investors had no reservations about Instagram's ability to scale and monetize. As Mr. Krieger further testified immediately after the quoted language: "Q. And then you mentioned kind of the sustained growth of Instagram of the users and about to launch the Android version. Did investors express any reactions

to the growth of Instagram? A. I think sort of continued excitement that it was growing as well as it – as it was, maybe coupled with some skepticism of – there's always this question of what's the natural height of this company? . . . You know, Kleiner Perkins ended up passing on the investment, and I imagine at least part of it was this question of like, well, will this continue to grow, or has this thing hit its natural height?" PX6015 at 72:13-73:4 (Krieger IH Tr.); *see also id.* at 73:23-74:1 (Mr. Krieger further testifying that another reason investors passed on investing in Instagram was that "$500 million was quite a high valuation at the time, given that we had no revenue yet and it was still a fairly new product").

2122. Instagram's Series B fundraising round provided Instagram with, among other things, assistance to develop its advertising business.

Meta Response: Disputed in part. Undisputed that Instagram received Series B funding. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

a. Mr. Botha understood that Instagram would use the investment to, among other things, "start to build the advertising products they would need." [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

b. Mr. Botha further intended for the investment to "help Instagram build an independent business," in accordance with Sequoia Capital's "track record." *Id.*

at 91:6-12 ("I mean, 27 percent of the Nasdaq is comprised of companies that we backed when they were private. So I think we seem to have a track record of [helping companies in which Sequoia Capital invested to build an independent business].").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2123. Instagram's venture-capital backers were supportive of Instagram's strategy of increasing user growth before addressing monetization. Indeed, Mr. Systrom testified that Instagram "never got any pressure from any investor ever to monetize." PX6027, Systrom (Meta/Instagram) IH Tr., at 107:1-5.

Meta Response: Undisputed.

d) According to Meta, many other apps have monetized successfully via digital advertising.

2124. Mr. Krieger testified that apps besides Meta had built "successful" advertising businesses without being acquired by Meta. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 186:4-12.

Meta Response: Disputed in part. Undisputed that Mr. Krieger provided the quoted and paraphrased testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2125. In a September 2019 submission to the United Kingdom's Competition and Markets Authority, Meta maintained that besides Meta, "there is a multitude of players that also have a strong digital advertising offering." This "large number of digital advertising

players" is "continuously innovating to provide a more attractive advertising offering and introducing new tools and features that benefit advertisers," and, according to Meta, creates "intense competition" in digital advertising. PX3009, Meta document: "The Competition and Markets Authority's Market Study into Online Platforms and Digital Advertising: Facebook Ireland Limited's Response to the Competition and Markets Authority's Request for Information" (July 19, 2019), FB_FTC_CID_00050115, at -262-63.

Meta Response: Undisputed, except that PX3009 is Facebook Ireland Limited's Response to the Competition and Markets Authority's Request for Information of 18 July 2019, Tranche 2 submission, and is dated September 13, 2019. *See* PX3009 at -115 (FB_FTC_CID_00050115).

2126. Indeed, in Meta's Relevant Markets Tutorial Submission, filed on February 17, 2023 in the *Klein, et al. v. Meta Platforms* litigation in the Northern District of California, Meta stated that "the advantages [that advertising on Meta] offers are not unique." PX0300, Klein Market Tutorial (Meta), at -009.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed as incomplete and misleading. Immediately before and after the quoted language, Meta's Relevant Markets Tutorial Submission describes how this competition for advertising creates a competitive constraint on Meta: "Competition for advertising dollars is based on which venue, or combination of venues, can most efficiently reach the advertiser's intended audience of consumers and drive the

advertiser's desired outcome. Advertising on Meta offers a compelling value proposition for some advertisers because it delivers results. . . . And Meta must continuously innovate against many competitive venues while keeping its user base engaged." PX0300 at -009 (*Klein*, Meta Relevant Markets Tutorial Submission).

2127. In a white paper submitted to Germany's Federal Cartel Office in 2016, Meta asserted that there are "dozens of firms that provide advertisers" with "what they care about," including Twitter, YouTube, LinkedIn, Pinterest, and Snap. PX3015, Meta document: "White Paper: Relevant Markets and Lack of Dominance" (2016), FB_FTC_CID_06460276, at -305-06.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except it lists "Snapchat," not "Snap." PX3015 at -306 (FB_FTC_CID_06460276). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2128. In a white paper submitted to Germany's Federal Cartel Office in 2016, Meta further stated that "Competing with Facebook [for digital advertising] Does Not Require Facebook's Scale." PX3015, Meta document: "White Paper: Relevant Markets and Lack of Dominance" (2016), FB_FTC_CID_06460276, at -331.

Meta Response: Disputed in part. Undisputed that the quoted language, before the misleading alteration in brackets, appears in Meta's white paper submitted to Germany's Federal Cartel Office in 2016. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed as incomplete and misleading based on the

alteration. This portion of Meta's white paper discusses user-side competition and how that acts as a competitive constraint on Meta, not merely competition for digital advertising. Meta's white paper states:

> **i. Competing with Facebook Does Not Require Facebook's Scale[.]** . . . There is no evidence that Facebook's competitors are failing to garner significant amounts of user attention and revenue. Users of the Facebook service can and do use other "social" services (and, indeed, many other such social services as shown above). The ease of multi-homing subjects Facebook to the ongoing risk of losing user attention to other online service providers, reducing its appeal to advertisers, and provides an opportunity for prospective entrants to profit at Facebook's expense by offering innovative services that will attract the attention of Facebook and non-Facebook users alike. Indeed, multi-homing and switching habits suggest that the competitive ecosystem supports a wide range of services targeting a diversity of user groups. There are several examples of successful competitors to Facebook exerting significant competitive influence – even those services with more specialized user appeal. For instance, Pinterest recently announced that it hit 150 million MAUs, growing 50 percent year-over-year. Other social services that are important and growing competitive influences, such as LinkedIn, Nextdoor, Waze, Spotify, Bandcamp, and others, derive their success less from the breadth of their user network, and more from having concentrated and engaged users in particular geographies, or with particular interests.

PX3015 at -331 (FB_FTC_CID_06460276) (footnote omitted).

2129. Nevertheless, according to Meta, the digital advertising efforts of many of these "intense competit[ors]" were in fact able to scale commensurate with their rapid and sustained growth. PX3009, Meta document: "The Competition and Markets Authority's Market Study into Online Platforms and Digital Advertising: Facebook Ireland Limited's Response to the Competition and Markets Authority's Request for Information" (July 19, 2019), FB_FTC_CID_00050115, at -262-63.

Meta Response: Disputed in part. Undisputed that some of the quoted language appears in Facebook Ireland Limited's Response to the Competition and Markets Authority's Request for Information at one of the two cited pages, except the date of

Facebook Ireland Limited's Response was September 13, 2019. *See* PX3009 at -115 (FB_FTC_CID_00050114). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that this statement accurately paraphrases the submission, which states:

> [T]here is a multitude of players that also have a strong digital advertising offering. As a result, the main challenge that Facebook faces is that, while it is continuously innovating to improve its advertising offering, there is intense competition from a large number of digital advertising players who are also continuously innovating to provide a more attractive advertising offering and introducing new tools and features that benefit advertisers. Therefore, Facebook has to react to innovations of competitors continuously in order to maintain advertisers' willingness to spend advertising pounds on Facebook's services.

Id. at -262.

a. For example, there was "[pent up] interest in advertising on Twitter as soon as advertising was available from a format launch perspective" in 2011. [redacted]

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

i. Twitter was able capitalize on that demand by "scal[ing] rather quickly" without "a long period of being technically launched or open for business and almost no revenue or nothing meaningful . . . ." [redacted]

<u>Meta Response</u>: Disputed in part. Undisputed that Mr. Perzyk provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that [redacted]

[redacted]. Twitter's advertising sales were "down by half" in the nine months following its acquisition by Elon Musk in 2022. *See* Ex. 4 at ¶ 123 & n.257 (Tucker Rep.). Several advertisers withdrew their spending on Twitter after the acquisition because of a spike in objectionable content on Twitter. *See id.*; *see also id.* at ¶ 131 & n.289. [redacted]

ii. Twitter was able to scale such that it went from having "virtually no ad revenue" in March 2011 to being "at or near a billion-dollar annual run rate for advertising" by November 2013. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2129(a)(i).

b. Pinterest was also able to scale in order to meet steady advertising revenue growth, going from $0 in advertising revenue in 2013 to over $2.8 billion in 2022. PX6082, Roberts (Pinterest) Dep. Tr., at 335:10-17.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed to the extent this subparagraph suggests that the success of Instagram's advertising business is

comparable to Pinterest's. Instagram's advertising business is an order of magnitude larger than what [redacted] has taken ten years to build. *See* Meta SMF ¶ 721 ("Instagram generated advertising revenues of [redacted].").

i. Pinterest's steady revenue growth drew public attention: "Adweek wrote in 2015 that 'One of the hottest ad formulas of 2015 can't be found on Facebook or Twitter . . . [C]lients' ad spend on Pinterest has far more than quadrupled since January—a rise of 7.7 times." PX3021, Meta document: "French submission" (Sept. 20, 2017), FB_FTC_CID_12827316, at -322 (alteration in original).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except the document refers to "ad formats" – not "ad formulas." PX3021 at -322 (FB_FTC_CID_12827316). Disputed for the reasons stated above in Meta's response to subparagraph 2129(b).

ii. Pinterest also experienced "revenue [growth of] 51% year over year to $1,143 million." PX3019, Meta document: "ACCC Advertising Services Inquiry," (Apr. 28, 2020), FTC-META-012510223, at -232.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language in reference to the year 2019 only. Disputed for the reasons stated above in Meta's response to subparagraph 2129(b).

c. Meta maintains that TikTok has enjoyed significant and sustained revenue growth in digital advertising.

Meta Response: Disputed in part. Undisputed that TikTok's advertising business has grown and that Meta competes with TikTok for advertising dollars. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

i. Meta has asserted in its advocacy in the investigative phase of this litigation that "TikTok is now reportedly aiming to generate $500 million in U.S. revenue alone in 2020, roughly doubling its 2019 worldwide revenue." PX4002, Meta document: "Competition in the Dynamic Advertising Industry" (Sept. 18, 2020), at -012.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

ii. In an April 2022 submission to the Australian Competition & Consumer Commission, Meta noted that "TikTok has experienced significant growth and this is continuing – its ads revenue in 2022 is expected to triple to more than $11 billion, surpassing the combined sales of Twitter and Snapchat." PX3017, Meta document: "Meta response to the ACCC's Digital Platform Services Inquiry September 2022 Report Discussion Paper" (Apr. 28, 2022), FTC-META-010377972, at -974.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2130. Many digital publishers other than Meta have achieved billions of dollars of annual revenue.

Meta Response: Disputed in part. Undisputed that other digital publishers have earned billions of dollars in revenue, that Meta competes with those digital publishers for advertising dollars, and that this advertising-side competition acts as a competitive constraint on Meta on the user side. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101 and 2109.

a. Snap's 2022 10-K Annual Report noted that "[r]evenue increased 64% year-over-year to reach 4.1 billion global revenue annually in 2021." PX3017, Meta document: "Meta response to the ACCC's Digital Platform Services Inquiry September 2022 Report Discussion Paper" (Apr. 28, 2022), FTC-META-010377972, at -003.

Meta Response: Undisputed.

b. In an April 2022 submission to the Australian Competition & Consumer Commission, Meta noted that:

i. Twitter's "annual revenue from advertising services [had] reached $4.5 billion globally in 2021 (up from $3.2 billion in 2020)." PX3017, Meta document: "Meta response to the ACCC's Digital Platform Services

Inquiry September 2022 Report Discussion Paper" (Apr. 28, 2022), FTC-META-010377972, at -003.

Meta Response: Undisputed.

ii. "In 2021, Amazon's advertising business generated $31.2 billion in revenue globally, with 32% year-over-year growth . . . ." *Id.* at -974.

Meta Response: Undisputed.

iii. "TikTok has experienced significant growth and this is continuing – its ads revenue in 2022 is expected to triple to more than $11 billion, surpassing the combined sales of Twitter and Snapchat." *Id.* at -974

Meta Response: Undisputed.

c. [redacted]

Meta Response: Undisputed that the witness provided the paraphrased testimony.

d. In an April 2020 response to an Issues Paper of the Australian Competition & Consumer Commission, Meta reported that "YouTube ads generated $15.15 billion in revenue in 2019, compared with $11.16 billion the year before, of which $4.72 billion was for Q4 2019 alone." PX3019, Meta document: "ACCC Advertising Services Inquiry" (Apr. 28, 2020), FTC-META-012510223, at -231.

Meta Response: Undisputed.

4. Meta's acquisition of Instagram was not necessary for Instagram to introduce the advertising capabilities that Meta asserts it brought to Instagram.

a) Meta's acquisition of Instagram was not necessary for Instagram to introduce the advertising technologies and tools that Instagram introduced following its acquisition by Meta.

(1) Many apps have built "integrated products and services" that support their digital advertising businesses.

2131. In a white paper on the "Economic Analysis of Facebook Advertising," submitted to the FTC in the investigation phase of this litigation, Professor Tucker explained that "[s]ome digital ad venues offer integrated products and services to advertisers. That is, they offer the ability to identify previous customers, data about those customers for audience and ROI optimization, and tools to deploy ads, or a combination of these features." PX4003, Meta White Paper, "Economic Analysis of Facebook Advertising Report by Catherine Tucker," at ¶ 155 (Sept. 18, 2020).

Meta Response: Undisputed.

2132. In a white paper submitted to Germany's Federal Cartel Office, Meta stated that there are "dozens" of digital ad venues with advertising systems that offer this integration. PX3015, Meta document: "White Paper: Relevant Markets and Lack of Dominance" (2016), FB_FTC_CID_06460276, at -306 ("[D]ozens of firms" are capable of "getting the right ad in front of the right audience for the right price" and "accurately track the performance of [an advertiser's] ad campaign."). These "dozens of firms" recognized by Meta include "but [are] by no means limited to" Twitter, YouTube, LinkedIn, Pinterest, and Snap. *Id.*

Meta Response: Undisputed, except the document states "the target audience" – not "the right audience." PX3015 at -306 (FB_FTC_CID_06460276).

2133. Professor Tucker similarly offered "Facebook, Google, LinkedIn, Bing, Amazon, Twitter, Snapchat, Pinterest, Quora, Tiktok, and Reddit as "[e]xamples of ad venues that integrate these [product and service] features." PX4003, Meta White Paper, "Economic Analysis of Facebook Advertising Report by Catherine Tucker," at ¶ 155 (Sept. 18, 2020).

Meta Response: Undisputed.

2134. TikTok provides advertisers with self-service advertising, an advertising auction, advertising metrics, and ad targeting. PX6107, Weinstein (Google) Dep. Tr., at 299:2-17.

Meta Response: Undisputed that Debbie Weinstein, testifying on behalf of Google, testified that she "believe[s]" TikTok offers the listed advertising technologies.

[redacted]

2135. Twitter "built significant and foundational components of its ad tech stack on its own . . . ." [redacted]

Meta Response: Undisputed that the witness provided the quoted testimony.

2136. LinkedIn provides advertisers with "campaign planning" and "campaign creation" capabilities, an "auction system," and a "reporting and acquisition system." [redacted]

Meta Response: Undisputed that the witness provided the quoted testimony.

2137. Meta and its experts have maintained that the integrated advertising products and services offered by Meta (and Instagram in particular) are similar to those offered by other advertisers:

Meta Response: Disputed in part. Undisputed that other digital advertising publishers offer integrated advertising products and services, that Meta competes with those digital

publishers for advertising dollars, and that this advertising-side competition acts as a competitive constraint on Meta on the user side. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

a. On December 18, 2019, the UK Competition and Markets Authority published an interim report as part of its market study of online platforms and the digital advertising market. PX3001, Meta document: "CMA Online Platforms and Digital Advertising Market Study – Submission on Data in UK Advertising Markets" (undated), FB_FTC_CID_12284504, at -505. Professor Tucker submitted a report on behalf of Meta in response. *See generally id.* In her report, Professor Tucker stated that "Facebook's [advertisement tracking and measurement] technology is similar to that used by tracking and measurement marketing technology firms." *Id.* at -513.

Meta Response: Undisputed.

b. Patrick Bozeman, who was Director of Engineering at Instagram from May 2013 to August 2019, agreed that "Instagram's current ad offerings [were] industry standard." PX6035, Bozeman (Meta) Dep. Tr., at 18:8-11, 101:17-21.

Meta Response: Undisputed. Undisputed that Mr. Bozeman provided the quoted testimony, but Mr. Bozeman's complete testimony was: "Q. Would you describe Instagram's current ads offerings as an industry standard? . . . [A.] Some ads businesses have more robust functionality than others, but yes." PX6035 at 101:17-21 (Bozeman Dep. Tr.).

c. Mr. Bozeman further testified that it was likely that over 100 non-Meta apps had "ads businesses with similar functionalities to Instagram's current ads offerings," including Amazon, Apple, Google, Hulu, Netflix, Pinterest, Reddit, Snap, Twitter, and YouTube. *Id.* at 99:10-101:9.

Meta Response: Undisputed.

(2) As Meta has acknowledged, many publishers have made self-service advertising capabilities available for advertisers.

2138. Self-service advertising platforms grant advertisers the ability to "manage advertising campaigns" by "allow[ing] advertisers to design ads, select their audiences, control their budget, as well as launch and measure campaign performance." PX4002, Meta document: "Competition in the Dynamic Advertising Industry" (Sept. 18, 2020), at -005-06.

Meta Response: Undisputed.

2139. In its advocacy in the investigative phase of this litigation, Meta acknowledged that "self-serve ad platforms exist throughout the advertising ecosystem." PX4002, Meta White Paper, "Competition in the Dynamic Advertising Industry," at 5 (Sept. 18, 2020).

Meta Response: Undisputed, except Meta's white paper states, "self-serve ad platforms *now* exist throughout the advertising ecosystem." PX4002 at 5 (emphasis added).

a. Indeed, Meta has identified at least 36 self-service advertising platforms used by other digital publishers. PX4002, Meta White Paper, "Competition in the Dynamic Advertising Industry," at 5 (Sept. 18, 2020).

Meta Response: Undisputed.

b. "Many" of these platforms—including those offered by Google, Twitter, Snap, TikTok, and LinkedIn—are available to "every advertiser, no matter the size." *Id.* at 4.

Meta Response: Undisputed.

2140. More recently, on February 17, 2023, Meta affirmed that "[m]any of Meta's competitors, such as Google, Amazon, Apple, TikTok, Hulu, Pinterest, and Twitter also offer self-service buying tools." PX0300, Klein Market Tutorial (Meta), at -010.

Meta Response: Undisputed. Undisputed, except the document refers to "ad-buying tools." PX0300 at -010 (*Klein* Market Tutorial).

(3) Meta's acquisition of Instagram was not necessary for Instagram to introduce the advertising formats Instagram introduced following its acquisition by Meta.

2141. "The advertising formats and features that Meta claims it introduced . . . are standard components of a digital advertising business, and, as such, they would have been available to an independent Instagram." PX9003, Aral Report at ¶ 158. "[A]dvertising publishers have routinely incorporated these basic advertising formats" into their platforms. *Id.* at ¶ 186.

Meta Response: Disputed in part. Undisputed that some of the advertising formats and features Meta introduced to Instagram are used by other digital advertising businesses and may have been available to an independent Instagram. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2142. Many digital publishers other than Meta have added a variety of advertising formats into their products:

Meta Response: Disputed in part. Undisputed that other digital advertising publishers have added a variety of advertising formats into their products. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

a. Twitter offers "Promoted Tweets," "Promoted Trends," and "Promoted Accounts." [redacted]

Meta Response: Undisputed.

b. Meta has asserted in its advocacy in the investigation phase of this litigation that Snap's ads are shared are delivered through "shared-images, videos, and Stories." Meta has acknowledged that "Snapchat offers a variety of creative formats for advertisers to choose from, including[] Snap ads, Collection ads, story ads, Snap Filters, and AR Lenses. PX4002, Meta White Paper, "Competition in the Dynamic Advertising Industry," at 35-37 (Sept. 18, 2020).

Meta Response: Undisputed.

c. LinkedIn offers single image, carousel, video, sponsored messaging, text, dynamic, and conversation ads. PX6102, Shrivastava (LinkedIn) Dep. Tr., at 54:2-4, 66:5-7, 70:2-3, 76:6-77:2, 83:10-84:8.

Meta Response: Undisputed.

d. Meta has asserted in its advocacy in the investigation phase of this litigation that Pinterest offers "Promoted Pins" and "Buyable Pins" formats. PX4002, Meta White Paper, "Competition in the Dynamic Advertising Industry," at 34-35 (Sept. 18, 2020).

Meta Response: Undisputed.

e. Amazon offers "[o]n-platform, display and video ads" that "can be served on Amazon.com, Kindle, Twitch, Amazon Video, IMDB, and other Amazon O&O platforms," as well as ads on Amazon's Fire TV. Meta has asserted in its advocacy in the investigation phase of this litigation that Amazon had introduced "recent innovations" to its formats, including "shoppable images" and "posts" where consumers can "discover products and brands through a curated feed." *Id.* at 10, 28-30.

Meta Response: Undisputed.

f. Meta has asserted in its advocacy in the investigation phase of this litigation that TikTok's "advertising innovations and offerings have grown rapidly." *Id.* at 43.

Meta Response: Undisputed.

g. Reddit offers advertising formats including mobile, carousel, a "video ads hybrid landing page," promoted AMAs ("Ask-Me-Anything"), and promoted megathreads. [redacted]

Meta Response: Undisputed.

b) Meta's acquisition of Instagram was not necessary for Instagram to pursue the business plans that Meta asserted it implemented for Instagram.

(1) Meta's acquisition of Instagram was not necessary for Instagram to change its advertising strategy to emphasize self-service and direct-response advertising.

2143. Deploying a self-service advertising platform is a "relatively common and simple industry-standard practice[]." PX9003, Aral Report at ¶ 169; *see also supra* CMF at § V.C.4.a.2.

Meta Response: Disputed in part. Undisputed that other digital advertising platforms have deployed self-service advertising platforms. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed because the cited paragraph in Professor Aral's report does not cite any evidence to support the quoted language or the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Nor does Section V.C.4.a.2 cite any evidence that deploying a self-service advertising platform is "simple." To the extent this paragraph incorporates the FTC's statements in Section V.C.4.a.2, Meta incorporates its responses to those statements here.

2144. Instagram was "always planning on rolling out self-service ordering for brand advertising," PX6133, Systrom (Meta/Instagram) Dep. Tr., at 178:18-179:12 ("Q: Was Instagram always planning on rolling out self-service ordering for brand advertising? A: Yeah.").

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2145. Direct response advertising is "performance-based" and aims to elicit an action from the viewing user, such as "clicks to lead to traffic, or product purchase, or downloads, like app downloads." [redacted]

Meta Response: Undisputed that the quoted testimony provides one reasonable description of direct response advertising.

2146. Instagram was "always planning on offering direct response advertising" as a component of its advertising strategy. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 177:19-22 ("Q. And was Instagram always planning on offering direct response advertising as well as brand advertising? A. I believe so.").

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2147. A successful direct response advertising platform requires information about a user's interests, but a large infrastructure is not required to acquire that information. PX6134, Systrom (Meta/Instagram) Dep. Tr., at 338:4-10.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the paraphrased testimony. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2148. "Instagram had th[e] information [necessary for a successful direct response advertising platform] with or without Facebook" based on who Instagram's users were following on Instagram. PX6134, Systrom (Meta/Instagram) Dep. Tr., at 338:13-339:4.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony without the alteration. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed as incomplete and misleading with the alteration. Mr. Systrom agreed that Instagram had "information about users' interests"

with or without Facebook, and that, "[t]o have a successful direct response business, you need information about the user's interests." PX6134 at 338:4-15 (Systrom Dep. Tr.). He did not testify that information about users' interests was all Instagram needed to have a successful direct response advertising platform or that Instagram had everything it needed to launch a successful direct response advertising platform. *See id.* at 339:16-340:2 (Mr. Systrom agreeing that, "to have a successful direct response business, you also need an infrastructure for finding advertisers and charging them to place ads . . . [and] reporting back to the advertisers how effective their ads are"); *see also id.* at 340:3-24 (Mr. Systrom agreeing that "Facebook's direct response ad systems were some of the best in the business" and "Instagram was able to plug in to Facebook's ad systems to personalize ads for its users").

2149. Many other digital publishers have developed direct response advertising platforms, including Amazon, [redacted]; Google Search (whose direct response advertising Meta has recognized as "strong"), PX4002, Meta White Paper, "Competition in the Dynamic Advertising Industry," at 26 (Sept. 18, 2020); LinkedIn, [redacted]; Pinterest, PX4002, Meta White Paper: "Competition in the Dynamic Advertising Industry," at 35 (Sept. 18, 2020); Reddit, [redacted]; Snap, [redacted]; Tumblr, [redacted]; Twitter, PX6139, [redacted]; and YouTube, PX6107, Weinstein (YouTube) Dep. Tr., at 269:15-274:11.

<u>Meta Response</u>: Undisputed.

(2) Meta's acquisition of Instagram was not necessary for Instagram to introduce advertising sales teams.

2150. Many digital publishers other than Meta have developed sales teams which sell ad placements to advertisers, including Amazon, [redacted]; Google, PX6126, Spero (Google) Dep. Tr., at 225:17:19; LinkedIn, [redacted]; Pinterest, PX6082, Roberts (Pinterest) Dep. Tr., at 338:4-6; Reddit, [redacted]; Snap, [redacted]; Tumblr, [redacted]; and Twitter, [redacted].

Meta Response: Undisputed.

2151. Pinterest and Twitter's advertising sales teams have grown to several hundred employees in size, and LinkedIn's advertising sales team has grown to over one thousand employees. PX6082, Roberts (Pinterest) Dep. Tr., at 338:7-13; [redacted].

Meta Response: Undisputed.

2152. LinkedIn, [redacted], Pinterest, and Tumblr's advertising sales teams use in-house employees. [redacted]; PX6082, Roberts (Pinterest) Dep. Tr., at 338:14-20; [redacted]. At launch, Twitter's advertising sales team was almost entirely in-house employees. [redacted]

Meta Response: Undisputed.

(3) Meta's acquisition of Instagram was not necessary for Instagram to introduce a marketing partners program.

2153. The Facebook Marketing Partners are a group of "third-party vendors . . . recognized" by Meta that provides advertisers with "third-party solutions that Facebook screens for quality." PX4003, Meta White Paper, "Economic Analysis of Facebook Advertising Report by Catherine Tucker," at ¶¶ 191-192 (Sept. 18, 2020).

Meta Response: Undisputed.

2154. Marketing partners are not proprietary or unique to Meta, and Meta has previously highlighted that its marketing partners "serve other ad venues or have been acquired by firms that also serve other ad venues." PX4003, Meta White Paper, "Economic Analysis of Facebook Advertising Report by Catherine Tucker," at ¶ 192 (Sept. 18, 2020).

Meta Response: Undisputed.

2155. In its investigation phase advocacy, Meta listed Snap, Twitter, Google, and Microsoft as publishers that had developed "similar programs" to the Facebook Marketing Partners program. PX4002, Meta White Paper, "Competition in the Dynamic Advertising Industry," at 87 (Sept. 18, 2020).

Meta Response: Undisputed.

5. Instagram's advertising business has experienced significant problems under Meta's control.

a) Meta's direction of Instagram's advertising business was erratic and marked by confusion and uncertainty.

2156. Once Meta acquired Instagram, "[t]he majority of the guidance" Instagram received from Meta concerning its advertising business came from "Andrew Bosworth and Sheryl Sandberg," Meta's Chief Technology Officer and former Chief Operating Officer,

respectively. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 183:12-21; PX6100, Bosworth (Meta) Dep. Tr., at 13:7-14:21; PX6022, Sandberg (Meta) IH Tr., at 15:24-25.

Meta Response: Disputed in part. Undisputed that Mr. Bosworth is currently Meta's Chief Technology Officer, that Ms. Sandberg was formerly Meta's Chief Operating Officer, and that Mr. Systrom provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because Meta's development of Instagram's advertising business involved hundreds if not thousands of Meta employees. *See* Meta SMF ¶¶ 716-721 (describing Meta's development of Instagram's advertising business). Further disputed on the ground that "guidance" is undefined and vague.

2157. Once acquired, Instagram attempted to develop its monetization plan through advertising, but, instead, Meta directed Instagram to "stop all work on monetization." PX6027, Systrom (Meta/Instagram) IH Tr., at 204:4-16, 205:11-13, 206:6-207:6.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because the cited testimony does not support the assertion that Instagram was attempting to develop its monetization plan through advertising at the time of, or in the years following, the acquisition. As Mr. Systrom testified, "[W]hen I got to Facebook, there was no clear need to go and monetize," and "[i]t was probably a couple years into being there" before Mr. Systrom "start[ed] pushing monetization of Instagram." PX6027 at 204:5-6, 206:6-10 (Systrom IH Tr.).

2158. Despite Instagram's desire to do so, Mr. Systrom was told that Instagram should not develop a monetization plan through advertising in part because "it would confuse [Meta's] product offering to advertisers." PX6027, Systrom (Meta/Instagram) IH Tr., at 204:17-205:5.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony and that Meta did not pressure Instagram to monetize immediately after the acquisition. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2159. Instagram eventually launched advertising in 2013. PX9015, Tucker Report at ¶ 87 (noting "Instagram later introduced advertising in November 2013 . . . ."). Instagram's initial advertising model, whose framework was developed by Meta senior advertising leadership, focused on selling brand advertising placements via direct sales to large advertisers. *See* PX6100, Bosworth (Meta) Dep. Tr., at 89:21-96:23 (explaining Meta's proposal for and merits of a "premium," "brand-oriented, limited-inventory approach" to advertising on Instagram), PX6092, Fischer (Meta) Dep. Tr., at 36:15-55:23 (Meta senior executives Sheryl Sandberg, Andrew Bosworth, and Brian Boland discussing how to monetize Instagram, including agreeing to pursue brand advertising and not direct response); PX1895, Meta messages: A. Bosworth to M. Zuckerberg, et al. (Dec. 8, 2012), FB_FTC_CID_05934043, at -043-44 (Andrew Bosworth and Will Cathcart suggesting to Mark Zuckerberg that Instagram launch ads via a premium, direct-sold advertising product); PX6133, Systrom (Meta/Instagram) Dep. Tr., at 183:12-21, 205:11-24

(confirming that Instagram received guidance and direction from Meta's advertising leadership concerning its initial advertising strategy).

Meta Response: Disputed in part. Undisputed that Instagram launched advertising in 2013, just over a year after the acquisition closed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because the cited evidence does not support the assertion that Instagram's initial advertising model was developed by Meta senior advertising leadership. Mr. Bosworth made clear that his testimony regarding a "premium," "brand oriented, limited inventory approach" to advertising was "specifically about what we were doing at Facebook" and related to Instagram only "insofar as this note [where the quoted language appears] is an early contemplation of what might happen with Instagram." PX6100 at 89:21-93:4 (Bosworth Dep. Tr.). Mr. Fischer testified, regarding his discussion with Ms. Sandberg, Mr. Bosworth, and Mr. Boland about advertising on Instagram – which did not include anyone from Instagram – "I wouldn't call this a plan. I would call it more sort of brainstorming, thinking around ideas." PX6092 at 40:20-22 (Fischer Dep. Tr.); *see id.* at 52:15-17 (similar). PX1895 is a 2012 chat between Mr. Bosworth, Mr. Zuckerberg, and Mr. Cathcart – and no one from Instagram – regarding "back o[f] the envelope math" on Instagram's potential advertising revenue. PX1895 at -043 (FB_FTC_CID_05934043).

Evidence shows that Instagram's initial advertising model was developed by Instagram, not Meta senior advertising leadership, but Instagram's advertising model – in which Mr. Systrom personally reviewed every ad – was not scalable. As Mr. Systrom testified: "Q. When you say, '[w]e picked a different course which was slower and more

typical of an independent company,' what were you referring to there? A. We did not simply just adopt Facebook's ad system and ad formats day one. We built our own ad format. We built our own approach to do brand advertising, high quality, refined advertising. . . . It's just it became clear that wasn't going to grow quickly enough and we would have to eventually replicate what existed on Facebook on Instagram." Ex. 151 at 205:1-24 (Systrom Dep. Tr.); *see id.* at 327:21-329:5 ("Q. . . . And for a period after the Facebook acquisition, you personally reviewed every one of the brand advertisements that ran on Instagram? . . . [A.] That's correct. Q. . . . That was not a sustainable model for advertising, correct? . . . [A.] No. . . . Q. . . . So, basically, your reviewing every ad that Instagram was going to show would limit the number of ads Instagram could show. A. If I continued to do it, but that was not the plan. Q. Okay. You believed that the brand advertising that Instagram was doing was not scalable; is that true? . . . [A.] I probably characterized it that way at some point, and it was not scalable to get to the level of, say, Facebook level revenue. So we would need to do other products, yes.").

2160. In June 2015, Meta's directive for Instagram advertising again changed suddenly, when Andrew Bosworth shared to Kevin Systrom that he was "wondering if we had considered raising" Instagram's financial targets. PX15233, Meta email chain: A. Bosworth to K. Systrom re: "Instagram targets," (June 9, 2015), FB_FTC_CID_08019259, at -264.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2161. When asked to explain his thinking as to why Instagram should raise its financial targets, Mr. Bosworth replied in part "because we can." PX15233, Meta email chain: A. Bosworth to K. Systrom re: "Instagram targets," (June 9, 2015), FB_FTC_CID_08019259, at -263-64.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2162. Mr. Bosworth added "I think there may be some advantages to the urgency a higher number will create" because "we are headed towards a hard conversation in October where we need to pull levers more aggressively" and "higher goals will make the conversation happen earlier and make it less painful." PX15233, Meta email chain: A. Bosworth to K. Systrom re: "Instagram targets," (June 9, 2015), FB_FTC_CID_08019259, at -264.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2163. In response, Mr. Systrom shared that he thought this "hard conversation" with the team should be direct, adding "[i]t can feel really crummy to be managed to an outcome indirectly and I think the team already feels this quite a bit." PX15233, Meta email chain: K. Systrom to A. Bosworth, et al. re: "Instagram targets," (June 10, 2015), FB_FTC_CID_08019259, at -262.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

2164. Mr. Systrom raised this confusion and uncertainty with Mr. Zuckerberg, writing:

> [i]nitially the guidance in 2013 was to slow down or to stop working on ads – though we went through some fits and starts of not being entirely clear how important IG advertising was going to be and how urgent the need was. I think the ramp [to begin more aggressively monetizing Instagram through advertising] could have been much shorter had we had a clear idea of what we needed from IG monetization.

PX15233, Meta email chain: K. Systrom to M. Zuckerberg re: "Instagram targets," (June 10, 2015), FB_FTC_CID_08019259, at -260.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except the document states, "was to slow down or stop working." PX15233 at -260 (FB_FTC_CID_08019259). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that the quoted language refers to "confusion" or "uncertainty."

2165. It was not only Instagram that recognized Meta had introduced confusion: Mr. Bosworth testified that there was "clearly some uncertainty" from Meta "as to the expectations of the business," and that there was a "lack of clarity as to . . . what kind of revenue expectations Meta would have for our work with Instagram ads." PX6100, Bosworth (Meta) Dep. Tr., at 97:7-19.

Meta Response: Disputed in part. Undisputed that Mr. Bosworth provided the quoted testimony, except he testified about "our work in Instagram ads" – not "with Instagram

ads." PX6100 at 97:19 (Bosworth Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that Mr. Bosworth stated that "Meta had introduced confusion."

2166. As late as 2015, Meta's executives were still struggling to develop a clear plan on implementing a monetization strategy for Instagram: for example, Mr. Zuckerberg expressed "a desire [for Instagram] to have a more accelerated product roadmap that includes DR [Direct Response advertising] and self serve," contrary to Mr. Bosworth's recommendation to Mr. Zuckerberg to "double down on the existing strategy." PX13799, Meta email: A Bosworth to Ads XFN re: "[Ads XFN] Zuck discussion about IG ads," (Feb. 24, 2015), FB_FTC_CID_08084794, at -794-95.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except the document states, "and a move to self serve." PX13799 at -795 (FB_FTC_CID_08084794). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that the document refers to Meta's executives as "struggling."

2167. This "zigzag plan" was frustrating and "fairly painful in terms of its thrash on the [Instagram] team." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 203:10-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109.

b) Meta has had problems with its self-service advertising platform.

2168. A June 2012 "competitive analysis" on interfaces created by Meta was critical of its self-service advertising platform interface:

Meta Response: Disputed in part. Undisputed that the slide deck referenced in this paragraph and its subparagraphs (from *July* 2012) contains an evaluation of Meta's self-service advertising platform interface and contains the quoted language in the subparagraphs below except where indicated. *See* PX3051 (FB_FTC_CID_07573218). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed on the ground that the term "was critical of" is vague and undefined. Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding the quality of the self-service advertising platform Instagram was able to implement because of the acquisition. The July 2012 slide deck pre-dates the closing of the Instagram acquisition by two months, *see* Meta SMF ¶ 710 (acquisition closed on August 31, 2012), and pre-dates Instagram's introduction of advertising by more than a year, *see* Ex. 4 at ¶ 87 (Tucker Rep.) (Instagram "introduced advertising in November 2013").

a. Meta gave the "[d]esign and usability" of its interface a worse review than its competitors, stating that its own product made it "[d]ifficult to complete the required steps" and that "[a]d creation is separated." PX3051 at -016, Meta presentation: "Interface Strategy and H2 Goals" (July 16, 2012), FB_FTC_CID_07573218.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except it refers to "all the required steps." PX3051 at -016 (FB_FTC_CID_07573218). Disputed for the reasons stated above in Meta's response to paragraph 2168.

b. This was because Meta's self-service advertising had "[m]ultiple interfaces with overlapping use cases" that led to "[f]ragmented experiences between creation, management, optimization, reporting, and billing." PX3051 at -038, Meta presentation: "Interface Strategy and H2 Goals" (July 16, 2012), FB_FTC_CID_07573218.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2168.

2169. A draft internal report created for a September 27, 2012 "review" references an "[a]bsence of features [that] is driving [advertising] spend to competitors." PX3050, Meta email: [redacted] to M. Idema, et al. re: "[redacted] Review - Interfaces Presentation," (Sept. 26, 2012), FB_FTC_CID_03834144, at -144; PX3050 at -026, Meta presentation: "Large Advertiser Interfaces" (Sept. 27, 2012), FB_FTC_CID_03834144.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that this statement creates a genuine dispute of material fact regarding the quality of the advertising technology Instagram was able to adopt because of the acquisition. The September 2012 slide deck is dated just a few weeks

after the closing of the Instagram acquisition, *see* PX15544 at -008-009, Meta's Objs. & Resp. to FTC's Req. for Admis. No. 18 (Meta's Objs. & Resps. to FTC's Second Set of Req. for Admis. (May 5, 2023)) (acquisition closed on August 31, 2012), and pre-dates Instagram's introduction of advertising by more than a year, *see* Ex. 4 at ¶ 87 (Tucker Rep.) (Instagram "introduced advertising in November 2013").

2170. In a March 29, 2013 email chain focused on the "absolute disaster" launch of a new Meta ad product aimed at mobile app developers, Neko Ads, a Meta employee acknowledged "[w]e have competitors with clear interfaces which are much easier to use. . . . There are some good best practices we can take from them . . . possibly across the board." PX3052, Meta email chain between [redacted], D. Liu, et al. re: "follow up on neko launch," (Mar. 27-29, 2012), FB_FTC_CID_07670721, at -721, -725; *see also* PX3443, Meta presentation: "Project Neko - Future Plans" (Nov. 28, 2012), FB_FTC_CID_01076669 (outlining "[f]uture [p]lans" for the Neko Ads product).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that this statement creates a genuine dispute of material fact regarding the quality of the advertising technology Instagram was able to adopt because of the acquisition. The March 2013 launch the document discusses took place before Instagram introduced advertising. *See* Ex. 4 at ¶ 87 (Tucker Rep.) (Instagram "introduced advertising in November 2013").

2171. Despite acknowledging its self-service platform's shortcomings as early as 2012, Meta did not roll out its "single platform" update to its self-service advertising interface

(combining its Ads Manager and Power Editor) until September 2017—over five years after Instagram's acquisition. PX0637, *Introducing the Updated Ads Manager*, Meta (Sept. 12, 2017), https://www.facebook.com/business/news/introducing-the-updated-ads-manager.

Meta Response: Disputed in part. Undisputed that Meta rolled out its single platform update to its self-service advertising interface in September 2017. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that this statement creates a genuine dispute of material fact regarding the quality of the self-service advertising interface Instagram was able to adopt because of the acquisition. Evidence shows that, when Meta made its self-service platform available to advertisers on Instagram in September 2015, it allowed smaller advertisers that did not use an ad agency to place ads and develop advertising campaigns on Instagram by themselves and broadened the potential pool of advertisers that were able to use Instagram. *See* Ex. 4 at ¶ 92 (Tucker Rep.); *see also* Ex. 191 at -548 (FB_FTC_CID_03360548) ("Instagram pivoted to use the FB ads stack rather than building a separate product – this decision enabled rapid growth of IG's monetization efforts.").

c) Meta has had many problems with its advertising measurement tools, and advertisers have repeatedly complained about Meta's failures to offer third-party measurement.

2172. Patrick Bozeman, Instagram's Director of Engineering from May 2013 to August 2019, testified that "[a]dvertisers require reporting to understand the performance of their ads in the digital space." PX6035, Bozeman (Meta) Dep. Tr., at 18:8-11, 68:3-21.

Meta Response: Undisputed.

2173. Meta understood the importance of this "require[ment]:"

Meta Response: Undisputed.

a. Sheryl Sandberg, Meta's former Chief Operating Officer, testified that measuring advertising impact "would be important for any of [the advertisers] who can do it" because "if [advertisers] can measure it, they're going to make better decisions, and that's better over the long run for them and for our business." PX6023, Sandberg (Meta) State IH Tr., at 158:18-160:7.

Meta Response: Undisputed.

b. Ms. Sandberg testified that "[h]aving good measurement enables advertisers to bid well in the auction and design their ads well," as well as "know which types of ads or types of formats or creative [they] want to invest in and continue." *Id.* at 161:4-6, 165:25-166:7.

Meta Response: Undisputed.

2174. [redacted]

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because the cited testimony does not support this statement, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Ms. Everson's testimony in fact described Meta investigating advertiser complaints about particular metrics, not "repeated[ ] fail[ures]" to accurately report advertiser performance information: "Q. During your tenure at Meta, did you deal with advertisers who had

concerns or complaints that Meta was reporting inaccurate information because of single users having multiple accounts? A. There was a time when, yes, advertisers were concerned about that particular metric, and I voiced their concerns internally, yes. Q. Can you provide some examples of these complaints? A. I can't provide the specific advertisers, but it was part of a broader concern around Facebook's metrics that had a few different instances over the years, particularly my last four to five years at Meta, where we either found a metric error and had to, of course, disclose that and correct it, or there was a concern about a metric and we needed to dig into it to see if that concern was valid and if we needed to correct it." PX6113 at 26:15-27:11 (Everson Dep. Tr.). Further disputed that this statement creates a genuine dispute of material fact because it contains no evidence that the issues being discussed had any effect on Instagram's monetization.

2175. For example, for years Meta reported inaccurate information about the reach of its advertising, such that "there are several demographics for which [Meta reported] >100% penetration of [the total] population" compared to data from the United States census. PX13266, Meta email chain: J. Olivan to D. Ebersman, et al. re: "A/C Priv - Penetration of population > 100% issue," (July 23, 2012), FB_FTC_CID_09221356, at -357-58.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because they cite no evidence that the issues they discuss had any effect on Instagram's monetization.

a. [redacted]

[redacted],

and that "a part of the value proposition" Meta discusses with advertisers is the ability to reach and target a large audience. PX6092, Fischer (Meta) Dep. Tr., at 94:18-95:2.

Meta Response: Disputed in part. Undisputed that the witnesses provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

b. Once the fact that Meta was reporting incorrect metrics was discovered within Meta, current Meta Chief Operating Officer Javier Olivan worried about its effect on Meta's public relations: "[S]omeone is going to call out the fact that we claim to have more users than population . . . the penetration levels are getting high enough that someone will pick up on this / might become a huge story." PX13266, Meta email chain: J. Olivan to D. Ebersman, et al. re: "A/C Priv - Penetration of population > 100% issue," (July 23, 2012), FB_FTC_CID_09221356, at -358.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

2176. In November 2016, Meta disclosed a series of additional inaccurate reporting related to its advertising metrics reporting:

Meta Response: Disputed in part. Undisputed that Meta publicly disclosed in November 2016, following a comprehensive internal metrics audit, that discrepancies or "bugs" led to the under- or over-counting of certain metrics; that it was publicly

disclosing the miscalculated metrics to bring more "clarity and confidence" to the many advertisers and publishers that rely on its platform to reach consumers; and that it planned to take a number of steps to address advertiser concerns. PX11803 at -319 (FB_FTC_CID_09574318). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because they cite no evidence that the issues being discussed had any effect on Instagram's monetization.

a. Meta overestimated the average viewing time for its video ads. PX11803, Meta email: [redacted] to S. Sandberg, et al. re: "First wave of metrics coverage," (Nov. 16, 2016), FB_FTC_CID_09574318, at -319; [redacted]; PX6023, Sandberg (Meta) State IH Tr., at 151:7-152:6.

<u>Meta Response</u>: Disputed in part. Undisputed that the witnesses provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 2176.

b. Meta undercounted the number of users who watched video ads to their completion. PX11803, Meta email: [redacted] to S. Sandberg, et al. re: "First wave of metrics coverage," (Nov. 16, 2016), FB_FTC_CID_09574318, at -319.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 2176.

c. Meta overcounted how many users were exposed to advertisers' organic posts. PX11803, Meta email: [redacted] to S. Sandberg, et al. re: "First wave of metrics

coverage," (Nov. 16, 2016), FB_FTC_CID_09574318, at- 319; PX6113, [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 2176.

d. Meta overreported the amount of time that users "spend" with Instant Articles. PX11803, Meta email: [redacted] to S. Sandberg, et al. re: "First wave of metrics coverage," (Nov. 16, 2016), FB_FTC_CID_09574318, at -319.

Meta Response: Disputed in part. Undisputed that the document contains the quoted and paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 2176.

2177. After this inaccurate reporting was revealed, Meta's reporting deficiencies continued. In November 2018, Meta "underreport[ed] Facebook [i]mpressions, [c]licks and [l]anding [p]age [v]iews." PX11806, Meta email: Product and Business Marketing to C. Everson re: "Internal Product and Business Marketing Update - Week of November 29, 2018," (Nov. 29, 2018), FTC-META-001505581, at -586.

Meta Response: Disputed in part. Undisputed that, for a 14-day period in 2018, several bugs caused Facebook Attribution and Advanced Measurement Tool to underreport Facebook impressions, clicks, and landing page views, which did not affect the data reported in Ads Manager, or delivery or billing of advertiser campaigns during those dates. *See* PX11806 at -586 (FTC-META-001505581). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed

that the statement in this paragraph creates a genuine dispute of material fact because it contains no evidence that the issues being discussed had any effect on Instagram's monetization.

2178. [redacted]

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because the quoted and paraphrased testimony does not support this statement, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). As Ms. Everson's complete testimony explained, there had not been a need or desire for third-party auditing before the fall of 2016: "Q. And why hadn't Meta done third-party auditing before [mid-September to November 2016]? A. I think there was a perception or belief that it would be very cumbersome, it would take up a lot of resources and there wasn't a huge amount of marketers saying, [t]his is super important, until there was the video metric error, and then it became a much bigger issue. And so I think, like any company, you have to prioritize where you put resources and, you know, we hadn't had something like that occur to that level. So I just don't think it was high up on the priority list for the engineering team." PX6113 at 170:15-171:3 (Everson Dep. Tr.); *see also id.* at 175:11-176:5 (confirming that, after the video metric error, Meta was audited by a third party in a months-long audit that reflected "a real commitment from everyone

at Meta to work with these third-party partners to do the audit"). Further disputed that this statement creates a genuine dispute of material fact because it contains no evidence that the issues being discussed had any effect on Instagram's monetization.

2179. [redacted]

Meta Response: Disputed in part. Undisputed that Meta received complaints from advertisers that Meta did not allow them to use third-party ad measurement tools. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed that those complaints were "repeated[ ]"; Ms. Everson describes one such example. *See* PX6113 at 134:14-25 (Everson Dep. Tr.). Further disputed as incomplete; Ms. Everson's complete testimony about the reason Meta thought it was better to build its own measurement tools was that "Facebook's teams felt that the third-party measurements were, at best, mediocre, and in some cases, they couldn't integrate with them because of security issues. So there was a thinking that we had to do the measurement on our own to protect user and advertiser data." *Id.* at 148:19-25. Further disputed that this statement creates a genuine dispute of material fact because it contains no evidence that the issues being discussed had any effect on Instagram's monetization.

2180. [redacted]

[redacted]

Meta Response: Disputed in part. Undisputed that Ms. Everson provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because the quoted testimony is incomplete and misleading. Immediately before the quoted testimony, Ms. Everson testified, "I never felt that anyone at Meta was doing anything to try to not be accurate. I never felt that." PX6113 at 177:5-7 (Everson Dep. Tr.). Further disputed that this statement creates a genuine dispute of material fact because it contains no evidence that the issues being discussed had any effect on Instagram's monetization.

2181. These problems, and Meta's ambivalence towards rectifying them, were not lost on advertisers:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109. Further disputed on the ground that "ambivalence" and "were not lost on" are vague and undefined. Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because they contain no evidence that the issues being discussed had any effect on Instagram's monetization.

a. [redacted]

Meta Response: Disputed in part. Undisputed that Ms. Everson provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

b. In "late 2015," a study conducted by the Association of National Advertisers, [redacted], "found that 97% of marketers believe that digital media owners should allow their inventory to be measured by a third party." PX13272, Meta email chain: [redacted] to [redacted] re: "Ad Age: ANA Calls for Facebook Metrics to Be Audited and Accredited," (Sept. 29, 2016), FTC-META-001059433, at -434.

Meta Response: Disputed in part. Undisputed that the transcript and document contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

c. [redacted]

Meta Response: Disputed in part. Undisputed that Ms. Everson provided the quoted testimony regarding Unilever. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

d. On September 29, 2016, it was reported that the Association of National Advertisers issued a public statement calling for Meta's "metrics to be audited and accredited by the Media Rating Council" due to the revelation that Meta had

been providing "marketers an inflated number for the average time spent viewing online clips." PX13272, Meta email chain: [redacted] to [redacted] re: "Ad Age: ANA Calls for Facebook Metrics to Be Audited and Accredited," (Sept. 29, 2016), FTC-META-001059433, at -434.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

e. In the statement, the Association of National Advertisers asserted "Facebook has not yet achieved the level of measurement transparency that marketers need and require," and that third-party audit and accreditation "is the standard of accepted practice that marketers and agencies have relied on for decades." PX13272, Meta email chain: [redacted] to [redacted] re: "Ad Age: ANA Calls for Facebook Metrics to Be Audited and Accredited," (Sept. 29, 2016), FTC-META-001059433, at -434 (internal quotations omitted).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

f. David Fischer, then Facebook's Vice President of Advertising and Global Operations, PX6013, Fischer (Meta) IH Tr., at 23:5-23:11, wrote to other employees that the statement "is a big deal and will pour a lot of gas on the flames that have been popping up." PX13272, Meta email chain: D. Fischer to C. Everson, et al. re: "Ad Age: ANA Calls for Facebook Metrics to Be Audited and Accredited," (Sept. 29, 2016), FTC-META-001059433, at -433. Ms. Everson

wrote in reply that "[t]his is really not good." PX13272, Meta email chain: C. Everson to D. Fischer, et al. re: "Ad Age: ANA Calls for Facebook Metrics to Be Audited and Accredited," (Sept. 29, 2016), FTC-META-001059433, at -433.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

g. On December 20, 2016, [redacted] Publicis Media wrote Ms. Everson "[a]midst mounting concerns around accuracy of [Meta's] data" and that Publicis' clients "[were] unable to compare performance and attribution from [Meta] to [non-Meta] channels conduct." [redacted] shared that "clients raised the need for us to be more tenacious in pushing for greater accountability and measurement from [Meta]," and that he understood that "some of our requests to establish trust/transparency have been met with a fairly blanket 'no' from [Meta]." PX11804, Meta email chain: [redacted] (Publicis Media) to C. Everson (Meta) re: "Facebook Client Council," (Dec. 20, 2016), FB_FTC_CID_03729275, at -276.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

h. In April 2018, the Media Ratings Council "granted accreditation to Facebook for ad impressions." PX4003, Meta White Paper, "Economic Analysis of Facebook Advertising Report by Catherine Tucker," at ¶ 175 (Sept. 18, 2020). Despite this accreditation, advertisers' issues were not resolved: in its September 13, 2019

response to a request for information from the Competition Markets Authority, Meta stated that a [redacted]. Meta told the Competition Markets Authority that it would not [redacted] as a matter of policy. PX3009, Meta document: "Facebook Ireland Limited's Response to the Competition and Market Authority's Request for Information of 18 July 2019" (Sept. 13, 2019), FB_FTC_CID_00050115, at -280-81.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted and paraphrased language. Disputed as incomplete and misleading as to Facebook Ireland Limited's Response to the Competition and Markets Authority's Request for Information. As Facebook Ireland Limited made clear in its response, "Facebook provides robust third-party measurement tools to advertisers as part of its ad offering" and "partners with certain third parties to provide cross-measurement analytics," but [redacted] PX3009 at -280-281 (FB_FTC_CID_00050115). Further disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

i. In "the spring of 2020, the [Media Ratings Council] sent a letter to [Meta] indicating that it was considering removing [Meta's] accreditation" in light of various "issues." PX4003, Meta White Paper, "Economic Analysis of Facebook Advertising Report by Catherine Tucker," at ¶ 175 (Sept. 18, 2020).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraphs 2101, 2014, 2105, and 2109.

2182. Andrew Bosworth, former Meta Chief Technical Officer and former Vice President of Ads & Business Products, testified that, as of September 3, 2020, Meta still did not "in technical terms" "allow third parties to independently monitor the success of ads on its platforms." PX6001, Bosworth (Meta) IH Tr., at 318:18-21.

Meta Response: Disputed in part. Undisputed that Mr. Bosworth provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2101, 2104, 2105, and 2109, and because the quoted testimony is incomplete and misleading. The reason Mr. Bosworth gave for not allowing third parties to independently monitor the success of ads on Meta's platforms was "privacy." PX6001 at 318:18-23 (Bosworth IH Tr.); *see id.* at 318:24-319:16 (further explaining why allowing this type of monitoring "would not be an acceptable privacy or security move"). Further disputed that this statement creates a genuine dispute of material fact because it contains no evidence that the issues being discussed had any effect on Instagram's monetization.

D. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Manage Integrity Issues at Scale.

2183. Meta's acquisition of Instagram was not necessary for Instagram to manage integrity issues at scale or to deliver Meta's claimed integrity-related benefits related to Instagram. *Infra* CMF at §§ V.D.1-6.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and

therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Sections V.D.1-6, Meta incorporates its responses to those statements here.

Further disputed that any of the statements in Section V.D create a genuine dispute of material fact because none of the statements establishes that consumers would have been better off in a but-for world without the acquisition. *See* Meta SMF ¶ 754 (Professor McCoy testifying that it is possible Instagram's integrity today is superior to what Instagram's integrity would be in a but-for world without the acquisition). Further disputed to the extent the statements in Section V.D suggest that, absent the acquisition, Instagram would have developed and improved its integrity systems as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See*, *e.g.*, PX9013 at ¶ 32 (McCoy Rebuttal Rep.) ("The farther we move away from 2012, the more difficult it is to assess what kind of integrity problems Instagram would have had and what kind of resources and solutions it would have been able to deploy independent of Meta."); Meta SMF ¶ 754 (Professor McCoy testifying that "I don't know what specific systems [an independent Instagram] would have built" (quoting Ex. 313 at 193:4-5 (McCoy Dep. Tr.))).

Conversely, there is extensive evidence that Instagram was experiencing certain integrity issues prior to the acquisition, *see*, *e.g.*, Meta SMF ¶¶ 679-684 (describing Instagram's pre-acquisition integrity); *see also* Ex. 7 at ¶¶ 104-123, 138-142 (Subrahmanian Rep.) (describing evidence regarding Instagram's pre-acquisition integrity challenges with spam and policy-violating content), and that, before the

acquisition, Instagram relied on integrity defenses that were less advanced than the systems Meta deployed at the time, *see* Ex. 302 at 232:4-16 (Krieger IH Tr.) ("Q. So you mentioned integrating with the antispam system. Was Instagram having issues with spam preacquisition? A. We were. Starting in maybe May of 2012 is when spam started appearing more on Instagram. And we had built – I'd characterize it as pretty rudimentary defenses, you know, that year. Q. And why was it important to defend against spam? A. It just affects the user experience very negatively if you're browsing comments and there's people trying to promote a gift card scam or something like that."); *id.* at 232:17-233:2 (testifying that, "with a dedicated-enough spammer, [Instagram's pre-acquisition spam-fighting system] was quite easy to circumvent"); Ex. 153 at 136:10-137:18 (Krieger Dep. Tr.) (testifying that, before the acquisition closed, Instagram did not "actually ha[ve] any real mitigations for [follow spam]").

Mr. Toffey, a member of Instagram's pre-acquisition community team, testified that he "remember[ed] spam being an acute issue, especially in that period, you know, close to that August [2012] timeframe." Ex. 154 at 18:18-21, 116:10-13 (Toffey Dep. Tr.); *see* Ex. 224 at -533-534 (PX10020, FB_FTC_CID_12203533) (Mr. Toffey writing in August 2012 that Instagram had "reached a critical point with SPAM. It is no longer possible to tell which accounts are spam simply from the User Flag page. We are being hit with what looks like 5 to 7 different types of spam, each with their own characteristics. . . . It is now basically necessary to open every profile page to see whether they are legitimate [or] spammers, which increases the amount of time necessary to review by 3 or 4 times."); Ex. 153 at 252:21-253:19 (Krieger Dep. Tr.) (Mr. Krieger testifying that "it was a constant cat-and-mouse game to – to fight spam" on Instagram

before the acquisition closed.); PX10025 at -408 (FTC-META-003313408) (Mr. Krieger writing, regarding spammers, "I'm sure they'll be back . . . cat & mouse 4 eva." (ellipses in original)). Given the passage of time (over a decade), Mr. Toffey did not have "clear and specific recollections of what [Instagram was] seeing at that time," but he remembered, in a "general sense," that the "people that were creating spam on Instagram were rapidly adjusting their techniques" and he felt "a bit overwhelmed in [Instagram's] capacity to tackle it." Ex. 154 at 116:19-117:9 (Toffey Dep. Tr.). That recollection was "primarily based" on Mr. Toffey's personal "experience of seeing spam content overrun [Instagram's] Explore tab," receiving "crappy-looking comments left on my photos," and the "accrued impression of the day-to-day experience of tackling this work." *Id.* at 117:11-19, 118:3-23; *see* Ex. 153 at 136:10-17 (Krieger Dep. Tr.) ("Q. . . . if users were – were not able to report spam preacquisition, how did you know which spam to block? A. Primarily, I think, through our own use. We, at the time, had a popular page, the second tab in the app. And that was a target often of spam because they were the most high-visibility photos on the platform."). Mr. Toffey also testified that, by early 2012, "the number of flagged photos [on Instagram] grew eight to ten X." Meta SMF ¶ 680 (citing Ex. 154 at 97:4-6 (Toffey Dep. Tr.)).

Mr. Shortway, an engineer Instagram hired in August 2012, testified that "when [he] started [at Instagram], spam was so bad on the platform, deactivating really bad accounts and all of that type of activity that it was incredibly difficult for even users to operate." Meta SMF ¶ 681 (quoting Ex. 156 at 9:4-21, 22:18-21 & errata (Shortway Dep. Tr.)). Mr. Shortway also testified that, when he joined Instagram, Instagram relied on "hacked-together solutions that [it was] struggling to make work" to identify and remove

policy-violating content on the platform, "which is why one of the first things that [Instagram] did when . . . the acquisition went through was to start integrating with the Sentry service which was at Facebook" and "provides essentially plug-and-play, like, objectionable content spam monitoring." Ex. 156 at 22:6-17 & errata (Shortway Dep. Tr.). By "hacked-together solutions," Mr. Shortway testified that he meant "they were somewhat shoddy" and that Instagram was "trying to just pull some things together without a real professional solution." *Id.* at 23:8-15. He testified it was "incredibly difficult" for Instagram to "detect spam accounts" and other policy-violating content before Instagram started to use Meta's integrity systems, and that Instagram was not "really good at either of them." *Id.* at 23:18-24:7.

Mr. Bozeman, formerly the director of engineering at Instagram, testified that "[t]here was a lot of bad stuff going on preacquisition," including "a lot of inauthentic activity and spam," which could have "crushed" Instagram. Meta SMF ¶ 681 (quoting Ex. 155 at 18:8-11, 137:4-7 (Bozeman Dep. Tr.)). And Mr. Parikh, former head of infrastructure at Meta, testified: "[Instagram was] struggling to manage the spam, so basically the safety of the users on Instagram at the time, and they were struggling to keep up with the different types of and the magnitude or the complexity of the attacks that spammers and phishers were targeting Instagram for. And their systems weren't designed or built for scaling to handle this rapidly escalating set of attacks, and I guess they were a target, and that was one of the first things they asked us for our help on after the acquisition closed." Meta SMF ¶ 684 (Ex. 158 at 25:22-24, 110:7-22 (Parikh IH Tr.)).

Evidence also establishes that Instagram's integration with and use of Meta's integrity systems benefited Instagram and accelerated its ability to address integrity-related issues. *See*, *e.g.*, *id.* at ¶¶ 748-753 (describing Meta's investments in Instagram's integrity systems), ¶ 749 (Mr. Krieger testifying, "Q. . . . [H]ow did the actions that Instagram undertook on its own compare to the antispam program that Facebook had? A. They were radically more sophisticated on the Facebook side. So their systems used better pattern recognition, machine learning, clustering of behaviors . . . just a whole host of improved technology" (quoting Ex. 302 at 233:17-234:2 (Krieger IH Tr.))); Ex. 153 at 254:23-255:4 (Krieger Dep. Tr.) ("Q. . . . And you had previously called Meta's spam-fighting systems the most advanced in the industry, correct? . . . A. That's – I don't recall that exactly. But, for sure, they were – they were among the – among the most advanced."); *id.* at 159:7-160:11 (describing how Meta customized Meta's antispam tools for use on Instagram, and testifying "Q. And did Meta's integrity tools need to be customized for use on Instagram? A. They had to be customized somewhat, but I would say less than other services inside Facebook. They were already built in a way where the integration cost, I would say, was actually quite low."); *id.* at 285:18-286:17 (testifying that, at the time the Instagram acquisition closed, Meta's spam-fighting tools, Sentry and Sigma, "represented years of work inside Facebook," but it took Instagram only "months to integrate"); Ex. 480 at -351 (FB_FTC_CID_12203351) (November 2012 email, in which Mr. Krieger wrote that a Meta engineer "set up a ton of rules in Sigma/Sentry [on Instagram] to really good results"); Ex. 189 at -173 (FB_FTC_CID_03265173) (November 2012 email, in which Mr. Krieger wrote that Instagram "really appreciate[d] all the help from [Site Integrity]" because Instagram would have been "in a tough spot

without it"; two Meta engineers "have been helpful in teaching us Sigma and Orb"; "[c]omment spam has gotten much better on Instagram"; "[e]very comment signup, and inactivation is being fed through Sentry"); Ex. 214 at -836-837 (FTC-META-005087836) ("One of the earliest integration opportunities we saw was to leverage [Meta's] system, Sigma, to power our spam fighting. . . . After our migration, updating an existing spam policy or adding a new one became easier. We no longer had to roll out the entire website. All we had to do was push a policy to the Sigma tier, where it would become live in a matter of minutes. Our iteration time drastically improved."); PX3428 at -359 (FB_FTC_CID_06210359) (December 2012 email, in which Mr. Krieger wrote that Instagram was "deploying PhotoDNA tomorrow/Monday" to "help identify repeated spam photos"); Ex. 7 at ¶¶ 74, 152 (Subrahmanian Rep.) (citing evidence establishing that Meta deployed PhotoDNA on Instagram to detect child sexual abuse material in April 2013), ¶ 149 ("Meta 'buil[t] out content moderation for Instagram video,' which launched in June 2013." (quoting PX6033 at 16:6-7 (Velazquez Dep. Tr.))); Ex. 153 at 142:13-143:4 (Krieger Dep. Tr.) ("Q. . . . Did Instagram use account authentication methods to address, for instance, fake accounts? A. That's a great question. We eventually adopted a lot of the Facebook side, what they call 'checkpointing' in terms of asking people to validate with a phone number or solve a captcha. Preacquisition, I don't recall us having anything like that. I don't recall doing anything, for example, like sending people a text message to authenticate – authenticate their device. Q. Is that something that you could have done absent the acquisition by Meta? . . . A. It's likely something we would have explored, but none of the team had any expertise in site integrity or spam."); Ex. 7 at ¶ 155 (Subrahmanian Rep.) (describing Instagram's use of a

version of Meta's Delta tool in July 2013 to combat a diet pill hack affecting certain users); PX3084 at -852 (FB_FTC_CID_06072850) (August 2013 email, in which Mr. Systrom wrote "[Instagram is] working with the SI team to build out an SMS verification checkpoint on spammy accounts suspected of being run by bots"); Ex. 7 at ¶ 145 (Subrahmanian Rep.) (citing evidence establishing that Instagram transitioned from CrowdFlower to Meta's content moderation teams, which included Meta employees and third-party reviewers from Accenture, in August 2013, including Mr. Krieger's testimony that the shift provided Instagram with more "levers to work on quality and consistency" because there was a higher "level o[f] oversight and coordination" between Meta and Accenture, "than what [Instagram] had with CrowdFlower" (alterations in original) (quoting Ex. 153 at 265:12-22 (Krieger Dep. Tr.))), ¶ 146 (describing evidence that Meta's automated review systems helped Instagram "scale content decisions without sacrificing accuracy so that [manual] reviewers [could] focus on decisions where more expertise [was] needed to understand the context and nuance of a particular situation" (alterations in original)); PX3083 at -054 (FB_FTC_CID_02641054) (September 2013 email, in which Mr. Krieger wrote that Instagram was "shipping SMS checkpoints" as a result of work from at least one Meta engineer, [redacted]); Ex. 7 at ¶ 127 (Subrahmanian Rep.) (describing January 2014 document, which states that Meta's Delta tool remediated spam issues on Instagram, "including mass liking, mass following, and mass unfollowing"); PX15323 at -035 (FTC-META012331035) (May 2014 post announcing "full integration of PhotoDNA into Instagram" after a "months-long effort," which was "an amazing improvement" to Instagram's "ability to fully address CEI on Instagram"); Ex. 481 at -956 (FTC-META-012330956) (May 2014 post, which states

"Instagram photos are now being hashed and added to FB CEI PhotoDNA banks! We have granular tracking in place for monitoring hits and so far things are looking good. This is a huge win for our child safety work."); Ex. 7 at ¶ 62 (Subrahmanian Rep.) (describing Meta's launch in 2016 of a self-harm reporting tool on Instagram, which was applauded by the director of Cornell University's Research Program on Self-Injurious Behaviors).

Indeed, the FTC does not dispute that Meta has used the following tools and techniques as part of its integrity work on Instagram: a rule engine known as Sigma, Counter SMF ¶ 2211(b); blocklists, including a tool known as Blackhole, *id.* at ¶ 2212(c); rate limiting systems, including tools known as Karma and Tally, *id.* at ¶ 2213(c); checkpoint systems, including a location-detection tool known as Delta, CAPTCHAs, and phone or email verification to authenticate user identities, *id.* at ¶ 2214(b); an interface system known as Sentry, *id.* at ¶ 2215(b); automated first-level review of flagged content, *id.* at ¶ 2216(a); content moderation and review teams, which include Meta employees and third-party reviewers, *id.*; a content review interface known as SRT (and an earlier version known as CRT), *id.*; an image- and video-matching technology known as PhotoDNA, *id.* at ¶ 2217(a); user controls, including unfriending, unfollowing, blocking, and the Hidden Words feature, *id.* at ¶ 2218(a); user reporting tools that allow users to report potential policy violations on Instagram, *id.* at ¶ 2219(a); warning labels and messages, *id.* at ¶ 2220(a); third-party integrity professionals, including counterterrorism professionals, fact-checkers, content moderators, auditors, and oversight board members, *id.* at ¶ 2221(a); partnerships with non-governmental organizations, including the UK Revenge Porn Helpline, the National Center for Missing and Exploited

Children, and the 988 Suicide and Crisis Lifeline, *id.* at ¶ 2222(a); co-founding the Global Internet Forum to Counter Terrorism, *id.*; a specialized cybercrime team to investigate e-crimes, human trafficking, and other threats, *id.* at ¶ 2223(a); quarterly reports publishing integrity metrics, *see id.* at ¶ 2224(a); a text-understanding engine known as DeepText, *id.* at ¶ 2225(a)(i); a behavior-based, machine-learning system known as Deep Entity Classification, *id.* at ¶ 2225(a)(ii); language models, *id.* at ¶ 2225(a)(iii); an AI image-matching tool known as SimSearchNet (or SSN), *id.* at ¶ 2225(a)(iv); an advanced version of SSN known as SimSearchNet++ (or SSN++), *id.*; an AI classification system known as Reinforced Integrity Optimizer, *id.*; a Transformer architecture known as Linformer, *id.*; a multimodal AI model known as Whole Post Integrity Embeddings (or WPIE), *id.*; *see also id.* at ¶ 2225(a)(v); a cross-problem model, *id.* at ¶ 2225(a)(vi); an AI tool that recognizes objects in photos and videos known as X-Ray, *id.* at ¶ 2225(b); a photo-matching algorithm known as PDQ, *id.*; a video-matching algorithm known as TMK+PDQF, *id.*; a tool that automates the process of hashing content, matching created hashes against a database, and taking action on matched content known as Hasher-Matcher-Actioner, *id.*; investing "heavily" in AI research, *id.* at ¶ 2225(c)(i)-(ii); multilingual AI tools such as XLM-R, *id.* at ¶ 2225(f)(i); a method for pretraining natural language processing systems known as RoBERTa, *see id* at ¶ 2225(f)(ii); and [redacted] known as Media Match Service, *id.* at ¶ 2225(b); Meta SMF ¶ 752(c).

Evidence also shows that Meta's expertise, systems, and practical experience advanced Instagram's integrity systems, and, as extensive scholarship – including by one

of the FTC's proffered experts, Professor Aral – has shown, the mere existence of technology does not guarantee its adoption or effective use. *See* Ex. 4 at ¶¶ 75-76 & nn.125-132 (Tucker Rep.) (discussing scholarship, including Professor Aral's, finding that infrastructure, organizational capabilities, and digital business models, among other inputs, are crucial to effective adoption of technology); *see also* Ex. 7 at ¶ 134 & n.360 (Subrahmanian Rep.) ("Meta provided not only integrity systems that were well suited to Instagram and could be integrated with its service, but also the engineering knowledge and support to integrate each of the components he identifies into a functioning integrity system. Particularly at the time of the acquisition, it was difficult to find engineers with the knowledge and expertise to address the spam and other integrity issues at the scale that Instagram was facing, whereas Meta was one of the few pioneers in this space with extensive teams with experience in this area." (footnote omitted)); PX6052 at 41:15-19 (Bejar Dep. Tr.) (agreeing that, "at the time Facebook bought Instagram, [he] believed Facebook had best-in-class integrity systems"); *id.* at 32:25-33:8 (similar); PX6055 at 26:9-17 (Shortway Dep. Tr.) ("it takes years and years of expertise and hard engineering work to be able to develop something even remotely successful at – at actually blocking [spam and objectionable] content and classifying [spam and objectionable] content, a lot of machine learning that no one in [Instagram's pre-acquisition] team had experience in and Meta had a team for – Facebook at the time had a team that was – that was very skilled in this and had years of experience behind them.").

Evidence also establishes Meta's significant investment in Instagram's integrity since the acquisition. *See*, *e.g.*, Ex. 7 at ¶ 131 & n.353 (Subrahmanian Rep.) (Mr. Systrom stating in July 2013: "At the time [of the acquisition's closing], we had

maybe six engineers, two of whom were available to work on this [spam] problem part time. So we asked Facebook for help. They put a team of 20-plus on it." (quoting Markowitz, *How We Keep Instagram 'Instagram-y'* at 3 (MetaFTC-DX-918))); Ex. 153 at 167:2-7, 303:8-20 (Krieger Dep. Tr.) (testifying that in September 2015, Instagram's team had grown to "around 100" engineers – most of which either transferred from the Facebook team or came through Meta's bootcamp process); PX6078 at 21:12-13, 22:7-11, 27:18-24 (Mosseri Dep. Tr.) ("Q. And in 2018, when you transitioned to the Instagram organization, was Instagram's integrity CI team around 40 people? Does that sound about right? A. When I – in 2018? Q. Yes. A. Yes, that's about right."); PX10940 at -013 (FTC-META-006840603) (stating that "integrity became the number one area of growth [at Meta] in 2017 and 2018," and Meta "hired across all functions – engineering and product, operations, policy" in those years because integrity "is a team effort"); *id.* at -007 (stating that, in 2018, Meta "more than doubled the number of people who [worked] on safety and security [as compared to 2017] . . . to more than 30,000"). And today, Meta proactively removes content that violates Instagram's Community Guidelines at a very high rate and before such content is ever reported by Instagram users. *See*, *e.g.*, Ex. 7 at ¶¶ 27, 58, 65, 91 & n.220 (Subrahmanian Rep.) (describing Meta's proactive rate – that is, "[h]ow much violating content did Meta find before users reported it?" – and Meta's Community Standards Enforcement Report for the second quarter of 2023, which reported that Meta proactively removed from Instagram 98.3% of the terrorism-related posts, 97.2% of hate speech, 99.2% of violating content related to drug or firearm transactions, 90.5% of violating content related to bullying and harassment, and 99.1% of violent and graphic content on Instagram), ¶ 96 (describing

Ernst & Young audit of Meta's integrity systems, which found that metrics reported by Meta in a previous Community Standards Enforcement Report were "fairly stated, in all material respects").

1. Integrity expert Professor McCoy has opined that Meta's acquisition of Instagram was not necessary for Meta's claimed integrity-related benefits to accrue to Instagram.

2184. Professor McCoy is an expert proffered by the FTC in this action to evaluate "Meta's claimed integrity-related benefits related to acquiring Instagram and WhatsApp, and to assess (1) whether Meta's acquisitions of Instagram or WhatsApp were necessary to achieve the claimed benefits, and (2) whether the claimed benefits were actually achieved." PX9002, McCoy Report at ¶ 13; *see also* PX9013, McCoy Rebuttal Report at ¶ 4.

Meta Response: Undisputed that Professor McCoy offered the quoted opinion.

2185. Professor McCoy's overall conclusion was that "Meta's acquisition of Instagram was not necessary for Instagram to successfully attack integrity issues at scale, or to achieve any of the other specific integrity benefits Meta claims." PX9002, McCoy Report at ¶ 17(a); *see also* PX9013, McCoy Rebuttal Report at ¶ 7 (reaffirming all of the conclusions set forth in his original report).

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted opinion. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the cited paragraphs in Professor McCoy's reports do not cite any evidence to support the quoted opinion.

a. Professor McCoy found that the tools and techniques Meta used to manage spam, fake accounts, and objectionable content on Instagram were common in the

industry and thus available to Instagram outside the acquisition. PX9002, McCoy Report at ¶¶ 134, 138, 165(a), 216(a).

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the paraphrased opinion in this subparagraph, and that some of the types of tools and techniques that Meta used to manage spam, fake accounts, and other policy-violating content on Instagram were used by others in the industry. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2185. Further disputed because, in several instances, Professor McCoy points to tools that were not deployed or available until years after the 2012 acquisition of Instagram by Meta. *See* PX9002 at ¶ 138 & n.220 (McCoy Rep.) (Pinterest deployed Guardian in 2018); Ex. 7 at ¶¶ 136-137 (Subrahmanian Rep.) ("AWS did not launch Amazon Rekognition until late 2016 – more than four years *after* the Instagram acquisition."). And Professor McCoy admitted that he has never analyzed the effectiveness of Meta's integrity tools, including Sigma, Blackhole, Karma, Tally, SRT, Sentry, or Delta. *See* Ex. 313 at 54:5-8, 54:20-55:5 (McCoy Dep. Tr.); *id.* at 52:15-53:7 (Professor McCoy admitting that he has never worked for Meta, Instagram, or WhatsApp and has never been hired to consult Meta on any of its integrity systems). Evidence shows that Meta's integrity tools and techniques were exceptional and industry leading at the time of the acquisition. *See*, *e.g.*, Ex. 7 at ¶¶ 135, 155 (Subrahmanian Rep.). Indeed, Meta was able to provide Instagram with access to tools that Instagram was unaware of (such as PhotoDNA) before the acquisition, as well as tools for reporting and managing potential policy violations that were tailored to Instagram's particular

infrastructure and features. *See* Ex. 153 at 147:17-148:2 (Krieger Dep. Tr.) (testifying that "[t]he biggest technology – or one of the large technolog[ies] adopted postacquisition was PhotoDNA, which I hadn't even heard of before the acquisition" and that Instagram's "road map did not include [PhotoDNA] prior to the acquisition"); *id.* at 142:13-143:4 (testifying that, although Instagram "likely . . . would have explored" authentication methods to address fake accounts had it not been acquired by Meta, "none of the [Instagram] team had any expertise in site integrity or spam"); Ex. 7 at ¶ 143 (Subrahmanian Rep.) (citing evidence establishing that "Meta engineers also designed tools so that Instagram users had Instagram-specific contact forms for reporting objectionable content"), ¶ 148 (describing how Meta's efforts made Instagram's content moderation "more efficient"), ¶ 149 (discussing content moderation tools Meta engineers built to support new features, including video, on Instagram).

b. In addition, Instagram was not facing "any extraordinary integrity-related challenges prior to the acquisition . . . having deployed increasingly sophisticated tools and techniques in response to integrity issues." PX9002, McCoy Report at ¶¶ 17(a), 165(a), 216(a). Moreover, Instagram had "ample funding and engineering talent available to follow the path of the many other online platforms that have successfully grown their integrity programs." PX9002, McCoy Report at ¶ 17(a).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2185. Further disputed because Professor McCoy admitted that he did not have an opinion as to how much it would have

cost Instagram in 2012 to build spam tools. Ex. 313 at 116:6-9 (McCoy Dep. Tr.); *see also* PX9002 (McCoy Rep.) (no opinion regarding cost for Instagram to build or improve spam tools); PX9013 (McCoy Rebuttal Rep.) (same). Nor did he offer an opinion as to what it would cost Instagram to use spam tools provided by third-party providers. Ex. 313 at 116:20-117:1 (McCoy Dep. Tr.); *see also* PX9002 (McCoy Rep.) (no opinion regarding cost of third-party tools); PX9013 (McCoy Rebuttal Rep.) (same). Professor McCoy also failed to account for how much funding Instagram would require to remain on Amazon Web Services, which provided Instagram's network services and was costing Instagram approximately $2.5 million a month in late 2012. *See* Ex. 153 at 231:2-232:23 (Krieger Dep. Tr.); Ex. 313 at 134:11-19, 135:17-22 (McCoy Dep. Tr.). Likewise, Professor McCoy did not conduct any analysis of whether additional venture capital or other sources of money would have been available to Instagram in 2012. *See* Ex. 313 at 137:3-11 (McCoy Dep. Tr.); *id.* at 143:2-9 ("Q. But you didn't do any analysis in this case of whether Instagram had ready sources of venture capital available to it as of August 2012, did you? . . . A. That was not part of the assignment that I was given by the FTC."). Professor McCoy was also unable to identify "the *many* other online platforms that have successfully grown their integrity programs," *see* PX9002 at ¶ 17(a) (McCoy Rep.) (emphasis added), and conceded that only [redacted] was able to grow its user base to the size Instagram did while also responsibly managing integrity. *See* Ex. 313 at 113:8-114:5 (McCoy Dep. Tr.).

2186. Professor McCoy also could not "verify that Meta delivered improved integrity to Instagram because Meta does not have key data that would allow evaluation of the effects of its tools and systems on Instagram's integrity performance." PX9002, McCoy Report at ¶ 17(b); *see* PX9013, McCoy Rebuttal Report at ¶¶ 67-68.

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted opinion. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the FTC cites no evidence that the "key data" Professor McCoy describes is required, or even useful, in evaluating the efficacy of an integrity program. *See* Ex. 7 at ¶ 29 (Subrahmanian Rep.) ("metrics usually do not allow for meaningful cross-platform comparisons, because there is wide variance in what metrics are used, how those metrics are calculated, and what data are reported" (footnote omitted)).

a. More specifically, Meta did not provide performance data for spam and fake accounts from which one could assess whether Meta's spam approaches delivered improvements to Instagram. PX9002, McCoy Report, at ¶¶ 159-161, 209, 211; PX9013, McCoy Rebuttal Report at ¶¶ 67-68.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2186.

b. The data Meta provided regarding objectionable content is limited and does not cover the period immediately or shortly after the acquisition closed. PX9002, McCoy Report at ¶ 254; PX9013, McCoy Rebuttal Report at ¶¶ 67-68.

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183 and 2186.

2187. Professor McCoy also found that "Meta failed to effectively integrate Instagram into its integrity systems" and that some of Meta's policy choices, including its cross-check program, have impaired Instagram's integrity performance. PX9002, McCoy Report at ¶¶ 17(b), 62, 81.

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted opinion, although "into its integrity systems" is an alteration to the quoted opinion. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the FTC's characterization of the cross-check program is incomplete and misleading. Indeed, the cited paragraphs in Professor McCoy's report do not cite any evidence to support the assertion that Meta's policy choices, including the cross-check program, have impaired Instagram's integrity performance, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). And, as Meta's integrity expert, Professor Subrahmanian, explained, the cross-check program "strik[es] a balance between free expression and removing offending content," and Professor McCoy "is merely expressing a policy preference for a different balance between free expression and removing [content]" than the one Meta has struck. Ex. 7 at ¶¶ 183-184 (Subrahmanian Rep.). The evidence also establishes that Meta's Oversight Board – which received a request from Meta in 2021 to review the cross-check program and make recommendations on how it could be improved – recognized in an Advisory Opinion that

"Meta's use of cross-check responds to broader challenges in moderating immense volumes of content." PX0333 at ¶ 72 (*Policy Advisory Opinion on Meta's Cross-Check Program*); *see id.* at ¶ 71 (observing that, at the time the Oversight Board was preparing its Advisory Opinion, Meta "performed about 100 million enforcement attempts on content every day"). The Oversight Board reported in October 2023 that Meta's response to its Advisory Opinion has "led to substantial and positive changes, benefiting the people who use Facebook and Instagram." Ex. 524 at 1 (Oversight Board, *Q2 2023 Transparency Report: Board's Recommendations Lead to Key Changes in Meta's Cross-Check Program*, https://perma.cc/Y2UJ-PZ8J?type=standard).

2. Meta's integrity expert concedes that Meta's assertions about the benefits it brought to Instagram's integrity systems have significant limitations.

2188. Professor V.S. Subrahmanian, Meta's integrity expert, makes several concessions regarding the integrity benefits that Meta purportedly brought to Instagram as a result of the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed that the statements in this paragraph and its subparagraphs show that Professor Subrahmanian made any "concessions" regarding the integrity-related procompetitive benefits to Instagram because of the acquisition, for the reasons stated in Meta's responses to the subparagraphs below.

a. Professor Subrahmanian concedes that Meta's proffered evidence for integrity benefits purportedly brought to Instagram does not reflect tools, systems, or methods unique to Meta.

Meta Response: Disputed for the reasons stated above in Meta's response to paragraph 2183 and in Meta's responses to the subparagraphs below.

i. Professor Subrahmanian agrees that Instagram could have "hired qualified engineers to address its integrity issues absent acquisition by Meta in 2012." PX6176, Subrahmanian (Meta) Dep. Tr., at 271:7-15.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183, and because the quoted testimony is incomplete and misleading. Professor Subrahmanian's complete answer was "I am not saying that Instagram could not have hired additional engineers assuming they had been – they had survived at the time in question that you're talking about and assuming that they had the funds to do that. And in any case, I believe, as stated in my report, that it is extremely unlikely that Instagram could have done so as efficiently and effectively and at the same speed as it did after Meta acquired it." PX6176 at 271:11-20 (Subrahmanian Dep. Tr.).

ii. Professor Subrahmanian concedes that Instagram "could have hired engineers with expertise in computer vision" had it remained independent. *Id.* at 136:5-13.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183, and because the quoted testimony is incomplete and misleading. Professor Subrahmanian

stated that it is was "unclear" whether any engineer hired by Instagram in a but-for world without the acquisition "would know how to deal with the scaling issues that Instagram was facing at that time." PX6176 at 136:9-13 (Subrahmanian Dep. Tr.).

iii. Professor Subrahmanian agrees that block listing tools are not unique to Meta. *See id.* at 155:10-13.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian did not contend that block listing tools were unique to Meta. Disputed for the reasons stated above in Meta's response to paragraph 2183.

iv. Professor Subrahmanian agrees that rate limiter tools are not unique to Meta and that Instagram was using some form of rate limiter prior to the acquisition. *See id.* at 155:17-156:3.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian testified that Instagram was "using some form of rate limit" prior to its acquisition by Meta. PX6176 at 156:1-3 (Subrahmanian Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2183.

v. Professor Subrahmanian concedes that he did not investigate what other companies used rules engines in 2012 or whether Instagram could have developed a rules engine absent its acquisition by Meta. *See id.* at 169:9-22.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian did not investigate how many other companies in 2012 used rules engines. Disputed that Professor Subrahmanian "concede[d] that he did not investigate . . . whether Instagram could have developed a rules engine absent its acquisition by Meta." Indeed, Professor Subrahmanian testified that it "would have been challenging" for Instagram to build a rule engine in a but-for world without the acquisition. PX6176 at 169:9-16 (Subrahmanian Dep. Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 2183.

b. Professor Subrahmanian concedes that Meta lacks meaningful metrics and quantitative evidence to support its integrity-related claims.

Meta Response: Disputed for the reasons stated above in Meta's response to paragraph 2183 and in Meta's responses to the subparagraphs below.

i. Professor Subrahmanian concedes that he did not review all of Meta's available Community Standards Enforcement Reports. *See id.* at 97:10-98:3.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian did not review all of Meta's available Community Enforcement Reports. Disputed for the reasons stated above in Meta's response to paragraph 2183, and because the paraphrased testimony is incomplete and misleading. As Professor Subrahmanian further testified, "metrics themselves are affected by many factors, such as the behaviors of external actors, potentially world events and more, introduction of new

features into the platform as a whole and more, the behavior of adverse actors. And so it was – to look at – to look at the trend makes more sense than to look at what happened in this month's – this quarter's report versus the next quarter." PX6176 at 100:2-14 (Subrahmanian Dep. Tr.).

ii. Professor Subrahmanian did not "ask anybody at Meta whether they had other metrics that weren't disclosed in Meta's publicly available CSER [Community Standards Enforcement Report] regarding the number of users exposed to violating content." *See id.* at 252:3-17.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian testified that the metrics in Meta's publicly available CSER reports, which he testified contain "very detailed numbers," "were enough for [him] to form the opinions expressed in [his] report." PX6176 at 252:14-17 (Subrahmanian Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2183.

iii. Professor Subrahmanian did not conduct any assessments comparing the portions of Instagram users who had negative experiences with the product before and after the acquisition. *See id.* at 260:12-21 ("Q. For the third time, you have conducted no assessment of the portion of Instagram users that had a negative experience on Instagram prior to the acquisition compared to the portion of users who had a negative experience on Instagram following the acquisition; isn't that true? A. That is correct . . . .").

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian did not conduct the assessment described in this subparagraph. Disputed for the reasons stated above in Meta's response to paragraph 2183, and because the characterization of Professor Subrahmanian's testimony is incomplete and misleading. The testimony that the FTC has replaced with an ellipsis was "but it's not clear that such an assessment could even be done because I don't know if the data exists to do such an assessment on the pre-acquisition Instagram." PX6176 at 260:18-21 (Subrahmanian Dep. Tr.); *see also* Ex. 153 at 73:20-25 (Krieger Dep. Tr.) (Mr. Krieger testifying that, in August 2012, Instagram "had basically no data science capabilities"); *id.* at 136:10-19 (testifying that pre-acquisition Instagram "didn't have robust measurement systems" for spam); *id.* at 175:5-16 (similar for other types of policy-violating content).

iv. Professor Subrahmanian did not disclose in his report "any analysis of user satisfaction surveys relevant to Instagram's enjoyability" either prior to or following the acquisition. *See id.* at 45:8-18.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian did not disclose the quoted opinion in his report. Disputed for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statement in this subparagraph suggests that Professor Subrahmanian did not evaluate evidence related to user experiences on Instagram because, among other things, he considered deposition testimony regarding how spam was impacting the user

experience on pre-acquisition Instagram. *See* Ex. 7 at ¶ 112 & nn.272-274 (Subrahmanian Rep.) (quoting Mr. Shortway's testimony that, "when [he] started, spam was so bad" it had become "incredibly difficult" for "users to operate" Instagram (quoting Ex. 156 at 9:4-7, 12:1-9, 22:18-22 (Shortway Dep. Tr.), and Mr. Toffey's testimony that he recalled "seeing spam content overrun [Instagram's] Explore tab" (quoting Ex. 154 at 117:13-19 (Toffey Dep. Tr.)).

v. Professor Subrahmanian assumed without certainty or investigation that reported metrics in Meta's Community Standards Enforcement Reports covering the prevalence of inappropriate interactions with children include interactions that take place on Instagram Direct Messaging. *See id.* at 261:10-20 ("Q. You have conducted no assessment of the prevalence of inappropriate interaction with children on Instagram Direct Messenger at any point in time; isn't that true? A. I have proceeded under the assumption that the numbers reported in the CSERS for issues related to child nudity, for example, or bullying, the numbers reported for Instagram include all of Instagram, but I cannot be 100 percent sure that the IG direct message information is in there. I did not look for that.").

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183.

vi. Professor Subrahmanian did not assess or request "longitudinal data regarding the prevalence of views of content that violated Meta's

standards against child nudity and sexual exploitation." *See id.* at 241:9-242:8.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian testified that he did not request longitudinal data regarding the prevalence of views of content that violated Meta's standards against child nudity and sexual exploitation. Disputed that Professor Subrahmanian did not assess longitudinal data regarding Meta's efforts to detect and remove child nudity and sexual exploitation. His report contains that assessment. *See* Ex. 7 at App'x D (Subrahmanian Rep.) (Community Standards Reports from December 2020, which reports content actioned and proactive rate data for ten consecutive quarters on Facebook and seven consecutive quarters on Instagram for the "Child Nudity and Sexual Exploitation" category), ¶ 81 & n.196 ("Data show that Meta's integrity tools proactively remove CSAM at a very high rate. In 2021, for example, Meta reported that its automated systems proactively removed more than 98.9% of the [Child Nudity and Sexual Exploitation content] removed from Facebook, and more than 98.1% of [such content] removed on Instagram, before anyone reported it."), ¶ 91 & n.219 (analyzing data regarding 2023 Community Standards Reports showing that Meta has "in many cases improved upon" its integrity efforts), ¶ 92 & n.221 ("Meta has also improved and expanded the metrics reported in CSER over time. As part of its second quarter 2021 round-up, Meta describes new areas of reporting, including child physical abuse,

sexualization of children, and inappropriate interactions with children.”). Further disputed for the reasons stated above in Meta’s response to paragraph 2183.

c. Professor Subrahmanian concedes that Meta is not the only so-called “industry leader” that has been able to tackle integrity issues at scale.

Meta Response: Disputed for the reasons stated above in Meta’s response to paragraph 2183 and Meta’s responses to the subparagraphs below.

i. Professor Subrahmanian stated that he “would certainly say that Google and Microsoft are two of the big ones [industry leaders on integrity issues].” *See id.* at 54:9-17.

Meta Response: Undisputed. However, the quoted transcript states, “say certainly,” and not “certainly say.”

ii. Professor Subrahmanian conceded that he did not conduct an analysis of what companies other than Meta might be industry leaders on integrity issues. *See id.* at 54:12-17.

Meta Response: Disputed. Disputed for the reasons stated above in Meta’s response to paragraph 2183, and because the statement is incomplete and misleading. Professor Subrahmanian testified that he “did not do an analysis of who all are in the industry” but that he “would say certainly that Google and Microsoft are two of the big [industry leaders on integrity issues].” PX6176 at 54:12-17 (Subrahmanian Dep. Tr.).

iii. Professor Subrahmanian conceded that he did not conduct an analysis of "whether Snap is an industry leader compared to everybody else in the industry. *See id.* at 55:1-10.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183.

iv. Professor Subrahmanian conceded that Snap currently operates integrity systems at scale. *See id.* at 55:11-15.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183.

v. Professor Subrahmanian conceded that Pinterest currently operates integrity systems at scale. *See id.* at 55:16-18.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the paraphrased testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183.

vi. Professor Subrahmanian conceded that TikTok, Apple, Snap, Pinterest, Microsoft, Google, and others "engage in various forms of best practices" with regards to integrity. *See id.* at 57:4-22.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183.

2189. Professor Subrahmanian's methodology for determining whether Meta delivered integrity benefits to Instagram also had several shortcomings.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and for the reasons stated in Meta's responses to the subparagraphs below.

a. Professor Subrahmanian did not address Professor McCoy's finding that Meta failed to tailor its integrity systems to suit Instagram's needs following the acquisition. *See* PX9013, McCoy Rebuttal Report at ¶ 14.

Meta Response: Disputed. Meta's integrity expert, Professor Subrahmanian, described numerous instances in which Meta helped Instagram tailor its integrity systems following the acquisition. *See* Ex. 7 at ¶ 62 (Subrahmanian Rep.) (describing Meta's launch in 2016 of an Instagram tool that allowed reporting of self-harm concerns), ¶ 127 (describing Meta efforts to help Instagram build a "phishing detection system"), ¶ 128 (concluding that because of the "successful integration of Meta's spam fighting tools into Instagram's systems," Instagram was able to deprecate many of its "less effective legacy systems"), ¶ 128 (describing Meta improvements to Instagram's ability to update spam policy), ¶ 130 (describing Meta's efforts to deploy PhotoDNA on Instagram to combat spam and objectionable images), ¶ 149 (Meta "buil[t] out content moderation for Instagram video" (quoting PX6033 at 16:6-7 (Velazquez Dep. Tr.))), ¶ 147 (Meta helped Instagram set up granular reporting options for reporting potential policy

violations). Further disputed for the reasons stated above in Meta's response to paragraph 2183.

b. Professor Subrahmanian did not respond to Professor McCoy's findings that Meta failed to substantiate its integrity claims with quantitative evidence regarding spam, fake accounts, objectionable content, and child sexual abuse material. *See id.* at ¶¶ 15-16, 21-22.

Meta Response: Disputed. Professor Subrahmanian's report includes extensive discussion of the quantitative data he reviewed in assessing Meta and Instagram's integrity claims. *See*, *e.g.*, Ex. 7 at ¶¶ 31, 43, 170 & figs. 1-2 (Subrahmanian Rep.) (discussing quantitative data regarding Meta's investments in and resources allocated to integrity and security), ¶ 53 (discussing quantitative data regarding proactive rate and prevalence of hate speech), ¶ 58 (discussing quantitative data regarding prevalence of bullying and harassment), ¶ 65 (discussing quantitative data regarding content actioned and proactive rate of terrorism-related content), ¶¶ 81-82, 206 & fig. 7 (discussing quantitative data regarding proactive rate of child nudity and sexual exploitation and NCMEC reports of apparent child sexual abuse material), ¶ 91 & n.220 (discussing quantitative data regarding proactive rate for multiple categories of policy-violating content); *id.* at App'x D (similar). Further disputed for the reasons stated above in Meta's response to paragraph 2183.

c. Professor Subrahmanian did not respond to Professor McCoy's findings that Meta's integrity tools, techniques, and expertise are not unique to Meta, and that Instagram likely could have acquired similarly functioning tools and integrity

experts with similar expertise without the acquisition by Meta. *See id.*at ¶¶ 17-19, 22, 25.

Meta Response: Disputed. Professor Subrahmanian directly refutes Professor McCoy's claims that Meta did not provide Instagram with unique tools and that Instagram could have acquired similar tools and experts absent the acquisition by Meta. *See*, *e.g.*, Ex. 7 at ¶ 124 & n.323 (Subrahmanian Rep.) ("Q. I think you mentioned that, at the time Facebook bought Instagram, you believed Facebook had best-in-class integrity systems. Did I remember that right? A. Correct." (quoting PX6052 at 41:15-19 (Bejar Dep. Tr.))), ¶ 135 ("One of the things that set Meta's spam-fighting tools apart was the scale at which they were able to operate. . . . [A]s Arturo Bejar – one of the engineers who 'built all of [Meta's] systems that detected and prevented spam' – explained, Sigma is 'extraordinary.' Around the time of the acquisition, Sigma could process '[redacted]'" (quoting PX6052 at 28:7-8, 35:4-8, 181:7-10 (Bejar Dep. Tr.))), ¶ 134 ("Prof. McCoy ignores the fact that Meta provided not only integrity systems that were well suited to Instagram and could be integrated with its service, but also the engineering knowledge and support to integrate each of the components he identifies into a functioning integrity system."), ¶ 135 ("I am not aware of any evidence that the other tools that Prof. McCoy claims are similar to Sigma were being successfully used at the same scale during the relevant period."), ¶ 137 ("Prof. McCoy's reliance on [redacted] use of AWS's Amazon Rekognition and [redacted] likewise is inapt. AWS did not launch Amazon Rekognition until late 2016 – more than four years

after the Instagram acquisition. . . . Google acquired Impermium in January 2014 and shut down all third-party services, demonstrating the risks associated with relying on third-party spam detection tools." (emphasis in original)). Further disputed for the reasons stated above in Meta's response to paragraph 2183.

d. Professor Subrahmanian's report largely described integrity tools, techniques, and initiative that post-date Meta's acquisition of Instagram by five or more years. *See* PX9020, Subrahmanian Report at ¶¶ 33-34, 41, 46, 50-52, 55, 57, 59-60, 64, 66-67, 70, 73-78, 82, 85-87, 89, 91-92.

Meta Response: Disputed. Professor Subrahmanian identified numerous integrity tools developed by Meta that Instagram deployed within the first four years of the acquisition. *See*, *e.g.*, Ex. 7 at ¶¶ 38, 62, 74, 125-127, 130, 145, 149-150, 152, 154-155 (Subrahmanian Rep.) (discussing Sentry (2012), Sigma (2012), Blackhole (2012), Karma (2012), Orb (2012), migration of help center to Meta's system (2012), deployment of PhotoDNA to combat spam (2012), CAPTCHA (2012), content moderation for video (2013), deployment of PhotoDNA to combat child sexual abuse material (2013), migration from CrowdFlower to Meta's content moderation teams (2013), Delta (2013-2014), streamlined NCMEC reporting (2014), improvement to PhotoDNA functionality on Instagram (2014), self-harm reporting tool (2016)). Further disputed for the reasons stated above in Meta's response to paragraph 2183.

e. Professor Subrahmanian failed to address the significant integrity shortcomings Instagram suffered after the acquisition, which included among other things, the negative impact Instagram has had on teenage girls and the unchecked

proliferation of child sexual abuse material on Instagram. *See* PX9013, McCoy Rebuttal Report at ¶¶ 15, 50-60.

Meta Response: Disputed. Professor Subrahmanian directly addressed and rebutted Professor McCoy's claims regarding teens and teen well-being. *See* Ex. 7 at ¶¶ 188-192 (Subrahmanian Rep.) (discussing Instagram efforts to address teen well-being and youth safety). Professor Subrahmanian also directly addressed and rebutted Professor McCoy's claims regarding child sexual abuse material. *Id.* at ¶¶ 200-204. And Professor Subrahmanian directly addressed and rebutted other claims by Professor McCoy regarding "integrity shortcomings" on Instagram. *See id.* at § IV.C. To the extent Professor McCoy discusses additional evidence or materials for the first time in his rebuttal report regarding purported "integrity shortcomings," Professor Subrahmanian has not had the opportunity to rebut those claims. Further disputed for the reasons stated above in Meta's response to paragraph 2183.

3. Meta's acquisition of Instagram was not necessary for Instagram to successfully manage integrity issues at scale.

a) Instagram was not facing critical integrity issues prior to the acquisition by Meta.

2190. All online platforms that allow users to create and share content encounter objectionable content or behavior on their platforms. *See* PX9002, McCoy Report at ¶ 22; PX9020, Subrahmanian Report at ¶ 18.

Meta Response: Undisputed.

a. Instagram co-founder Kevin Systrom testified that:

> [a]ny company with a large online social presence where there's [user generated content] deals with [problematic content]. So, for instance, YouTube deals with this as well.

> When I was at Google way back in the day, they were dealing with this on, you know, Orchid [sic], which was one of their social networks. It's a very standard thing companies deal with, and while it's not fun or easy to deal with, there are pretty standard playbooks people go to.

PX6027, Systrom (Meta/Instagram) IH Tr., at 15:6-10, 279:20-280:9.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that the statement in this subparagraph creates a genuine dispute of material fact regarding pre-acquisition Instagram's ability to address the increasing amounts of spam and other policy-violating content that Instagram encountered as its user base grew, including for the reasons stated above in Meta's response to paragraph 2183.

b. Mr. Systrom also identified Twitter and Pinterest as two other online companies that deal with problematic content. *Id.* at 279:24-25.

Meta Response: Undisputed.

2191. Objectionable content and behavior online can take a variety of forms including spam, fake accounts, child sexual exploitation, pornography, nudity, misinformation, hate speech, bullying and harassment, self-harm, terrorism, and violent extremism. *See* PX9002, McCoy Report at ¶ 20; PX9020, Subrahmanian Report at ¶ 18; *see also* PX0347, *Community Standards Enforcement Report*, Meta Transparency Ctr., https://transparency.meta.com/reports/community-standards-enforcement/ (last visited May 17, 2024) (listing spam, fake accounts, nudity, hate speech, bullying and harassment, child abuse and sexual exploitation, and others among the types of content prohibited on Facebook and Instagram).

Meta Response: Undisputed.

2192. Online platforms that allow users to create and share content typically encounter increasing levels of objectionable content and behavior as their user bases grow. *See* PX9002, McCoy Report at ¶ 22; PX9020, Subrahmanian Report at ¶ 22.

Meta Response: Undisputed.

2193. Objectionable content and behavior online can take a variety of forms including spam, fake accounts, child sexual exploitation, pornography, nudity, misinformation, hate speech, bullying and harassment, self-harm, terrorism, and violent extremism. *See* PX9002, McCoy Report at ¶ 20; PX9020, Subrahmanian Report at ¶ 18; *see also* PX0347, *Community Standards Enforcement Report*, Meta Transparency Ctr., https://transparency.meta.com/reports/community-standards-enforcement/ (last visited May 17, 2024) (listing spam, fake accounts, nudity, hate speech, bullying and harassment, child abuse and sexual exploitation, and others among the types of content prohibited on Facebook and Instagram).

Meta Response: Undisputed. This paragraph is identical to paragraph 2191, which is also undisputed.

2194. Online platforms that allow users to create and share content typically encounter increasing levels of objectionable content and behavior as their user bases grow. *See* PX9002, McCoy Report at ¶ 22; PX9020, Subrahmanian Report at ¶ 22.

Meta Response: Undisputed. This paragraph is identical to paragraph 2192, which is also undisputed. To the extent this paragraph incorporates subparagraphs 2194(a)-(e), below, Meta incorporates its responses to those subparagraphs here.

a. Instagram officially launched on October 6, 2010, and was initially only available on Apple iOS. *See* PX6027, Systrom (Meta/Instagram) IH Tr., at 15:6-8, 133:5-

22; PX6133; Systrom (Meta/Instagram) Dep. Tr., at 12:11-13; PX6146, Krieger (Meta/Instagram) Dep. Tr., at 43:18-19.

Meta Response: Undisputed.

b. In the first year after its launch, Instagram experienced "low-grade" or "lightweight" spam that was "not something that was too problematic for the platform." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 130:22-131:6.

Meta Response: Undisputed.

c. Instagram released the Android version of its application in April 2012. *See id.* at 132:18-133:2; PX6027, Systrom (Meta/Instagram) IH Tr., at 132:16-22. "One of the consequences of [the release] was that Instagram was now being used on a much more diverse set of devices than it had previously been supported on." PX6037, Toffey (Meta) Dep. Tr., at 28:21-29:2.

Meta Response: Undisputed.

d. The release of the Android app in April 2012 also caused "a lot of [user] growth and a sort of commensurate rise in spam in the middle of that year." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 132:18-133:2 ("May [2012] seems like a -- like a reasonable time where we started seeing an uptick [in spam]. It kind of grew along with user growth. And we launched our Android app in April of 2012 and overall were seeing a lot of growth and a sort of commensurate rise in spam in the middle of that year"); *see also* PX6015, Krieger (Meta/Instagram) IH Tr., at 233:10-16 (testifying that spam "hadn't been an issue before, like, before April [2012], we had been, I guess, fortunate in that it hadn't really been an issue. So given the rest of our priorities, it hadn't risen to our -- to our sort of priority list.");

PX6015, Krieger (Meta/Instagram) IH Tr., at 232:4-8 (stating that "May of 2012 is when spam started appearing more on Instagram").

Meta Response: Undisputed that the witness provided the quoted testimony.

e. Instagram was also "having to deal with [problematic content] as [it] grew." PX6015, Krieger (Meta/Instagram) IH Tr., at 235:15-21 (PX6015); *see also* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 138:6-11 (testifying that objectionable content was "something that started to come up even at, you know, a few million users.").

Meta Response: Undisputed that the witness provided the quoted testimony.

2195. The "uptick" in spam on Instagram in the months before the acquisition closed did not appear to be critical or a threat to Instagram's continued success. *See* PX9013, McCoy Rebuttal Report at ¶ 203.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. The evidence cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and is contradicted by other evidence.

a. Mr. Krieger testified that Instagram responded to the "uptick" in spam following its April 2012 Android release by "try[ing] to put in some mitigations in place." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 133:22-25. He further testified: "Q. I believe you mentioned spam becoming an issue as the user base grew; is that right? A. That's right. Q. Did you ever see evidence that Instagram's growth

was slowing down due to spam? A. No, not especially." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 135:12-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183.

b. Instagram was not alarmed by the increase in objectionable content on the platform. *See* PX6027, Systrom (Meta/Instagram) IH Tr., at 276:14-22 (testifying that issues such as nudity and unsanctioned photo copying and distribution were "all kind of normal things that you would think a photo-sharing service would deal with"); PX6027, Systrom (Meta/Instagram) IH Tr., at 279:20-280:9 (testifying that problematic content is "a very standard thing companies deal with, and while it's not fun or easy to deal with, there are pretty standard playbooks people go to").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2183.

c. Mr. Systrom testified that objectionable content "didn't become critical at any point" prior to the Meta acquisition, and it grew only as the size of the app increased: "of course, it became larger because we had more people on the platform. But it was never a -- an existential issue for the platform." PX6027, Systrom (Meta/Instagram) IH Tr., at 277:4-10.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183, and because Mr. Krieger testified that "objectionable content was

probably a more pressing" concern for pre-acquisition Instagram than other issues the platform faced. PX6146 at 147:10-23 (Krieger Dep. Tr.). Further disputed to the extent the statement in this subparagraph suggests that the quoted testimony pertained to all the types of objectionable content identified above in paragraph 2191. The context surrounding the quoted testimony shows that it is limited to "nudity" and "issues around people copying each other's photos and redistributing [them] as their own." *See* PX6027 at 276:14-277:10 (Systrom IH Tr.).

d. Indeed, according to Mr. Systrom, there were "no integrity issues crippling Instagram's growth before the acquisition." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 166:4-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2183.

b) Instagram was using widely accepted tools to address its integrity issues prior to its acquisition by Meta.

2196. Mr. Systrom testified that prior to its acquisition by Meta, Mr. Krieger had "developed a bunch of the more unique techniques we used to fight bots and spam, including one I think that still exists [in 2020] that works fairly well that -- that [Mike Krieger] developed." PX6027, Systrom (Meta/Instagram) IH Tr., at 278:12-19.

Meta Response: Disputed in part. Undisputed that Mr. Systrom provided the quoted testimony. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statement suggests that "the more unique techniques" developed by Mr. Krieger before the Instagram acquisition were

sophisticated or comparable to the techniques Meta used in 2012 to fight spam. That suggestion is contradicted by the evidence, and therefore fails to create a genuine dispute of material fact. *Cf.* Meta SMF ¶ 683 (quoting Mr. Krieger's testimony that Instagram had "rudimentary defenses" to combat spam pre-acquisition, Ex. 302 at 232:4-10 (Krieger IH Tr.)); *id.* at ¶ 749 ("Q. . . . How did the actions that Instagram undertook on its own compare to the antispam program that Facebook had? A. They were radically more sophisticated on the Facebook side. So their systems used better pattern recognition, machine learning, clustering of behaviors . . . , just a whole host of improved technology." (quoting Ex. 302 at 233:17-234:2 (Krieger IH Tr.))).

2197. Instagram had community guidelines that defined what constitutes acceptable and unacceptable behavior on the platform. S*ee, e.g.*, PX3379, Instagram email: J. Riedel to K. Systrom re: "Community Guidelines," (Oct. 15, 2010), FB_FTC_CID_08712200, at -200; PX3380, Instagram email chain: Instagram Terms to [redacted] re: "Notice of Photo Removal - Community Guidelines," (Mar. 4, 2011), FB_FTC_CID_11823563, at -563 (describing an Instagram photo removed for violating the community guidelines).

<u>Meta Response</u>: Undisputed.

2198. Instagram was using the following tools and techniques to fight spam and objectionable content prior to the acquisition:

<u>Meta Response</u>: Disputed in part for the reasons stated above in Meta's response to paragraph 2183 and in Meta's responses to the subparagraphs below.

a. Rule-based spam filters to identify spam. *See, e.g.*, PX6146, Krieger (Meta/Instagram) Dep. Tr., at 137:2-12 ("For the comment spam, we had, as I mentioned, these sort of keyword or regular expression-based or sort of origin

server-based kind of rules."); PX3066, Instagram email chain: M. Krieger to B. Richardson re: "Spam report: Friday morning," (Aug. 3, 2012), FB_FTC_CID_12203586, at -586 ("[I] tweaked some instagrambot rules, added those cam-girls to our block list."); PX10026, Instagram email chain: D. Toffey to M. Krieger, et al. re: "Best buy spam," (Apr. 7, 2012), FTC-META-003313636, at -636 ("Happy to report that as of this evening still none of [the spam are] getting through Mike's fabulous filters."); PX3061, Instagram email: D. Toffey to M. Krieger. et al. re: "Spam report: Thursday morning," (Aug. 2, 2012), FB_FTC_CID_09340377, at -377 ("Spam filters enabled yesterday paying HUGE dividends.").

Meta Response: Undisputed.

b. Rate limiters to restrict the number of times individual accounts or IP addresses could take certain actions. See PX6146, Krieger (Meta/Instagram) Dep. Tr., at 141:15-142:8.

Meta Response: Undisputed.

c. Blocklists to target and block servers, users, and devices associated with spam accounts from posting on Instagram. *See, e.g.*, PX6146, Krieger (Meta/Instagram) Dep. Tr., at 134:18-135:4; PX3066, Instagram email chain: M. Krieger to B. Richardson re: "Spam report: Friday morning," (Aug. 3, 2012), FB_FTC_CID_12203586, at -586 ("[I] tweaked some instagrambot rules, added those cam-girls to our block list."); PX3061, Instagram email: D. Toffey to M. Krieger, et al. re: "Spam report: Thursday morning," (Aug. 2, 2012),

FB_FTC_CID_09340377, at -377 (discussing Instagram's ability to terminate devices and prevent the creation of new spam accounts).

Meta Response: Disputed in part. Undisputed that pre-acquisition Instagram had blocklists to target servers and devices associated with spam accounts. *See* PX6146 at 140:7-141:14 (Krieger Dep. Tr.) (explaining that Instagram "had blocks on the data center level" and "blocks on the device level"). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that pre-acquisition Instagram had blocklists that could target users beyond the server or device level, as the cited evidence does not support that suggestion.

d. Meta's Facebook Connect service, which gave Instagram users that logged into Instagram with their Facebook credentials the benefit of Meta's "checkpoint" account verification tools including Delta, without the acquisition. See, e.g., PX3381, Meta document: "Authenticating Users with Facebook Connect" (Nov. 24, 2008), FB_FTC_CID_01311065, at -067 (describing authentication via Facebook Connect for first-time users); PX6052, Bejar (Meta) Dep. Tr., at 49:3-10 (stating that "people who use Facebook Connect benefited from all of [Meta's] integrity systems directly"); PX3055, Instagram messages: J. Riedel to M. Krieger, (Oct. 23, 2010), FB_FTC_CID_08725416, at -416 (indicating that Instagram was integrated with Facebook Connect as early as October 2010).

Meta Response: Disputed in part. Undisputed that, when an Instagram user logged in to Instagram using their Facebook credentials via Facebook Connect, the user's account would be protected by Meta's fake account countermeasures, which included Delta. Disputed that this statement creates a genuine dispute of

material fact regarding whether those users benefited from "all of [Meta's] integrity systems," because, as the rest of Mr. Bejar's testimony makes clear, the users could only "take advantage of all of the countermeasures that [Meta had] against," specifically, "fake accounts." PX6052 at 49:13-17 (Bejar Dep. Tr.); *see id.* at 245:5-12 ("Q. And do you know whether Facebook ever made the [S]igma tool [a spam-fighting system] and its functionalities available to entities outside of Facebook? A. Not to my knowledge."). Further disputed because Instagram users were not required to log in to Instagram using Facebook Connect, meaning that Instagram benefited from Meta's account verification tools only to the extent a user chose to log in to Instagram using their Facebook credentials. *See id.* at 49:13-17; *see also id.* at 245:15-23 (Mr. Bejar testifying that "[t]here were [sic] no direct API access to [D]elta" for third parties outside Facebook Connect).

i. Facebook Connect allowed third parties to "take advantage of all of the countermeasures that [Meta had] against fake accounts." [redacted]; *see also* PX2660, Instagram email chain: [redacted] (Meta) to K. Systrom (Instagram) re: "Reschedule SPAM meeting," (Mar. 27, 2012), FB_FTC_CID_02987165, at -165 (describing some of Meta's spam filtering tools that third parties "get for free" via Facebook Connect).

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2198(d).

ii. Third-party accounts that used Facebook Connect were also "protected by [D]elta in terms of account compromise." [redacted] Delta is a "checkpoint tool that protects against fake or compromised accounts by identifying users who are logging into a new device or are in a new location." PX9020, Subrahmanian Report at ¶ 38.

Meta Response: Undisputed.

iii. Instagram was integrated with Facebook Connect as early as October 23, 2010. *See* PX3055, Instagram messages: J. Riedel to M. Krieger, (Oct. 23, 2010), FB_FTC_CID_08725416, at -416.

Meta Response: Disputed in part. Undisputed that Instagram integrated with Facebook Connect by October 23, 2010. Disputed to the extent the statement suggests that all Instagram users at that time were protected by Meta's fake-account countermeasures, such as Delta, including for the reasons stated above in Meta's response to subparagraph 2198(d).

e. User reports, which allowed Instagram users to flag objectionable content. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 136:6-9, 138:13-139:22.

Meta Response: Undisputed.

f. A team of human reviewers to review and remove content flagged by users, and in cases where the content was "egregious," close or block the account associated with the content. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 138:20-139:22; *see also* PX3064, Instagram email chain: K. Systrom (Instagram) to [redacted] (Foursquare) re: "Manual image screening," (Aug. 25, 2011), FB_FTC_CID_12209883, at -883.

Meta Response: Disputed in part. Undisputed that, up to May 2012, Instagram had a team with responsibilities including the review of reported content, and that Mr. Krieger testified that, in cases involving "egregious" content, the associated account could be "closed and blocked." PX6146 at 139:2-22 (Krieger Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statement in this subparagraph suggests that an internal Instagram team reviewed all content reported by users through the close of the acquisition, because, in May 2012, Instagram outsourced manual content review to a third party (CrowdFlower). *See* Ex. 7 at ¶ 140 & n.388 (Subrahmanian Rep.). Further disputed because the cited evidence does not address how or what CrowdFlower did to review content flagged by Instagram users. The evidence indicates that Instagram encountered "several issues" with CrowdFlower, including "inconsistent responses." Ex. 302 at 236:12-22 (Krieger IH Tr.). Further disputed to the extent the statement suggests that Instagram's pre-acquisition teams of human reviewers were as effective at detecting and removing policy-violating content as the tools and techniques Meta deployed on Instagram after the acquisition closed. *See* Meta SMF ¶¶ 748-753 (discussing Meta's integrity efforts on Instagram after the acquisition closed). Indeed, Mr. Krieger testified that, after Instagram started using Meta's team of human reviewers, which had Meta employees and a third-party provider, there was a "higher" "level of oversight and coordination" and more "levers to work on quality and consistency." PX6146 at 264:24-265:19 (Krieger Dep. Tr.).

g. A content review interface to facilitate manual review of spam and objectionable content. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 138:20-139:23.

Meta Response: Disputed in part. Undisputed that Mr. Krieger testified that Instagram's four-person community team used an interface to review certain types of policy-violating content up to May 2012. PX6146 at 138:20-139:23 (Krieger Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to subparagraph 2198(f).

h. A tool that allowed Instagram's content reviewers to report images of child sexual exploitation to the National Center for Missing and Exploited Children ("NCMEC"). *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 139:24-140:4.

Meta Response: Disputed. The evidence cited in this subparagraph does not support the assertion, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore fails to create a genuine dispute of material fact. Mr. Krieger testified that Instagram "eventually . . . added the ability for the admins to report images of child exploitation to . . . NCMEC," but he did not "remember when [Instagram] did that integration." PX6146 at 139:24-140:6 (Krieger Dep. Tr.). He testified that "[i]t would have probably been in 2012," but he did not specify whether it was before or after the acquisition closed. *Id.* at 140:5-6.

2199. Instagram's community team also circulated spam reports, which the team used to evaluate the efficacy of its integrity efforts and to find areas that needed refinement. *See, e.g.*, PX3066, Instagram email chain: M. Krieger to D. Toffey re: "Spam report: Friday

morning," (Aug. 3, 2012), FB_FTC_CID_12203586, at -586 (showing that after Mr. Toffey reported an issue with a particular "Instagrambot" account, Mr. Krieger responded by modifying Instagram's spam rules regarding "Instagrambots"); PX10020, Instagram email chain: M. Krieger to D. Toffey re: "SPAM report: Wednesday," (Aug. 1, 2012), FB_FTC_CID_12203533, at -533 (showing that Mr. Toffey flagged spam issues and challenges identifying them; Mr. Krieger responded that they will "make spam fighting a priority in [the] next few days"); PX3062, Instagram email chain: D. Toffey to B. Richardson, et al. re: "Spam report: Thursday morning," (Aug. 2, 2012), FB_FTC_CID_09342119, at -119 (showing that the day after Mr. Toffey's email flagging spam issues, he writes that Mr. Krieger's solution was "paying HUGE dividends").

Meta Response: Disputed in part. Undisputed that members of Instagram's community team circulated spam reports in August 2012. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statement suggests that the filters Mr. Krieger enacted in response to Mr. Toffey's August 1, 2012 spam report provided a permanent solution to spam on Instagram. Indeed, Mr. Krieger wrote in an August 2, 2012 email that he was "sure they'll be back . . . cat & mouse 4 eva." PX3062 at -119 (FB_FTC_CID_09342119) (ellipses in original).

2200. Like other online platforms, Instagram sought external advice on how best to fight spam prior to its acquisition by Meta. *See, e.g.*, PX9013, McCoy Rebuttal Report at ¶ 220 (noting that it is common for online platforms to seek integrity advice from each other); PX10744, Meta email chain: [redacted] to A. Bejar, et al. re: "Spam consultation with

snapchat?" (Feb. 12, 2014), FB_FTC_CID_06495964, at -965 (relating that "[s]omeone from snapchat is reaching out informally asking if we can offer advice" about spam fighting techniques).

Meta Response: Disputed in part. Undisputed that pre-acquisition Instagram and other online platforms, including Snapchat, Tinder, and Dropbox, sought advice from Meta regarding how to best fight spam. *See* PX10744 at -964-965 (FB_FTC_CID_06495964) (Snapchat, Tinder, Dropbox); PX3224 at -631 (FTC-META-003352631) (Instagram). Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact to the extent they suggest that pre-acquisition Instagram and other companies sought external advice from companies other than Meta, as none of the cited evidence supports that claim.

a. In March 2012, Mr. Systrom connected with Meta's then-head of site integrity engineering, [redacted], to discuss strategies for detecting spam and malicious accounts. PX3224, Instagram email chain: K. Systrom (Instagram) to [redacted] (Meta), et al. re: "Reschedule SPAM meeting," (Mar. 18, 2012); FTC-META-003352631, at -631; PX6146, Krieger (Meta/Instagram) Dep. Tr., at 156:14-20. In response to Mr. Systrom's questions, [redacted] provided some "high level answers" and invited Mr. Systrom to continue the discussion in writing: "[a]gain, high level questions. Once I have a better sense of the specific types of abuse you are dealing with I can help out more." PX3224, Instagram email chain: [redacted] (Meta) to K. Systrom (Instagram), et al. re: "Reschedule SPAM meeting," (Mar. 22, 2012), FTC-META-003352631, at -631.

Meta Response: Undisputed.

c) Instagram was responsively addressing its integrity issues prior to the acquisition by Meta.

2201. Instagram understood the challenge and necessity of managing integrity issues.

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 2183 and in Meta's responses to the subparagraphs below.

a. In August 2011, a year before Meta's acquisition of Instagram closed, Mr. Systrom responded to an inquiry from Foursquare about strategies for managing objectionable content by noting that content moderation is "not an awesome job, but it's super important for maintaining the quality of community, etc. Without it we feel like myspace quickly." PX3064, Instagram email chain: K. Systrom (Instagram) to [redacted] (Foursquare) re: "Manual image screening," (Aug. 25, 2011), FB_FTC_CID_12209883, at -883.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183.

b. In March 2012, Mr. Systrom connected with [redacted], to discuss strategies for detecting spam and malicious accounts. PX3224, Instagram email chain: K. Systrom (Instagram) to [redacted] (Meta) et al. re: "Reschedule SPAM meeting," (Mar. 18, 2012), FTC-META-003352631, at -631; PX6146, Krieger (Meta/Instagram) Dep. Tr., at 156:14-20.

Meta Response: Disputed in part. Undisputed that Mr. Systrom contacted [redacted] to discuss strategies for detecting spam and malicious accounts. Disputed that the statement in this subparagraph creates a genuine dispute of

material fact, including because the evidence cited in this subparagraph does not support the assertion that Instagram "understood the challenge and necessity of managing integrity issues," as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). On the contrary, the evidence shows that Mr. Systrom and [redacted] scheduled a call to discuss [redacted] advice, but Mr. Systrom missed the call. Ex. 482 at -206 (FTC-META-002585206). On March 28, 2012, [redacted] wrote to another Meta employee that Instagram "seem[s] busy and disorganized." *Id.*

2202. Communications between members of Instagram's community team—which was responsible for content moderation—indicate that Instagram was responsively addressing its integrity issues prior to its acquisition by Meta. *See* PX9002, McCoy Report at ¶ 144; PX9013, McCoy Rebuttal Report at ¶ 222; PX6037, Toffey (Meta) Dep. Tr., at 95:4-96:7.

Meta Response: Disputed in part. Undisputed that the responsibilities of Instagram's pre-acquisition community team – which, at its largest, had four employees – included content moderation, but Instagram outsourced the review of content flagged as potential policy violations to a third party, CrowdFlower, in May 2012 to "process the [review] queues on an ongoing basis," "eas[e] the burden on [the] community team," and allow the community team "to focus more on editorial and . . . proactive storytelling" because content moderation "was taking a lot of their time." Ex. 153 at 143:9-25 (Krieger Dep. Tr.); PX6037 at 21:19-22:15 (Toffey Dep. Tr.) (identifying community team members and responsibilities); *id.* at 95:16-96:9 (Instagram "contracted with a third party to . . . review and remove problematic content from [its] platform"); Ex. 7 at ¶ 140 & n.388

(Subrahmanian Rep.) ("Instagram decided to outsource manual review to CrowdFlower – a crowdsource review platform – in May 2012.").

Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because they lack supporting evidence. Paragraph 144 of Professor McCoy's report does not cite any evidence. *See* PX9002 at ¶ 144 (McCoy Rep.). In paragraph 222 of Professor McCoy's rebuttal report, he noted that Instagram's "continued growth meant that it needed to 'scale up the team'" working on spam. *See* PX9013 at ¶ 222 (McCoy Rebuttal Rep.). None of the evidenced cited in paragraph 222 supports the vague statement here that "Instagram was responsively addressing its integrity issues" before the acquisition. Further disputed because Mr. Toffey testified that "it was quite a challenge [for Instagram's small community team] to stay on top of removing [objectionable] content from [Instagram]" as its community of users grew in March to May 2012, PX6037 at 17:21-23, 95:16-96:7 (Toffey Dep. Tr.); Ex. 7 at ¶ 140 (Subrahmanian Rep.), and other evidence shows that Instagram experienced "several issues," including "inconsistent responses," after it outsourced content moderation to CrowdFlower, Ex. 302 at 236:12-22 (Krieger IH Tr.) (testifying that Instagram's work with CrowdFlower "was not ideal" and "a solution that would have needed additional iterations").

The evidence cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). That evidence pertains only to spam, and no other "integrity issues."

a. In an exchange dated June 11, 2012, Mr. Toffey—a former member of Instagram's community team, which was responsible for content moderation—sent an email to Mr. Krieger flagging for deletion what appeared to be spam images flagged by an Instagram user. Mr. Krieger responded that he had deactivated the identified spam links. PX3382, Instagram email chain: D. Toffey to M. Krieger re: "more images for deletion," (June 11, 2012), FTC-META-004144261, at -261; PX6037, Toffey (Meta) Dep. Tr., at 95:4-96:7.

Meta Response: Disputed in part. Undisputed that Mr. Toffey was a member of Instagram's pre-acquisition community team, and that the responsibilities of the community team included content moderation, with the caveat that Instagram outsourced the review of content flagged as potential policy violations to a third party, CrowdFlower, in May 2012. PX6037 at 21:19-22:15, 95:4-96:9 (Toffey Dep. Tr.); Ex. 7 at ¶ 140 (Subrahmanian Rep.). Further undisputed that Mr. Toffey emailed Mr. Krieger regarding content flagged by an "inactive IG user," and that Mr. Krieger "ran a deactivate on those URLs." PX3382 at -261 (FTC-META-004144261). Disputed for the reasons stated above in Meta's response to paragraph 2183. Further disputed because the cited evidence does not support the vague assertion in paragraph 2202 that Instagram was "responsively addressing its integrity issues" before the acquisition. On the contrary, the email exchange indicates that Instagram's mitigations did not fully address the user's concern. The user wrote: "Thank you very much, but some images still remians [sic] and new ones have appeared." *Id.* Mr. Toffey wrote to Mr. Krieger, "I have a feeling he will keep emailing until all of his images are gone." *Id.* And Mr. Krieger

instructed Mr. Toffey to ask the user "not to try [certain URLs] for a couple of days then they should be gone." *Id.*

b. On August 1, 2012, Mr. Toffey emailed Mr. Krieger and Ms. Richardson—also a former member of Instagram's community team—stating that Instagram had "reached a critical point with SPAM." PX10020, Instagram email chain: D. Toffey to M. Krieger, et al. re: "SPAM report: Wednesday," (Aug. 1, 2012), FB_FTC_CID_12203533, at -533; PX6037, Toffey (Meta) Dep. Tr., at 95:4-96:7. Mr. Krieger responded by saying that they will "make spam fighting a priority in [the] next few days." PX10020, Instagram email chain: M. Krieger to D. Toffey re: "SPAM report: Wednesday," (Aug. 1, 2012), FB_FTC_CID_12203533, at -533.

Meta Response: Disputed in part. Undisputed that Mr. Toffey emailed Mr. Krieger and Ms. Richardson on August 1, 2012, and that the email thread contains the quoted language. PX10020 at -533-534 (FB_FTC_CID_12203533) (Mr. Toffey writing on August 1, 2012, "I think we've reached a critical point with SPAM. It is no longer possible to tell which accounts are spam simply from the User Flag page. We are being hit with what looks like 5 to 7 different types of spam, each with their own characteristics. . . . It is now basically necessary to open every profile page to see whether they are legitimate [or] spammers, which increases the amount of time necessary to review by 3 or 4 times."). Further undisputed that, at the time, Ms. Richardson was a member of Instagram's community team. PX6037 at 35:22-24 (Toffey Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2183.

c. The next day, August 2, 2012, Mr. Toffey emailed Mr. Krieger: "[o]n the whole, Spam filters enacted yesterday paying HUGE dividends." PX3061, Instagram email chain: D. Toffey to M. Krieger, et al. re: "Spam report: Thursday morning," (Aug. 2, 2012), FB_FTC_CID_09340377, at -377. Later that same day, Ms. Richardson emailed Mr. Krieger noting that "spam was easy breezey tonight." PX10025, Instagram email chain: B. Richardson to. M. Krieger, et al. re: "Spam report: Thursday morning," (Aug. 2, 2012), FTC-META-003313408, at -408.

Meta Response: Disputed in part. Undisputed that document contains the quoted language. PX10025 at -408 (FTC-META-003313408). Disputed for the reasons stated above in Meta's response to paragraph 2183. Further disputed because the FTC's characterization of the evidence is incomplete and misleading. Mr. Krieger replied to Ms. Richardson's email, "I'm sure they'll be back . . . cat & mouse 4 eva." *Id.* (ellipses in original).

d. In another August 3, 2012, exchange, Mr. Toffey wrote that an "Instagrambot account[] was reactivated somehow last night." *See* PX3066, Instagram email chain: D. Toffey to M. Krieger, et al. re: "Spam report: Friday morning," (Aug. 3, 2012), FB_FTC_CID_12203586, at -586. Mr. Krieger replied that he had "tweaked some instagram bot rules, added those cam-girls to our block list." *Id.* Later that day, Ms. Richardson circulated a spam report indicating that the rules Mr. Krieger had enacted were working. *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language attributed to Mr. Toffey and Mr. Krieger, except that, in the

second quote, "instagram bot" should be "instagrambot." PX3066 at -586 (FB_FTC_CID_12203586). Disputed for the reasons stated above in Meta's response to paragraph 2183. Further disputed because there is no evidence that Ms. Richardson indicated that the rules enacted by Mr. Krieger were working. She wrote: "Friday evening spam report woohoooooooo!" and then identified URLs for additional spam, including "Live.co.uk alternating comments," "Porno," "Instagram icon likes/followers accounts (created on Aug 2/3)," and "Slew of @ mentions." *Id.* In addition, Mr. Toffey's statement that "[o]ne of the Instagrambot accounts was reactivated somehow last night," *id.*, is consistent with Mr. Krieger's testimony that the mitigations he built before the acquisition closed to combat spam on Instagram were "rudimentary defenses" and "quite easy to circumvent." Ex. 302 at 232:4-233:2 (Krieger IH Tr.); *see also* Meta SMF ¶ 683 (similar); Ex. 153 at 133:22-135:4, 253:7-19 (Krieger Dep. Tr.) (similar).

e. In an August 6, 2012 spam report from Josh Riedel—also a former member of Instagram's community team, which was responsible for content moderation—Mr. Riedel wrote: "A few examples of the spam reported this morning. There weren't a ton of offenders in any one category, so that's good news!" PX3383, Instagram email chain: J. Riedel to J. Zollman, et al. re: "Spam Report – Monday PM," (Aug. 6, 2012), FTC-META-004031613, at -613-14; PX6037, Toffey (Meta) Dep. Tr., at 20:20-21:22.

Meta Response: Disputed in part. Undisputed that the cited document contains the quoted language, that Mr. Riedel was a member of Instagram's pre-acquisition community team, and that the responsibilities of the community team included

content moderation, with the caveat that Instagram outsourced the review of content flagged as potential policy violations to a third party, CrowdFlower, in May 2012. PX6037 at 21:19-22:3, 95:4-96:7 (Toffey Dep. Tr.); Ex. 7 at ¶ 140 (Subrahmanian Rep.). Disputed for the reasons stated above in Meta's response to paragraph 2183. Further disputed because the FTC's characterization of the evidence is incomplete and misleading. Ms. Zollman, another member of Instagram's pre-acquisition community team, replied to Mr. Riedel's email on August 7, 2012 with another spam report, which identified multiple categories of spam, including some of the same types of spam Mr. Riedel identified the day prior – e.g., "@mentions + plz like" – and multiple examples of "instagramwork.com comments" that were created (and undetected by Instagram's spam-fighting systems) almost two weeks prior on July 26, 2012. PX3383 at -613-614 (FTC-META-004031613). That evidence is consistent with Mr. Krieger's testimony that the mitigations he built before the acquisition closed to combat spam on Instagram were "rudimentary defenses" and "quite easy to circumvent." Ex. 302 at 232:4-233:2 (Krieger IH Tr.); *see also* Meta SMF ¶ 683 (similar); Ex. 153 at 133:22-135:4, 253:7-19 (Krieger Dep. Tr.) (similar).

f. Likewise, on August 9, 2012, Mr. Toffey wrote about an issue with Dunkin Donuts spam, with Ms. Richardson subsequently reporting "Evening SPAM. Not bad tonight – mostly accounts we've squashed that people are only now reporting." PX3063, Instagram email chain: B. Richardson to D. Toffey, et al. re: "SPAM report," (Aug. 10, 2012), FTC-META-004031932, at -932-33.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2183. Further disputed because the FTC's characterization of the evidence is incomplete and misleading. On August 9, 2012, Mr. Toffey wrote that the "user flag report" included "[a]bout 100" reports of Dunkin Donuts spam, which he said "are literally pouring in faster than we can delete them." PX3063 at -932-933 (FTC-META-004031932). The next day, Ms. Richardson identified additional instances of Dunkin Donuts spam, along with "ussurveys (from a few days ago)" and "Excessive @ mentions + 'please like.'" *Id.* at -932. That evidence is consistent with Mr. Krieger's testimony that the mitigations he built before the acquisition closed to combat spam on Instagram were "rudimentary defenses" and "quite easy to circumvent." Ex. 302 at 232:4-233:2 (Krieger IH Tr.); *see also* Meta SMF ¶ 683 (similar); Ex. 153 at 133:22-135:4, 253:7-19 (Krieger Dep. Tr.) (similar).

2203. That Instagram was responsively addressing spam prior to its acquisition by Meta is further supported by Instagram's response to an offer for third party integrity services.

Meta Response: Disputed in part. Undisputed that the evidence cited in the below subparagraphs contains the quoted language. Disputed that the evidence cited in the subparagraphs creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed because the cited evidence does not support the vague assertion that "Instagram was responsively addressing spam" before the acquisition. The cited evidence pertains only to the amount of spam on Instagram in June 2012. *See* Meta SMF ¶¶ 679-681 (describing the amount of spam on

Instagram in August and September 2012); PX9002 at ¶ 133 (McCoy Rep.) (describing spam fighting as an "iterative" process "because spam attacks are constantly evolving"). In addition, Mr. Systrom testified that his "cofounder, Mike, was the person most involved" in Instagram's pre-acquisition efforts to combat spam. Ex. 284 at 278:12-15 (Systrom IH Tr.); *see also* Ex. 154 at 105:19-21 (Toffey Dep. Tr.) ("Q. Do you know if Kevin Systrom had any responsibilities related to spam in 2012? A. None that I recall."). According to Mr. Krieger, the mitigations he built before the acquisition closed to combat spam on Instagram were "rudimentary defenses" and "quite easy to circumvent." Ex. 302 at 232:4-233:2 (Krieger IH Tr.). Mr. Krieger also testified that pre-acquisition Instagram "didn't have robust measurement systems" for spam. Ex. 153 at 136:10-20 (Krieger Dep. Tr.); *see also* Ex. 313 at 76:1-5 (McCoy Dep. Tr.) ("Q. And as a factual matter are you aware of any instance in which Instagram had integrity metrics that it prepared or used prior to its acquisition by Meta? A. I'm not aware of any of those metrics."); Ex. 154 at 112:7-10 (Toffey Dep. Tr.) ("Q. Before the acquisition closed, did Instagram have any metrics to track the prevalence of spam? A. Not that I was aware of.").

a. In June 2012, Mr. Systrom turned down an offer to use Impermium's spam mitigation services, explaining that Instagram was "actually tackling the spam thing pretty well these days." PX15223, Instagram email chain: K. Systrom (Instagram) to [redacted] (Greylock) re: "Imperium <-> Instagram Intro?" (June 30, 2012), FB_FTC_CID_12185539, at -539. At the time of Mr. Systrom's email, Impermium was managing spam for Pinterest and Tumblr. *Id.*

Meta Response: Disputed in part for the reasons stated above in Meta's responses to paragraphs 2183 and 2203.

b. Mr. Systrom testified that, around the time of his June 2012 email rejecting the offer to use Impermium's spam mitigation services, Instagram "had a bunch of [spam-fighting] projects that were successful, and [it was] able to keep the majority [of spam] mainly off – off the service at that point." PX6133, Systrom (Meta/Instagram) Dep. Tr., at 170:3-7.

Meta Response: Disputed in part for the reasons stated above in Meta's responses to paragraphs 2183 and 2203.

d) Instagram had the fundamentals to continue scaling its response to spam and objectionable content without the acquisition by Meta.

2204. Instagram was already beginning to scale its integrity programs along with its user growth prior the Meta acquisition. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 132:18-133:25 (explaining that Instagram started working to address spam "as soon as we saw it uptick [in May 2012]"). For example:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed that any steps Instagram was "beginning" to take before the acquisition closed were comparable to the integrity systems and techniques that Meta was able to implement on Instagram following the acquisition. An October 16, 2015, Meta document, titled "The evolution of spam fighting at Instagram," states that, before the acquisition, Instagram had an "ad-hoc method of creating one-off policies to fight spam" that "simply wouldn't scale." Meta SMF ¶ 682 (quoting Ex. 214 at -836 (FTC-META-005087836)).

The evidence cited in the subparagraphs below does not support the assertion in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). On the contrary, Mr. Toffey testified that "it was quite a challenge [for Instagram's small community team] to stay on top of removing [policy-violating] content from [Instagram]" as its community of users grew in March to May 2012, PX6037 at 17:21-23, 95:16-96:7 (Toffey Dep. Tr.); Ex. 7 at ¶ 140 (Subrahmanian Rep.), and other evidence shows that Instagram experienced "several issues," including "inconsistent responses," after it had outsourced content moderation to CrowdFlower, Ex. 302 at 236:12-22 (Krieger IH Tr.) (testifying that Instagram's work with CrowdFlower "was not ideal" and "a solution that would have needed additional iterations"); *see also* PX6146 at 264:1-8 (Krieger Dep. Tr.) ("But the problem [with CrowdFlower] . . . was that the enforcement was not as consistent as it was once it was within our team.").

The FTC's proffered expert, Professor McCoy, opined that, "[w]hen starting out, before its user base is very large, . . . it is common for an online platform to manage objectionable content largely through manual review of ad-hoc complaints about abuse (i.e., spam, objectionable content, or fake accounts), with manual action taken against violating content and accounts." PX9002 at ¶ 26 (McCoy Rep.). But, according to Professor McCoy, "online platforms typically shift from manual to automated tools as they grow." PX9013 at ¶ 62 (McCoy Rebuttal Rep.). The cited evidence does not establish that Instagram shifted from manual to automated tools to detect and remove policy-violating content, like certain violence, before the acquisition closed. *Cf.* PX6146 at 144:1-12 (Krieger Dep. Tr.) ("Q. How did Instagram determine which content was reviewed by CrowdFlower as opposed to being reviewed by the community team? A. . . .

If I recall correctly, we would funnel anything that was reported over to CrowdFlower, maybe with a threshold of multiple reports. I don't recall. But the idea was that as things were being reported, they would go straight to CrowdFlower."); *id.* at 138:1-5 (testifying that "violence" was "probably" one of "biggest categories" of policy-violating content on Instagram prior to the acquisition); PX6037 at 99:17-23 & errata (Toffey Dep. Tr.) ("Q. When you said the content was flagged by our community, what does that mean? A. In the product users had the ability to report an image or a comment that they believed violated our terms of use. And so it was those user reports that would route content to our review queues.").

The evidence also shows that, after the acquisition closed, Meta helped Instagram set up granular reporting options for users. Ex. 7 at ¶ 143 & n.402 (Subrahmanian Rep.). Meta also transitioned Instagram to Meta's content moderation system, which sent "any content that a user reported on Facebook or Instagram . . . into a series of internal tools at [Meta]" that involved, as a first step, automated review to help Instagram "figure out if [the reported content] should be removed or not." PX6033 at 15:24-17:19 (Velazquez Dep. Tr.). And in August 2013, Instagram ended its contract with CrowdFlower and started to rely on Meta's moderation teams, which included Meta employees and third-party reviewers from Accenture. Ex. 7 at ¶ 145 & n.410 (Subrahmanian Rep.). Mr. Krieger testified that this shift provided Instagram with a higher "level of oversight and coordination" and "more sort of levers to work on quality and consistency" in content moderation. PX6146 at 265:15-19 (Krieger Dep. Tr.).

a. Instagram's community team initially handled review and removal of content flagged by users. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 138:13-139:22;

PX6027, Systrom (Meta/Instagram) IH Tr., at 276:23-277:3. However, as the volume of objectionable content on Instagram increased, Instagram hired a third-party firm called CrowdFlower to manage its content moderation. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 135:22-136:5, 143:5-15. Mr. Krieger testified that one of the primary reasons Instagram hired CrowdFlower was because it wanted to "[p]rocess[] [objectionable] content in a more scalable way, in a more around-the-clock way." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 143:9-16.

Meta Response: Disputed in part. Undisputed that Instagram's community team initially reviewed and removed content flagged by users, that Instagram outsourced content moderation to CrowdFlower as the volume of content reported as potential policy violations on Instagram increased, and that Mr. Krieger provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2204.

i. Instagram had been planning to outsource some of its content moderation as early as August 2011, more than a year before the acquisition closed. *See* PX3064, Instagram email chain: K. Systrom (Instagram) to [redacted] (Foursquare) re: "Manual image screening," (Aug. 25, 2011), FB_FTC_CID_12209883, at -883 (Mr. Systrom writing that Instagram was "going to move in the direction of having a 'flag as inappropriate' 'flag as copyrighted' etc.. [sic] so that the inappropriate ones can be outsourced and simply confirmed they're porn, and then ones that require more nuanced research will still go to our [internal] team.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2204. Further disputed because the cited evidence does not support the statement that Instagram had been planning to outsource some of its content moderation in August 2011. On the contrary, a Foursquare employee asked Mr. Systrom on August 25, 2011 whether he had "talked to any outsourcing companies that have expertise in [content moderation]," and Mr. Systrom replied "None at all . . . it's all been internal right now." PX3064 at -883 (FB_FTC_CID_12209883).

b. Prior to the acquisition, Instagram had begun "enhancing" its content review tool to "make it more efficient" by allowing reviewers to view more images at once, prioritizing frequently flagged content, and introducing a three-click system for image review. PX6037, Toffey (Meta) Dep. Tr., at 95:20-24, 98:2-99:15, 110:7-12; *see also* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 138:25-140:4.

Meta Response: Disputed in part. Undisputed that Instagram developed a more efficient content review tool for Instagram's community team before the acquisition as described in this subparagraph. *See* PX6037 at 95:16-96:7 (Toffey Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2204, and because the cited evidence does not indicate that CrowdFlower used Instagram's internal interface to review flagged content.

c. Prior to the acquisition, Instagram evolved its method of identifying spam from keyword-based spam filters, which were only triggered if there was an exact match between the keyword Instagram identified and potential spam, to regular

expression-based filters, which were based on "rules of text" and did not require exact text matching. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 134:13-17.

Meta Response: Disputed in part. Undisputed that Instagram evolved its method of identifying spam from keyword-based filters to regular expression-based filters. *See* PX6146 at 134:1-17 (Krieger Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2204. Further disputed because the FTC's characterization of the evidence is incomplete and misleading. Mr. Krieger testified that, like Instagram's keyword-based filters, Instagram's regular expression-based filters were "also a very rudimentary technique" to combat spam. *Id.* at 134:3-17. In addition, the evidence shows that, before Instagram leveraged Meta's spam-fighting systems, Instagram's "spam-fighting code was messy," including because "[r]egexes [i.e., regular expressions] and rate limits were often strewn throughout the codebase with little consistency," which "made it immensely hard [for Instagram] to comprehend 1) the variety of policies that were running at any one time and 2) how these policies interacted with one another." Ex. 214 at -836 (FTC-META-005087836).

d. Prior to the acquisition, Instagram was using spam-fighting techniques like blocklisting and rate limiters, which other platforms including Twitter, Pinterest, and even Meta have deployed to address spam and objectionable content. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 134:18-135:4; [redacted]; PX6108, Coleman (Pinterest) Dep. Tr., at 204:17-207:2; PX9020, Subrahmanian Report at ¶ 38.

Meta Response: Disputed in part. Undisputed that pre-acquisition Instagram used blocklists and rate limiters, and that Twitter and Meta have deployed blocklists and rate limiters, and Pinterest has deployed blocklists. Disputed that Pinterest used rate limiters, because this subparagraph cites no evidence to support that assertion, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2204 and subparagraph 2204(c).

2205. In addition to the tools it had deployed, Instagram was aware of and had access to third-party providers of spam mitigation services.

Meta Response: Undisputed for the reasons stated in Meta's responses to the subparagraphs below.

a. Mr. Systrom testified Instagram "had the ability to [] access" to third-party providers of integrity services. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 166:21-167:6 ("Q. Before the acquisition, did Instagram have access to third-party providers of integrity services? . . . A. We certainly had the ability to have access. I'm not sure we had integrated with any third parties to help us moderate the community or content. Q. Were you aware that such services existed? A. Sure. Yes.").

Meta Response: Undisputed that Mr. Systrom provided the quoted testimony. Meta notes, however, that "integrity services" in the parenthetical should be "Integrity services."

b. Third parties such as Impermium had reached out to Instagram to offer their spam mitigation services. PX15223, Instagram email chain: K. Systrom (Instagram) to

[redacted] (Greylock) re: "Impermium <-> Instagram Intro?" (June 30, 2012), FB_FTC_CID_12185539, at -539; PX6133, Systrom (Meta/Instagram) Dep. Tr., at 169:13-20.

Meta Response: Undisputed.

2206. Prior to the acquisition, Instagram had access to other third-party integrity tools, including:

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. A free image matching tool called PhotoDNA from Microsoft. PX0363, *PhotoDNA*, Microsoft, https://www.microsoft.com/en-us/photodna (last visited Apr. 28, 2024). Mr. Krieger testified that PhotoDNA was the "biggest technology – or one of the large technolog[ies] [Instagram] adopted postacquisition." PX6146, Krieger (Meta) Dep. Tr., at 147:10-19. He further noted that although he had not heard of PhotoDNA prior to the acquisition, it is "likely" Instagram would have built out its ability to use the technology if Instagram had not been acquired by Meta. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 147:10-148:2.

Meta Response: Disputed in part. Undisputed that Microsoft, in partnership with Dartmouth College, developed an image-matching tool known as PhotoDNA before the acquisition closed, and that Mr. Krieger provided the paraphrased testimony. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. In addition, Mr. Krieger testified that only "a small group of companies" used PhotoDNA around the time of the Instagram acquisition, and "it

wasn't something that was widely available" to online platforms. Ex. 302 at 238:3-10 (Krieger IH Tr.). Further disputed to the extent the statement suggests that it would have cost Instagram nothing to use PhotoDNA before the acquisition or in a but-for world without the acquisition. The cloud-based version of PhotoDNA was not made available until 2015. *See* PX0363 at -003 (*PhotoDNA*) ("In 2015, Microsoft made PhotoDNA available as a service on Azure. The PhotoDNA Cloud Service enables smaller companies and other organizations that want to give users the freedom to upload content while ensuring the integrity of their platforms."). Before that, PhotoDNA was available only as an on-premises product, which, according to Microsoft, "required time, money, and technical expertise to get it up and running and keep it up-to-date." Ex. 7 at ¶ 161 & n.483 (Subrahmanian Rep.). And the FTC's proffered expert, Professor McCoy, testified that "even the off-premise" – i.e., the cloud-based version of PhotoDNA – "required time, money, and technical expertise to get it up and running." Ex. 313 at 264:3-13 (McCoy Dep. Tr.).

b. Free general-purpose data processing systems such as Apache ZooKeeper and Apache Oozie were available from Apache Software Foundation. *See* PX0368, *Welcome to Apache Zookeeper*, Apache: Zookeeper, https://zookeeper.apache.org/ (last visited May 20, 2024) (describing Apache ZooKeeper as a "centralized service" that can be used for "maintaining configuration information" and "providing distributed synchronization."); PX0369, *Apache Oozie Workflow Scheduler for Hadoop*, Apache: Oozie, (Feb.

26, 2021), https://oozie.apache.org/ (describing Apache Oozie as a "workflow scheduler system" that is "scalable, reliable and extensible").

Meta Response: Undisputed.

2207. With respect to account authentication, Instagram had different options, including the ability to use a comprehensive single sign-on service that included location detection and identity verification or build its own checkpoint system by sourcing the tools separately.

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 2183 and in Meta's responses to the subparagraphs below.

a. Comprehensive single sign-on services were available from Google and Microsoft. PX0665, Ellis Hamburger, *With hacker attacks on the rise, Facebook Connect emerges as security solution,* The Verge, (July 18, 2012), https://www.theverge.com/2012/7/18/3165445/facebook-connect-hackers-formspring ("But, on the whole, Facebook Connect has almost become a startup's go-to tool for onboarding, grabbing far more mindshare than other options like 'Sign in with Google.'"); PX10744, Meta email chain: [redacted] to A. Bejar et al. re: "Spam consultation with snapchat?" (Feb. 12, 2014), FB_FTC_CID_06495964, at -964 (noting that "Facebook Connect, login with Google, login with Microsoft Passport/Live will all give [] some measure of protection against fakes and phishing").

Meta Response: Disputed in part. Undisputed that Google and Microsoft offered single sign-on solutions. Disputed that the solutions offered by those companies were "[c]omprehensive," including because this subparagraph cites no

specific evidence to support that assertion, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

b. A location detection tool was available from MaxMind. *See* PX0359, *About MaxMind*, MaxMind, https://www.maxmind.com/en/company (last visited Apr. 28, 2024).

Meta Response: Undisputed.

c. Identity verification tools including CAPTCHA services were available from Google, Microsoft, and Canada's NUData. *See* PX3392, Meta Workplace Post: [redacted] post to e Social (Nov. 4, 2010), FB_FTC_CID_02197347, at -347 (discussing Google's CAPTCHA service); PX3393, Meta email chain: [redacted] to [redacted] et al. re: "recaptcha and google.com," (Jan. 31, 2011), FB_FTC_CID_0303698, at -987 (showing that Meta discussed signing a contract with Google regarding Facebook's use of reCAPTCHA); PX0361, Jeremy Elson, John R. Douceur, and Jon Howell, *Asirra: A CAPTCHA that Exploits Interest-Aligned Manual Image Categorization*, Microsoft, (Oct. 29, 2007), https://www.microsoft.com/en-us/research/wp-content/uploads/2007/10/CCS2007.pdf; PX0362, Leena Rao, *NuCaptcha Dynamically Alters Captchas To Promise Security*, TechCrunch (Aug. 11, 2011), https://techcrunch.com/2011/08/11/nucaptcha-dynamically-alters-captchas-to-promise-security/.

Meta Response: Undisputed.

i. Gregg Stefancik, the former head of Meta's site integrity team, testified that Instagram "could have" implemented two-factor authentication

including reCAPTCHA, without the acquisition by Meta. PX6042, Stefancik (Meta) Dep. Tr., at 18:2-9, 90:9-14.

Meta Response: Disputed in part. Undisputed that Mr. Stefancik is a former head of Meta's Site Integrity team. *See* PX6042 at 18:2-9 (Stefancik Dep. Tr.). Disputed that the statement accurately paraphrases Mr. Stefancik's testimony, which was: "Q. Do you agree that Instagram and WhatsApp could have used reCAPTCHA as a method for discerning between bots and real people? . . . A. Potentially, if it was the right tool for the job." *Id.* at 90:9-14. Further disputed because Mr. Krieger testified that, even though checkpointing tools like CAPTCHA were "likely something [Instagram] would have explored" in a but-for world without the acquisition, "none of [Instagram's pre-acquisition] team had any expertise in site integrity or spam." Ex. 153 at 142:24-143:4 (Krieger Dep. Tr.).

2208. Although Instagram was responsively addressing spam before the acquisition, the company's co-founders recognized that they would need to "scale up the team," and they had the ability to do so.

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 2183 and in Meta's response to the subparagraph below.

a. Mr. Krieger testified that before Instagram's acquisition by Meta, Instagram had raised $50 million in capital. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 20:15-21. Mr. Krieger stated that Instagram planned to use the $50 million to "[p]rimarily, scale up the team" and believed that Instagram could have employed

16 to 20 engineers "easily." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 20:19-21:17.

Meta Response: Disputed in part. Undisputed that Instagram had raised $50 million in capital before the acquisition through a Series B round, and that Mr. Krieger provided the quoted testimony. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed because the cited evidence does not support the statement to the extent it suggests that Instagram could have easily hired 16 to 20 engineers. Mr. Krieger testified: "Q. So approximately how many more team members were you looking to hire? A. I don't remember if we sort of done the – the capacity planning for that. At the time our – the time of raising the round, our engineering team was only four people, and, you know, we could have easily been, you know, 4x that, like 16. 16 to 20 easily." PX6146 at 21:10-17 (Krieger Dep. Tr.); *see also id.* at 267:12-14 (testifying that pre-acquisition Instagram "hired less quickly than I would have wanted to in terms of building out the team"). Further disputed to the extent the statements imply that Instagram would have used the $50 million to scale up the team working on integrity. On the contrary, Mr. Krieger testified: "Q. . . . what did you hope to do with the Series B funding in building out the team? A. Building out a true Android team. At the time I think we had one Android engineer. So building out a broader team. And then building out an infrastructure team that would be able to make forward progress rather than just . . . you know, keep the site running sort of on a week-to-week basis. And then build out a web

presence. At the time we had a very bare bones web – like, desktop website, and we thought it was time to actually build out a real website." Ex. 302 at 69:15-70:3 (Krieger IH Tr.).

2209. Indeed, on April 26, 2012, about two weeks after the acquisition was announced, Mr. Systrom reached out to Facebook to inquire about extending offers to two candidates, one of whom was an engineer. PX3067, Instagram email chain: K. Systrom (Instagram) to A. Zoufonoun (Meta) et al. re: "Hiring," (Apr. 26, 2012), FB_FTC_CID_08663804, at -805.

Meta Response: Disputed in part. Undisputed that Mr. Systrom contacted Meta in April 2012 regarding "two candidates [Instagram would] like to give offers to." PX3067 at -804 (FB_FTC_CID_08663803). Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statement suggests that Instagram, in fact, made offers to the unidentified candidates, that either candidate accepted the offer to join Instagram, that either candidate would have accepted the offer had the Instagram acquisition not been announced, and that either candidate was hired to work on Instagram's integrity systems, as the cited document contains no evidence supporting those suggestions. *See id.* Indeed, Mr. Systrom requested information from Meta regarding "salary bands" for certain roles and how many restricted stock units (or RSUs) "would be grant[ed] [to] them as a new hire." *Id.*

4. Meta's acquisition of Instagram was not necessary for Instagram to address integrity issues at scale.

a) Other online platforms have scaled their integrity systems successfully without an acquisition by Meta.

2210. Current and former Meta engineers with experience working on integrity issues at Facebook and Instagram acknowledge that Snap, Twitter, Google, Microsoft, Pinterest, LinkedIn, and Yelp, operate integrity systems at scale. Meta's integrity expert also acknowledged that other online platforms have scaled their integrity systems.

Meta Response: Disputed in part. Undisputed that Meta engineers and Meta's integrity expert, Professor Subrahmanian, have acknowledged that other online platforms, including those listed in this paragraph, have scaled their integrity systems. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. The FTC's own proffered expert could only identify one other online platform ([redacted]) that has grown to the same size user base as Instagram and responsibly manages integrity. *See* Ex. 313 at 112:22-114:2 (McCoy Dep. Tr.).

a. Arturo Bejar, a Meta engineer who had previously managed site integrity on Facebook before working on Instagram's integrity team, testified that "larger social media services that face similar pressures [as Meta] have built equivalent systems." [redacted] He continued, "I know Snapchat built their set of systems, and I have had some conversations with them about that. I know that Twitter built certain systems. And I definitely spoke with Google about the systems that they built." [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Bejar provided the quoted testimony – although the quoted transcript states "I had some conversations," not "I have had some conversations" – and previously managed Site Integrity at Facebook. PX6052 at 16:9-18 & errata (Bejar Dep. Tr.). Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2210, and because the quoted testimony is incomplete and missing necessary context. Mr. Bejar testified that he did not know how systems deployed by Snapchat, Twitter, and Google compared to Meta's systems: "I think that the larger social media services that face similar pressures have built equivalent systems. Whether they're exact in terms of capabilities and other things, I don't have any visibility." *Id.* at 181:18-23. Mr. Bejar further testified regarding a component of Meta's integrity systems, Sigma: "As I mentioned earlier, Sigma at Facebook was extraordinary in its capacities." *Id.* at 180:20-181:10; *see also id.* at 181:1-10 (testifying regarding Twitter's spam-fighting systems, "[n]ow, how that compares with sigma at Facebook, I don't have data"). When asked: "Do you know whether Google has an equivalent to [Meta's] Blackhole," Mr. Bejar answered, "I don't know specifically." *Id.* at 178:3-5.

b. Gregg Stefancik. the former head of Meta's site integrity team, testified that Google, Yelp, and LinkedIn have been "effective" at managing integrity issues. PX6042, Stefancik (Meta) Dep. Tr., at 18:2-9, 96:19-97:7.

Meta Response: Disputed in part. Undisputed that Mr. Stefancik formerly led Meta's Site Integrity team and testified that the identified companies have been

effective at managing integrity issues. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2210.

c. Professor Subrahmanian testified that Snap and Pinterest operate integrity systems at scale. PX6176, Subrahmanian (Meta) Dep. Tr., at 55:11-18.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2210.

d. Professor Subrahmanian also testified that along with Meta, Google and Microsoft are industry leaders on integrity issues. *Id.* at 54:9–17 ("Q. Is it your opinion that Meta is the only industry leader on integrity issues? A. No, I'm saying it is an industry leader. Q. Who are the other industry leaders? A. Well, I would say Google. I did not do an analysis of who all are in the industry, but I would say certainly Google and Microsoft are two of the big ones.").

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2210.

b) The tools and techniques Meta uses to manage integrity issues on Instagram are commonly used by other online platforms and not unique to Meta.

2211. Other online platforms besides Meta use rule engines.

Meta Response: Disputed in part. Undisputed that other online platforms besides Meta use rule engines. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that rule engines used by other

online platforms have similar functionalities and performance as Meta's Sigma tool. The evidence establishes that Sigma is "extraordinary in its capacities." PX6052 at 181:8-10 (Bejar Dep. Tr.). Mr. Bejar testified that, during his tenure at Meta, Sigma processed [redacted] *Id.* at 34:23-35:8 (describing Sigma as "remarkable"). Mr. Krieger testified that, at the time of the acquisition, Meta's spam-fighting systems, which include Sigma, were "among the most advanced" of online platforms. PX6146 at 254:23-255:4 (Krieger Dep. Tr.). In addition, the FTC's proffered expert, Professor McCoy, admitted that he has not analyzed the effectiveness of Meta's Sigma tool. *See* Ex. 313 at 54:5-8, 54:20-55:5 ("Q. Have you ever had occasion to analyze the effectiveness of [Sigma, Blackhole, Orb, Karma, Tally, SRT, Sentry, or Delta]? A. No, I have not.").

a. A rule engine is a tool that classifies content and triggers specific responses to that content based on a specified set of rules. *See* PX9002, McCoy Report at ¶ 136(b); PX9020, Subrahmanian Report at ¶ 38; PX12632, Hongkai Pan, *Fighting spam with Guardian*, *a real-time analytics and rules engine*, Medium (Feb. 25, 2021), https://medium.com/pinterest-engineering/fighting-spam-with-guardian-a-real-time-analytics-and-rules-engine-938e7e61fa27.

Meta Response: Undisputed.

b. Meta's rule engine is called Sigma. *See* PX3402, Meta presentation: "Site Integrity & Account Integrity" (June 2017), FTC-META-010411327, at -013; PX4004, Meta White Paper, "Facebook's Acquisitions of Instagram and WhatsApp," at 39 (Sept. 18, 2020); PX9020, Subrahmanian Report at ¶ 38; PX3186, Meta document: "The evolution of spam fighting at Instagram," (Oct.

16, 2015), FTC-META-005087836, at -840 ("Sigma is [Instagram's] major system for spam fighting.").

Meta Response: Undisputed.

c. Rule engines like Meta's Sigma are common to online platforms and have been for some time. *See* PX9002, McCoy Report at ¶ 138(b).

Meta Response: Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211.

d. Pinterest describes its rule engine as "one of [Pinterest's] most valuable tools to fight spam at Pinterest . . . ." PX12632, Hongkai Pan, *Fighting spam with Guardian*, *a real-time analytics and rules engine*, Medium (Feb. 25, 2021), https://medium.com/pinterest-engineering/fighting-spam-with-guardian-a-real-time-analytics-and-rules-engine-938e7e61fa27.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211 and below in Meta's responses to the following subparagraphs.

i. Pinterest appears to have had a rule engine as early as 2012 when it used spam mitigation services provided by Impermium. *See* PX7016, Pinterest document: "Community Focus" (2012), PIN - FTC – 0000025393, at -418.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211, and because the cited

document does not establish that Impermium's spam mitigation services included a rule engine.

ii. In 2014, Impermium was acquired by Google and discontinued all third-party services. *See* PX0568, Kim-Mai Cutler, *Spam-Fighting Startup Impermium Joins Google, Discontinues Third-Party Services*, TechCrunch (Jan. 15, 2014), https://techcrunch.com/2014/01/15/impermium-google/.

Meta Response: Undisputed.

iii. That same year, Pinterest internally developed a rule engine it called Stingray. *See* PX0569, Marty Weiner, *Fighting Spam at Pinterest*, Pinterest Engineering Blog (Feb. 20, 2015), https://medium.com/pinterest-engineering/fighting-spam-at-pinterest-78f4e7dc4727 ("Last year, we began building a new system called Stingray . . . ."); *see also* PX6082, Roberts (Pinterest) Dep. Tr., at 381:2-5.

Meta Response: Disputed in part. Undisputed that Pinterest started to develop a rule engine called Stingray in 2014. *See* PX0569 at -002 (Pinterest Engineering Blog, *Fighting Spam at Pinterest*). Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211. Further disputed because the FTC's characterization of the evidence is incomplete and misleading, including because a post published on the Pinterest Engineering Blog in 2021 states that Stingray was "bug prone" and "wasn't scalable." PX12632 at -002 (Pinterest Engineering Blog, *Fighting Spam with Guardian*).

iv. In 2017, Pinterest upgraded to its current rule engine, internally referred to as Guardian. PX12632, Hongkai Pan, *Fighting Spam with Guardian, A Real-Time Analytics & Rules Engine,* Pinterest Engineering Blog (Feb. 25, 2021), https://medium.com/pinterest-engineering/fighting-spamwith-guardian-a-real-time-analytics-and-rules-engine-938e7e61fa27; *see also* PX6083, Roberts (Pinterest) Dep. Tr., at 379:5-21, 380:13-20.

Meta Response: Disputed in part. Undisputed that Guardian is Pinterest's current rule engine. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211.

e. Twitter also has a rule engine. PX6144, Coleman (Twitter) Dep. Tr., at 275:8-15 ("Q. Are there any other kinds of tools or systems or methods that Twitter has used to identify or remove exposure to objectionable content? A. We use a lot of our own internally developed tools, you know, machine learning algorithms or kind of rule-based systems that try to identify problematic content based on a set of rules."); [redacted].

Meta Response: Disputed in part. Undisputed that Twitter has a rule engine. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211 and below in Meta's responses to the following subparagraphs.

i. Arturo Bejar—a Meta engineer who had previously managed site integrity on Facebook before working on Instagram's integrity team—testified that "one of [Meta's] integrity engineers, pretty senior, went to Twitter and created infrastructure that . . . was similar in nature to [Meta's] sigma."

Mr. Bejar further testified that "third parties have also provided that service." [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Bejar provided the quoted testimony, except that the quote omits the word "similar" before "infrastructure." Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211, and because the quoted language is incomplete and missing necessary context. Mr. Bejar testified: "One of the integrity engineers, pretty senior, went to Twitter and created similar infrastructure that Twitter has talked about publicly. And it was similar in nature to sigma. And I believe third parties have also provided that service. *Now, how that compares with sigma at Facebook, I don't have data. As I mentioned earlier, sigma at Facebook was extraordinary in its capacities*." PX6052 at 181:1-10 (Bejar Dep. Tr.) (emphasis added).

f. YouTube also has a rule engine. PX7017, Google presentation: "TnS Tools and Infrastructure" (Mar. 27, 2019), GOOG-META-01272828 at -831 (listing "Rules Engine" under "Decider" on slide titled "TnS Video Enforcement Overview (Weekly Avg.)").

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2211.

2212. Other online platforms besides Meta use blocklists.

Meta Response: Disputed in part. Undisputed that other online platforms besides Meta use blocklists. Disputed that the statements in this paragraph and its subparagraphs

create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that blocklists used by other online platforms have similar functionalities and performance as Meta's blocklists, including Blackhole. The evidence cited in the subparagraphs below does not contain any cross-platform comparisons of the functionality or performance of any blocklists, and the FTC's proffered expert, Professor McCoy, admitted that he has not analyzed the effectiveness of Meta's Blackhole tool. *See* Ex. 313 at 54:5-8, 54:20-55:5 (McCoy Dep. Tr.) ("Q. Have you ever had occasion to analyze the effectiveness of [Sigma, Blackhole, Orb, Karma, Tally, SRT, Sentry, or Delta]? A. No, I have not.").

a. A blocklist or blacklist is a tool that automatically blocks IP addresses, domain names, URLs, email addresses, or phone numbers associated with malicious conduct. PX9002, McCoy Report ¶ 136(a); PX9020, Subrahmanian Report ¶ 38.

Meta Response: Undisputed.

b. Blocklists are a commonly used spam-fighting tool and have been around "since the advent of email." PX9002, McCoy Report at ¶ 138(c).

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2212.

c. Meta's blocklisting tool is called Blackhole. *See* PX3404, Meta document, "Tools Catalog" (Sept. 11, 2014), FB_FTC_CID_03285862 at -869; PX3402, Meta presentation: "Site Integrity & Account Integrity" (June 2017), FTC-META-010411327, at -009.

Meta Response: Undisputed.

d. Twitter, Pinterest, and Yahoo also use blocklists. [redacted], Pinterest document: "What proportion of spam clickthroughs are blacklisted?" (Oct. 2014), PIN - FTC – 0000029755, at -755; PX6052, Bejar (Meta) Dep. Tr., at 177:21-23 (testifying that Yahoo had a tool equivalent to Meta's Blackhole).

Meta Response: Disputed in part. Undisputed that Twitter, Pinterest, [redacted] have used blocklists. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2212.

2213. Other online platforms besides Meta use rate limiting systems.

Meta Response: Disputed in part. Undisputed that other online platforms besides Meta use rate limiting systems. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that the rate limiting systems used by other online platforms have similar functionalities and performance as Meta's rate-limiting systems, including Karma and Tally. The evidence cited in the subparagraphs below does not contain cross-platform comparisons of the functionality or performance of any rate-limiting systems, and the FTC's proffered expert, Professor McCoy, admitted that he has not analyzed the effectiveness of Meta's Karma or Tally tools. *See* Ex. 313 at 54:5-8, 54:20-55:5 (McCoy Dep. Tr.) ("Q. Have you ever had occasion to analyze the effectiveness of [Sigma, Blackhole, Orb, Karma, Tally, SRT, Sentry, or Delta]? A. No, I have not.").

a. A rate limiting system is a tool or combination of tools that is used to restrict the frequency with which an account may take specified actions. *See* PX9002, McCoy Report at ¶ 138(e); PX9020, Subrahmanian Report at ¶ 38.

Meta Response: Undisputed.

b. Online platforms commonly use rate limiters to manage spam and objectionable content. *See* PX9002, McCoy Report ¶ 138(e); PX9013, McCoy Rebuttal Report at ¶ 216.

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the paraphrased opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2213.

c. Meta's rate limiting system is comprised of a rate limiting tool called Karma, and a tallying tool called Tally. *See* PX3402, Meta presentation: "Site Integrity & Account Integrity" (June 2017), FTC-META-010411327, at -011; PX4004, Meta White Paper, "Facebook's Acquisitions of Instagram and WhatsApp," at 39 (Sept. 18, 2020).

Meta Response: Undisputed.

d. Google, Twitter, and Pinterest also have rate limiting systems. PX7019, Google presentation: "Q4 Apps All Hands" (undated), GOOG-META-00049325, at -408; [redacted]; PX7044, Pinterest document, "Rate Limits," (undated), PIN - FTC – 0000019629, at -629.

Meta Response: Disputed in part. Undisputed that [redacted], Twitter, and Pinterest have used rate limiting systems. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2213.

2214. Other online platforms besides Meta have checkpoint systems.

Meta Response: Disputed in part. Undisputed that other online platforms besides Meta have checkpoint systems. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that the checkpoint systems used by other online platforms have similar functionalities and performance as Meta's checkpoint systems, which include Meta's Delta tool. According to Arturo Bejar, "Delta was, and probably still is, quite remarkable at what it does." PX6052 at 178:6-13 (Bejar Dep. Tr.).

a. A "checkpoint" system is an account protection system that detects anomalous activity such as when a user logs in from an unusual location or device, and blocks the user's access until the user completes a specified action like solving a CAPTCHA or verifying a code sent via phone or email. *See* PX3407, Meta presentation, "Taking down content; How and where and why we do it," (Nov. 11, 2016), FB_FTC_CID_04316063, at 9; PX9002, McCoy Report at ¶ 171(a)-(b).

Meta Response: Undisputed.

b. Meta's checkpoint system uses a location detection tool called Delta and requires users to solve CAPTCHAs or use phone or email verification to authenticate their identities. PX6058, Rosen (Meta) Dep. Tr., at 162:15-21 (testifying that "Delta is related to account detection, and it is the name of a checkpoint. So that's sort of a user experience that's triggered if we suspect that an account may be

compromised."); PX3381, Meta email chain: [redacted] to M. Vernal, et al. re: "Doc Rough Draft: Authenticating Users," (Nov. 21, 2008), FB_FTC_CID_01311065, at -067 (describing authentication via Facebook Connect for first-time users and noting that "by virtue of being a Facebook user, you know that the user already has a valid email address and has solved a CAPTCHA").

Meta Response: Undisputed.

c. Mr. Bejar testified that Google has a checkpoint tool that is comparable to Meta's Delta. [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Bejar provided the paraphrased testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214 and subparagraph 2210(a).

d. Pinterest also has a checkpoint system that includes a tool that detects "logins from unusual locations." PX0356, *We protected your account*, Pinterest: Help Center, https://help.pinterest.com/en/article/we-protected-your-account (last visited March 21, 2024) ("If we notice any strange activity on your Pinterest account, we'll send you an email, reset your password, and log everyone out (including you). Strange activity includes things like logins from unusual locations, many logins within a short period of time, or spammy behavior. To get back on Pinterest, reset your password.").

Meta Response: Disputed in part. Undisputed that Pinterest, in 2024, uses an unidentified tool that detects logins from unusual locations. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214.

e. Twitter requires users to solve a CAPTCHA or verify a phone number if its systems detect a suspicious account. [redacted]

Meta Response: Disputed in part. Undisputed that Twitter requires users to solve a CAPTCHA or verify a phone number if it detects suspicious behavior. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214.

f. As an alternative to building the tools internally, online platforms can also source individual checkpoint tools separately from third-party providers. For example:

Meta Response: Disputed in part. Undisputed that online platforms can source individual checkpoint tools from third-party providers. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214.

i. IP2Location and MaxMind offer location detection tools including tools that allow platforms to determine a user's geographical location and that detects anonymous, proxy, or otherwise masked IP addresses. PX0360, *IP Geolocation*, IP2Location, https://www.ip2location.com/ (last visited Apr. 30, 2024); PX0570, *IP Geolocation and Intelligence Databases and Web Services*, MaxMind, https://www.maxmind.com/en/solutions/ip-geolocation-databases-api-services (last visited Apr. 30, 2024).

Meta Response: Disputed in part. Undisputed that IP2Location and MaxMind offer the described location-detection tools. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214.

ii. Google and Twilio offer various identity verification services such as CAPTCHAs, and phone number and email verification, among others. PX7045, Google document: "Featured Products," (undated), GOOG-META-00046989 at -997 (describing Google cloud offerings and listing "reCAPTCHA Enterprise Help protect your website from fraudulent activity, spam, and abuse" and "Titan Security Key Two-factor authentication device for user account protection"); PX0571, *Multichannel authentication at scale with Verify,* Twilio, https://www.twilio.com/en-us/user-authentication-identity/verify (last visited Apr. 30, 2024).

Meta Response: Disputed in part. Undisputed that Google and Twilio offer the described identity-verification services. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214.

g. Rather than build a checkpoint system from individual tools, online platforms can use systems built by other companies by implementing those companies' single sign-on services.

Meta Response: Disputed in part. Undisputed that online platforms can use single sign-on services from third-party providers. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214.

i. Google, Apple, and others offer single sign-on services that are similar to Meta's Facebook Connect. *See, e.g.,* PX0572, at -001, *Sign in with Google* Google Account Help, https://support.google.com/accounts/answer/12849458?hl=en#:~:text=Sign%20in%20with%20Google%20helps,developers%20that%20aren%27t%

20Google ("Sign in with Google helps you easily and securely sign in to third-party apps or services with . . . the trusted security of your Google Account."); PX0573 at -001-02, Apple Developer, *Authenticating users with Sign in with Apple,* Apple, https://developer.apple.com/documentation/sign_in_with_apple/sign_in_with_apple_rest_api/authenticating_users_with_sign_in_with_apple (last visited May 4, 2024) ("Sign in with Apple lets users log in to your app across all of your platforms using their two-factor authentication Apple ID . . . Apple determines whether a user is a real person by combining on-device machine learning, account history, and hardware attestation using privacy-preserving mechanisms.").

Meta Response: Disputed in part. Undisputed that Google and Apple offer single sign-on services: respectively, "Sign in with Google" and "Sign in with Apple." Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2214.

2215. Other online platforms besides Meta use systems coordinators.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed because the term "systems coordinators" does not appear in the cited documents, and because, to the extent the phrase "systems coordinators" is intended to be synonymous with the phrase "interface systems," the cited documents do not establish that any other online platform uses an

interface system – or any system comparable to Meta's interface system, Sentry, *see* PX9002 at ¶ 137(a) (McCoy Rep.) – to combat integrity issues.

Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that any integrity tools used by other online platforms have similar functionality and performance as Meta's Sentry tool. The evidence cited in the subparagraphs below does not contain cross-platform comparisons of the functionality or performance of any rate-limiting systems, and there is no indication that the FTC's proffered expert, Professor McCoy, analyzed the effectiveness of Meta's Sentry tool. *See* Ex. 313 at 54:5-8, 54:20-55:5 (McCoy Dep. Tr.) ("Q. Have you ever had occasion to analyze the effectiveness of [Sigma, Blackhole, Orb, Karma, Tally, SRT, Sentry, or Delta]? A. No, I have not.").

a. A systems coordinator acts as "an intermediary" between a platform's servers and its integrity tools. *See* PX3186, Meta document: "The evolution of spam fighting at Instagram," (Oct. 16, 2015), FTC-META-005087836, at -836 [redacted].

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2215, and because the phrase "an intermediary" does not appear in the cited document.

b. Meta's systems coordinator is called Sentry. *See* PX3402, Meta presentation: "Site Integrity & Account Integrity" (June 2017), FTC-META-010411327, at -

011 (stating that Sentry [redacted]).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2215.

c. Systems coordinators like Sentry are commonly used managing tools. *See* PX9002, McCoy Report at ¶ 138(a).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2215.

d. [redacted]

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2215, and because the FTC's characterization of Mr. Coleman's testimony is misleading. Mr. Coleman's testimony pertained to whether Twitter has a rule engine or classifier engine, not whether Twitter has a "systems coordinator" or interface system. *See* PX6144 at 288:18-289:10 (Coleman (Twitter) Dep. Tr.).

2216. Other online platforms besides Meta have content moderation and review systems.

Meta Response: Disputed in part. Undisputed that other online platforms have content moderation and review systems to analyze and take action on content reported by users. Disputed that the statements in this paragraph or its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183.

a. Meta's content moderation appears to include three components: 1) an automated first-level review of objectionable content, 2) content moderation and review teams; and 3) a content review interface tool also referred to as the Single Review Tool ("SRT") or Content Review Tool ("CRT"). *See* PX10092 at 18, Meta's Suppl. Objs. & Resps. To FTC's Third Set of Interrogs. (May. 31, 2023); PX9020, Subrahmanian Report at ¶ 146 (PX9020); PX3086, Meta presentation: "Protect & Care, 2016 H2 / 2017 H1" (Dec. 6, 2016), FB_FTC_CID_02952815, at -831 (describing CRT as the old reviewing system and SRT as the new more flexible system); PX0574, at -003-04, Nick Hopkins, *Facebook moderators: a quick guide to their job and its challenges*, The Guardian (May 21, 2017), https://www.theguardian.com/news/2017/may/21/facebook-moderators-quick-guide-job-challenges (describing the single review tool as a special page with a menu of options to help moderators filter content).

Meta Response: Disputed in part. Undisputed that the content moderation and review systems that Meta uses to analyze content reported by users as potential policy violations include the components identified in this statement. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2216, and because the FTC's statement is missing necessary context. The evidence

establishes that the systems described in the statement in this subparagraph are used to analyze content reported by users of Meta's apps as potential violations of Meta's policies such as Facebook's Community Standards or Instagram's Community Guidelines. *See* PX9020 at ¶¶ 144-146 (Subrahmanian Rep.) (discussing the content moderation and review systems identified in this paragraph in the context of user reports); PX6033 at 16:25-17:19 (Velazquez Dep. Tr.) (Mr. Velazquez testifying that, after the Instagram acquisition, "any content that a user reported on Facebook or Instagram was sent into a series of internal tools at [Meta] and then ultimately some automation was run on it to help us figure out if it was content that should be removed or not, and then ultimately it would be submitted for human review so that somebody would ultimately say yes, this is in violation of content policies and should be removed or no, this is not in violation of content policies and should not be removed.").

The evidence establishes that, in addition to user reports and the tools and systems Meta uses to review reported content, Meta has other automatic systems that proactively detect and remove policy-violating content from its apps before the content is distributed or reported by users. *See*, *e.g.*, PX0574 at -002 (Guardian, *Facebook Moderators*) ("Facebook has automatic systems for rooting out extreme content before it hits the site, particularly on child sexual abuse and terrorism, but its moderators do not get involved in this proactive work. Instead, they review millions of reports flagged to them by Facebook users . . . ."); PX9020 at ¶ 38 (Subrahmanian Rep.) (describing Sigma as "a complex rule engine that proactively identifies malicious actions"), ¶¶ 53, 73-77, 130, 159

(describing proactive tools that Meta uses to automatically detect policy-violating content, including spam, hate speech, and child sexual abuse material); PX3186 at -836 (FTC-META-005087836) (describing how Meta's spam-fighting system, which includes Sentry, Sigma, Blackhole, and Karma, automatically evaluates certain user actions); *see also* Meta SMF ¶ 752 (describing some of Meta's proactive integrity tools).

b. Content moderation and review teams typically include a combination of contract employees and employees that work directly for the online platforms. *See* PX9002, McCoy Initial Report at ¶ 225.

Meta Response: Undisputed.

c. Other online platforms besides Meta use automated first-level review of objectionable content.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

i. [redacted], YouTube, Snap, Pinterest, and LinkedIn, use automation to initially review posted content to determine whether the content violates user policy and whether it should be subject to additional review. [redacted]; PX6152, Kim (YouTube) Dep. Tr., at 304:20-305:15, 306:6-307:6; PX0527 at -001, *Snapchat Moderation, Enforcement, and Appeals,* Snapchat Privacy and Safety Hub, (Aug. 2023), https://values.snap.com/privacy/transparency/community-guidelines/moderation; PX0378 at -002-03, Kyle Wiggers, *Pinterest*

details the AI that powers its content moderation, VentureBeat (Mar. 5, 2021), https://venturebeat.com/business/pinterest-details-the-ai-thatpowers-its-content-moderation/; PX7018, LinkedIn document: "Spam Strategy Review" (Aug. 19, 2015), LI_FTC_0005938, at -941.

Meta Response: Disputed in part. Undisputed that the identified companies use some automated tools to proactively detect policy-violating content on their respective platforms. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2216. Further disputed to the extent the statement suggests that the identified companies have content moderation and review systems with similar functionality or performance as the systems deployed by Meta to proactively detect and remove policy-violating content, or the systems deployed by Meta to review content reported by users of its apps. On the contrary, the image below from the cited LinkedIn document establishes that, at the time the document was created, LinkedIn planned to meet with Meta to learn more about the automated filtering Meta deployed on its applications; YouTube relied "mainly on user flagging," not automated filtering; and [redacted] while Meta had a "[r]ich UI and backend infrastructure to understand user flags," along with "24/7 manual monitoring of user flagged content" and "thousands of

contractors." PX7018 at -947 (LI_FTC_0005938)

[redacted]

Further disputed to the extent this subparagraph conflates proactive, automatic systems for detecting policy-violating content before such content is reported by users with automated first-level review of content that is not detected by an online platform's automatic systems but is later reported by users. The cited testimony from [redacted].

Likewise, Mr. Kim of YouTube testified that [redacted]. *Id.* at 304:20-307:6.

The cited document regarding Snapchat states that Snapchat uses "a combination of automated tools and human review to moderate our public content surfaces (such as Spotlight, Public Stories, and Maps) – including machine learning tools and dedicated teams of real people – to review potentially inappropriate content in public posts," and that on Spotlight, "all content is first reviewed automatically by artificial intelligence before gaining any distribution." PX0527 at -001 (Snapchat, *Snapchat Moderation, Enforcement, and Appeals*). The cited document regarding Snapchat also states that, "[a]cross all of [Snapchat's] product surfaces, users can report accounts and content for potential violations of our Community Guidelines," but the cited document does not indicate whether first-level review of reported content on Snapchat is automated. *Id.* at -002.

The cited document regarding Pinterest also pertains to automatic systems to detect "harmful content on its platform . . . before it's

reported." PX0378 at -002 (Venture Beat, *Pinterest Details the AI That Powers Its Content Moderation*). The cited document does not indicate whether first-level review of reported content on Pinterest is automated. *See id.*

The cited document regarding LinkedIn establishes that, at the time the document was created, LinkedIn had "[b]asic automated filtering in place," but was "[m]eeting with [Meta's] team to find out more" about Meta's automated filtering. PX7018 at -947 (LI_FTC_0005938). [redacted]

d. Other online platforms besides Meta use a combination of in-house and contract employees for content moderation.

Meta Response: Disputed in part. Undisputed that other online platforms besides Meta use a combination of in-house and contract employees for content moderation. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2216 and in Meta's responses to the subparagraph below.

i. YouTube, Pinterest, and Twitter use a combination of company employees and third-party contractors to manually review flagged content. PX6152, Kim (YouTube) Dep. Tr., at 304:20-305:21; PX6083, Roberts (Pinterest) Dep. Tr., at 386:18-388:1; PX0370 at -003, Adam Satariano & Mike Isaac, *The Silent Partner Cleaning Up Facebook for $500 Million a Year,* N.Y. Times (Aug. 31, 2021), https://www nytimes.com/2021/08/31/technology/facebook-accenture-contentmoderation.html.

Meta Response: Disputed in part. Undisputed that the identified companies use a combination of company employees and third-party contractors to manually review flagged content. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2216. Further disputed to the extent the statement in the paragraph suggests that the identified companies use a comparable or proportional amount of human reviewers as Meta to review reported content on its apps, or that the identified companies' content moderation and review systems have similar functionalities and performance as the tools and systems Meta uses to analyze reported content. The cited documents do not support those suggestions. Further disputed that the statement regarding Twitter is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h); PX0370 is not admissible evidence.

e. Other online platforms have tools similar to Meta's content review interface.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2216, and because the evidence cited in the subparagraph below does not establish that the content review interface used by any other online platform is "similar to Meta's content review interface," SRT.

i. Pinterest and [redacted] have a review tool that content moderators use to evaluate content that has been flagged as potentially objectionable. PX6083, Roberts (Pinterest) Dep. Tr., at 379:5-380:12; [redacted].

Meta Response: Disputed in part. Undisputed that Pinterest and Twitter have tools that content moderators use to evaluate flagged content. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2216 and subparagraph 2216(e).

2217. PhotoDNA is free and numerous online platforms besides Meta use it to identify child sexual exploitation material.

Meta Response: Disputed in part. Undisputed that online platforms besides Meta use PhotoDNA to identify child sexual exploitation material, and that, today, Microsoft provides the PhotoDNA Cloud Service free of charge to "qualified customers." PX0363 at -001, -003 (Microsoft, *PhotoDNA*). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that it costs online platforms nothing to integrate, run, and maintain PhotoDNA. On the contrary, the evidence establishes that, when Meta deployed PhotoDNA on Facebook (2011) and Instagram

(2012-2013), PhotoDNA was available only as an on-premises product, and, according to the developer (Microsoft), "the on-premise version required time, money and technical expertise to get it up and running and keep it up-to-date," which imposed "potential hurdles for smaller companies and other organizations" that wanted to use the tool. PX9020 at ¶¶ 73-74, 130, 161 (Subrahmanian Rep.); PX0421 at -002-003 (Microsoft, *Microsoft's PhotoDNA: Protecting children and businesses in the cloud*). Microsoft launched a cloud-based version of PhotoDNA in 2015, *see* PX0363 at -001, -003 (Microsoft, *PhotoDNA*); PX0421 at -002-003 (Microsoft, *Microsoft's PhotoDNA: Protecting children and businesses in the cloud*), but the FTC's own expert, Professor McCoy, testified that "even the off-premise" – i.e., the cloud-based version of PhotoDNA – "requires time, money, and technical expertise to keep it up and running." Ex. 313 at 264:3-13 (McCoy Dep. Tr.).

Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram would have implemented and operated PhotoDNA as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. That is purely speculative and does not create a genuine dispute of material fact. *See*, *e.g.*, PX6146 at 147:17-148:2 (Krieger Dep. Tr.) (testifying that "I hadn't even heard of [PhotoDNA] before the acquisition," and that Instagram's "road map did not include [PhotoDNA] prior to the acquisition"); Ex. 302 at 238:3-10 (Krieger IH Tr.) (testifying that only "a small group of companies" used PhotoDNA around the time of the Instagram acquisition, and "it wasn't something that was widely available" to online platforms); PX0421 at -002-003 (Microsoft, *Microsoft's PhotoDNA: Protecting children and*

businesses in the cloud) ("the on-premise version [of PhotoDNA] required time, money and technical expertise to get it up and running and keep it up-to-date," which created "potential hurdles for smaller companies"). Actual evidence shows that Meta's deployment of PhotoDNA on Instagram, and subsequent improvements to its integration in 2014, greatly benefited Instagram. *See* Ex. 481 at -956 (FTC-META-012330956) (May 23, 2014 post, which states "Instagram photos are now being hashed and added to FB CEI PhotoDNA banks! We have granular tracking in place for monitoring hits and so far things are looking good. This is a huge win for our child safety work."); PX15323 at -035 (FTC-META012331035) (May 23, 2014 post, which states that, after "a months-long effort," Meta "launched a full integration of PhotoDNA into Instagram," which was "an amazing improvement" to Instagram's "ability to fully address CEI").

a. Meta uses PhotoDNA to identify objectionable content, including child sexual abuse material on Instagram. PX9020, Subrahmanian Report at ¶¶ 73, 74; PX10092 at -019, Meta's Suppl. Objs. & Resps. to FTC's Third Set of Interrogs. (May 31, 2023).

Meta Response: Disputed in part. Undisputed that Meta uses PhotoDNA to detect policy-violating content, including apparent child sexual abuse material ("CSAM"), on Instagram. Disputed to the extent the statement suggests that Meta uses only PhotoDNA to identify policy-violating content, including apparent CSAM. PhotoDNA is part of a suite of tools that Meta uses to detect apparent CSAM on its applications. *See* PX9020 at ¶¶ 72-84 (Subrahmanian Rep.) (describing tools Meta uses to detect and remove apparent CSAM, including PDQ, a photo-matching algorithm that allows matching to perceptually similar

images; TMK+PDQF, a video-matching algorithm; and SimSearchNet++, an AI model that detects near-exact duplicates of policy-violating content and is resilient to a wider variety of image manipulations (e.g., crops, blurs, screenshots) than prior technologies).

b. PhotoDNA is a photo and video matching tool that converts each image into a digital signature (also called a digital fingerprint or a "hash" value) and facilitates the removal of matched child sexual exploitation images and videos. PX0363 at -002, *PhotoDNA*, Microsoft, https://www.microsoft.com/en-us/photodna (last visited May 8, 2024); PX9020, Subrahmanian Report at ¶ 73.

Meta Response: Disputed in part. Undisputed that the statement in this subparagraph accurately describes PhotoDNA as it exists today. Disputed for the reasons stated above in Meta's response to paragraph 2217. Further disputed to the extent the statement suggests that PhotoDNA can facilitate the removal of only matched child sexual abuse material. The evidence establishes that Meta also has used PhotoDNA to proactively detect and remove other forms of policy-violating content, including matched spam and matched content for organized crime, hate organizations, and hate symbols. PX9020 at ¶¶ 130, 153 (Subrahmanian Rep.).

c. PhotoDNA was developed by Microsoft and Dartmouth College in 2009 and donated to the National Center for Missing & Exploited Children ("NCMEC"). PX0363 at -001-02, *PhotoDNA*, Microsoft, https://www.microsoft.com/en-us/photodna (last visited May 8, 2024).

Meta Response: Undisputed.

d. NCMEC is the "clearinghouse and comprehensive reporting center for all issues related to" child victimization including child exploitation and abuse. PX0363 at -002, *PhotoDNA*, Microsoft, https://www.microsoft.com/en-us/photodna (last visited May 8, 2024).

Meta Response: Undisputed.

e. NCMEC maintains a list of hashed child sexual abuse material ("CSAM") images and operates a "hash sharing platform" through which it provides its list of confirmed CSAM hashes to online platforms, law enforcement agencies, and other organizations. NCMEC also has a separate platform that allows specific online platforms to share their CSAM hashes with other platforms. PX0575 at -004, NCMEC, *Google and Image Hashing Technology*, Google Safety Center, https://safety.google/stories/hash-matching-to-help-ncmec/ (last visited May 15, 2024).

Meta Response: Undisputed.

f. Microsoft provides PhotoDNA free of charge to any qualified technology company. PX0363 at -003, *PhotoDNA*, Microsoft, https://www.microsoft.com/en-us/photodna (last visited May 8, 2024); *see also* PX6042, Stefancik (Meta) Dep. Tr., at 50:1-8 ("[T]here was a shared set of hashes or photo fingerprints that were used and shared amongst industry to make sure that we all were aware of existing CEI and could remove it promptly.").

Meta Response: Disputed in part. Undisputed that the document contains the paraphrased statement and that Mr. Stefancik provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2217.

g. In the context of CSAM, online platforms use PhotoDNA to create hashes of potential CSAM images on their platforms and then compare those hashes with the confirmed CSAM hashes provided by NCMEC to identify exact or near duplicate copies. *See* PX0363 at -002, *PhotoDNA*, Microsoft, https://www.microsoft.com/en-us/photodna (last visited May 8, 2024).

Meta Response: Disputed in part. Undisputed that, in the context of CSAM, online platforms use PhotoDNA to create hashes of images and compare those hashes against databases containing hashes of previously identified CSAM. Disputed for the reasons stated above in Meta's response to paragraph 2217, and because the evidence establishes that Meta creates hashes of content uploaded to Instagram and Facebook, regardless of whether the image is apparent or potential CSAM. *See* PX9020 at ¶¶ 73-74 (Subrahmanian Rep.).

h. PhotoDNA is a commonly used method for identifying child sexual abuse material. *See* PX9013, McCoy Rebuttal Report at ¶ 242; PX6042, Stefancik (Meta) Dep. Tr., at 48:10-20 (testifying that Meta used "an industry-standard fingerprinting process . . . called PhotoDNA" to fight child sexual exploitation on its platform); PX0421 at -002, Tracy Ith, *Microsoft's PhotoDNA: Protecting children and businesses in the cloud*, Microsoft (July 15, 2015), https://news.microsoft.com/features/microsofts-photodna-protecting-children-andbusinesses-in-the-cloud/ (describing PhotoDNA as a "breakthrough for more than 70 companies and organizations already using it").

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the paraphrased opinion, and that, today, PhotoDNA is used by online platforms,

including Meta, to detect and remove apparent CSAM. Disputed for the reasons stated above in Meta's response to paragraph 2217.

i. Microsoft, Snap, TikTok, Twitter, Pinterest, and Reddit use PhotoDNA to identify CSAM. PX0525, Coen Teunissen & Sarah Napier, *Child Sexual Abuse Material & End-to-End Encryption on Social Media Platforms: An Overview*, 653 Australian Institute of Criminology 6-8 (July 2022), https://www.aic.gov.au/sites/default/files/2022-07/ti653_csam_and_end-to-end_encryption_on_social_media_platforms.pdf; PX0688 at -011, *Transparency Report*, Pinterest Policy, https://policy.pinterest.com/en/transparency-report (last visited May 22, 2024); [redacted].

Meta Response: Disputed in part. Undisputed that Microsoft, Snapchat, TikTok, Twitter, Pinterest, and Reddit have used PhotoDNA to identify apparent CSAM on their respective platforms. Disputed for the reasons stated above in Meta's response to paragraph 2217. Further disputed to the extent this statement suggests that each of the identified companies was using PhotoDNA at the time Meta deployed the tool on Instagram. For example, the evidence establishes that Reddit did not deploy PhotoDNA until 2016. *See* PX9020 at ¶ 152 n.440 (Subrahmanian Rep.) ("Since 2016, Reddit has used Microsoft's PhotoDNA technology to scan for CSAM content." (quoting Reddit's Engineering Blog)).

2218. Other online platforms besides Meta have user controls.

Meta Response: Disputed in part. Undisputed that other online platforms besides Meta have user controls. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that

Instagram would have implemented and operated a suite of user controls as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183.

a. Meta allows Instagram users to take actions like unfriend, unfollow, and block unwanted accounts; hide unwanted comments and direct-message requests; restrict other users from viewing or interacting with posted content; and search their direct messages using specific words, phrases, or images (the "hidden words" feature). *See* PX9020, Subrahmanian Report at ¶ 55.

Meta Response: Disputed in part. Undisputed that Meta equips Instagram users with tools, which include unfollowing and blocking accounts, hiding comments and direct-message requests from individuals the user does not follow, restricting other users from viewing or interacting with their content, and a "Hidden Words" feature. PX9020 at ¶ 55 & nn.120-122 (Subrahmanian Rep.). Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2218, and because Meta does not offer an "unfriend" tool on Instagram. Instagram users do not "friend" other users; connections are one-way "follows," and where users follow one another, that relationship is referred to as a "reciprocal follow." *See* Meta SMF ¶ 69 (quoting Ex. 2 at ¶ 72 (Carlton Rep.)). Further disputed because the evidence does not support the FTC's description of the "Hidden Words" feature. The Hidden Words feature allows Instagram users to automatically filter (or hide) direct messages and comments containing words or phrases selected by the user. *See* PX9020 at ¶ 55 & nn.121-122 (Subrahmanian Rep.).

b. Snap also allows its users to remove, block, and mute users, and restrict which users can contact them or view their Stories, activities, and location. PX0392 at -001, *How to Block a Friend on Snapchat*, Snapchat Support, https://help.snapchat.com/hc/en-us/articles/7012401093396-How-to-Block-a-Friend-on-Snapchat (last visited Apr. 30, 2024); PX0393 at -001, *How to Remove a Friend on Snapchat*, Snapchat Support, https://help.snapchat.com/hc/en-us/articles/7012410297364-How-to-Remove-a-Friend-on-Snapchat (last visited Apr. 30, 2024); PX0394 at-001-02, *How do I change my privacy settings on Snapchat?*, Snapchat Support, https://help.snapchat.com/hc/en-us/articles/7012343074580-How-do-I-change-my-privacy-settings-on-Snapchat (last visited Apr. 30, 2024).

Meta Response: Disputed in part. Undisputed that Snapchat has the described features. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2218.

c. Likewise, Twitter and TikTok have block features that allow users to restrict which accounts can follow them, view or engage with their content, or send them Direct Messages. PX0395 at -002-04, *How to block accounts on X*, X Help Ctr., https://help.twitter.com/en/using-x/blocking-and-unblocking-accounts (last visited Apr. 30, 2024) (explaining restrictions on blocked accounts); PX0396, *Blocking users*, TikTok Help Ctr., https://support.tiktok.com/en/using-tiktok/followers-and-following/blocking-the -users (last visited Apr. 30, 2024); *see also* PX0397 at -001-05, *User Safety*, TikTok Help Ctr., https://support.tiktok.com/en/safety-hc/account-and-user-safety/user-safety (last visited May 7, 2024).

Meta Response: Disputed in part. Undisputed that Twitter and TikTok have the described features. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2218.

d. Twitter also allows users to search their Direct Messages using specific keywords or "names of [] conversations." PX0398 at -010, *About Direct Messages*, X Help Ctr., https://help.twitter.com/en/using-x/direct-messages#search-dms (last visited Apr. 30, 2024).

Meta Response: Disputed in part. Undisputed that Twitter allows users to search Direct Messages using keywords or names. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2218. Further disputed to the extent the statement suggests that the search feature on Twitter is a tool with similar functionality as Meta's Hidden Words features. The cited document does not establish that Twitter offers a feature that allows users to create a list of terms or phrases that are used to automatically filter (or hide) Direct Messages containing such terms. *Compare* PX0398 at -010 (X, *About Direct Messages*) (explaining how Twitter users can search for keywords and names to "[r]evisit conversations"), *with* PX9020 at ¶ 55 & nn.121-121 (Subrahmanian Rep.) (explaining that Meta's Hidden Words feature "allows users to automatically filter" or hide "messages based on words, phrases, and emojis").

2219. Other online platforms besides Meta have user reporting tools.

Meta Response: Disputed in part. Undisputed that online platforms besides Meta have user reporting tools. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that other online

platforms use content moderation and review systems that have similar functionalities and performance as the systems and tools Meta uses to review and evaluate content reported by users of Instagram, or that Instagram would have implemented and operated a content moderation and review system to analyze content reported by users with similar functionality and performance as quickly and efficiently absent the acquisition, including for the reasons stated above in Meta's response to paragraph 2183, and because the documents cited below do not support those suggestions.

a. Meta allows users to report content containing self-harm, terrorism, and other potential policy violations. *See* PX9020, Subrahmanian Report at ¶¶ 62, 66.

Meta Response: Disputed in part. Undisputed that Meta provides tools for users to report potential policy violations on its applications, and that Meta offers a self-harm reporting tool, which allows users to anonymously report posts that suggest engagement in self-harm and has been applauded as a well thought-out tool. PX9020 at ¶ 62 (Subrahmanian Rep.). Disputed to the extent the statement suggests that Meta relies entirely on user reports to detect and remove policy-violating content from its applications. The evidence shows that, in addition to user reports and the tools and systems Meta deploys to review reported content, Meta has automated systems that proactively detect and remove policy-violating content from Facebook and Instagram before the content is distributed on the apps, for the reasons stated above in Meta's responses to subparagraph 2216(a).

b. User reports are "a common, bedrock tool in content moderation" that most online platforms use. *See* PX9013, McCoy Rebuttal Report at ¶ 273.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2219, and because the cited paragraph in Professor McCoy's report cites no evidence showing that "most" online platforms use user reports.

c. Twitter, YouTube, Snap, and Pinterest all allow users to report content and accounts that violate their user policies. PX0530 at -001, *Report violations*, X Help Ctr., https://help.twitter.com/en/rules-and-policies/x-report-violation (last visited May 8, 2024); PX0531 at -001, *Report inappropriate videos, channels, and other content on YouTube*, YouTube Help, https://support.google.com/youtube/answer/2802027?hl=en&co=GENIE.Platform%3DAndroid (last visited May 8, 2024); PX6157, Wahi (Snap) Dep. Tr., at 252:20-253:18; PX0533 at -001, *How do I report abuse or illegal content on Snapchat?*, Snapchat Support, https://help.snapchat.com/hc/en-us/articles/7012399221652-How-do-I-report-abuse-or-illegal-content-on-Snapchat (last visited May 8, 2024); PX0534 at -001, *Report something on Pinterest*, Pinterest Help Ctr., https://help.pinterest.com/en/article/report-something-on-pinterest (last visited May 8, 2024); PX7046, Pinterest document: "Fighting Spam" (Dec. 4, 2012), PIN - FTC - 0000031089, at -102 ("Your reports, using our blocking and reporting features, are an important part of our spam fighting strategy.").

Meta Response: Disputed in part. Undisputed that Twitter, YouTube, Snapchat, and Pinterest have tools that allow users to report potential violations of

their respective policies. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2219.

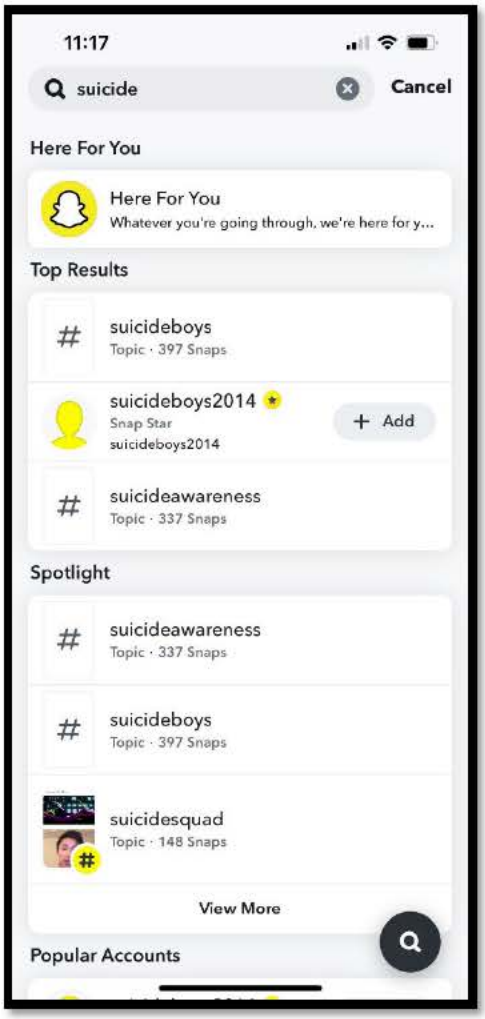
d. Twitter, Snap, and YouTube also allow users to report content that encourages or promotes suicide or self-harm. PX0535 at -005, *Suicide and Self-harm policy*, X Help Ctr., https://help.twitter.com/en/rules-and-policies/glorifying-self-harm (last visited May 8, 2024); PX6108, Coleman (Pinterest) Dep. Tr., at 206:6-12; PX0536 at -001-02, *Threats, Violence & Harm Community Guidelines Explainer Series*, Snap Priv. & Safety Hub (updated Jan. 2023), https://values.snap.com/privacy/transparency/community-guidelines/threats; PX0537 at -001, *Suicide, self-harm, and eating disorders policy*, YouTube Help, https://support.google.com/youtube/answer/2802245 (last visited May 8, 2024).

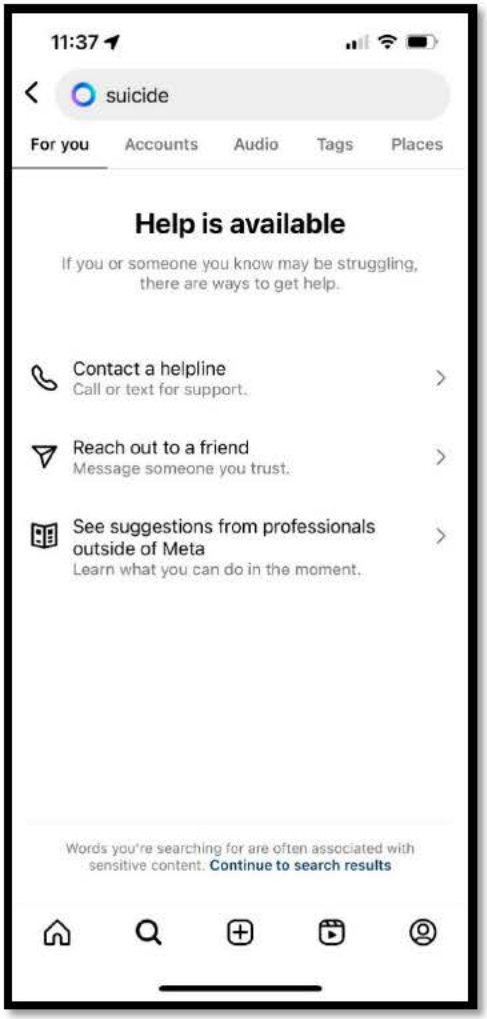
Meta Response: Disputed in part. Undisputed that Twitter, Snap, and YouTube offer tools for users to report content that encourages or promotes suicide or self-harm. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2219.

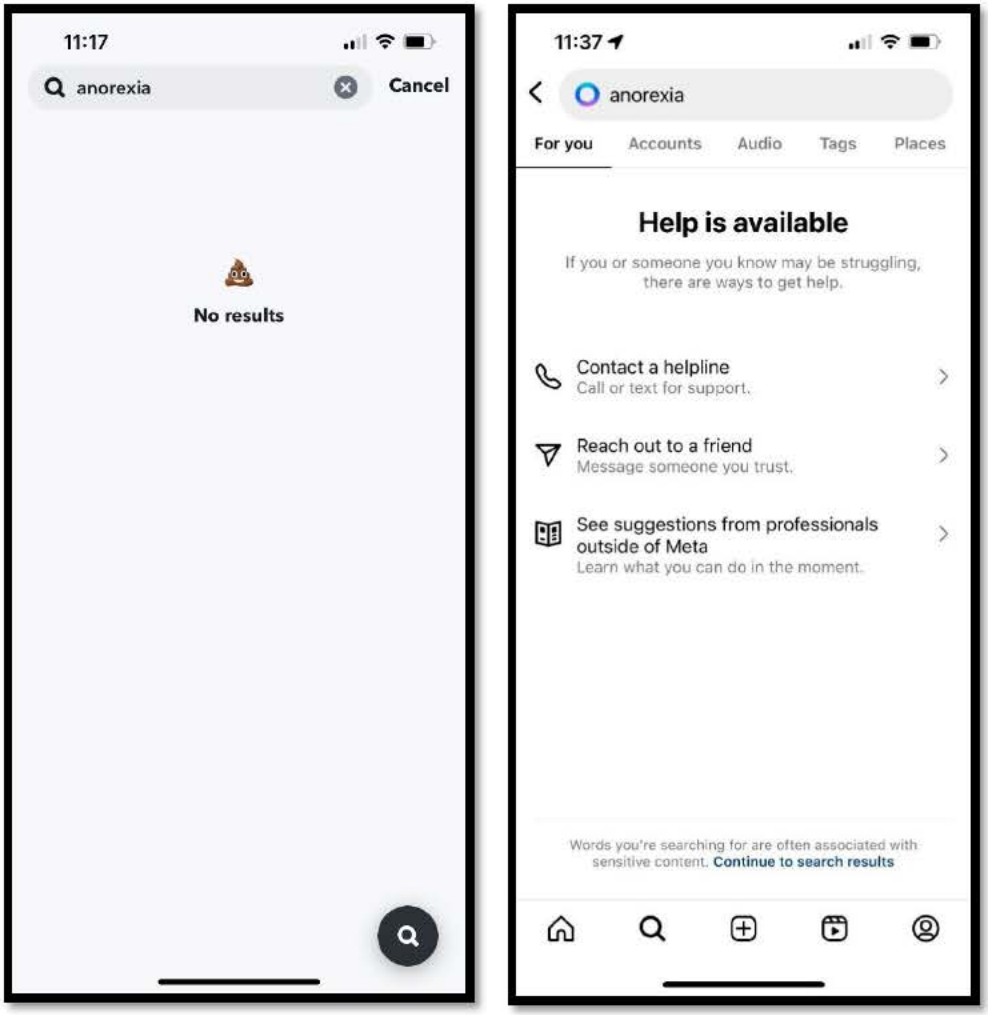
e. In addition, Pinterest and Snap have implemented "safe search" features that display a suicide prevention hotline and related resources when users search for content involving self-harm. PX6108, Coleman (Pinterest) Dep. Tr., at 203:11-204:6; PX0538 at -001, *Wellbeing Features on Snapchat*, Snapchat Support, https://help.snapchat.com/hc/en-us/articles/7012398974612-Wellbeing-Features-on-Snapchat (last visited May 8, 2024). Snap also allows users to notify it when other users may be at risk of self-harm. PX0538 at -001, *Wellbeing Features on Snapchat*, Snapchat Support, https://help.snapchat.com/hc/en-

us/articles/7012398974612-Wellbeing-Features-on-Snapchat (last visited May 8, 2024).

Meta Response: Disputed in part. Undisputed that Pinterest displays resources, including a suicide prevention hotline, when users search for content involving self-harm, and that Snap allows Snapchat users to notify it when other users may be at risk for self-harm. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2219. Further disputed that Snap has implemented a "safe search" feature that displays a suicide prevention hotline and related resources when users search for content involving self-harm. The evidence shows that, to the extent Snap provides resources, users must explore a "Here For You" tool to find them. *See* PX0538 at -001 (Snapchat, *Wellbeing Features on Snapchat*). Further disputed to the extent the statement suggests that Meta does not display a suicide prevention hotline and related resources when users search for content involving self-harm on Instagram. The evidence shows that Meta provides resources to users who search for content related to suicide, self-injury, or eating disorders. *See* Ex. 525 (Meta, *Suicide, Self-Injury, and Eating Disorders*). The screenshots below compare search results for "suicide" and "anorexia" on Snap (left) and Instagram (right):


11:17
suicide
Cancel
Here For You
Here For You
Whatever you're going through, we're here for y...
Top Results
suicideboys
Topic · 397 Snaps
suicideboys2014
Snap Star
suicideboys2014
+ Add
suicideawareness
Topic · 337 Snaps
Spotlight
suicideawareness
Topic · 337 Snaps
suicideboys
Topic · 397 Snaps
suicidesquad
Topic · 148 Snaps
View More
Popular Accounts


11:37
suicide
For you
Accounts
Audio
Tags
Places
Help is available
If you or someone you know may be struggling, there are ways to get help.
Contact a helpline
Call or text for support.
Reach out to a friend
Message someone you trust.
See suggestions from professionals outside of Meta
Learn what you can do in the moment.
Words you're searching for are often associated with sensitive content. Continue to search results



2220. Other online platforms besides Meta use warning labels to alert users to objectionable content.

Meta Response: Disputed in part. Undisputed that Twitter uses warning labels to alert users to certain types of content. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the evidence cited in the subparagraphs below does not support the assertion that other online platforms besides Meta and Twitter use such labels.

a. Meta uses warning labels and messages to alert users when the content they are viewing contains misinformation or when it appears that they are attempting to post harassing content. *See* PX9020, Subrahmanian Report at ¶¶ 46, 57.

Meta Response: Disputed in part. Undisputed that Meta uses warning labels and messages to alert users when content contains information a fact checker has determined was at least partially false or altered, and when it appears that a user is attempting to post content that may violate Meta's policies prohibiting bullying and harassment. PX9020 at ¶¶ 46, 57 (Subrahmanian Rep.). Disputed to the extent the statement suggests that Meta uses warning labels only in the described circumstances, or that Meta leaves content on its applications that it knows violates its user policies. The evidence does not support those suggestions. On the contrary, the evidence establishes that Meta uses warning labels or sensitivity screens to alert users of content that may be sensitive or misleading, even if such content does not explicitly violate Meta's user policies. *See*, *e.g.*, Ex. 526 at 1 (Meta, *Providing Context on Sensitive or Misleading Content*) ("One way Meta promotes a safe, authentic community is by informing people that content might be sensitive or misleading, even if it doesn't explicitly violate the Facebook Community Standards or Instagram Community Guidelines."); *id.* at 2 ("To help people avoid coming across content they'd rather not see, [Meta] limit[s] the visibility of certain posts that are flagged by people on Instagram for containing sensitive or graphic material. Photos and videos containing such content will appear with a warning screen to inform people about the content before they view

it.”). Further disputed for the reasons stated above in Meta’s responses to paragraphs 2183 and 2220.

b. Twitter also uses warning labels to identify content that contains misinformation. PX0399 at -004, *Our range of enforcement options*, X Help Ctr., https://help.twitter.com/en/rules-and-policies/enforcement-options (last visited Apr. 1, 2024) (“Labeling a post: If we determine a post contains misleading or disputed information per our policies that could potentially lead to harm, we may add a label to the content to provide context and additional information to users.”); *see also* PX6144, Coleman (Twitter) Dep. Tr., at 270:2-9 (stating that Twitter experimented with a tool that would “pop a little screen up that would say something like, are you sure you want to do that? Comments that are similar to this can sometimes be experienced as abusive, might be against the Twitter rules, you could get reported.”).

Meta Response: Disputed in part. Undisputed that Twitter labels posts containing misleading or disputed information if such posts could potentially lead to harm. PX0399 at -004 (X, *Our Range of Enforcement Options*). Disputed for the reasons stated above in Meta’s responses to paragraphs 2183 and 2220.

c. Some platforms do more than apply warning labels to content identified as misinformation.

Meta Response: Disputed in part. Undisputed that the online platforms identified in the subparagraphs below sometimes remove content that violates their respective user policies regarding misinformation, and that TikTok

sometimes also removes accounts that seek to mislead people. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2220.

Further disputed to the extent the statements in this paragraph and the subparagraphs below suggest that Meta does not remove content that violates its policies regarding misinformation. On the contrary, the evidence shows that Meta's user policies prohibit misinformation that "is likely to directly contribute to the risk of imminent physical harm" or "likely to directly contribute to interference with the functioning of political processes and certain highly deceptive manipulated media." Ex. 527 at 2 (Meta, *Misinformation*). Meta removes "misinformation or unverifiable rumors that expert partners have determined are likely to directly contribute to a risk of imminent violence of physical harm to people"; "misinformation . . . about vaccines when public health authorities conclude that the information is false and likely to directly contribute to imminent vaccine refusals"; "misinformation during public health emergencies when public health authorities conclude that the information is false and likely to directly contribute to the risk of imminent physical harm, including by contributing to the risk of individuals getting or spreading a harmful disease or refusing an associated vaccine"; "misinformation that is likely to directly contribute to a risk of interference with people's ability to participate in [an election or census]," including "[m]isinformation about the dates, locations, times, and methods for voting, voter registration, or census participation" and "[f]alse claims about current conditions at a U.S. voting location that would make it impossible to vote, as verified by an election authority"; and manipulated media

when certain criteria are met. *Id.* at 2-3, 6-7. Further disputed to the extent this statement implies that Meta does not remove accounts that violate its policies regarding misinformation. The evidence shows that Pages, Groups, Profiles, and Instagram accounts that repeatedly share policy-violating misinformation "may, in addition to having their content removed, receive decreased distribution, limitations on their ability to advertise, or be removed from [Meta's] platforms." *Id.* at 3.

i. For example, Snap, Pinterest, and TikTok remove content determined to be misinformation to "reduce[] the risk of [misinformation] being shared more widely." PX0400 at -002, *How We Prevent the Spread of False Information on Snapchat*, Snap Priv. & Safety Hub (Sept. 8, 2022), https://values.snap.com/news/how-we-prevent-the-spread-of-false-information-on-snapchat; *see also* PX0401 at -001, *Combating climate misinformation on Pinterest*, Pinterest Newsroom (Apr. 8, 2022), https://newsroom.pinterest.com/news/combating-climate-misinformation-on-pinterest/; PX0403 at -001-02, Cormac Keenan, *An update on our work to counter misinformation*, TikTok Newsroom (Sept. 28, 2022), https://newsroom.tiktok.com/en-us/an-update-on-our-work-to-counter-misinformation.

Meta Response: Disputed in part. Undisputed that Snap, Pinterest, and TikTok sometimes remove content that violates their respective policies regarding misinformation, and that PX0400 contains the quoted language,

without alterations. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2220 and subparagraph 2220(c).

ii. "In addition to removing content that is inaccurate and harms [its] users or community, [TikTok] also remove[s] accounts that seek to mislead people or use TikTok to deceptively sway public opinion." PX0403 at -001, Cormac Keenan, *An update on our work to counter misinformation*, TikTok Newsroom (Sept. 28, 2022), https://newsroom.tiktok.com/en-us/an-update-on-our-work-to-counter-misinformation.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2220 and subparagraph 2220(c).

2221. Other online platforms besides Meta hire third-party integrity professionals to help address integrity issues.

Meta Response: Disputed in part. Undisputed that online platforms besides Meta hire third-party integrity professionals to help address integrity-related issues. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Instagram would have hired or partnered with third-party integrity professionals as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183.

a. Meta uses the following third parties to address integrity issues on Instagram: integrity and counterterrorism professionals, fact-checkers, content moderators,

auditors, and oversight board members. *See* PX9020, Subrahmanian Report at ¶¶ 46, 62, 66, 79, 94, 97.

Meta Response: Undisputed. *See* PX9020 at ¶¶ 46, 60, 62, 64, 66, 78, 94-96 (Subrahmanian Rep.) (identifying the following third parties with which Meta has collaborated to address integrity issues: the National Suicide Prevention Lifeline (now known as the 988 Suicide & Crisis Lifeline), the UK Revenge Porn Helpline, members of the Global Internet Forum to Counter Terrorism, the National Center for Missing & Exploited Children, the Data Transparency Advisory Group, Ernst & Young, Meta's Oversight Board, Accenture, more than 350 safety and counterterrorism experts, and more than 90 international organizations who review and rate viral misinformation).

b. Other online platforms besides Meta hire third-party integrity and counterterrorism experts.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

i. For example, Twitter has in the past hired academic researchers "who study everything from behavioral econ to design of online spaces to attempt at manipulation of online platforms" to help Twitter improve the "health of the conversation on Twitter." PX6144, Coleman (Twitter) Dep. Tr., at 276:21-278:7.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221.

ii. YouTube also works with counterterrorism experts to help identify and combat terrorist and extremist content on its platform. PX0577 at -001-02, *An update on our commitment to fight violent extremist content online*, YouTube Blog (Oct. 17, 2017), https://blog.youtube/news-and-events/an-update-on-our-commitment-to-fight/.

Meta Response: Disputed in part. Undisputed that, in 2017, YouTube announced that it had partnerships with NGOs with expertise in areas including terrorism. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221.

iii. Snap "consult[s] the expertise and work of civil rights organizations, human rights experts, law enforcement agencies, NGOs, and safety advocates" to ensure that its policies regarding terrorism and violent extremism are enforced responsibly and "calibrate[d] wherever necessary to ensure that our products and policies function to keep Snapchatters safe." PX0578 at -001-02, *Community Guidelines Explainer Series: Hateful Content, Terrorism, and Violent Extremism*, Snap Priv. & Safety Hub (updated Jan. 2024), https://values.snap.com/privacy/transparency/community-guidelines/hateful-content.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, without modifications. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221.

iv. TikTok uses "a combination of technology, safety and security professionals, and threat detection partners to help [] enforce [its] policies" against the promotion of violent extremism on its platform. PX0579 at -002, Julie de Bailliencourt, *Partnering to prevent violent extremism*, TikTok Newsroom (Sept. 8, 2022), https://newsroom.tiktok.com/en-us/partnering-to-prevent-violent-extremism. TikTok's trust and safety teams also "partner with local experts and civil society organizations to understand the unique cultures and experiences of communities affected by violent extremism." *Id*.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, without modifications. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221.

c. Other online platforms besides Meta use third-party fact checkers.

Meta Response: Disputed in part. Undisputed that some other online platforms besides Meta use third-party fact checkers. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221. Further disputed to the extent the statement suggests that TikTok's or Snap's fact-checking program are as effective or efficient as Meta's fact-checking program at detecting misinformation. The evidence establishes that Meta has built one of the largest – if not the largest – fact-checking networks of any online platform, and that Meta uses AI systems to scale the work of its independent fact checkers by deploying AI tools that can detect and remove near-exact duplicates of previously identified misinformation. PX9020 at ¶ 46 & nn.95-97 (Subrahmanian Rep.).

i. In the U.S., Meta works with non-profit organizations and news companies as part of its fact-checking program. PX0406 at -014, *A Map of Meta's Global Fact-Checking Partners*, Meta for Media, https://www.facebook.com/formedia/mjp/programs/third-party-fact-checking/partner-map (last visited Apr. 30, 2024) (showing that in the US, Meta partners with AFP-Hub, Check Your Fact, Factcheck.org, Lead Stories, PolitiFact, Science Feedback, Reuters Fact Check, TelevisaUnivision, The Dispatch, and USA TODAY).

Meta Response: Undisputed.

ii. TikTok uses some of the same organizations Meta has partnered with, such as Lead Stories, Reuters, and Science Feedback, to support its fact-checking program. *Compare* PX0407 at -006, *Combating Harmful Misinformation*, TikTok, https://www.tiktok.com/transparency/en-us/combating-misinformation (last visited May 7, 2024), *with* PX0406 at -014, *A Map of Meta's Global Fact-Checking Partners*, Meta for Media, https://www.facebook.com/formedia/mjp/programs/third-party-fact-checking/partner-map (last visited Apr. 30, 2024).

Meta Response: Disputed in part. Undisputed that TikTok partners with some of the same organizations as Meta to support its fact-checking program. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221 and subparagraph 2221(c).

iii. Snap uses an in-house team of journalists to identify and respond to potential misinformation. PX0408 at -001, Tim Maytom, *Snapchats in-*

house team of journalists are fact-checking content, Mobile Mktg. (Aug. 30, 2017), https://mobilemarketingmagazine.com/snapchats-in-house-team-of-journalists-are-fact-checking-content/.

Meta Response: Disputed in part. Undisputed that, in 2017, Snap had a team of journalists who worked at Snapchat to review content pertaining to major news stories and to determine whether such content was accurate. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221 and subparagraph 2221(c). Further disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

d. Other online platforms besides Meta use third-party content moderators.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

i. [redacted], a third-party content moderator Meta has also contracted with, to review flagged objectionable content. PX0370 at -008, Adam Satariano & Mike Isaac, *The Silent Partner Cleaning Up Facebook for $500 Million a Year*, N.Y. Times (updated Oct. 28, 2021), https://www nytimes.com/2021/08/31/technology/facebook-accenture-contentmoderation.html; PX6097, Presser (TikTok) Dep. Tr., at 259:6-15.

Meta Response: Disputed in part. Undisputed that [redacted] uses Accenture. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and

Local Rule 7(h). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221.

e. Other online platforms besides Meta have oversight boards.

Meta Response: Disputed in part. Undisputed that online platforms besides Meta have oversight boards. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221.

i. Snap and TikTok have independent oversight boards that assist them with decisions regarding content moderation. PX0409 at -002, *Snap Safety Advisory Board*, Snap Priv. & Safety Hub, https://values.snap.com/safety/safety-advisory-board (last visited April 30, 2024); PX0580 at -001-02, *Engaging our Advisory Councils*, TikTok, https://www.tiktok.com/transparency/en/advisorycouncils/ (last visited May 15, 2024).

Meta Response: Undisputed in part. Undisputed that Snap and TikTok have oversight boards that assist with decisions regarding content moderation. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221.

ii. Keith Coleman, Twitter's Vice President of Products, testified that Twitter's Trust and Safety Council would "share their perspectives on trust and safety needs and that we would run features and plans by to get their feedback." [redacted]

Meta Response: Disputed in part. Undisputed that Mr. Coleman provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221. Further disputed to the extent the statement suggests that [redacted].

f. Ernst & Young, which Meta used to audit its integrity systems and controls in 2022, PX9020, Subrahmanian Report at ¶ 96, offers its auditing services to many companies. PX0410 at -001, *Audit*, EY, https://www.ey.com/en_us/audit (last visited Apr. 30, 2024) ("Our multidisciplinary teams deliver independent audits that benefit investors and the broader economy while also bringing independent insights to both management and the audit committee.").

Meta Response: Disputed in part. Undisputed that Meta retained Ernst & Young to conduct an independent assessment of Meta's integrity efforts. After conducting the audit, Ernst & Young concluded, among other things, that Meta's calculations of the metrics reported in the Community Standard Enforcement Report for the fourth quarter of 2021 were "fairly stated, in all material respects." PX9020 at ¶ 96 & n.232 (Subrahmanian Rep.). Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2221. Indeed, the cited evidence does not establish that any other online platform has hired Ernst & Young to audit its integrity systems and controls.

2222. Other online platforms besides Meta participate in or have co-founded non-profit organizations to help address integrity issues.

Meta Response: Disputed in part. Undisputed that online platforms besides Meta have participated in or co-founded non-profit organizations to help address integrity-related issues. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Instagram would have participated in or co-founded non-profit organizations to help address integrity issues as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183.

a. Meta partners with non-governmental organizations including the UK Revenge Porn Helpline, the National Suicide Prevention Lifeline, and NCMEC to promote various initiatives. *See* PX9020, Subrahmanian Report at ¶¶ 60, 62, 78. Meta is also a co-founding member of the Global Internet Forum to Counter Terrorism. PX9020, Subrahmanian Report at ¶ 64.

Meta Response: Undisputed.

b. TikTok, Snap, and Reddit, among others participate in the StopNCII.org initiative Meta created in partnership with the UK Revenge Porn Helpline. PX0411 at -001, *Industry Partners*, StopNCII.org, https://stopncii.org/partners/industry-partners/ (last visited Apr. 30, 2024); *see also* PX9020, Subrahmanian Report at ¶ 60 ("In 2021, Meta partnered with the UK Revenge Porn Helpline to launch StopNCII.org . . . .").

Meta Response: Disputed in part. Undisputed that Meta partnered with the UK Revenge Porn Helpline to launch StopNCII.org. Further undisputed that TikTok,

Snap, Reddit, and others participate in the StopNCII.org initiative. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2222.

c. YouTube, Twitter, Snap, TikTok, Discord, and other platforms have also partnered with the National Suicide Prevention Hotline (now known as the 988 Suicide & Crisis Lifeline). PX0412 at -001, *Support on Social Media,* 988 Suicide & Crisis Lifeline, https://988lifeline.org/help-someone-else/safety-and-support-on-social-media/ (last visited May 3, 2024).

Meta Response: Disputed in part. Undisputed that YouTube, Twitter, Snap, TikTok, and Discord are identified in the cited website, and that the National Suicide Prevention Hotline is now known as the 988 Suicide & Crisis Lifeline. Disputed to the extent the statement suggests that the identified companies partnered with the 988 Suicide & Crisis Lifeline at the same time as Meta. The evidence shows that, since as early as 2011, Meta has partnered with the 988 Suicide & Crisis Lifeline to support users expressing suicidal thoughts. *See* PX9020 at ¶ 62 & n.139 (Subrahmanian Rep.). The cited website does not indicate when any other online platform first partnered with the 988 Suicide & Crisis Lifeline. Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2222.

d. Microsoft, YouTube, and Twitter are also co-founding members of the Global Internet Forum to Counter Terrorism (GIFCT). PX0413 at -001, *About*, Global Internet F. to Counter Terrorism, https://gifct.org/about/ (last visited Apr. 8, 2024).

Meta Response: Disputed in part. Undisputed that Microsoft, YouTube, and Twitter are co-founding members of the Global Internet Forum to Counter Terrorism. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2222.

e. Aside from the co-founders, LinkedIn, Pinterest, Tumblr, Discord, and many others are members of the Global Internet Forum to Counter Terrorism. PX0541 at -002, *Membership*, Global Internet F. to Counter Terrorism, https://gifct.org/membership/ (last visited May 8, 2024).

Meta Response: Disputed in part. Undisputed that LinkedIn, Pinterest, Tumblr, Discord, and others are members of the Global Internet Forum to Counter Terrorism. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2222.

2223. Other online platforms besides Meta use specialized cybercrime teams.

Meta Response: Disputed in part. Undisputed that Microsoft and Meta use specialized cybercrime teams. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because the evidence cited in the subparagraphs below does not support the assertion that any other online platforms use such teams. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram would have created and used a specialized cybercrime team as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. *See also* PX9020 at ¶ 88 (Subrahmanian Rep.) (explaining that "integrity initiatives, such as [Meta's] i3 [Team], are among the most expensive and difficult integrity operations to

manage, as they involve off-platform human intelligence, coordinating different working groups within the company, coordinating with experts outside the company, and implementing changes to policies and procedures to proactively prevent future integrity attacks" and "off-platform harms.").

a. Meta uses a specialized team to investigate e-crimes, human trafficking, and other threats to its platforms. *See* PX9020, Subrahmanian Report at ¶ 85.

Meta Response: Undisputed.

b. Microsoft also has "an international team of technical, legal and business experts that has been fighting cybercrime, protecting individuals and organizations, and safeguarding the integrity of Microsoft services since 2008." PX0581 at -001, *Digital Crimes Unit: Leading the fight against cybercrime*, Microsoft (May 3, 2022), https://news.microsoft.com/on-the-issues/2022/05/03/how-microsofts-digital-crimes-unit-fights-cybercrime/.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2223.

2224. Other online platforms besides Meta publish their integrity metrics.

Meta Response: Disputed in part. Undisputed that online platforms besides Meta publish integrity metrics. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Instagram would have published integrity metrics as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. *See also* PX6146 at 73:20-

74:1 (Krieger Dep. Tr.) (testifying that, in August 2012, Instagram "had basically no data science capabilities"); *id.* at 135:7-11 ("Q. And do you have a sense for the magnitude of spam that [Instagram's pre-acquisition] rules removed? A. I don't. I also didn't really – we didn't have great tracking internally about what the prevalence of spam was to begin with"); *id.* at 175:5-16 ("Q. And I think you said earlier that Instagram did not have a measure of the prevalence of objectionable content on Instagram; is that right? A. I think what I was referring to principally was the measurement of spam. But I wouldn't characterize our – our ability to measure the prevalence [of] objectionable content to be much better. Although because there were user reports for objectionable content, we could at least get a sense of volume of user reports.").

a. Beginning in 2018 for Facebook and 2019 for Instagram, Meta has publicly published reports of its integrity metrics. *See* PX0582, Guy Rosen, *Facebook Publishes Enforcement Numbers for the First Time,* Meta Newsroom (May 15, 2018), https://about.fb.com/news/2018/05/enforcement-numbers/; PX0583, Guy Rosen, *Community Standards Enforcement Report, November 2019 Edition,* Meta Newsroom (Nov. 13, 2019), https://about.fb.com/news/2019/11/community-standards-enforcement-report-nov-2019/.

<u>Meta Response</u>: Undisputed.

b. Numerous other online platforms, including YouTube, Pinterest, Snap, TikTok, and LinkedIn, also publicly report their integrity metrics. PX0424, *YouTube Community Guidelines Enforcement*, Google Transparency Report, https://transparencyreport.google.com/youtube-policy/removals (last visited Apr. 30, 2024); PX12628, *Transparency report,* Pinterest,

https://policy.pinterest.com/en/transparency-report (last visited Apr. 30, 2024); PX0425, *Transparency Report January 1, 2023 – June 30, 2023*, Snap Priv. & Safety Hub (Dec. 13, 2023), https://values.snap.com/privacy/transparency; PX0426, *Community Guidelines Enforcement Report*, TikTok (Mar. 19, 2024), https://www.tiktok.com/transparency/en-us/community-guidelines-enforcement-2023-4/; PX0427, *Community Report,* LinkedIn, https://about.linkedin.com/transparency/community-report (last visited Apr. 30, 2024).

Meta Response: Disputed in part. Undisputed that YouTube, Pinterest, Snap, TikTok, and LinkedIn have publicly reported certain metrics related to integrity. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2224 and because at least one of the identified online platforms, Twitter, has stopped publicly reporting integrity metrics. *See* Ex. 7 at ¶ 93 (Subrahmanian Rep.) (observing that Twitter's Transparency Center does not display any data for any period after December 2021).

2225. Other online platforms besides Meta use AI and machine learning-based tools to address integrity issues.

Meta Response: Disputed in part. Undisputed that online platforms beside Meta use AI and machine-learning tools to address integrity issues. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Instagram would have developed and deployed AI and machine-learning tools as quickly and efficiently absent the acquisition as it was in fact able to do

because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183.

a. Below is a list of Meta's key AI and machine learning-based tools and techniques, and where available, the estimated year of development or launch in brackets:

Meta Response: Disputed in part. Undisputed that the subparagraphs below list some of Meta's AI and machine-learning tools. Disputed to the extent the statement suggests that the list below is an exhaustive list of the AI and machine-learning tools that Meta uses for integrity-related initiatives on its applications.

i. Deep Text (2016). PX9020, Subrahmanian Report at ¶ 49.

Meta Response: Undisputed. DeepText is a text-understanding engine that can understand the textual content of posts, which helps Meta automatically remove policy-violating content. PX9020 at ¶ 49 (Subrahmanian Rep.).

ii. Deep Entity Classification behavioral-based tool (2019). *See* PX9020, Subrahmanian Report at ¶ 41 (describing Deep Entity Classification ("DEC")); PX3060, Meta email: [redacted] to [redacted] et al., re: "Growth Marketing HPM – Integrity, 1.17.2020," (Jan. 18, 2020), FTC-META-005437348, at -349-50 (email dated January 2020 stating that Meta "launched IG DEC [Deep Entity Classification] just ahead of the holiday code freeze as an extra layer of defense against potential attacks" and showing a graph depicting "IG DEC enrollments split by reg attack" starting on December 12, 2019).

Meta Response: Undisputed. Deep Entity Classification is a machine-learning system that Meta uses to differentiate between fake and real users "by aggregating properties and behavioral features from their direct and indirect neighbors in the social graph." Meta SMF ¶ 752(d) (quoting Ex. 445 (Xu, et al., *Deep Entity Classification: Abusive Account Detection for Online Social Networks*)). In 2020, Meta estimated that the use of Deep Entity Classification on Facebook resulted in an estimated reduction of abusive accounts by 27% beyond those already detected by other methods. PX9020 at ¶ 41 (Subrahmanian Rep.).

iii. Language models (2019 and 2020). PX9020, Subrahmanian Report at ¶ 50.

Meta Response: Undisputed. Meta has developed language models, including cross-lingual language models known as XLM and XLM-R. PX9020 at ¶ 50 (Subrahmanian Rep.). XLM and XLM-R help Meta build classifiers that can understand the same concept across multiple languages, which, in turn, can help Meta detect hate speech and other forms of policy-violating content on Facebook and Instagram. PX9020 at ¶¶ 50, 159 (Subrahmanian Rep.); *see also* PX0590 at -004 (Halevy et al., *Preserving Integrity in Online Social Networks*) (stating that XLM and XLM-R "have closed the gap between in-language performance and performance on languages unseen during training data"; and that "XLM-R, in particular, has demonstrated that a multilingual model trained for 100 languages loses only a little in terms of accuracy (1.5% on average)

when compared to a model specialized for a particular language on a variety of tasks. When applied to detecting integrity violations, these pretrained models are fine-tuned with training examples of individual violation types. Cross-lingual models such as XLM have been successfully used for problems like hate speech classification across languages."). Meta incorporated RoBERTa – a self-supervised pretraining method – into XLM-R. PX9020 at ¶ 50 & nn.104-107 (Subrahmanian Rep.).

iv. SimSearchNet ("SSN"), SSN++, Reinforced Integrity Optimizer, WPIE, and Linformer tools (2020). PX9020, Subrahmanian Report at ¶¶ 33, 50, 52, 77.

Meta Response: Undisputed. SimSearchNet or SSN is an AI image-matching tool that detects near-exact duplicates of content. PX9020 at ¶¶ 77, 159 (Subrahmanian Rep.). SSN++ is an advanced version of SSN. *Id.* at ¶ 77. Meta uses SSN++ on Facebook and Instagram to detect policy-violating content, including child sexual abuse material. *Id.* at ¶¶ 77, 159.

Reinforcement Integrity Optimizer is an AI classification system that guides AI models to learn directly from millions of pieces of content and online metrics to improve detection of policy-violating content, including hate speech. *Id.* at ¶¶ 33, 159.

Whole Post Integrity Embedding or WPIE is a pretrained universal representation of content that works by understanding across modalities,

violation types, and time and improves Meta's AI systems by increasing the amount of data used for training. *Id.* at ¶ 50; PX0590 at -005 (Halevy et al., *Preserving Integrity in Online Social Networks*) ("WPIE is pre-trained across multiple modalities, multiple integrity violations, and over time. In a sense, just as cross-lingual pretraining can improve a classifier's overall performance, WPIE learns across dozens of violation types to develop a much deeper understanding of context.").

Linformer is a Transformer architecture that allows Meta to use larger pieces of text to train its models and reduces the rate of computations required to operate those models. PX9020 at ¶ 52 (Subrahmanian Rep.). Meta uses Linformer to review and analyze billions of pieces of content on Facebook and Instagram for policy violations, including hate speech and incitement. *Id.* at ¶¶ 52, 159.

v. Multimodal models (2020). PX9020, Subrahmanian Report at ¶ 50.

Meta Response: Undisputed. Multimodal content combines features such as text and images. PX9020 at ¶ 50 & nn.108-109 (Subrahmanian Rep.). Meta's multimodal tools, including WPIE, are used to interpret and evaluate multimodal content and detect policy-violating content, including hate speech. *Id.* at ¶ 50 & n.108.

vi. Cross-problem model (2021). PX9020, Subrahmanian Report at ¶ 51.

Meta Response: Undisputed. Meta's cross-problem model combines signals across multiple AI systems to address integrity issues that can

overlap, including hate speech, bullying and harassment, and violence and incitement. PX9020 at ¶ 51 & nn.110-112 (Subrahmanian Rep.).

b. Meta has not indicated when it launched or developed X-Ray, PDQ, TMK+PDQF, Hasher-Matcher-Actioner, and Media Match Service. *See* PX9020, Subrahmanian Report at ¶¶ 38, 70, 76; Meta Statement of Facts in Supp. of Summary Judgment, at Statement No. 752(c) (Apr. 5, 2024), ECF 325-2. An internal document suggests that X-Ray was still under development in July 2014. *See* PX3059, Meta email: [redacted] to G. Briggs re: "Top 3 Issues: Owners and Products," (July 16, 2014), FB_FTC_CID_03550959 at -961 (mentioning "Project X-ray" under "[v]arious projects . . . to use artificial intelligence to recognize objects in photos and videos"). Meta states that it open sourced PDQ and TMK+PDQF in 2019 and Hasher-Matcher-Actioner in 2022. PX9020, Subrahmanian Report at ¶¶ 70, 76.

Meta Response: Disputed in part. Undisputed that Meta developed and launched the tools and systems identified in this subparagraph. Further undisputed that Meta was developing X-Ray – a tool that uses AI to recognize objects in photos and videos – in 2014. Further undisputed that, in 2019, Meta open-sourced PDQ and TMK+PDQF, which are photo- and video-matching algorithms that allow matching to perceptually similar images, and not just exact matches. Regarding Meta's announcement to open-source PDQ and TMK+PDQF, the then-President and CEO of the National Center for Missing and Exploited Children (or NCMEC) stated: "We're confident that Facebook's generous contribution of this open-source technology will ultimately lead to the

identification and rescue of more child sexual abuse victims." *See* PX9020 at ¶ 76 & n.183 (Subrahmanian Rep.) (quoting Antigone Davis & Guy Rosen, *Open-Sourcing Photo and Video-Matching Technology to Make the Internet Safer*, Meta Newsroom (Aug. 1, 2019), https://about.fb.com/news/2019/08/open-source-photo-video-matching/). Further undisputed that, in 2022, Meta open-sourced Hasher-Matcher-Actioner – a tool that automates the process of hashing content, matching that hash against a database, and taking action on matched content. *Id.* at ¶ 70.

Disputed that the statement in this subparagraph creates a genuine dispute of material fact as to when the identified tools were launched or developed by Meta. On the contrary, the evidence establishes when Meta developed or launched the tools. For example, and as the FTC's acknowledges, the cited document shows that Meta was developing X-Ray in 2014. PX3059 at -961 (FB_FTC_CID_03550959). As another example, the evidence shows that Meta launched PDQ on Instagram in 2019. Ex. 483 at -243 (FTC-META-002862242) ("We also launched PDQ matching for IG videos against MMS banks, which will be very useful to catch violating and misinfo videos that are modified (e.g., text overlays).").

c. Other online platforms besides Meta have made investments in AI research.

<u>Meta Response</u>: Disputed in part. Undisputed that online platforms besides Meta have made investments in AI research. Disputed that the statements in this subparagraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Instagram would have made comparable investments

as Meta in AI research as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. Indeed, the evidence cited in the subparagraphs below shows that, as of June 2022, the FTC observed that only a few technology companies were funding most of the AI research and developing the sophisticated AI and machine-learning tools necessary to address integrity issues at scale. PX0526 at -075 ("only a few large technology companies are responsible for most of the AI tools within the scope of this report," which means that "others who may need the tool, like smaller platforms or investigative journalists, won't necessarily have access to it or the resources to create their own"); *id.* at -063 (observing that "only a few big technology companies are funding most of the [AI] research in question"); *see also* PX0584 (Rosenbush, *Big Tech Is Spending Billions on AI Research*). Mr. Shortway, an engineer who started working at Instagram days after the acquisition closed, testified that, when he started at the company, "no one [o]n the [Instagram] team had experience in" the machine learning necessary "to develop something even remotely successful at – at actually blocking [spam and objectionable] content and classifying [spam and objectionable] content." PX6055 at 9:2-13, 13:21-23, 25:16-26:17 (Shortway Dep. Tr.).

i. Professor Subrahmanian claims that "Meta devotes enormous resources to AI and machine-learning research, which Meta deploys as part of the critical tools it uses to combat integrity issues." PX9020, Subrahmanian Report at ¶ 14.

Meta Response: Undisputed.

ii. Like Meta, Google, Microsoft, and Amazon have also invested "heavily" in AI research. PX0584 at -002-03, Steven Rosenbush, *Big Tech Is Spending Billions on AI Research. Investors Should Keep an Eye Out,* Wall St. J. (Mar. 8, 2022), https://www.wsj.com/articles/big-tech-is-spending-billionson-ai-research-investors-should-keep-an-eye-out-11646740800; *see also* PX0526, *Combatting Online Harms Through Innovation*, Fed. Trade Comm'n, at 10-11, 31 (June 16, 2022), https://www.ftc.gov/system/files/ftc_gov/pdf/Combatting%20Online%20Harms%20Through%20Innovation%3B%20Federal%20Trade%20Commission%20Report%20to%20Congress.pdf (noting that Google and Microsoft also use AI to identify scams and spam on their platforms and Amazon uses machine learning tools to detect the sale of banned or unsafe goods).

Meta Response: Disputed in part. Undisputed that Meta, Google, Microsoft, and Amazon have invested heavily in AI research. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225 and subparagraph 2225(c).

d. Other online platforms including Snap, YouTube, Pinterest, TikTok, and LinkedIn also use AI and machine learning-based tools to identify and remove objectionable content from their platforms. *See* [redacted]; PX0586, Jennifer O'Connor & Emily Moxley, *Our approach to responsible AI innovation*, YouTube Official Blog (Nov. 14, 2023),

https://blog.youtube/inside-youtube/our-approach-to-responsible-ai-innovation/#:~:text=In%20our%20systems%2C%20AI%20classifiers,of%20our%20content%20moderation%20systems; PX6152, Kim (YouTube) Dep. Tr., at 297:18-298:7; PX0378, Kyle Wiggers, *Pinterest details the AI that powers its content moderation,* VentureBeat (Mar. 5, 2021), https://venturebeat.com/business/pinterest-details-the-ai-thatpowers-its-content-moderation/; PX0588, Rachyl Jones, *TikTok CEO Shou Zi Chew Increasing Use of AI in Content Moderation*, Observer (Apr. 21, 2023) https://observer.com/2023/04/tiktok-ceo-shou-zi-chew-increasing-ai-content-moderation/; PX6097, Presser (TikTok) Dep. Tr., at 257:1-10; [redacted]; PX0587, Abhishek Chandak, *Augmenting our content moderation efforts through machine learning and dynamic content prioritization,* LinkedIn Engineering Blog (Nov. 27, 2023), https://www.linkedin.com/blog/engineering/trust-and-safety/augmenting-our-content-moderation-efforts-through-machine-learni.

<u>Meta Response</u>: Disputed in part. Undisputed that [redacted], YouTube, Pinterest, TikTok, and LinkedIn use AI and machine-learning tools to identify and remove policy-violating content from their respective platforms. Disputed to the extent this statement suggests that the AI and machine-learning tools used by [redacted], YouTube, Pinterest, TikTok, and LinkedIn have similar functionalities or performance as the suite of AI and machine-learning tools deployed by Meta. The cited evidence does not make cross-platform comparisons or otherwise support that suggestion. On the contrary, the cited evidence regarding LinkedIn

shows that [redacted] PX7018 at -941 (LI_FTC_0005938). The cited evidence pertaining to [redacted], YouTube, and TikTok does not identify any specific tools or state whether those tools are multimodal, multilingual, or otherwise similar to Meta's tools. Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225.

i. LinkedIn also has an "Anti-Abuse AI Team" whose job is to "create[], deploy[], and maintain[] models that detect and prevent various types of abuse, including . . . spam." PX0589 at -001, James Verbus, *Detecting and Preventing Abuse on LinkedIn Using Isolation Forests*, LinkedIn Engineering Blog (Aug. 13, 2019), https://engineering.linkedin.com/blog/2019/isolation-forest.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, without alterations. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225, and subparagraph 2225(d).

e. Other online platforms besides Meta use text and image matching to identify spam and objectionable content.

Meta Response: Disputed in part. Undisputed that online platforms besides Meta use text and image matching to identify policy-violating content on their respective platforms. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225.

i. Meta uses machine learning-based text and image matching to identify copies of previously identified spam and objectionable content. *See* PX9020, Subrahmanian Report at ¶ 49.

Meta Response: Undisputed.

ii. Image recognition tools are a commonly used method for addressing integrity issues because they can be applied across a variety of categories. *See* PX9013, McCoy Rebuttal Report at ¶ 228.

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the paraphrased opinion. Disputed to the extent the statement suggests that image-recognition tools deployed by other online platforms have comparable functionalities or performance to the image-recognition tools deployed by Meta, such as DeepText. The cited evidence does not compare the functionality or performance of any image recognition tools or otherwise support the suggestion. Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225.

iii. TikTok, [redacted], and Pinterest use text and image matching to identify objectionable content and behavior. PX6097, Presser (TikTok) Dep. Tr., at 260:8-16; [redacted]; PX0378 at -002-03, Kyle Wiggers, *Pinterest details the AI that powers its content moderation,* VentureBeat (Mar. 5, 2021), https://venturebeat.com/business/pinterest-details-the-ai-that-powers-its-content-moderation/.

Meta Response: Disputed in part. Undisputed that TikTok and Pinterest use text and image matching to identify policy-violating content on their respective platforms. Undisputed that Twitter uses image matching to identify policy-violating content on its platform. Disputed that Twitter uses text-matching to identify policy-violating content, as the cited evidence does not support that proposition. Disputed to the extent this statement suggests that the text- and image-matching tools used by the identified companies have similar functionalities or performance as the tools deployed by Meta, including DeepText, because the cited evidence does not make cross-platform comparisons or otherwise support the suggestion. Indeed, the cited evidence does not identify any specific tools used by TikTok or Twitter, or indicate how those unidentified tools compare to Meta's image- and text-matching tools. Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225.

f. Other online platforms besides Meta use multilingual AI models to identify spam and objectionable content.

Meta Response: Disputed in part. Undisputed the online platforms besides Meta use multilingual AI models to identify policy-violating content on their respective platforms. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225.

i. Meta uses multilingual and multimodal AI tools to identify hate speech and other types of objectionable content. *See* PX9020, Subrahmanian Report at ¶¶ 50, 51.

Meta Response: Undisputed. Meta uses multilingual AI tools, including XLM and XLM-R, and multimodal AI tools, including Whole Post Integrity Embeddings, to detect and remove policy-violating content. PX9020 at ¶ 50 (Subrahmanian Rep.); *see* Meta Resps. to Counter SMF ¶ 2225(a)(iii)-(v).

ii. Meta's language models are based on Google's advances on BERT language model and other recent refinements. *See* PX0388 at -002, *RoBERTa: An optimized method for pretraining self-supervised NLP systems*, Meta Research (July 29, 2019), https://ai.meta.com/blog/roberta-an-optimized-method-for-pretraining-self-supervised-nlp-systems/ (noting that Meta's RoBERTA is based on Google's work on BERT).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225 and because the cited evidence establishes that in creating RoBERTa, Meta "modifie[d] key hyperparameters in BERT, including removing BERT's next-sentence pretraining objective, and training with much larger mini-batches and learning rates," which "allow[ed] RoBERTa to improve on the masked language modeling objective compared with BERT," led "to better downstream task performance," and "delivered state-of-the-art performance" on several natural language understanding tasks, and "a sizable performance improvement on the [General Language Understanding Evaluation] benchmark." PX0388 at -002. Meta incorporated RoBERTa – not BERT – into Meta's XLM-R tool, which is a

cross-lingual language models that Meta uses to build classifiers that can understand the same concept across multiple languages. PX9020 at ¶¶ 50, 159 & nn.104-107.

iii. Google's BERT, which is available for free, is "the standard architecture for accurate text understanding." PX0590, Alon Halevy et al., *Preserving Integrity in Online Social Networks*, 65 Commc'ns of the ACM 92, 95 (Feb. 2022), https://cacm.acm.org/magazines/2022/2/258232-preserving-integrity-in-online-socialnetworks/fulltext); PX0391 at -001, Jacob Devlin & Ming-Wei Chang, *Open Sourcing BERT: State-of-the-Art Pre-training for Natural Language Processing*, Google Research (Nov. 2, 2018), https://blog.research.google/2018/11/open-sourcing-bertstate-of-art-pre html.

Meta Response: Disputed in part. Undisputed that Google open-sourced BERT and the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225, and because the FTC's characterization of the evidence is misleading and missing necessary context. The cited evidence states: "BERT has become the standard architecture for accurate text understanding. Its recent refinements, such as [Meta's] RoBERTa, . . . have improved the training recipes and scaled to more data and parameters, thereby pushing the state of the art further. These approaches are especially helpful for difficult tasks like identifying hate speech because of the nuanced understanding of language that is required."

PX0590 at -004 (Halevy et al., *Preserving Integrity in Online Social Networks*).

iv. Google, Microsoft, and others also use multilingual technology to identify spam and objectionable content. PX0591, Gabriel Nicholas & Aliya Bhatia, *Lost in Translation Large Language Models in Non-English Content Analysis,* Center for Democracy & Technology, at 5, 9 (May 2023), https://cdt.org/wp-content/uploads/2023/05/non-en-content-analysis-primer-051223-1203.pdf ("Google, Meta, Microsoft, and other companies have already incorporated large language models into their core product functions, such as content moderation and search."). ("Alphabet's Perspective API uses a large language model to detect toxic content in eighteen different languages []; Bumble uses one to detect rude and abusive messages in at least fifteen languages [].").

Meta Response: Disputed in part. Undisputed that Google, Microsoft, and Bumble use multilingual technology to identify policy-violating content on their respective platforms. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225, and because the statement in this subparagraph suggests that Bumble uses a "large language model" to detect rude and abusive messages, but the cited evidence states: "Services have begun to deploy multilingual language models into their content moderation systems: Meta claims their XLM-R model can detect harmful content in all 100 languages it is trained on; Alphabet's Perspective API uses a large language model to detect toxic

content in eighteen different languages; Bumble uses one to detect rude and abusive messages in at least fifteen languages." PX0591 at -009 (Nicholas & Bhatia, *Lost in Translation*) (citations omitted). In other words, the evidence shows that Bumble uses a multilingual language model, not a large language model. *Id.*

g. Other online platforms besides Meta use multimodal AI models to identify spam and objectionable content.

Meta Response: Disputed in part. Undisputed that Pinterest uses multimodal AI to identify various types of objectionable content on its platform. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225, and because the evidence cited in the subparagraphs below does not support the assertion that any other online platforms use such AI models.

i. Pinterest uses multimodal AI to identify various types of objectionable content on its platform. PX0378 at -002, Kyle Wiggers, *Pinterest details the AI that powers its content moderation*, VentureBeat (Mar. 5, 2021), https://venturebeat.com/business/pinterest-details-the-ai-that-powers-its-content-moderation/.

Meta Response: Disputed in part. Undisputed that Pinterest uses multimodal AI to identify policy-violating content on its platform. Disputed to the extent this statement suggests that the multimodal AI used by Pinterest has similar functionalities or performance as the multimodal tools deployed by Meta, which include Whole Post Integrity Embedding or WPIE, because the cited evidence does not make cross-platform

comparisons or otherwise support the suggestion. Indeed, the evidence shows that "WPIE is pre-trained across multiple modalities, multiple integrity violations, and over time," and that "WPIE learns across dozens of violation types to develop a much deeper understanding of context." *See* PX0590 at -005 (Halevy et al., *Preserving Integrity in Online Social Networks*). The cited evidence does not establish whether Pinterest's multimodal AI has the same sophistication as Meta's WPIE. Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225.

ii. Google also has a multimodal model that appears to be functionally similar to Meta's multimodal AI models. *Compare* PX0592 at -002, *Multimodal AI*, Google Cloud, https://cloud.google.com/use-cases/multimodal-ai (last visited May 18, 2024) (describing Google's "Gemini" multimodal AI model "as capable of processing information from different modalities, including images, videos, and text"); *with* PX9020, Subrahmanian Report at ¶ 34 (stating that "Meta's multi-modal systems can analyze the full context of a post, including images, captions, and comments . . .") (emphasis omitted).

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact that other online platforms besides Meta and Pinterest use multimodal AI models to identify spam and other policy-violating content. Google's Gemini has been described as a "smartphone app that behaves like a talking digital

assistant as well as a conversational chatbot." Ex. 528 (N.Y. Times, *Google Releases Gemini, an A.I.-Driven Chatbot & Voice Assistant*). Gemini also has been described as Google's counterpart to OpenAI's ChatGPT. *Id.* ("As it races to compete with OpenAI's ChatGPT, Google has retired its Bard chatbot and released a more powerful app [Gemini]."); *see also* PX0592 at -002 (*Generate Text, Code, Video, Audio, and Images from Virtually Any Content Type*) ("Google's multimodal model, Gemini, can receive a photo of a plate of cookies and generate a written recipe as a response and vice versa."). There is no evidence that Google uses Gemini to detect and remove objectionable content or that Gemini is "functionally similar" to Meta's multimodal AI models, such as WPIE. *Cf.* PX0590 at -005 (Halevy et al., *Preserving Integrity in Online Social Networks*) ("WPIE is pre-trained across multiple modalities, multiple integrity violations, and over time. In a sense, just as cross-lingual pretraining can improve a classifier's overall performance, WPIE learns across dozens of violation types to develop a much deeper understanding of context."). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225.

iii. As the preceding section shows, Meta tools and techniques for addressing integrity issues do not represent any unique or special technology that is or was not widely developed and deployed by other technology companies. *See* PX9002, McCoy Report at ¶ 141; *see also* PX9013, McCoy Rebuttal Report at ¶ 225.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2225, and because the cited paragraphs in Professor McCoy's reports do not cite any evidence to support the vague assertions that Meta's integrity tools and techniques are not "unique" or "special," or that Meta's integrity tools have been widely adopted and deployed by other technology companies. Besides Professor McCoy's unsupported assertions, the FTC cites three documents: an incomplete article regarding Pinterest's use of multimodal AI that does not contain any cross-platform comparisons or otherwise establish that Pinterest's multimodal AI tools have similar functionalities and performance to the multimodal tools deployed by Meta, PX0378 (Venture Beat, *Pinterest Details the AI That Powers Its Content Moderation*); an incomplete document regarding Google's launch of Gemini, a multimodal AI that behaves like a chatbot and assistant, and not an integrity tool, PX0592 (*Generate Text, Code, Video, Audio, and Images from Virtually Any Content Type*); *see also* Ex. 528 (N.Y. Times, *Google Releases Gemini, an A.I.-Driven Chatbot & Voice Assistant*); and Professor Subrahmanian's report, which does not discuss multimodal AI deployed by online platforms other than Meta.

Further disputed to the extent the statement in this subparagraph refers to all tools and systems discussed in Section V.D.4.b, despite being nested under paragraph 2225 and subparagraph 2225(g). The evidence cited in Section V.D.4.b does not provide cross-platform comparisons of

the functionality or performance of integrity systems of other online platforms and Meta. Nor does the cited evidence establish that any other platform uses a suite of integrity tools that includes all the components, with similar functionality and performance, as the tools and systems used by Meta to combat integrity-related issues on its applications. Those tools include, but are not limited to, Meta's spam-fighting tools (e.g., Sigma, Sentry, Blackhole, Karma); Meta's checkpointing tools (e.g., Delta); Meta's AI models and machine-learning tools (e.g., DeepText, Deep Entity Classification, XLM, XLM-R, PDQ, TMK+PDQF, SSN++, Linformer, Reinforced Integrity Optimizer, Whole Post Integrity Embeddings); Meta's specialized teams (e.g., the i3 Team); Meta's fact-checking network (which is comprised of more than 90 international organizations who review and rate content in over 60 languages and in more than 115 countries); Meta's manual review teams; PhotoDNA (which Meta uses to detect CSAM, along with other types of policy-violating content such as graphic violence, spam, and terrorism); Meta's user controls (e.g., Hidden Words, Limits, Restrict); Meta's sensitivity screens and provision of resources for users potentially in crisis; and Meta's third-party partnerships among many others. *See* Meta Resps. to Counter SMF ¶¶ 2211-2225; *see also* PX9020 at ¶ 13 (Subrahmanian Rep.) ("In evaluating an integrity system, it is necessary to . . . take a holistic look at the system . . . .").

c) Integrity expertise is widely available and not unique to Meta.

2226. Meta's integrity expertise is not unique to Meta because it "regularly shares its integrity insights with other online platforms and industry professionals through various conferences and events." PX9020, Subrahmanian Report at ¶ 32.

Meta Response: Disputed in part. Undisputed that Meta possesses integrity expertise, and that Meta has shared certain insights related to integrity at conferences and events. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact as to the vague assertion that "Meta's integrity expertise is not unique to Meta." The evidence does not establish that Meta openly discloses the entirety of its engineers' and team members' collective knowledge regarding integrity, releases its full suite of integrity-related tools and systems for public use, and makes available its integrity experts to implement integrity tools and systems on other online platforms. On the contrary, the evidence shows that Meta knew its "advantage [was its] people and the systems [they had] built." PX10744 at -964 (FB_FTC_CID_06495964).

Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram would have had access to all the integrity tools and systems, engineering knowledge, and integrity know-how that Meta provided absent the acquisition as Instagram was in fact provided because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. *See* PX0591 at -031 (Nicholas & Bhatia, *Lost in Translation*) ("Despite publishing on AI and pushing the field forward, technology companies tend to hold information about their production AI systems, even basic information about what languages they are used in, close to the chest.").

a. Meta shares its integrity insights at industry-wide conferences.

Meta Response: Disputed in part. Undisputed that engineers who work for Meta have presented on integrity-related topics at conferences. Disputed for the reasons stated above in Meta's response to paragraph 2226.

i. One of the conferences that Meta engineers regularly participate in is the @Scale conference. PX9020, Subrahmanian Report at ¶ 32. The @Scale conference is a series of technical conferences that bring together engineers and industry professionals to discuss "leading scaling technologies and challenges" such as fighting abuse and security, machine learning and AI, and data, systems, and networking, among others. PX9020, Subrahmanian Report at ¶ 32; PX0593, *@Scale*, At Scale Conferences, https://atscaleconference.com/ (last visited May 18, 2024); *see also* PX0415 at -003, *Security @Scale 2014 Recap*, Engineering at Meta (Nov. 5, 2014), https://engineering.fb.com/2014/11/05/security/security-scale-2014-recap/ ("Louis Brandy of Facebook's Site Integrity team kicked off a discussion about scalable spam fighting and the anti-abuse structure at Facebook and Instagram.").

Meta Response: Disputed in part. Undisputed that Meta's engineers have participated in the @Scale conference, and that the 2024 @Scale conference is intended for engineers working in the categories identified in this subparagraph. Disputed for the reasons stated above in Meta's response to paragraph 2226.

ii. Gregg Stefancik—the former head of Meta's Site Integrity team—testified that the intent of the @Scale conference is "to have joint presentations and [for the various companies participating in the conference to] learn from each other." PX6042, Stefancik (Meta) Dep. Tr., at 18:2-9, 78:2-6; *see also id.* at 74:18-75:2 (explaining that he participated in the @Scale conferences because "both in terms of security and integrity, industry benefits from actually sharing with each other to make a better experience for folks").

Meta Response: Disputed in part. Undisputed that Mr. Stefancik formerly led Meta's Site Integrity team, and that he provided the quoted testimony, without alterations, and with the exceptions that the quoted transcript states "both in the terms," and not "both in terms," PX6042 at 74:18-75:2 (Stefancik Dep. Tr.), and that Mr. Stefancik's testimony pertained to the "Security @Scale conference." *See id.* Disputed for the reasons stated above in Meta's response to paragraph 2226.

iii. At the 2015 Fighting Spam @Scale conference, Mr. Stefancik advised participants to "never view [their] spam-fighting technology and techniques as a competitive advantage. Or proprietary." PX0594, @Scale, *Gregg Stefancik: Welcome to Spam Fighting @Scale*, YouTube, at 8:31 (May 14, 2015), https://youtu.be/pLUZIHzorgY.

Meta Response: Disputed in part. Undisputed that, in 2015, Mr. Stefancik gave a ten-minute talk, which included the quoted language, to welcome participants to the Spam Fighting @Scale conference.

Disputed for the reasons stated above in Meta's response to paragraph 2226. Indeed, Mr. Stefancik did not disclose details regarding any of Meta's proprietary spam-fighting tools, such as Sentry or Sigma, during the presentation cited in this statement. *See* PX0594 at 3:10-20 (@Scale, *Gregg Stefancik: Welcome to Spam Fighting @Scale*) ("[W]e don't talk about what we do much; silence is pretty much success in the spam world."). Mr. Stefancik also stated that, after Meta's Site Integrity team started working with the companies that Meta had acquired, the team realized that it "could jumpstart [the acquired companies' spam fighting] . . . by helping them kind of piggyback on the technologies [Meta] had built," which enabled Meta "to take somebody who had very little [in terms of spam fighting] to something, you know, light years ahead that might have taken them a year to build in a couple of months." *Id.* at 1:45-2:35.

b. Meta also shares its integrity insights in one-on-one consultations.

Meta Response: Disputed in part. Undisputed that the evidence shows that in or around 2014, members of Meta's Site Integrity team had calls with platform partner companies, such as Tinder, to give advice on spam fighting, and that in March 2012, a Meta engineer and Mr. Systrom exchanged emails regarding high-level strategies for detecting spam and malicious accounts. Disputed for the reasons stated above in Meta's response to paragraph 2226.

i. In a February 2014 email, [redacted], a Meta employee who was part of Facebook's site integrity team, explained that Meta "sometimes do[es] 1-

hour calls with platform partner companies to give them advice on spam fighting techniques. [redacted] and I did this with tinder (mobile dating app that requires Fb login) last week." PX10744, Meta email: [redacted] to A. Bejar re: "Spam consultation with snapchat?" (Feb. 12, 2014), FB_FTC_CID_06495964, at -964; *see also* PX10744, Meta email: [redacted] to A. Bejar re: "Spam consultation with snapchat?" (Feb. 12, 2014), FB_FTC_CID_06495964, at -964 (asking Mr. Bejar to notify Meta's site integrity team that "it's fine to discuss [Meta's spam-fighting] techniques, signals and experiences . . .").

Meta Response: Disputed in part. Undisputed that [redacted] is a former Meta employee who was, in 2014, on the Site Integrity team, and undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 2226 and subparagraph 2226(b).

ii. In the same February 2014 email, Arturo Bejar—the then-head of Meta's site integrity team—gave approval for Meta's integrity team to share Meta's spam-fighting strategies with Snap. PX6052, Bejar (Meta) Dep. Tr., at 16:6-18; PX10744, Meta email: A. Bejar to [redacted], re: "Spam consultation with snapchat?" (Feb. 12, 2014), FB_FTC_CID_06495964, at -964. He explained that "[a]s far as both the spam know how, and what trust eng builds, I believe these are things that both protect and help people, in a way that establishes trust not with just one company but with the internet experience." *Id.*

Meta Response: Disputed in part. Undisputed that Mr. Bejar is a former Meta employee who was, in 2014, on the Site Integrity team, and undisputed that the document contains the quoted language, except Mr. Bejar wrote "their internet experience," not "the internet experience." Disputed for the reasons stated above in Meta's responses to paragraph 2226 and subparagraph 2226(b). Further disputed because when the FTC asked Mr. Bejar about this document at his deposition, Mr. Bejar testified that he did not recall whether Meta, in fact, met with Snapchat to discuss spam fighting. PX6052 at 52:11-14 (Bejar Dep. Tr.).

iii. Indeed, prior to Meta's acquisition of Instagram, Meta's then-head of site integrity engineering, [redacted], was discussing strategies for detecting spam and malicious accounts with Instagram's Kevin Systrom. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 156:14-20; PX3224, Instagram Email: K. Systrom to R. Branson, et al. re: "Reschedule SPAM meeting," (May 24, 2012), FTC-META-003352631, at -631 (including emails between Mr. Systrom and [redacted]). In a March 2012 email, [redacted] responded to a series of questions by Mr. Systrom and closed his email with the line: "[a]gain, high level questions. Once I have a better sense of the specific types of abuse you are dealing with I can help out more." *Id.*

Meta Response: Disputed in part. Undisputed that, in March 2012, [redacted] was Meta's head of Site Integrity and he responded to a series of questions from Mr. Systrom about spam and malicious account

detection. Disputed for the reasons stated above in Meta's response to subparagraph 2226(b). Indeed, a longer thread of the cited evidence shows that [redacted] only provided "high level answers" that "just scratch[ed] the surface" to Mr. Systrom, who failed to call [redacted] at a scheduled time to discuss the strategies in greater detail. Ex. 482 at -206-207 (FTC-META-002585206) ([redacted] writing that Mr. Systrom "was supposed to call me . . . but that didn't happen," and he "apologized to me on the phone. At this point I told him I'm out on vacation next week and to ping me afterwards if they still need help. No big deal, they just seem busy and disorganized.").

c. Meta engineers share their integrity insights in publicly available articles and blog posts.

Meta Response: Disputed in part. Undisputed that Meta's engineers have published articles and blog posts regarding integrity-related topics, including those listed in the subparagraphs below. Disputed for the reasons stated above in Meta's response to paragraph 2226.

i. Meta maintains an engineering website that it describes as a "technical news resource for engineers interested in how we solve large-scale technical challenges at Meta." PX0595 at -007, Engineering at Meta, Meta, https://engineering.fb.com/ (last visited May 18, 2024).

ii. Meta also has a "publications" website on which its engineers share technical articles about their research in various areas including integrity. *See* PX0596, *Publications*, Meta AI,

https://ai.meta.com/results/?content_types%5B0%5D=publication&research_areas%5B0%5D=integrity (last visited May 18, 2024).

iii. Some of the topics covered in the articles posted on Meta's engineering and publications websites include those discussing its Deep Entity Classification and its multimodal and multilingual tools. *See, e.g.*, PX0597, Teng Xu et al., *Deep Entity Classification: Abusive Account Detection for Online Social Networks,* Meta Research (Nov. 11, 2020) https://research.facebook.com/publications/deep-entity-classification-abusive-account-detection-for-online-social-networks/ PX0389, *XLM-R: State-of-the-Art Cross-Lingual Understanding Through Self-Supervision*, Meta AI (Nov. 7, 2019), https://ai.meta.com/blog/-xlm-r-state-of-the-art-cross-lingual-understandingthrough-self-supervision/; PX0598, Ryan Dansby et al., *AI Advances to Better Detect Hate Speech*, Meta (May 12, 2020), https://ai.meta.com/blog/ai-advances-to-better-detect-hate-speech/ (describing Meta's use of multilingual and multimodal models (RoBERTa, XLM, XLM-R)).

d. Meta has open-sourced some of its integrity tools.

Meta Response: Disputed in part. Undisputed that Meta has open-sourced the integrity tools identified in the subparagraphs below. Disputed for the reasons stated above in Meta's response to paragraph 2226.

i. Meta has open-sourced some of its integrity tools including the image and video matching tools, PDQ, TMK+PDQF, and Hasher-Matcher-Actioner. PX9020, Subrahmanian Report at ¶¶ 70, 76.

Meta Response: Undisputed. Undisputed that Meta open-sourced Hasher-Matcher-Actioner in 2022, and PDQ and TMK+PDQF in 2019.

ii. In 2020, Meta announced that it had open sourced Linformer so that "other researchers and engineers could improve their models." PX0377 at -004, *How Facebook uses super-efficient AI models to detect hate speech*, Meta (Nov. 19, 2020), https://ai.meta.com/blog/how-facebook-uses-super-efficient-ai-models-to-detect-hate-speech/.

Meta Response: Undisputed.

iii. Meta has also made some of its multilingual models and multimodal models open source. *See* PX0376 at -002-03, *Models and libraries*, Meta AI, https://ai.meta.com/resources/models-and-libraries/ (last visited May 18, 2024) (discussing SeamlessM4T, a "foundational speech/text translation and transcription model," VizSeq, a "research toolkit for natural language generation," and others); *id.* (discussing Hateful Memes Dataset, "an open-source dataset designed for the development of new systems that identify multimodal hate speech.").

Meta Response: Undisputed. Undisputed that Meta has open-sourced SeamlessM4T, VizSeq, and Hateful Memes Dataset.

2227. Other online platforms also publicly share their integrity expertise and developments.

Meta Response: Disputed in part. Undisputed that engineers and employees of online platforms besides Meta have publicly shared information related to integrity. Disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram would have developed and deployed integrity systems using information shared publicly

by other online platforms as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. *See also* PX0591 at -031 (Nicholas & Bhatia, *Lost in Translation*) ("Despite publishing on AI and pushing the field forward, technology companies tend to hold information about their production AI systems, even basic information about what languages they are used in, close to the chest.").

a. Meta hired two of its key integrity professionals, Arturo Bejar, who had previously served as the head of Meta's integrity team before working on Instagram's integrity team, and Gregg Stefancik, Meta's lead engineer for integrity and security, from Yahoo! [redacted]; PX6042, Stefancik (Meta) Dep. Tr., at 12:19-25, 18:2-9, 22:22-23:10. Meta's actions are not unique in the technology industry. Online platforms often hire experienced integrity professionals from other online platforms to help build their integrity systems. PX9002, McCoy Report at ¶ 122.

Meta Response: Disputed in part. Undisputed that Mr. Bejar worked at Yahoo! before joining Meta in 2009; that Mr. Bejar managed Meta's Site Integrity team for a period of time before he left the company in June 2015, PX6052 at 13:23-25, 16:6-8, 22:19-20 (Bejar Dep. Tr.); that Mr. Bejar returned to Meta in September 2019 for a two-year role as a part-time independent contractor, *id.* at 23:2-5, 25:4-5; that Mr. Stefancik worked at Yahoo! before joining Meta in 2010; and that Mr. Stefancik was the engineering manager on Meta's Site

Integrity team for several years ending in 2016, PX6042 at 26:18-22 (Stefancik Dep. Tr.).

Disputed that the statement in this subparagraph creates a genuine dispute of material fact as to whether other online platforms publicly share their integrity expertise and developments. The cited evidence does not discuss other online platforms publicly sharing integrity expertise or developments; it solely describes Meta hiring two employees in 2009 and 2010.

Further disputed that the vague assertion that "Meta's actions are not unique in the technology industry" creates a genuine dispute of material fact. The cited evidence does not address hiring by any online platforms other than Meta.

Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2227.

b. Other online platforms besides Meta share their integrity insights at industry conferences.

Meta Response: Disputed in part. Undisputed that the companies listed in the subparagraph below have shared integrity-related information at conferences. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2227.

i. Many online platforms including Google, Microsoft, LinkedIn, Pinterest, and Snapchat attend and present their integrity-related research at the annual @Scale conference. *See, e.g.*, PX0599 at -001, *SPAM FIGHTING 2016*, At Scale Conferences, https://atscaleconference.com/events/spam-fighting-2016/ (last visited May 18, 2024) (stating that LinkedIn and

Snapchat were among the companies that would be participating in "discussions on fighting malicious apps, measuring spam, leveraging user-generated input, detecting fake accounts, and more!"; PX0600 at -001, Hervé Robert, *Spam Fighting @Scale 2016*, Engineering at Meta (Nov. 18, 2016), https://engineering.fb.com/2016/11/18/security/spam-fighting-scale-2016/; PX0601 at -001, *FIGHTING ABUSE @SCALE 2018*, At Scale Conferences, https://atscaleconference.com/events/fighting-abuse-scale/#global__section-speakers-moderators-5139 (last visited May 18, 2024) (noting that LinkedIn, Airbnb, Microsoft, and others were featured speakers and that "this iteration [of the conference] will focus particularly on techniques and experiences with artificial intelligence and machine learning in abuse fighting"); PX0602 at -001, *2018 @Scale Conference recap*, Engineering by Meta (Sept. 17, 2018), https://engineering.fb.com/2018/09/17/android/2018-scale-conference-recap/ (discussing integrity-related presentations by Google, Microsoft, Pinterest, and others); PX0603 at -001-03, *FIGHTING ABUSE @SCALE 2019*, At Scale Conferences, https://atscaleconference.com/events/fighting-abuse-scale-2019/ (last visited May 18, 2024) (stating that Google, YouTube, Microsoft, LinkedIn, and others would be presenting on "state-of-the art technologies used to protect people on the internet and have the opportunity to discuss abuse fighting with like-minded people from around the industry"); PX0604 at -001, *Fighting Abuse @Scale 2019 recap*, Engineering at Meta

(Dec. 13, 2019), https://engineering.fb.com/2019/12/13/security/fighting-abuse-scale-2019/ (reporting that engineers from Google, LinkedIn, Microsoft, YouTube, and others had "discussed review systems, detection, mitigation, and more").

c. Other online platforms besides Meta share their integrity insights in publicly available articles and blog posts.

Meta Response: Disputed in part. Undisputed that the companies listed in the subparagraphs below publish research on topics related to integrity. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2227.

i. Google has a "publications" website where it shares its research in areas such as Security, Privacy and Abuse Prevention, Machine Intelligence, Natural Language Processing, and Responsible AI, among others. *See* PX0605 at -001, *Publications*, Google Research, https://research.google/pubs/ (last visited May 18, 2024).

ii. Pinterest's engineers publish their integrity-related research, including their spam-fighting efforts on an engineering blog hosted by the website Medium. *See* PX12630, *Pinterest Engineering*, Medium, https://medium.com/@Pinterest_Engineering (last visited May 18, 2024); *see, e.g.*, PX12632, Hongkai Pan, *Fighting Spam with Guardian, A Real-Time Analytics & Rules Engine,* Pinterest Engineering Blog (Feb. 25, 2021), https://medium.com/pinterest-engineering/fighting-spamwith-guardian-a-real-time-analytics-and-rules-engine-938e7e61fa27; PX0569, Marty Weiner, *Fighting Spam at Pinterest*, Pinterest Engineering Blog

(Feb. 20, 2015), https://medium.com/pinterest-engineering/fighting-spam-at-pinterest-78f4e7dc4727.

iii. LinkedIn also has an engineering blog where it posts its research on topics such as AI, Trust & Safety, and Infrastructure among others. *See* PX0606, *Engineering Blog*, LinkedIn, https://www.linkedin.com/blog/engineering (last visited May 18, 2024); *see, e.g.*, PX0587, Abhishek Chandak, *Augmenting our content moderation efforts through machine learning and dynamic content prioritization,* LinkedIn Engineering Blog (Nov. 27, 2023), https://www.linkedin.com/blog/engineering/trust-and-safety/augmenting-our-content-moderation-efforts-through-machine-learni; PX0607, Yi-Wei Lin, *Leveraging behavior analytic computation for anti-abuse defenses*, LinkedIn Engineering Blog (Feb. 11, 2021), https://www.linkedin.com/blog/engineering/trust-and-safety/leveraging-behavior-analytic-computation-for-anti-abuse-defenses.

iv. Twitter also has an engineering blog on which it publishes its research on various topics, including machine learning and scale, and explains how it overcame various technical challenges. *See* PX0608, Engineering, X, https://blog.x.com/engineering/en_us (last visited May 18, 2024).

2228. Other online platforms besides Meta share their integrity tools.

Meta Response: Disputed in part. Undisputed that Google and Microsoft have made certain integrity tools publicly available. Disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram would have developed and deployed integrity systems using five tools discussed in the below subparagraphs as

quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. *See also* PX0591 at -031 (Nicholas & Bhatia, *Lost in Translation*) ("Despite publishing on AI and pushing the field forward, technology companies tend to hold information about their production AI systems, even basic information about what languages they are used in, close to the chest.").

a. Google freely shares four key integrity tools it has developed:

Meta Response: Disputed in part. Undisputed that Google shares the four tools identified in the subparagraphs below for free. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2228.

i. Perspective API, a machine learning-based text matching tool that helps identify abusive comments. PX0380 at -001, -006, *How it Works Using Machine Learning to Reduce Toxicity Online*, Perspective, https://www.perspectiveapi.com/how-it-works/ (last visited May 18, 2024).

ii. CSAI Match, a tool that allows platforms to find near duplicate videos of child sexual abuse material. PX0419 at -001, -003, *Discover our child safety toolkit*, Google, https://protectingchildren.google/tools-for-partners/ (last visited May 18, 2024).

iii. Content Safety API, a technology that allows online platforms to prioritize review of child sexual abuse material. PX0419 at -001-02, *Discover our child safety toolkit*, Google, https://protectingchildren.google/tools-for-partners/ (last visited May 18, 2024).

iv. reCAPTCHA, a "free service that protects [online platforms] from spam and abuse." PX0609 at -001, *reCAPTCHA*, Google for Developers, https://developers.google.com/recaptcha/ (last visited May 18, 2024).

b. Microsoft's PhotoDNA is also available for free. PX0363 at -003, *PhotoDNA*, Microsoft, https://www.microsoft.com/en-us/photodna (last visited May 18, 2024) ("Microsoft continues to provide this valuable technology for free to qualified organizations including technology companies, developers, and non-profit organizations for the purpose of combatting child exploitation.").

Meta Response: Disputed in part. Undisputed that, today, Microsoft provides the PhotoDNA Cloud Service free of charge to "qualified customers." PX0363 at -001, -003 (*PhotoDNA*). Disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2217, and 2228.

d) Meta's implementation of integrity tools and techniques on Instagram was stunted, incomplete and delayed.

2229. Effective management of integrity issues would require Meta to tailor its integrity tools to suit Instagram's needs.

Meta Response: Disputed in part. Undisputed that online platforms with user generated content must develop and evolve integrity systems to enforce the platform's user policies and combat evolving integrity challenges on the platform. *See* Ex. 7 at ¶ 21 (Subrahmanian Rep.). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that the integrity tools and systems that Meta deployed on Instagram did not suit Instagram's needs, including for the reasons stated above in Meta's response to paragraph 2183, and because the cited evidence does not support that proposition.

a. Integrity systems are designed to suit a platform's specific architecture and community standards. *See* PX9002, McCoy Report at ¶ 35. Any attempt to use an integrity system designed for one platform to address the integrity issues of a different online platform requires that the system of the former be tailored to the latter's specific architecture, and calibrated to carry out the latter's community standards. *See* PX9002, McCoy Report at ¶¶ 35, 54.

Meta Response: Disputed in part. Undisputed for the reasons stated above in Meta's response to paragraph 2229. Disputed that "[a]ny attempt to use an integrity system designed for one platform to address the integrity issues of a different online platform requires" tailoring and calibration. The cited paragraphs in Professor McCoy's report do not cite any evidence to support that statement, whereas record evidence – including Professor McCoy's own deposition testimony – refutes it. Ex. 313 at 245:4-245:19, 250:12-16 (McCoy Dep. Tr.) (acknowledging that not all integrity software requires tailoring). Further disputed for the reasons stated above in Meta's response to paragraph 2229.

b. An April 2014 presentation titled "Instagram Support Discussion," notes that Meta "shouldn't simply copy what exists on FB, but develop something that solves the same issues in a way that works for the IG community and product." PX10156 at -019, Meta presentation: "Instagram Support Discussion" (Apr. 2014), FB_FTC_CID_06477259.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2229, and because the FTC's characterization of the presentation is

incomplete and missing necessary context. The quoted language is from a slide that only compares how Instagram and Facebook delivered notifications to and communicated with users in 2014. PX10156 at -019 (FB_FTC_CID_06477259). Instagram relied on email delivery of notifications, while Facebook used several methods including in-app notifications.

c. Gregg Stefancik—the former head of Meta's site integrity team—testified that because Instagram was on a different backend structure, Facebook's integrity tools could not be immediately and automatically used by Instagram: "it wasn't plug and play." PX6042, Stefancik (Meta) Dep. Tr., at 18:2-9, 65:22-66:4.

Meta Response: Disputed in part. Undisputed that the witness served in the identified role and provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2229 and because the FTC's proffered expert, Professor McCoy, explained that, in the context of implementing integrity tools, "nothing happens immediately." Ex. 313 at 247:20-248:8 (McCoy Dep. Tr.). The evidence shows that Meta's engineers integrated Instagram with Meta's spam-fighting systems within months of the acquisition's close. Indeed, on November 26, 2012, Mr. Krieger wrote in an email to Mike Schroepfer that spam had "gotten a ton better [on Instagram] – we had [redacted] basically full-time on Instagram the last week and a half and he set up a ton of rules in Sigma/Sentry to really good results." Ex. 480 at -351 (FB_FTC_CID_12203351); *see also* Ex. 7 at ¶ 131 (Subrahmanian Rep.) (citing evidence stating that, in 2012, [redacted] was "Facebook's best spam fighter"); Ex. 153 at 154:3-9 (Krieger Dep. Tr.) ("Q. . . . Following the acquisition, was there any plan to immediately

integrate Facebook's integrity systems into Instagram? A. Yeah. That was one of the first sort of orders of business."). Three days later, on November 29, 2012, Mr. Krieger wrote in an email that Instagram "really appreciate[d] all the help from [Site Integrity]" because Instagram would have been "in a tough spot without it." Ex. 189 at -173 (FB_FTC_CID_03265173). In the same email, he listed several "[h]ighlights": "[redacted] got a ton of work done for the 1.5 weeks before his PTO, and I think we're in a much better place in terms of SI integration points"; "[redacted] and [redacted] have been helpful in teaching us Sigma and Orb"; "Comment spam has gotten much better on Instagram"; and "Every comment, signup, and inactivation is being fed through Sentry." *Id.* As a "[l]owlight[ ]," Mr. Krieger wrote "Probably more our fault, but we lack metrics around how successful these initiatives are being beyond qualitative measurements." *Id.*; *see also* Ex. 153 at 136:10-137:1 (Krieger Dep. Tr.) (testifying that pre-acquisition Instagram "didn't have robust measurement systems" for spam). Mr. Krieger also wrote that "[p]hoto spam is still a large issue ([redacted] is starting to tackle that now)." Ex. 189 at -173 (FB_FTC_CID_03265173). The evidence shows that on December 7, 2012, Mr. Krieger told Mr. Zuckerberg that Instagram was "deploying PhotoDNA tomorrow/Monday" to "help identify repeated spam photos." PX3428 at -359 (FB_FTC_CID_06210359). The evidence also shows that Instagram's ability to use Meta's integrity systems is what "spurred" Instagram's transition from AWS to Meta's infrastructure. Ex. 153 at 79:15-81:2 (Krieger Dep. Tr.).

2230. Meta's integrity tools were not tailored to suit Instagram's needs.

Meta Response: Disputed. Disputed that the vague assertion that Meta's integrity systems were "not tailored to suit Instagram's needs" creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. *Cf.* Ex. 7 at ¶ 13 (Subrahmanian Rep.) ("In evaluating an integrity system, it is necessary to understand the scope of these challenges and trade-offs and take a holistic look at the system, rather than narrowly focus on scattered incidents that are likely to provide a distorted view."). Indeed, Mr. Krieger testified: "Q. And did Meta's integrity tools need to be customized for use on Instagram? A. They had to be customized somewhat, but I would say less than other services inside Facebook. They were already built in a way where the integration cost, I would say, was actually quite low." Ex. 153 at 159:7-160:11 (Krieger Dep. Tr.). He continued: "Q. And in what ways did [Meta's integrity tools] need to be customized? A. They operated primarily on FB IDs, which is just the identifier that would identify a Facebook user, or an object in the Facebook sort of universe of – of data. And we had Instagram IDs, and so I think one of the projects that we did fairly early was a way of mapping an Instagram ID to a Facebook ID. Similarly, to write, for example, some of these Sigma rules, they needed to have signals that could be used for these classifiers. And so some of the work that [redacted] and [redacted] did was to get those signals into the Sigma system." *Id.* at 159:18-160:6.

a. In an April 2014 email, an engineer from Meta's trust engineering team, [redacted], wrote: "[t]here's a failure state here where we just go build things like we've done for F[acebook Blue] and they end up not working/being a waste of resources cause we're not understanding that I[nstagram] is a different product that requires, in many cases,

different types of support." PX10743, Meta email: [redacted] to A. Bejar, et al. re: "[redacted] READ THIS, I'M IMPORTANT DAMMIT :) : FW: Ex of questions re: current roadmap," (Apr. 15, 2014), FB_FTC_CID_06493773, at -774.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, without alterations. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2230, and because the FTC's characterization of the evidence is incomplete and misleading. When the FTC asked Mr. Bejar about the cited evidence at his deposition, Mr. Bejar explained: "When I started working [at Facebook in 2009], there was a history of things that [user operations] had asked to build that were not helpful for users or the [Facebook] product. So they would be like, 'Oh, we need to integrate it with this.' And then [redacted]'s team would have to do that. That was prior to that team having a dedicated product manager to help facilitate that, which was [redacted] job. And [redacted] did a wonderful job of helping prioritize and clarify requests. And after we did that, things got a lot better, and [redacted] was happy with that. And so [redacted] wanted to avoid the circumstance where we were doing kind of like not-strategized thought-through response to requests that had to do with Instagram, that he wanted the same support and structure we had put in in Facebook where there was a dedicated [product manager] to help rationalize the efforts of the engineering team." PX6052 at 13:23-25, 16:6-8, 202:20-204:2 (Bejar Dep. Tr.).

b. Meta identified the same issue in an April 2014 internal presentation titled "Instagram Support Discussion": "The tools and infrastructure we use for IG

support aren't scalable long-term" because "[m]ost of our tool integrations have been developed as one-off hacks as opposed to scalable platforms." PX10156 at -016, Meta presentation: "Instagram Support Discussion" (Apr. 2014), FB_FTC_CID_06477259. Meta explained that one of the impacts of its "one-off hacks" was that it "can't remove more abusive content proactively." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2230, and because the FTC's characterization of the presentation is incomplete and missing necessary context. The evidence establishes that Miguel Velazquez – not "Meta" – created the cited presentation "to highlight some of the work that we wanted to do to improve the overall support experience for Instagram users." PX6033 at 126:24-127:7 (Velazquez Dep. Tr.); *see also* PX9002 at ¶¶ 30, 43 (McCoy Rep.) (identifying four "main components" of an integrity program, including that "[a]n integrity program must . . . be continually assessed for effectiveness"). When asked about the language quoted in the first sentence of this subparagraph, Mr. Velazquez explained: "I think this was essentially saying that a lot of the integration that we had done had been kind of just like trying to get things into the right systems as quickly as possible. But then we were sort of, we had this technical depth, if you will, that made more sort of proactive scalable solutions more difficult as a result." PX6033 at 149:2-16 (Velazquez Dep. Tr.); *id.* at 149:17-24 (defining technical depth). He further testified: "Q. Were there any particular areas where those early one-off hacks were not keeping pace then with the increase in users and

content on Instagram? . . . A. No. I think we were doing everything that was like top priority in terms of keeping the site safe. Like, this is more sort of like talking about like second order effects and things that we could do to improve the user experience." *Id.* at 151:6-17.

Further disputed to the extent this statement suggests that, in April 2014, Meta had not deployed tools on Instagram to proactively detect and remove policy-violating content. On the contrary, the evidence shows that, by November 2012, every comment, signup, and inactivation on Instagram was being processed through Sentry, Meta's spam-fighting tool that communicated with several other tools (e.g., Sigma, Orb, Blackhole) to proactively remove spam; by December 2012, Meta deployed PhotoDNA on Instagram to proactively detect and remove spam; and by April 2013, Meta deployed PhotoDNA on Instagram to proactively detect and remove apparent child sexual abuse material. Ex. 189 at -173 (FB_FTC_CID_03265173); PX3428 at -359 (FB_FTC_CID_06210359); PX9020 at ¶¶ 74, 125, 152 (Subrahmanian Rep.). In May 2014, Meta improved Instagram's PhotoDNA integration so it could add new CSAM hashes to Meta's hash bank. PX9020 at ¶ 152 (Subrahmanian Rep.) (citing evidence regarding PhotoDNA integration and improvements).

c. Miguel Velazquez—who managed the integration of Instagram's user support and operations with Facebook—testified that "a lot of the integration that we had done had been kind of just like trying to get things into the right systems as quickly as possible. But then we were sort of, we had this technical [debt], if you will, that

made more sort of proactive scalable solutions more difficult as a result." PX6033, Velazquez (Meta) Dep. Tr., at 14:12-20, 149:2-16.

Meta Response: Disputed in part. Undisputed that Mr. Velazquez managed Instagram's integration with Meta's user support and operations, and that he provided the quoted testimony. Disputed because the FTC's summary of Mr. Velazquez's testimony is incomplete and missing necessary context. Meta incorporates its response to subparagraph 2230(b) here, because the testimony quoted in this subparagraph was offered in response to questions about the language quoted above in subparagraph 2230(b). Further disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183 and 2230.

d. In a May 2018 email reporting on the "State of IG Integrity," Guy Rosen wrote that he was really worried about grooming on Instagram and added "I think it's worth taking the hit on speed and the forcing function to do things like understand how the classifiers and review tools work across [Facebook's and Instagram's] different messaging backends (which we've not really ever done, I think)." PX12339, Meta email: G. Rosen to A. Mosseri re: "Instagram Integrity," (May 16, 2018), FB_FTC_CID_02857747, at -748.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, without alterations. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2230.

e. An October 2018 email written around the time Meta was centralizing its integrity work noted that one of the challenges for the newly created Community Integrity (more commonly referred to as Central Integrity) team is that "it's difficult for [it] to be all things to all people. Detection mechanisms that work well on FB don't work well on IG . . . This means that IG, which is already behind and getting shredded in the press, is at risk of being deprioritized relative to blue." PX3079, Meta email: [redacted] to M. Nowak re: "Some reading suggestions," (Oct. 22, 2018), FB_FTC_CID_07726301, at -302; *see also* PX9020, Subrahmanian Report at ¶ 157 (noting that in early 2018, "Meta decided to further integrate the integrity efforts for all its applications into a centralized organization known as the Central Integrity team.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, and that Professor Subrahmanian offered the quoted opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2230. Further disputed to the extent the statement in this subparagraph suggests that Meta's decision to evolve the collaboration model between its Central Integrity team and app-surface integrity teams supports the vague assertion that "Meta's integrity tools were not tailored to suit Instagram's needs." As Guy Rosen, Meta's chief information security officer, explained: "we wanted to change our approach and actually have the central team directly drive the progress across both Facebook and Instagram because the surfaces have similar attributes in terms of feed and content, and so it made more sense to have them operate centrally with support from teams on Facebook. There is also a Facebook

integrity team, and on Instagram, where there is an Instagram integrity team. It's part of how we operate." PX6058 at 14:4-13, 62:20-63:6 (Rosen Dep. Tr.); *see id.* at 173:8-15 (explaining that, in the context of "content integrity . . . there's a post on Instagram and a post on Facebook, but largely, it's a post and content, text, or a photo that can be fed into a similar system"). Further disputed because it is not clear which "[d]etection mechanisms" are at issue in the document, let alone whether Meta used those mechanisms to combat integrity issues on Instagram.

2231. Meta's integration of Instagram remained incomplete for many years after the acquisition closed.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact as to the vague assertion that "Meta's integration of Instagram remained incomplete for many years after the acquisition closed," including for the reasons stated above in Meta's response to paragraph 2183 and in response to the subparagraphs below, which show numerous instances of Meta integrating its integrity systems into Instagram. Subsequent improvements to the tools or the integration does not establish that the initial integration "remained incomplete." *Cf.* PX9002 at ¶ 28 (McCoy Rep.) ("the essential dynamic of integrity work is ongoing: it is not something that you ever solve").

a. In an April 2014 presentation, Meta listed "[i]ncreased Sigma functionality" and "[f]ull PhotoDNA integration" among the engineering items Meta had not completed two years after its acquisition of Instagram closed. PX10156 at -020,

Meta presentation: "Instagram Support Discussion" (Apr. 2014), FB_FTC_CID_06477259.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2231, and because the FTC's characterization of the cited evidence is misleading. The evidence establishes that Instagram integrated with Meta's spam-fighting system, which includes Sigma, "[a]lmost instantly" after the acquisition closed. PX6015 at 234:20-235:3 (Krieger IH Tr.); PX6146 at 154:3-9 (Krieger Dep. Tr.) ("Q. . . . Following the acquisition, was there any plan to immediately integrate Facebook's integrity systems into Instagram? A. Yeah. That was one of the first sort of orders of business."). Indeed, Mr. Krieger wrote in a November 26, 2012 email that spam had "gotten a ton better – we had [redacted] basically full-time on Instagram the last week and a half and he set up a ton of rules in Sigma/Sentry to really good results." Ex. 480 at -351 (FB_FTC_CID_12203351); Ex. 7 at ¶ 131 (Subrahmanian Rep.) (citing evidence that, in 2012, [redacted] was "Facebook's best spam fighter"). Three days later, Mr. Krieger wrote in another email that Instagram "really appreciate[d] all the help from [Site Integrity] – we'd be in a tough spot without it." Ex. 189 at -173 (FB_FTC_CID_03265173). He identified several "[h]ighlights": "[redacted] got a ton of work done for the 1.5 weeks before his PTO, and I think we're in a much better place in terms of SI integration points"; "[redacted] and [redacted] have been helpful in teaching us Sigma and Orb"; "Comment spam has gotten much better on Instagram"; and "Every comment, signup, and inactivation is being fed

through Sentry." *Id.* He also identified a few "[l]owlights," including that "[p]hoto spam is still a large issue," which "[redacted] [was] starting to tackle." *Id.* About a week later, on December 7, 2012, Mr. Krieger wrote that Instagram was "deploying PhotoDNA tomorrow/Monday" to "identify repeated spam photos." PX3428 at -359 (FB_FTC_CID_06210359).

Further disputed because a single presentation created by Miguel Velazquez does not establish the views of Meta. PX6033 at 126:24-127:7 (Velazquez Dep. Tr.) ("this is a deck that I put together"). Mr. Velazquez testified that, when he made the presentation, Meta was "doing everything that was like top priority in terms of keeping the [Instagram] site safe." *Id.* at 151:6-17. The presentation states that the request for "[i]ncreased Sigma functionality" was "IN PROGRESS." PX10156 at -020. The FTC's own expert, Professor McCoy, recognizes that spam fighting is an "iterative" process because "attacks are constantly evolving." PX9002 at ¶ 133 (McCoy Rep.).

The evidence establishes that Meta deployed PhotoDNA on Instagram in December 2012 to detect photo spam, and in April 2013 to detect apparent child sexual abuse material (CSAM). Ex. 7 at ¶¶ 74, 152-153 (Subrahmanian Rep.). In May 2014, Meta improved Instagram's PhotoDNA integration by enabling Instagram to add new CSAM hashes to Meta's bank. *See*, *e.g.*, PX15323 at -035 (FTC-META012331035) (May 2014 post announcing "full integration of PhotoDNA into Instagram" after a "months-long effort," which was "an amazing improvement" to Instagram's "ability to fully address CEI"). That improvement happened more than a decade ago, and before other online platforms, like Reddit,

had even deployed PhotoDNA. Ex. 7 at ¶ 160 & nn.478-479 (Subrahmanian Rep.) (citing evidence that Reddit launched PhotoDNA in 2016); PX9013 at ¶ 353 (McCoy Rebuttal Rep.) (not disputing that [redacted] integrated PhotoDNA after Instagram did so).

b. In an email dated February 27, 2014, Meta identified several issues with Instagram's integration with PhotoDNA. PX10197, Meta email: [redacted] to G. Stefancik re: "PhotoDNA list," (Feb. 27, 2014), FTC-META-004802713, at -714-15. Among the problems listed were that:

Meta Response: Disputed in part. Undisputed that the document contains a "list of prioritized PDNA problems" as of February 27, 2014. PX10197 at -714 (FTC-META-004802713). Disputed for the reasons stated in Meta's responses to paragraphs 2183, 2217, 2231 and subparagraph 2231(a), and because the FTC's characterization of the evidence is incomplete and misleading. For example, and as explained in greater detail in Meta's response to subparagraph 2231(a), the evidence shows that, in May 2014, Meta improved Instagram's PhotoDNA integration by enabling Instagram to add new CSAM hashes to Meta's bank. *See* PX15323 at -035 (FTC-META-012331035) (May 23, 2014 post announcing "full integration of PhotoDNA into Instagram" after a "months-long effort," which was "an amazing improvement" to Instagram's "ability to fully address CEI"); Ex. 481 at -956 (FTC-META-012330956) (May 23, 2014 post, which states "Instagram photos are now being hashed and added to FB CEI PhotoDNA banks! We have granular tracking in place for monitoring hits and so far things are looking good. This is a huge win for our child safety work."). That improvement addressed the

first item on the "list of prioritized PDNA problems" in the evidence cited in this statement, PX10197 at -714 (FTC-META-004802713), and it happened more than a decade ago, and before other online platforms, like Reddit, had even deployed the tool, as the evidence stated in Meta's response to subparagraphs 2217(i) and 2231(a) establishes.

Further disputed to the extent the statements in this paragraph and the subparagraphs below suggest that Instagram would have implemented and maintained PhotoDNA as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's responses to paragraphs 2183, 2217, and 2231.

i. Instagram could not add content to the PhotoDNA bank and being able to add photos to the bank would "make us more effective across [Instagram and Facebook]," *id.* at -714;

Meta Response: Disputed in part for the reasons stated above in Meta's responses to paragraphs 2183 and 2231 and subparagraph 2231(b).

ii. Instagram could not proactively match images in messages even though Meta had "witnessed grooming and other exploitative behaviors occurring in messages, so this is likely an untapped realm where content is being shared," *id.*; and

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2231 and subparagraph 2231(b), and because the FTC's characterization of the document is misleading and

missing necessary context. The document is an email sent to Gregg Stefancik. The FTC asked him about the quoted language at his deposition, and Mr. Stefancik testified: "Q. And do you know which platform the messages she's referring to are? A. Since she did not specify something other than Facebook, I would assume it was the Facebook app or the Facebook Messenger app." PX6042 at 153:2-15 (Stefancik Dep. Tr.).

iii. Instagram's PhotoDNA aggression was fixed at a low level and that "[t]he low level leads to undetected CEI . . . ." *id.*; *see also* PX15323, Meta message board post: [redacted], "Safety and Friends (Safety FYI and Feedback)" (May 23, 2014), FTC-META-012331035, at -035 (stating that Instagram's inability to add Instagram content to the PhotoDNA banks "was limiting [its] ability to fully address CEI on Instagram.").

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2231 and subparagraph 2231(b), and because the FTC's summary of PX15323 is incomplete and misleading. That evidence states, in relevant part: "Thanks to hard work from [redacted], [redacted], and [redacted], we've launched a full integration of PhotoDNA into Instagram. This has been a months-long effort and is an amazing improvement: formerly, we were running our FB PhotoDNA banks for CEI on Instagram, but we weren't able to add Instagram content to the banks, which we think was limiting our ability to fully address CEI

on Instagram. This integration was turned on last week, turned off to fix some issues with profile photos, and turned back on today." PX15323 at -035 (FTC-META-012331035); *see also* Ex. 481 at -956 (FTC-META-012330956) (May 23, 2014 post, which states "Instagram photos are now being hashed and added to FB CEI PhotoDNA banks! We have granular tracking in place for monitoring hits and so far things are looking good. This is a huge win for our child safety work.").

c. A December 2016 document titled "Protect & Care 2016 H2/ 2017 H1" noted that "Instagram [was] not properly integrated into Facebook's infrastructure; requires duplicated effort." PX3086, Meta presentation: "Protect & Care 2016 H2 / 2017 H1" (Dec. 6, 2016), FB_FTC_CID_02952815, at -831.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, without alterations. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2231.

d. Instagram co-founder Kevin Systrom stated in an April 2018 email concerning Instagram's "structure and biggest issues" that "[i]ntegration into FB's systems" was an obstacle for Instagram well-being, explaining that "we are so far behind FB . . . ." PX12338, Meta email: K. Systrom to A. Mosseri re: "IG's structure and biggest issues," (Apr. 9, 2018), FB_FTC_CID_02845306, at -309.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2231, and because the FTC's summary of the document is incomplete and misleading. The document states, in relevant part: "[W]e are so

far behind FB and Guy [Rosen] is doing his best to help us integrate." PX12338 at -309 (FB_FTC_CID_02845306).

2232. Meta was also slow to provide Instagram with standard checkpoint tools and upgrades to existing tools.

Meta Response: Disputed. Disputed that the vague assertion that Meta was "slow" to provide Instagram with "standard checkpoint tools" and "upgrades to existing tools" creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. The evidence shows that Meta launched reCAPTCHA on Instagram "around the time [of the Instagram] acquisition (2012)," PX3412 at -315 (FB_FTC_CID_02856315); deployed a version of its Delta tool on Instagram in July 2013, *see* Ex. 7 at ¶ 155 & n.453 (Subrahmanian Rep.) (citing FTC-META-007028080); and launched SMS verification on Instagram in September 2013, *see* PX3083 at -054 (FB_FTC_CID_02641054); PX3084 at -852 (FB_FTC_CID_06072850) ("[Instagram is] working with the SI team to build out an SMS verification checkpoint . . . .").

a. For example, although Facebook was using SMS verification on Facebook prior to its acquisition of Instagram, *see* PX3411 at -029, Meta presentation: "Protecting the Social Graph" (Apr. 22, 2011), FB_FTC_CID_09111578, it did not launch phone verification on Instagram until September 2013, a year after the acquisition closed. *See, e.g.*, PX3083, Meta email: M. Krieger to [redacted], re: "More context on design," (Sept. 4, 2013), FB_FTC_CID_02641054, at -054 ("[Instagram is] shipping SMS checkpoints . . . this week."); PX3084, Meta email: K. Systrom to M. Zuckerberg et al., re: "Instagram HPM," (Aug. 19,

2013), FB_FTC_CID_06072850, at -852 ("[Instagram is] working with the SI team to build out an SMS verification checkpoint . . . .").

Meta Response: Disputed in part. Undisputed that Meta launched phone verification on Instagram in September 2013. Disputed for the reasons stated above in Meta's response to paragraph 2232.

b. Similarly, in an October 2018 document, a member of Instagram's integrity team complained that "[c]urrently IG does not use reCAPTCHA 2.0 in web or mobile registration flow. It was coded and tested, but not implemented based on 'growth impediment concerns.'" PX12348, Meta email: [redacted] to A. Mosseri, re: "fake-accounts-on-ig.pdf," (Oct. 19, 2018), FB_FTC_CID_02868342; PX12348, Meta document: "Product growth vs integrity – changing priority," (Oct. 19, 2018), FB_FTC_CID_02868343 at -343; *see also* PX3412, Meta email: [redacted] to A. Mosseri, re: "need to prioritize Integrity efforts over growth – we must fight fakes," (Oct. 22, 2018), FB_FTC_CID_02856315 at -316 ("I understand that some of the listed items (like ReCapture 2.0 [sic]) were implemented – but not put into Prod due to possible minimal growth impact."). In an email also from October 2018, the same employee explained that Instagram's "Wellbeing currently uses an old version of reCaptcha built around the time [of the] IG acquisition (2012)." PX3412, Meta email: [redacted] to A. Mosseri, re: "need to prioritize Integrity efforts over growth - we must fight fakes," (Oct. 22, 2018), FB_FTC_CID_02856315 at -315.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to

paragraph 2232, and because the evidence does not establish whether implementing reCAPTCHA 2.0 on Instagram would meet a need that other integrity tools deployed on Instagram, including SMS verification, CAPTCHA, and Delta, did not satisfy, or that new tools developed by Meta, like Deep Entity Classification, would not address. *See* Ex. 7 at ¶ 41 (Subrahmanian Rep.) (describing Meta's Deep Entity Classification tool).

e) On various occasions, Meta has failed to allocate the resources that Instagram needed to protect users of Instagram.

2233. Meta delayed providing Instagram with the engineering resources Instagram needed to fully integrate into Meta's integrity system in the months following the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding the vague assertion that Meta "delayed providing Instagram with the engineering resources Instagram needed to fully integrate into Meta's integrity system in the months following the acquisition." When the acquisition closed in 2012, Instagram had six engineers. PX6146 at 21:13-15, 22:7-9 (Krieger Dep. Tr.). Mr. Krieger testified that, in September 2015 – just two years after the acquisition closed – Instagram's team had grown to "around 100" engineers. *Id.* at 162:12-19, 167:2-7. Mr. Krieger confirmed that the majority of those 100 engineers were not hired by Instagram, either "preacquisition or directly." *Id.* at 303:8-20. Rather, most of them transferred from the Facebook side of the company or came through Meta's bootcamp process. *Id.* (agreeing that was "a fair characterization").

The evidence also establishes that Meta's engineers helped Instagram integrate with Meta's integrity systems, for the reasons stated above in Meta's responses to paragraph 2183 and subparagraph 2231(a) (describing efforts of [redacted], [redacted]

[redacted]). Indeed, in July 2013, Mr. Systrom spoke publicly about the engineering support that Meta provided to Instagram after the acquisition closed: "At the time, we had maybe six engineers, two of whom were available to work on this [spam] problem part time. So we asked Facebook for help. They put a team of 20-plus on it." Ex. 7 at ¶ 131 & n.353 (Subrahmanian Rep.) (quoting MetaFTC-DX-918, Eric Markowitz, *How We Keep Instagram 'Instagram-y'* at 3 (July 2, 2013)).

The evidence also shows that Instagram requested a trust and safety engineer to support Instagram's integration with Meta's user operations systems in November 2012. Ex. 7 at ¶ 171 & n.505 (Subrahmanian Rep.) (citing evidence regarding that request). Meta filled that request in less than four months. *Id.*; Counter SMF ¶ 2233(a)(i); PX6033 at 55:16-56:2 (Velazquez Dep. Tr.) ("Q. When you were first trying to get a dedicated trust engineer assigned in December [2012], were you expecting it would take three months? . . . A. I don't remember. I think again when you work at a tech company it's like there's always give and take in terms of priorities. I recall things at Facebook actually tended to move fairly quickly."). In the intervening months, Miguel Velazquez (a non-engineer at Meta) had been "planning the integration of Instagram's user support and user operations into Facebook's existing user operations team." PX6033 at 14:8-20 (Velazquez Dep. Tr.). For example, a December 3, 2012 email shows that Mr. Velazquez "help[ed] put together" a list of integration points for Instagram, including: "Help Center migration: finalize transition, maintain and work on improvements (Note – initial migration is done but will need to maintain)"; "TPS migration: build Instagram email support into TPS"; "Contact Form migration: tool for creating Instagram-specific contact forms that work with TPS and CRT"; "Reporting: help Instagram set up granular

reporting options both in app and on web (this is currently being worked on)"; "Display Instagram Admin content in TPS/CRT (we talked about using API calls to display this content for UO reps so they don't have to keep the Instagram admin open in a different tab)"; and "Transition content moderation from Crowdflower to Accenture." PX3075 at -536 (FB_FTC_CID_06521536). [redacted] (a Meta engineer) responded to that email, stating "we should work with [redacted], who's already done some of [the 'integrating report stuff']." *Id.*

Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram would have hired as many engineers to work on its integrity systems as quickly and efficiently absent the acquisition as it was in fact provided because of the acquisition, including for the reasons stated above in Meta's response to paragraph 2183. Actual evidence shows that, at the time of the acquisition, Meta's "integrity infrastructure and know-how . . . was the best thing in the industry." PX6052 at 33:3-7 (Bejar Dep. Tr.). And an internal Meta email from February 2014 shows that members of Meta's Site Integrity team had been recruited by Snapchat, but declined to leave Meta. PX10744 at -964 (FB_FTC_CID_06495964) ("On snapchat trying to hire Facebook SI engineers we should view that positively. It's great validation of our talent bench, it's a good thing for employees increasing their compensation, and that our employees have decided not to go is a validation that we're doing well keeping them happy."). The evidence also shows that integrity was not the top hiring priority for Instagram before the acquisition. *See* Ex. 302 at 69:15-70:3 (Krieger IH Tr.) ("Q. . . . what did you hope to do with the Series B funding in building out the team? A. Building out a true Android team. At the time I think we had one Android engineer. So building

out a broader team. And then building out an infrastructure team that would be able to make forward progress rather than just . . . you know, keep the site running sort of on a week-to-week basis. And then build out a web presence. At the time we had a very bare bones web – like, desktop website, and we thought it was time to actually build out a real website.”).

a. In November 2012, less than three months after the acquisition closed, an employee working on Instagram’s integration with Meta wrote:

> I’m sending you a note to remind you to look into the Instagram UO [User Operations] integration resource gap. It’s non-trivial amount of work to fully integrate Instagram into our CRT/TPS and other UO tools. This is hi-pri[ority] from UO/Instagram perspective but we simply don’t have the ENG resources right now.”

See supra CMF at ¶ 1616; PX10750, Meta email chain: [redacted] to A. Bejar re: “Instagram UO Integration Resource Gap,” (Nov. 19, 2012), FB_FTC_CID_06521539, at -539; *see also* PX3075, Meta email chain: M. Velazquez to [redacted] et al., re: “Instagram Eng Timeline,” (Dec. 3-4, 2012), FB_FTC_CID_06521536, at -536-37 (discussing Instagram’s need for a dedicated trust engineer to integrate Instagram with Meta’s “tools,” including “content moderation” and “[r]eporting”); PX6033, Velazquez (Meta) Dep. Tr., at 24:10-21 (agreeing that “UO” means user operations).

<u>Meta Response</u>: Disputed in part. Undisputed that the documents contain the quoted language and the witness provided the paraphrased testimony. Disputed for the reasons stated above in Meta’s response to paragraph 2233, and because the FTC’s characterization of the cited evidence is incomplete and misleading. The email states, in relevant part: “Hey Arturo, *per our in person conversation*

just now I'm sending you a note to remind you to look into the Instagram UO integration resource gap." PX10750 at -539 (FB_FTC_CID_06521539) (emphasis added).

i. Meta did not assign an engineer to work on content moderation integration until March 2013. PX10161, Meta email chain: [redacted] to [redacted], et al. re: "MTG: IG Security," (Mar. 11, 2013), FB_FTC_CID_12181754, at -757 ("1. FINALLY got a trust and safety engineer on Arturo's team assigned to work on this (migrating to Uops platform).").

Meta Response: Disputed in part. Undisputed that Meta assigned a trust and safety engineer to support Instagram's integration with Meta's user operations systems in March 2013. Disputed for the reasons stated above in Meta's response to paragraph 2233.

b. In April 2014, Meta's site integrity team explained that it did not plan to dedicate engineers to bring Instagram's integrity to parity with Facebook until "we have a P[roject] M[anager] to fill the bridging the gaps between us, IG, C[ommunity] O[perations]. There's a failure state here where we just go build things we've done for FB and they end up not working/being a waste of resources cause we're not understanding that IG is different product that requires, in many cases, different types of support." PX10743, Meta email from [redacted] to A. Bejar et al. re: "[redacted] READ THIS, I'M IMPORTANT DAMMIT :) : FW: Ex of questions re: current roadmap," (Apr. 15, 2014), FB_FTC_CID_06493773, at -774; *see also* PX6052, Bejar (Meta) Dep. Tr., at 196:14-197:9 (discussing PX10743 and explaining that the April 15, 2014 email was referring to the fact that the trust

engineering team "realized that [they] needed a product manager on the Instagram side to help drive some of these initiatives. And so in order for them to be well coordinated, we wanted that person to be hired"); *id.* at 201:5-11 (testifying that "due to the complexity of implementing these things, we didn't think it was a good use of engineering resources to dedicate people to work on some of these things until there was a PM that would help prioritize and guide this work"); PX6033, Velazquez (Meta) Dep. Tr., at 147:23-148:6 (agreeing that CO means "community operations."); *id.* at 12:21-13:21 (explaining that user operations "is the team that handles all user related support, including email support and content moderation" and that user operations was renamed community operations.).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except that PX10743 states "IG, and C[ommunity] O[perations]," not "IG, C[ommunity] O[perations]," and that the witnesses provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2233, and because the FTC's characterization of the quoted language is incomplete and misleading. The document does not discuss bringing Instagram's overall integrity to parity with Facebook. The relevant section of the document is more narrowly focused on engineering support from Meta's Site Integrity team. PX10743 at -773 (FB_FTC_CID_06493773). The document also states: "Instagram support has come a long way in the last several months and there have been a lot of wins," *id.*, and other evidence shows that engineers on Meta's Site Integrity team and other Meta employees were addressing integrity-related issues on Instagram in April 2014, and the surrounding months. *See*, *e.g.*,

Ex. 7 at ¶ 127 n.334 (Subrahmanian Rep.) ("we also saw a phishing attack on IG last week (thanks to [redacted] for fixing the hole being exploited) and found that IG Delta seemed to do a good job withstanding phishers" (quoting FTC-META0010232093 at -093 (Apr. 7, 2014))), ¶ 128 n.335 (quoting a post by Mr. Krieger, which stated "Props to [redacted] for deleting a ton of legacy Instagram spam-fighting code, all of which has been replaced by more scalable solutions using Sentry & Sigma" (quoting FB_FTC_CID_12206936 at -936 (Jan. 23, 2014))), ¶ 131 n.351 (citing evidence establishing that [redacted] was a Site Integrity engineer), ¶ 171 n.510 (citing evidence that notes "the major tool creations and improvement that have been shipped [on Instagram] over the last few months," including "Improved and streamlined NCMEC reporting and Child Safety PhotoDNA matching," and "[a]ll incoming IG media reports are no[w] integrated with Sigma" (quoting FTC-META-007044113 at -113 (Feb. 7, 2014)); PX15323 at -035 (FTC-META-012331035) (May 23, 2014 post stating, "[t]hanks to hard work from [redacted], [redacted], and [redacted], we've launched a full integration of PhotoDNA into Instagram. This has been a months-long effort and is an amazing improvement . . . ."); PX6033 at 20:24-21:11 (Velazquez Dep. Tr.) ("Q. Do you know how much, you know, what percentage of your time you were devoting to the integration of Instagram and to the user operations system? A. I think initially it was probably around half of my time and then eventually a few months later it became my full time. Q. Do you happen to remember now when it became full time for you? A. It was probably around March or April of 2013."); *id.* at 169:11-22 ("Q. Did Facebook put more resources in terms of people into

content moderation on Instagram? A. Yes. Q. How much more? A. Well, I mean we ultimately like integrated everything into the existing Facebook user operations team and vertical. So tough to say how many more, but we definitely had people on each vertical that were focused solely on Instagram."); *id.* at 14:3-7 (testifying he left Meta in July or August of 2014).

c. In a September 2015 email discussing Instagram's headcount, Mike Krieger identified that Instagram needed to get "'out of debt' in many of [its] key areas" and noted that Instagram's "current staffing" on many projects was "not large." One of these areas of "debt" that Mr. Krieger identified was "Site Integrity/Spam" where Instagram had zero engineers and needed four to "[b]uild SI [Site Integrity] capabilities within IG, building off SI's systems like Sigma and Sentry." *See* PX11030, Meta email: M. Krieger to J. Parikh et al., re: "Instagram headcount info for tomorrow," (Sept. 8, 2015), FB_FTC_CID_05690604 at -604-05.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated in Meta's response to paragraph 2233, and because the characterization of the evidence is incomplete, misleading, and missing necessary context. When asked about this document at his deposition, Mr. Krieger testified: "at the time, the goal was to move from the model or evolve the model we had where people like [redacted] and [redacted] – both, in 2015, members of Meta's Site Integrity team – "although I think, at this point, it was likely other people within site integrity were responsible for fighting off Instagram spam and other . . . problematic content and building out more of that capability within the Instagram team." PX6146 at 169:12-170:2

(Krieger Dep. Tr.). Mr. Krieger also testified that, at the time, engineers on the Instagram team, such as [redacted], were "rotating between site integrity" and "[o]ther more like proactive protect and care efforts like harm prevention." *Id.* at 170:17-171:1. With those resources, Sigma and Sentry "had been adapted to work across both Facebook and Instagram," *id.* at 171:2-15, and the "next phase" Mr. Krieger wanted to prioritize, "given the integration, [was to] tackle new products and tackle new challenges on the site integrity front," *id.* at 173:7-12.

2234. Instagram was understaffed in 2017 regarding integrity.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs below create a genuine dispute of material fact regarding the vague assertion that "Instagram was understaffed in 2017 regarding integrity," including for the reasons stated above in Meta's response to paragraph 2233. The evidence shows that "integrity became the number one area of growth [at Meta] in 2017 and 2018," and Meta "hired across all functions – engineering and product, operations, policy" in those years because integrity "is a team effort." PX10940 at -013 (FTC-META-006840603). In 2018, Meta "more than doubled the number of people who [worked] on safety and security [as compared to 2017] . . . to more than 30,000." PX10940 at -007 (FTC-META-006840603); *see also* Ex. 7 at p. 23, fig. 2 (Subrahmanian Rep.). Guy Rosen testified that, when he became Meta's vice president of integrity in February 2017, Meta "had smaller teams" working on integrity, "as did the whole industry" because integrity "wasn't really a focus area for technology companies." PX6058 at 14:8-13, 15:19-16:3, 30:11-22 & errata (Rosen Dep. Tr.). After he took over, Meta evolved the collaboration model between its centralized and app-specific integrity teams, and the Central Integrity

team started to drive more integrity projects across Meta's Family of Apps, including Instagram, which allowed Meta to "pool the systems, the sets of people that work on it, and their knowledge" and understanding of integrity issues. *See id.* at 174:6-22; *see also id.* at 104:8-13 ("[Meta] built a team on Instagram that was using [Meta's] platforms and tools, and we wanted to shift the collaboration model . . . to take on accountability, responsibility, directly as a central team and actually be the drivers of the work."); *id.* at 190:7-9 ("What I know is that we did shift the collaboration model and helped to drive Instagram integrity work."); *see also* Ex. 7 at ¶ 157 & nn.461-462 (Subrahmanian Rep.) (collecting evidence regarding shift in collaboration). Mr. Rosen explained: "[t]he way we have teams on integrity is we have a central team, central teams that work on issues that cross surfaces, the CI [or Central Integrity] team being the largest one of those. And then we have so-called surface teams or app surface teams, which are sort of smaller satellite teams embedded into the apps or other parts of the company. And we work together. We use common practices, we have common roadmaps, . . . and use common sets of tools, technology, common review workforce in order to operate together." PX6058 at 112:6-18 (Rosen Dep. Tr.).

a. In April 2017, Mr. Systrom wrote Jay Parikh to inquire about "unlocking [headcount] around integrity projects." PX11034, Meta email: K. Systrom to J. Parikh re: "Integrity HC asks from IG," (Apr. 5, 2017), FB_FTC_CID_06450046, at -046. Mr. Systrom indicated that Instagram had "three areas that are unstaffed right now and a small amount of addt'l headcount to staff them would unlock great work." *Id*.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2234, and because the FTC's characterization of the document is incomplete, misleading, and missing necessary context. Instagram's request for additional engineers to work on three discrete projects does not establish that Instagram was "understaffed" in integrity because the cited evidence does not establish the number of engineers working on Instagram's integrity or establish any objective benchmark for integrity staffing in 2017. *See* PX11034 at -046 (FB_FTC_CID_06450046).

b. Later the same month, Mr. Systrom wrote Mr. Zuckerberg to request eight engineers to "staff up" comments integrity and five engineers for business integrity. Regarding comments integrity, Mr. Systrom wrote: "We have lost public figures over this, come under criticism from policy groups, and generally taken heat in the media. We need to focus a team around comment safety and integrity (not simply adding features), both giving control to post authors and automatically identifying and stopping abuse." PX15225, Meta email: K. Systrom to M. Zuckerberg re: "Integrity HC @ IG," (Apr. 14, 2017), FB_FTC_CID_03123472, at -473.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2234, and because the cited evidence does not reference or otherwise establish any objective benchmark for integrity staffing in 2017. The evidence shows that Mr. Zuckerberg allocated approximately 25 of the 50 unallocated

engineers at Meta to "integrity initiatives," and "asked the PAC, feed integrity and ads integrity teams to propose how to allocate the ~25 people," but in response to Mr. Systrom's email, Mr. Zuckerberg would "now make sure we include IG in this mix." PX15225 at -472 (FB_FTC_CID_03123472).

i. Five days later, Mr. Zuckerberg wrote back that he "had not been tracking that IG had additional integrity needs," adding: "I should call out though that we're facing more extreme issues on FB right now . . . So I do view funding that as more urgent in the near term." PX15225, Meta email: M. Zuckerberg to K. Systrom re: "Integrity HC @ IG," (Apr. 19, 2017), FB_FTC_CID_03123472, at -472.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 2234 and subparagraph 2234(b), and because the FTC's characterization of Mr. Zuckerberg's response is incomplete and misleading. He wrote, in relevant part: "Here's what I'll do: I mentioned in small group a few weeks ago that of the ~50 unallocated engineers, I'm going to allocate ~25 to integrity initiatives, ~12 to video and ~12 to groups / communities. Since I had not been tracking that IG had additional integrity needs, I asked the PAC, feed integrity and ads integrity teams to propose how to allocate the ~25 people. I'll now make sure we include IG in this mix." PX15225 at -473 (FB_FTC_CID_03123472). Mr. Zuckerberg continued: "I should call out though that we're facing more extreme issues on FB right now with the

murder, bad activity in private groups, etc. So I do view funding that as more urgent in the near term. I may also shift some of the video and groups headcount to integrity initiatives to make sure they're funded. This is just meant to say that I probably can't get you 13 engineers in the near term, even though I'm supportive of these projects and agree we should allocate more to them as more engineers become available." *Id.*

ii. Mr. Systrom forwarded Mr. Zuckerberg's response to others at Meta noting: "I don't think Mark understands the urgency of working on integrity related issues at IG." He added: "Long term. I don't think Mark thinks IG needs similar things to FB because he's not as close to it." PX15225, Meta email: K. Systrom to M. Levine, et al. re: "Integrity HC @ IG," (Apr. 19, 2017), FB_FTC_CID_03123472, at -472.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, with the exception that it states "Long term, I don't think Mark thinks about IG needing . . . ." Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2234 and subparagraphs 2234(b) and 2234(b)(i).

2235. In June 2017, a Meta employee wrote Mr. Mosseri to ask for help "advocat[ing] for additional resources" for Instagram's integrity effort. PX12330, Meta email from [redacted] to A. Mosseri re: "Quick sync w/ Adam Mosseri," (June 21, 2017), FB_FTC_CID_02843701, at -701. The employee noted that Instagram's integrity team only had 13 people on it "split almost evenly between SI (spam & malware mgmt), and account security (fake & compromised accts). Most of this is focused on reactive

management of issues. Work done on Care (objectionable content; high intensity/low reach; well-being in genera[l]) gets done with part time and/or borrowed resources."). *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234, and because the FTC's characterization of the document is incomplete, misleading, and missing necessary context. [redacted] email states, "the IG PAC team has 13 people on it," and was "supposed to add 4 more heads in [the second half of 2017]" based on "the FY17 plan the team did back in Q4'16." PX12330 at -701 (FB_FTC_CID_02843701); *see also* PX6078 at 17:17-20 (Mosseri Dep. Tr.) ("Q. . . . [w]hat is the 'IG PAC team' referring to? A. That would be the Instagram integrity surface team."). The evidence shows that, at the time of [redacted] email, Instagram also leveraged Meta's Central Integrity team – which was the largest integrity team at Meta – "in a bunch of different ways," including for "model tuning technologies." PX6078 at 13:22-14:7, 23:19-23 & errata (Mosseri Dep. Tr.). When asked about the document at his deposition, Mr. Mosseri explained that, in 2018, the surface-specific integrity team at Instagram had grown to around 40 people. *Id.* at 21:12-13, 22:7-11, 27:18-24. And the evidence shows that "integrity became the number one area of growth [at Meta] in 2017 and 2018," and Meta "hired across all functions – engineering and product, operations, policy" in those years because integrity "is a team effort." PX10940 at -013 (FTC-META-006840603).

a. Mr. Mosseri agreed that Instagram needed additional engineering resources, stating: "High level I think you're doing the right[] thing, I think IG is

underinvested in integrity relative to its scale and importance to the business." However, he explained that he was not sure that he could help "pull headcount out of a hat." PX12330, Meta email from A. Mosseri to [redacted] re: "Quick sync w/ Adam Mosseri," (June 26, 2017), FB_FTC_CID_02843701, at -701; *see also* PX10940 at -009, Meta presentation: "Guy Rosen VP, Integrity" (*Jan. 30, 2019), FTC-META-006840603, ("Merely a few years ago, integrity was not a major focus area for our company. We were underinvested. We had just a few small teams working heroically to fight abuse.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2235, and because the FTC's characterization of PX10940 is incomplete and misleading. The cited presentation from January 2019 states: "we more than doubled the number of people who work on safety and security last year to more than 30,000," and that "integrity became the number one area of growth in 2017 and 2018," as Meta "hired across all functions – engineering and product, operations, policy" because integrity "is a team effort." PX10940 at -007, -013 (FTC-META-006840603). When asked about this presentation, and specifically the language quoted in the parenthetical in this statement, Guy Rosen testified that, when he became Meta's vice president of integrity in February 2017, Meta "had smaller teams" working on integrity, "as did the whole industry" because integrity "wasn't really a focus area for technology companies." PX6058 at 15:21-16:3, 30:11-22 (Rosen Dep. Tr.).

2236. Instagram continued to struggle for integrity resources into 2019.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234, regarding the vague assertion that "Instagram continued to struggle for integrity resources into 2019."

a. A May 2018 document titled "H2 2018 Instagram Product Strategy" reported that Instagram's "29 engineer Well-being team [was] a small fraction of the size of the major Facebook integrity teams." The document further noted that because of its small integrity team, it needed to "focus ruthlessly on integrating with the work done by existing problem teams . . . This is going to require technical work on both sides, as well as clear top-down direction for those teams that they should care about the Instagram app surfaces in addition to the Facebook ones." PX3077, Meta document: "H2 2018 Instagram Product Strategy" (May 24, 2018), FB_FTC_CID_11091340, at -344.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234, and because the FTC's summary of the evidence is incomplete and misleading. Around 2018, Meta evolved the collaboration model between its centralized and app-specific integrity teams, and the Central Integrity team started to drive more projects across Meta's family of apps, including on Instagram, in order to "pool the systems, the sets of people that work on it, and their knowledge" and understanding of integrity issues. PX6058 at 174:6-22 & errata (Rosen Dep. Tr.); *see also id.* at 104:8-13 ("[Meta] built a team on Instagram that was using [Meta's] platforms and tools, and we wanted to

shift the collaboration model . . . to take on accountability, responsibility, directly as a central team and actually be the drivers of the work."); *id.* at 190:7-9 ("What I know is that we did shift the collaboration model and [the Central Integrity team] helped to drive Instagram integrity work."); *see also* Ex. 7 at ¶ 157 & nn.461-462 (Subrahmanian Rep.). As Adam Mosseri explained: "when I joined [Instagram] in March of 2018, I believe, as the product manager, the head of product, one of the only things I really pushed on in my first few months . . . was to shift the team . . . from building more of [Instagram's] own solutions to doing more to leverage the many hundreds of engineers that work[ed] on the central integrity team." PX6078 at 21:12-22 & errata (Mosseri Dep. Tr.). During 2018, Meta "more than doubled the number of people who work[ed] on safety and security . . . to more than 30,000." PX10940 at -007 (FTC-META-006840603). Indeed, "integrity became the number one area of growth [for Meta] in 2017 and 2018," as Meta "hired across all functions – engineering and product, operations, [and] policy" because integrity "is a team effort." *Id.* at -013.

b. In a February 2019 email chain, Mr. Rosen, Mr. Mosseri, and others discussed a strategy for asking Mr. Zuckerberg for headcount parity between Instagram and Facebook. *See* PX10900, Meta email chain between G. Rosen, A. Mosseri et al., re: "Feb HC Ask (IG Ask)," Feb. 12-21, 2019, FB_FTC_CID_02851869, at -869-78. Among the many points in the email chain in support of Instagram receiving additional integrity headcount were that: "IG Well-being has historically been very understaffed and there are major gaps on the IG Well-being side that are unstaffed." *Id.* at -870.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234, and subparagraph 2236(a), and because the characterization of the evidence is incomplete, misleading, and missing necessary context. The statement in this subparagraph uses the phrase "headcount parity," but that phrase does not appear in the cited email and the email does not otherwise suggest that "parity" in this context meant equal headcount on Instagram and Facebook. When asked about this document, and whether Instagram was understaffed, Mr. Rosen explained: "[t]he thing we think about is really like what is the work to be done, not any absolute size. What you want to do is understand where the apps are, how you can improve the user experience, which is what these teams are all trying to do." PX6058 at 114:14-115:2 (Rosen Dep. Tr.). Mr. Rosen testified: "[t]he entire Instagram team was also far smaller than the Facebook team. . . . And so it would make sense they wouldn't ever be exactly the same. They are different apps and different issues that we're solving across them, with a lot of common work . . . coming from the central team." *Id.* at 115:3-19. The FTC asked Mr. Rosen about the outcome of this request, and he explained: "we meaningfully shifted how we operated on Instagram in terms of the collaboration between the central team and the surface team, my central teams. I had to – it wasn't about staffing as much as it was actually changing the mindset of – ensuring that we're truly – the problem teams are really taking accountability across the family of apps. And by the end of the year [2019], they made very meaningful progress towards that goal . . . It was important for us." *Id.* at 132:17-133:9 (Rosen Dep. Tr.).

2237. "IG is understaffed as an app-surface when compared to Facebook, and central problem teams have not been able to prioritize Instagram parity." *Id.* at -872.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234, and subparagraph 2236(b), and because the cited evidence is incomplete and missing necessary context, for the reasons stated in Meta's response to paragraph 2236(b), which Meta incorporates here.

2238. "Reaching [p]arity [between Instagram and Facebook] – [would] bring IG to 1/3 the size of FB Surface teams, increase Central Integrity Staffing for IG, and achieve parity with FB on general safety problem areas . . ." *Id.* at -872; *see also* PX3070, Meta document: "Instagram Well-being—H1 2019—Planning" (*Feb. 13, 2019), FB_FTC_CID_08580883, at -887 ("What problems exist that are preventing us from achieving what we want? Integration[.] We still have 14 problem areas at 0-RISK and 7 at 1-BASIC, and we have a small team of <40 engineers working on Well-being at Instagram.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234, and subparagraph 2236(b), and because the statement from PX10900 is incomplete, misleading, and missing necessary context, as it is one altered sentence from a ten-page exhibit. *See* PX10900 at -872 (FB_FTC_CID_02851869). The quoted language is from a February 2019 email thread

discussing an aggregated headcount ask, which included a parity scenario. *Id.* at -872, -877 ("This requires a step function change in resourcing with 3 scenarios: 1). Reaching parity – bring IG to 1/3 the size of FB Surface teams, increase Central Integrity Staffing for IG, and achieve parity with FB on general safety problem areas by end of 2019," and two others "Improved" and "Current."). Mr. Rosen testified, when asked about this proposal, that "any team making a request for resources in a world where, I mean, there's always finite resources, you want to make sure you're doing your diligence and presenting trade-offs and, you know, how you might execute the work in different ways so that you do good work in terms of just thinking about the company and all the different things that we're doing." PX6058 at 106:8-16 (Rosen Dep. Tr.).

a. Towards the end of February 2019, Mr. Mosseri reported that Mr. Zuckerberg had declined Instagram's request for more integrity resources because Mr. Zuckerberg was "hesitant to shift the percentage of the company that works on integrity issues" and that "he might push [Instagram] to reprioritize instead." PX10900, Meta email from A. Mosseri to G. Rosen et al., re: "Feb HC Ask (IG Ask)," Feb. 21, 2019, FB_FTC_CID_02851869, at -869.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2233, 2234, and 2238, and because the FTC's summary mischaracterizes the evidence. Mr. Mosseri wrote that Mr. Zuckerberg made a "passing comment . . . that he's hesitant to shift the percentage of the company that works on integrity issues. So he *might* push us to prioritize instead." PX10900 at -869 (FB_FTC_CID_02851869) (emphasis added). The evidence

does not establish that Mr. Zuckerberg "declined Instagram's request" (as the FTC claims).

2239. Resource gaps were still an issue for Instagram in 2021 and 2022. *See* PX3073, Meta document: "[Experiences Platform] Instagram Well-being Q2 2021 Roadmap Check-In" (Mar. 29, 2021), FTC-META-011314513, at -515 (stating that [redacted]); PX3472, Meta document: "[IG Entity Quality Platform] Instagram Well-being H2 2022 Strategy & Roadmap" (June 14, 2022), FTC-META-008359014, at -017 (explaining that [redacted]).

<u>Meta Response</u>: Disputed in part. Undisputed that the documents contain the quoted language, except the parenthetical quoting PX3073 contains typographical errors and, as a result, does not accurately quote the document. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234, and subparagraph 2236(b), and because the FTC's characterization of the cited documents is incomplete, misleading, and missing necessary context. One cited document establishes that [redacted]. PX3073 at -515 (FTC-META-011314513) [redacted]

[redacted]. The other cited document states: [redacted] PX3472 at -014-015 (FTC-META-008359014). Regarding churn, the document states that, [redacted] *Id.* at -015, -017. [redacted] *Id.* at -018.

2240. Instagram recognized that underinvestment in its integrity systems left it vulnerable to abuse.

Meta Response: Disputed. Disputed that this statement and the single document cited in the subparagraph below create a genuine dispute of material fact as to the vague assertion that "Instagram recognized that underinvestment in its integrity systems left it vulnerable to abuse," including for the reasons stated above in Meta's responses to paragraphs 2183, 2233, 2234, and subparagraph 2236(b). The evidence does not support that statement, for the reasons stated in Meta's response to the subparagraph below.

a. A 2019 review of Instagram integrity observed:

> Our teams are often reactive to problems, but we haven't set aside time to proactively identify some of our biggest risks.

> Moreover, as Instagram's community grows, and importance rises (for revenue and other social reasons), the target on our back gets bigger. Instagram will be misused more often, not less often. We're going to have more fires and escalations, not fewer. Because our teams are small (and often having to play reactive defense against an unexpected attack) we haven't had time to invest in the work that will help us move quickly and efficiently during SEVs or day-to-day work.

PX3473, Meta document: "Instagram Well-Being H1 2019—Horizontal Roadmap" (Jan. 10, 2019), FB_FTC_CID_08580571, at -572.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2233, 2234, and 2240, and subparagraph 2236(b), and because the FTC's characterization of the evidence is incomplete, misleading, and missing necessary context. The evidence shows that, as Meta developed new AI technologies, Instagram improved its ability to proactively detect policy-violating content on its platform. *See* Ex. 7 at ¶¶ 158-159 (Subrahmanian Rep.) (discussing relationship between Meta's AI team and integrity), ¶¶ 27, 58, 65, 91 & n.220 (discussing Instagram's proactive rate – that is, "How much violating content did Meta find before users reported it?"). For example, Meta reported that, in the first quarter of 2019, Meta proactively removed 36.2% of the content eventually removed as bullying and harassment on Instagram, and, by the second quarter of 2023, Meta proactively removed 90.5% of that content. *Id.* at ¶ 58 (Subrahmanian Rep.). Meta also reported that, in the second quarter of 2023, Meta proactively removed from Instagram 98.3% of the terrorism-related posts, 97.2% of hate speech, 99.2% of violating content related to drug or firearm transactions, and 99.1% of violent and graphic content. *Id.* at ¶¶ 65, 91 n.220.

f) Meta tended to focus integrity resources, including employees with relevant skills, on Facebook rather than Instagram.

2241. Mr. Zuckerberg directed Meta's central support teams, including those working on integrity issues, to prioritize Facebook over other Meta applications.

Meta Response: Disputed. Disputed that this statement and the single document cited in the subparagraph below create a genuine dispute of material fact regarding how Meta allocated integrity resources to Instagram, including for the reasons stated above in Meta's response to paragraph 2183. The evidence does not support the statement in this paragraph, for the reasons stated in Meta's response to the subparagraph below.

a. In June 2018, Mark Zuckerberg explained as to "[redacted]." PX13197, Meta document: "2018 H1/H2 Reviews: Debrief" (June 12, 2018), FTC-META-001713597 at -599-600.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the FTC's characterization of the evidence is incomplete and misleading. Indeed, Mr. Zuckerberg's post [redacted]. On the contrary, he [redacted] PX13197 at -597, -599-600 (FTC-META-001713597); *id.* at -599-600 (explaining Meta still needed to [redacted]). Mr. Zuckerberg then wrote, in a comment on his original post that

the FTC's exhibit omits, [redacted] PX2747 at -450 (FB_FTC_CID_07820450). And deposition testimony from Guy Rosen shows that, regardless of Mr. Zuckerberg's statements in the quoted evidence, Meta "did shift the collaboration model and [the Central Integrity team] helped drive Instagram integrity work." *See* PX6058 at 189:8-190:9 (Rosen Dep. Tr.).

Further disputed to the extent the statements in this subparagraph and paragraph 2241 above purport to describe Meta's allocation of integrity resources to Instagram for the entire post-acquisition period. The document discussed and quoted is from 2018 – six years after the acquisition – and does not reflect the significant resources Meta invested in Instagram between 2012 and 2018. *See*, *e.g.*, Ex. 7 at ¶ 131 & n.353 (Subrahmanian Rep.) (quoting Mr. Systrom, stating in July 2013, that, after the acquisition closed, Meta provided "a team of 20-plus" to help Instagram address spam); PX6146 at 167:2-7, 303:8-20 (Krieger Dep. Tr.) (testifying that in September 2015, Instagram's team had grown to "around 100" engineers – most of which either transferred from the Facebook team or came through Meta's bootcamp process); PX6078 at 21:12-13, 22:7-11, 27:18-24 (Mosseri Dep. Tr.) (agreeing that, in 2018, Instagram's surface-app integrity team had "around 40 people"); PX10940 at -013 (FTC-META-006840603) (stating that "integrity became the number one area of growth [at Meta] in 2017 and 2018," with Meta "hir[ing] across all functions – engineering and product, operations, policy" in those years because integrity "is a team effort"); *id.* at -007 (stating

that, in 2018, Meta "more than doubled the number of people who work[ed] on safety and security . . . to more than 30,000.").

2242. In a small group discussion in June 2018, Mark Zuckerberg reiterated his position that [redacted] PX2747, Meta Workplace Post: M. Zuckerberg post to Small Group (June 15, 2018), FB_FTC_CID_07820450, at -450).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact regarding how Meta allocated integrity resources to Instagram, including for the reasons stated above in Meta's response to paragraph 2183, and because the FTC's characterization of the document is incomplete and misleading. Mr. Zuckerberg wrote, in relevant part: [redacted] PX2747 at -450 (FB_FTC_CID_07820450) (emphasis added); *see also* PX6058 at 189:8-190:9 & errata (Rosen Dep. Tr.) ("[redacted]

[redacted] What I know is that we did shift the collaboration model and [the Central Integrity team] helped to drive Instagram integrity work.”).

Further disputed to the extent this paragraph purports to describe Meta’s allocation of integrity resources to Instagram for the entire post-acquisition period. The document discussed and quoted is from 2018 – six years after the acquisition – and does not reflect the significant integrity resources Meta invested in Instagram between 2012 and 2018, for the reasons stated above in Meta’s response to paragraph 2241(a).

2243. Meta’s focus on Facebook caused Instagram to fall behind in addressing integrity issues.

Meta Response: Disputed. Disputed that this statement and the single document cited in the subparagraph below create a genuine dispute of material fact regarding how Meta allocated integrity resources to Instagram, or whether Meta’s focus on Facebook caused Instagram to “fall behind” on integrity issues, including for the reasons stated above in Meta’s response to paragraph 2183. Further disputed that “fall behind” is vague and undefined.

a. In June 2018, Mike Krieger observed that Meta’s Central Integrity team “will naturally prioritize FB problems first” and that Instagram needed “Mark [Zuckerberg] to express clearly that it’s ok to trade off on some FB CI problems to support the family.” PX10903, Meta email from M. Krieger to G. Rosen re: “Integrity / IG centralization,” (June 9, 2018), FB_FTC_CID_05085016, at -016-17 (stating that “the inertia” on Central Integrity “[is] to think FB-Centric.”). Mr. Krieger then explained that

> [t]he biggest fear I have is a repeat of the spam handoff back in 2015. In that round we moved spam off the IG team to

> the centralized team, only to have them tell us a couple [of] months in that they couldn't work on it because Pages spam [on Facebook] was a bigger priority (though spam on IG was still growing).

Id. at -016-17.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, without alterations. Disputed that the statements in this paragraph show that "Meta's focus on Facebook caused Instagram to fall behind in addressing integrity issues," including because the FTC's summary of the document is incomplete and missing necessary context. The evidence shows that Meta was devoting integrity resources to Instagram. In response to the above-quoted message, Mr. Rosen responded, "I don't think we need to wait for Mark on this, we need a recommendation. . . . I'd rather plug the obvious holes [on Instagram]." PX10903 at -016 (FB_FTC_CID_05085016). At his deposition, Mr. Rosen testified: "we did shift the collaboration model and [the Central Integrity team] helped to drive Instagram integrity work." PX6058 at 189:8-190:9 & errata (Rosen Dep. Tr.); *see also id.* at 191:2-21 ("Q. Did [Mark Zuckerberg's statement that we've pulled a large number of people from the Facebook team to build our overall integrity effort, and if we now shift that team to focus on other apps,] undermine your goal of trying to get central integrity to do more to prioritize Instagram? A. Well, we ended up doing the work [on Instagram], so I don't quite remember how this factored into ongoing discussions."); *see also* PX2724 at -450 (FB_FTC_CID_07820450).

Regarding Mr. Krieger's concern about the "spam handoff," Mr. Rosen wrote: "The good news is that spam was transitioned successfully in the [first

half of 2018] and I've heard it's going pretty well. I think we're in a very different place now, and the prioritization framework and the family approach of Javi [Olivan]'s org makes it clear we need to do IG work." PX10903 at -017 (FB_FTC_CID_05085016); PX6058 at 186:8-15 (Rosen Dep. Tr.); *see also* PX10899 at -427 (FB_FTC_CID_02848426) ("Spam – our team in [Central Integrity] owns an IG prevalence goal."); PX6058 at 159:16-160:23 (Rosen Dep. Tr.) (referring to PX10899, "it says here that the team in [Central Integrity] owns the IG prevalence goal. That means that the team is the one directly sort of driving the work and monitoring, in the case of spam, spam attacks and responding to them and updating the detection systems. . . . We have teams that are constantly monitoring the metrics and understanding behaviors of spammers and updating detections patterns and so forth. So that would have been run directly from the central team, as it described here.").

Further disputed to the extent this paragraph purports to describe Meta's allocation of integrity resources to Instagram for the entire post-acquisition period. The document discussed and quoted is from 2018 – six years after the acquisition – and does not reflect the significant integrity resources Meta invested in Instagram between 2012 and 2018, for the reasons stated above in Meta's response to paragraph 2241(a). Further disputed for the reasons stated above in Meta's response to paragraph 2243.

2244. In a May 2018 email chain between Guy Rosen and Adam Mosseri, Mr. Rosen outlined the "state of Instagram integrity" noting that Instagram was behind in areas such as "Harmful Content (terrorism, CEI, NCII, etc.)" and that "Harmful Behavior (e.g.,

grooming especially[)]" really worried him. PX10899, Meta email: G. Rosen to A. Mosseri re: "Instagram Integrity," (May 16, 2018), FB_FTC_CID_02848426, at -427-28.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact regarding Meta's allocation of integrity resources to Instagram, including because the FTC's summary of the evidence is incomplete and missing necessary context. The FTC asked Mr. Rosen about the document at his deposition, and Mr. Rosen testified that he meant that "[t]here's opportunity to have an impact if we build and improve our systems," and that the email is discussing how Meta can "ensur[e] that we're doing it well on Instagram as well." PX6058 at 166:18-167:20 (Rosen Dep. Tr.). In addition, the context shows that, when Mr. Mosseri started a new project management role at Instagram, *see* PX6078 at 8:16-25 (Mosseri Dep. Tr.), Mr. Mosseri asked Mr. Rosen for his "take on a few things," including "[t]he state of Instagram integrity" and "[t]he state of the relationship between the teams – are we [Instagram] working well with [Central Integrity]?" PX10899 at -428 (FB_FTC_CID_02848426). The FTC's own expert, Professor McCoy, recognizes that integrity programs must "be continually assessed for effectiveness," *see* PX9002 at ¶¶ 30, 43 (McCoy Rep.), which is what the cited evidence reflects.

Further disputed to the extent this paragraph purports to describe Meta's allocation of integrity resources to Instagram for the entire post-acquisition period. The document discussed and quoted is from 2018 – six years after the acquisition – and does not reflect the significant integrity resources Meta invested in Instagram between 2012 and 2018, for the reasons stated above in Meta's response to paragraph 2241(a).

The evidence also shows that, as Meta developed new AI technologies, Meta improved Instagram's ability to proactively detect policy-violating content, including terrorism and child sexual abuse material, on its platform, for the reasons stated above in Meta's response to paragraph 2240(a). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234.

2245. Mr. Mosseri responded to Mr. Rosen explaining that he agreed with prioritizing harmful content but was unclear as to whether the effort should be managed by Instagram or Meta's Central Integrity team. *Id.* at -426. On this latter point, Mr. Mosseri noted that "Kevin [Systrom] is still worried that C[entral] I[ntegrity] has a strong [Facebook] Blue bias," adding that "it does seem like our default . . . is to do Blue first." *Id.*

Meta Response: Disputed in part. Undisputed that Mr. Mosseri agreed that Instagram should prioritize what is described as "harmful content," and that it was "not clear" to Mr. Mosseri – who, in May 2018, had just transitioned from a role at Facebook to a new role at Instagram, *see* PX6078 at 8:16-25 (Mosseri Dep. Tr.) – whether that work should be driven by Central Integrity or Instagram's app-surface integrity team. Disputed that the statements in this paragraph create a genuine dispute of material fact regarding Meta's allocation of integrity resources to Instagram, including because the FTC's characterization of the evidence is misleading, incomplete, and missing necessary context.

Regarding whether the Central Integrity or Instagram's app-surface integrity team should drive the work on "harmful content," Mr. Rosen responded that "the proposal is [Central Integrity] do this right out of the gate and . . . drive it on IG as a surface." PX10899 at -426 (FB_FTC_CID_02848426). Mr. Rosen wrote that, as part of the

planning for the second half of 2018, he was "going to ask [Central Integrity] teams more aggressively to take on IG goals," including harmful content. *Id.* By May 2018, Instagram had already been using PhotoDNA to detect and remove content "harmful content" for five years. *See* Ex. 7 at ¶¶ 74, 152 (Subrahmanian Rep.) (describing Meta's deployment and improvement of PhotoDNA on Instagram). And since 2018, Meta has deployed additional tools to proactively detect that content on Instagram, including PDQ – an algorithm that allows matching to perceptually similar images, and not just exact matches; SimSearchNet++ – another AI model that can detect near-exact duplicates; and internally built classifiers to detect policy-violating content that has not already been associated with a signature or hash. *Id.* at ¶¶ 74-77 & n.189 (citing eSafety Commissioner, *Basic Online Safety Expectations* 12 (Dec. 2022), https://www.esafety.gov.au/sites/default/files/2022-12/BOSE%20transparency%20report%20Dec%202022.pdf).

The FTC likewise omits necessary context regarding Mr. Mosseri's account of Mr. Systrom's belief that Meta's Central Integrity team had a "strong Blue bias." Mr. Mosseri wrote: "KevinS is still worried that [Central Integrity] has a strong Blue bias, as he brought up in Small Group this week. My sense is that teams are working to collaborate more and more, but it does seem like our default, and maybe this is right, is to do Blue first." PX10899 at -426 (FB_FTC_CID_02848426). Mr. Rosen responded to Mr. Mosseri's email by proposing a two-tiered plan to address Mr. Systrom's concern: a "[t]op-down" approach, in which Mr. Rosen was going to "ask [Central Integrity] teams more aggressively to take on IG goals," and a "[b]ottom-up" approach, in which the Instagram app-surface team would "prioritize making the interface easy" for engineers to

work on. *Id.* Mr. Rosen testified that Meta "did shift the collaboration model" and the Central Integrity team "helped to drive Instagram integrity work." PX6058 at 190:7-9 & errata (Rosen Dep. Tr.).

Further disputed to the extent this paragraph purports to describe Meta's allocation of integrity resources to Instagram for the entire post-acquisition period. The document discussed and quoted is from 2018 – six years after the acquisition – and does not reflect the significant integrity resources Meta invested in Instagram between 2012 and 2018, for the reasons stated above in Meta's response to paragraph 2241(a). The evidence also shows that, as Meta developed new AI technologies, Meta improved Instagram's ability to proactively detect policy-violating content, including terrorism and child sexual abuse material, on its platform, for the reasons stated above in Meta's response to 2240(a). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234.

2246. Mr. Rosen responded to Mr. Mosseri by suggesting that "[s]ince IG hasn't done much work on harmful content and we're starting from a low baseline," Central Integrity should take the lead on addressing harmful content on Instagram. *Id.* Mr. Rosen also agreed with the view of Mr. Systrom and Mr. Mosseri that Meta's Central Integrity team prioritized Facebook over Instagram, writing: "I think this is right and it's a muscle we need to change." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact regarding Meta's allocation of integrity resources to Instagram, including because the FTC's summary of the evidence is incomplete, misleading, and missing

necessary context. The evidence shows that, by May 2018, Instagram had already been leveraging tools such as PhotoDNA to detect and remove "harmful content" for five years. *See* Ex. 7 at ¶¶ 74, 152 (Subrahmanian Rep.) (describing Meta's deployment and improvement of PhotoDNA on Instagram). And since 2018, Meta has deployed additional tools to proactively detect that content on Instagram, including PDQ – a photo-matching algorithm that allows matching to perceptually similar images, and not just exact matches; SimSearchNet++ – another AI model that can detect near-exact duplicates; and internally built classifiers to detect policy-violating content that has not already been associated with a signature or hash. *Id.* at ¶¶ 74-77 & n.189 (citing eSafety Commissioner, Basic Online Safety Expectations 12 (Dec. 2022), https://www.esafety.gov.au/sites/default/files/2022-12/BOSE%20transparency%20report%20Dec%202022.pdf.).

Further disputed to the extent this paragraph purports to describe Meta's allocation of integrity resources to Instagram for the entire post-acquisition period. The document discussed and quoted is from 2018 – six years after the acquisition – and does not reflect the significant integrity resources Meta invested in Instagram between 2012 and 2018, for the reasons stated above in Meta's response to paragraph 2241(a).

The evidence also shows that, as Meta developed new AI technologies, Meta improved Instagram's ability to proactively detect policy-violating content, including terrorism and child sexual abuse material, on its platform, for the reasons stated above in Meta's response to paragraph 2240(a). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2233, and 2234.

5. Meta has not demonstrated that that it delivered overall improved integrity performance for users of Instagram.

a) Metrics are an important tool for monitoring, assessing, and improving the performance of integrity systems.

2247. Integrity metrics can play an important role in helping online platforms monitor, assess, and continue to improve their integrity systems. *See* PX9002, McCoy Report at ¶ 44 ("Metrics can play an important role in guiding continuous improvements of integrity systems and enforcement tools. Without robust metrics tracking the effectiveness of the system, online platforms may not identify the need to update particular tools or rules, and may not be effectively prioritizing integrity resource allocation."); PX9020, Subrahmanian Report at ¶ 27 (stating that "metrics help companies ensure that they are continuing to make progress on integrity issues").

Meta Response: Undisputed.

2248. Meta recognizes the value of integrity metrics.

Meta Response: Disputed in part. Undisputed that Meta recognizes the value of integrity metrics. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest there are no limitations on integrity metrics when used for purposes such as cross-platform comparisons. *See*, *e.g.*, Ex. 7 at ¶ 29 (Subrahmanian Rep.) (integrity "metrics usually do not allow for meaningful cross-platform comparisons, because there is wide variance in what metrics are used, how those metrics are calculated, and what data are reported" (footnote omitted)); *see also* PX6146 at 135:7-11 (Krieger Dep. Tr.) (testifying that pre-acquisition Instagram "didn't have great tracking internally about what the prevalence of spam was to begin with"); *id.* at 175:5-16 (testifying that pre-acquisition Instagram's "ability to

measure the prevalence [of] objectionable content" was not "much better" than its "measurement of spam").

a. Although Meta "primarily relies on prevalence metrics to measure and evaluate Objectionable Content," it also tracks other metrics such as content actioned (violating content Meta took action on), proactive rate (percentage of all content or account acted on before users reported the content), appealed content (content that a user submitted an appeal about), and restored content (content Meta returned after previously taking action on). PX15554 at -002, -004-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023).

<u>Meta Response</u>: Undisputed, except the subparagraph misquotes the document. PX15554 states: "[redacted]." PX15554 at -002 (Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023)).

b. Prevalence metrics are expressed as a percentage and typically capture the overall rate of policy violating content compared to the total activity on the platform. *See* PX9002, McCoy Report at ¶ 46 ("Prevalence metrics refer to metrics used by online platforms to measure and track the overall rate of policy violations on their platforms compared to the total activity on the platform. Such metrics normally require a systematic random sampling of all content on the platform to inform an estimate of violation rates at the time of measurement.").

Meta Response: Undisputed that Professor McCoy offered the paraphrased and quoted opinions.

c. Meta's prevalence metrics consider "all content views on Facebook or Instagram and measure[] the estimated percentage of those views that were of violating content." PX1554 at -003, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023). "Another way to think of prevalence is how many views of violating content we didn't prevent – either because we haven't caught the violations early enough or we missed them altogether." PX0621 at -001, *Prevalence,* Meta Transparency Center, https://transparency.meta.com/mg-mg/policies/improving/prevalence-metric/ (updated Nov. 18, 2022).

Meta Response: Undisputed.

d. Meta explains that its prevalence metrics "estimate how often content is seen rather than the amount of content posted because [it] want[s] to determine how much that content affected people on Facebook or Instagram. A piece of violating content could be published once but seen 1,000 times, 1 million times or not at all. Measuring views of violating content rather than the amount of violating content published better reflects the impact on the community." PX0621 at -003, *Prevalence,* Meta Transparency Center, https://transparency.meta.com/mg-mg/policies/improving/prevalence-metric/ (updated Nov. 18, 2022).

Meta Response: Undisputed.

b) Meta does not maintain prevalence metrics for spam, fake accounts, and CSAM on Instagram and only started

maintaining prevalence measurements for other categories of integrity issues on Instagram in 2021 and 2022.

2249. On January 27, 2023, Meta submitted responses to the FTC's request for "an overview of metrics that Meta relies on to measure and evaluate Objectionable Content on Facebook, Messenger, and Instagram." PX15554 at -002, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023). The information Meta provided in its January 27, 2023 response tracks the data Meta reports in its quarterly Community Standards Enforcement Reports ("CSERs"). *Compare* PX15554, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023). *with* PX0347, *Community Standards Enforcement Report Q4 2023 Report,* Meta Transparency Center, https://transparency.meta.com/reports/community-standards-enforcement/ (last visited May 7, 2024).

Meta Response: Disputed in part. Undisputed that Meta submitted the responses identified in this paragraph. Disputed that the statement in this paragraph creates a genuine dispute of material fact to the extent it suggests that the information submitted in Meta's responses entirely overlaps with the data Meta reports in its quarterly CSERs. [redacted] *Compare* PX15554 at -009-010 (Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023)), *with* PX0347 (Meta, *Community Standards Enforcement Report Q4 2023 Report*).

2250. Meta's January 27, 2023 response confirms that:

a. Meta does *not* maintain prevalence, content actioned, proactive rate, or appealed content data for spam on Instagram. *See* PX15554 at -004-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023); *see also* PX0336, *Spam*, Meta Transparency Center, https://transparency.fb.com/data/community-standards-enforcement/spam/instagram/ (last visited Apr. 17, 2024) (stating that Meta cannot estimate the prevalence, content actioned, proactive rate, appealed content, or restored content for spam on Instagram.). By contrast, Meta maintains data for *all* categories except prevalence for spam on Facebook. *See* PX15554 at -003-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023). Meta's January 27, 2023 response did not explain why Meta does not maintain the same categories of spam data for Instagram as it does for Facebook. *See* PX15554 at -003-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023).

Meta Response: Disputed in part. Undisputed that Meta does not maintain the listed categories of data for Instagram but maintains those categories of data for Facebook. Disputed that the statements in this subparagraph create a genuine dispute of material fact to the extent they suggest that Meta has not invested significant resources in detecting and removing spam on Instagram, and for the reasons stated above in Meta's response to paragraph 2183. On the contrary, record evidence shows that Meta has invested significantly in Instagram's spam-fighting efforts, for the reasons stated above in Meta's responses to paragraph 2183 and subparagraph 2231(a). The FTC does not dispute that Meta has

deployed Sentry, Sigma, Blackhole, Karma, and Tally on Instagram to combat spam. *See* Counter SMF ¶ 2211(b) (Sigma), ¶ 2212(c) (Blackhole), ¶ 2213(c) (Karma and Tally), ¶ 2215(b) (Sentry).

b. Meta does *not* maintain any metrics including prevalence measurements, regarding fake accounts on Instagram. *See* PX15554 at -004-08, Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023); *see also* PX0337, *Fake Accounts*, Meta Transparency Center, https://transparency.fb.com/data/community-standards-enforcement/fake-accounts/instagram/ (last visited Apr. 17, 2024). However, for fake accounts on Facebook, Meta maintains metrics concerning prevalence, content actioned, and proactive rate. PX15554 at -003-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023). Meta's January 27, 2023 response did not explain why Meta does not maintain the same categories of data for fake accounts on Instagram as it does for Facebook. *See* PX15554 at -003-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023).

Meta Response: Disputed in part. Undisputed that Meta does not maintain the listed categories of data for Instagram but maintains those categories of data for Facebook. Disputed that the statements in this subparagraph create a genuine dispute of material fact to the extent they suggest that Meta has not invested significant resources in detecting and removing fake accounts on Instagram, for the reasons stated above in Meta's responses to paragraphs 2183 and 2232. The FTC does not dispute that Meta has deployed checkpoint systems, including

Delta, CAPTCHAs, and SMS or email verification, on Instagram to combat fake accounts. *See* Counter SMF ¶ 2214(b).

c. Meta does *not* maintain prevalence metrics regarding child sexual exploitation on Instagram. *See* PX15554 at -003-04, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023); PX0339, *Child Endangerment: Nudity and Physical Abuse and Sexual Exploitation*, Meta Transparency Center, https://transparency.fb.com/reports/community-standards-enforcement/child-nudity-and-sexual-exploitation/instagram/ (last visited May 7, 2024). Meta does, however, maintain data regarding content actioned, proactive rates, appealed content, and restored content data for child endangerment and sexual exploitation on Instagram. *See* PX15554 at -004-08, Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023). Meta's January 27, 2023 response did not explain why Meta maintains metrics regarding child sexual exploitation in all categories except prevalence on Instagram. *See* PX15554 at -003-04, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023).

Meta Response: Disputed in part. Undisputed that Meta's Community Standards Enforcement Reports ("CSERs") do not provide data on the prevalence of Child Nudity and Sexual Exploitation for Instagram in some years. Disputed that Meta's CSERs do not provide data on the prevalence of Child Nudity and Sexual Exploitation for Instagram for all years. In December 2020, for example, Meta's CSER estimated that, with regard to Instagram, "less than 0.05% of views were of content that violated our standards against Child Nudity and Sexual

Exploitation" and contained other related metrics. *See* Ex. 7 at App'x D (Subrahmanian Rep.). Further disputed that the statements in this subparagraph create a genuine dispute of material fact to the extent they suggest that Meta has not invested significant resources in detecting and removing material regarding child sexual exploitation on Instagram, including for the reasons stated above in Meta's response to paragraph 2183. Record evidence shows that Meta has invested significantly in doing so. *See*, *e.g.*, *id.* at ¶¶ 74-84 (describing various tools Meta uses to detect and remove apparent child sexual abuse material, including PhotoDNA, Google's Content Safety API, PDQ, TMK+PDQF, SSN++, and Meta's partnership with NCMEC to launch the "Take it Down" program). The FTC does not dispute that Meta has deployed PhotoDNA on Instagram to detect and remove child sexual abuse material. *See* Counter SMF ¶ 2217(a).

d. Meta does *not* maintain any metrics regarding misinformation on Instagram. *See* PX15554 at -003-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023); PX0347, *Community Standards Enforcement Report,* Meta Transparency Center, https://transparency.meta.com/reports/community-standards-enforcement/ (last visited May 7, 2024). Meta's January 27, 2023 response did not explain why Meta does not maintain any metrics regarding misinformation on Instagram. *See* PX15554 at -003-08, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023).

Meta Response: Disputed in part. Undisputed that Meta does not maintain integrity metrics for misinformation on Instagram. Disputed that the statements in

this subparagraph create a genuine dispute of material fact to the extent they suggest that Meta has not invested significant resources in detecting and removing content that violates its misinformation policies on Instagram, including for the reasons stated above in Meta's response to paragraph 2183. Record evidence shows that Meta has invested significantly in doing so. *See* Ex. 7 at ¶ 46 (Subrahmanian Rep.) (describing Meta's efforts to combat misinformation). The FTC does not dispute that Meta works with non-profit organization and news companies, including "AFP-Hub, Check Your Fact, Factcheck.org, Lead Stories, PolitiFact, Science Feedback, Reuters Fact Check, TelevisaUnivision, The Dispatch, and USA TODAY," as part of its fact-checking program. *See* Counter SMF ¶ 2221(c)(i). The FTC also does not dispute that Meta uses strategies like warning labels to alert users when content may contain misinformation. *Id.* at ¶ 2220(a).

e. Meta maintains prevalence metrics regarding adult nudity and pornography on Instagram, but that data tracking only started in 2021. PX15554 at -004, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023); PX0338, *Adult Nudity and Sexual Activity*, Meta Transparency Center, https://transparency.fb.com/reports/community-standards-enforcement/adult-nudity-and-sexual-activity/instagram/ (last visited May 7, 2024). By contrast, Meta has been maintaining prevalence metrics for nudity and pornography on Facebook since 2017. PX15554 at -003, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023); PX0338, *Adult Nudity and Sexual Activity*, Meta Transparency Center,

https://transparency.meta.com/reports/community-standards-enforcement/adult-nudity-and-sexual-activity/facebook/ (last visited May 7, 2024). Meta's January 27, 2023 response did not explain why Meta began maintaining prevalence metrics for nudity and pornography on Instagram more than three years after it started doing the same for nudity and pornography on Facebook. *See* PX15554 at -003-04, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023).

Meta Response: Disputed in part. Undisputed that Meta started sharing prevalence metrics for adult nudity and pornography as part of its CSERs reporting since 2017 for Facebook and since 2021 for Instagram. Disputed that the statements in this subparagraph create a genuine dispute of material fact to the extent they suggest that Meta has not invested significant resources in detecting and removing adult nudity and pornography on Instagram, including for the reasons stated above in Meta's response to paragraph 2183. Record evidence shows that Meta has invested significantly in doing so. *See*, *e.g.*, Ex. 7 at ¶¶ 38, 60, 159 (Subrahmanian Rep.) (describing tools Meta deployed on Instagram to detect and remove policy-violating adult nudity and pornography, which include X-Ray and SimSearchNet++; and describing Meta's partnership with the UK Revenge Porn Helpline to launch StopNCII.org, which is a tool to combat non-consensual intimate imagery abuse). The FTC does not dispute that Meta partnered with the UK Revenge Porn Helpline to launch StopNCII.org. *See* Counter SMF ¶¶ 2222(a)-(b). The FTC also does not dispute Meta's use of X-Ray and SimSearchNet++. *See id.* ¶ 2225(a)(iv) (SSN++), ¶ 2225(b) (X-Ray).

f. For Instagram, Meta maintains prevalence metrics regarding bullying and harassment, dangerous organizations, hate speech, suicide and self-injury, and violence and incitement, among others. PX15554 at -004, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023); PX0347, *Community Standards Enforcement Report,* Meta Transparency Center, https://transparency.meta.com/reports/community-standards-enforcement/ (last visited May 7, 2024). However, Meta did not start maintaining prevalence measurements for these integrity issues until 2021 and 2022. *See* PX15554 at -004, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023). In addition, for issues such as hate speech and violent and graphic content, Meta did not begin maintaining prevalence data for Instagram until a year after it started doing the same for Facebook. *See* PX15554 at -003-04, Meta's Written Resps. to Topic 6 of FTC's Rule 30(b)(6) Notice Concerning Data Topics (Jan. 27, 2023)

Meta Response: Disputed in part. Undisputed that Meta maintains prevalence metrics regarding bullying and harassment, dangerous organizations, hate speech, suicide and self-injury, and violence and incitement, among others, for both Instagram and Facebook, and began maintaining those metrics in 2021 and 2022. Disputed that the statements in this subparagraph create a genuine dispute of material fact to the extent they suggest that Meta has not invested significant resources in detecting and removing bullying and harassment, dangerous organizations, hate speech, suicide and self-injury, and violence and incitement, among others, on Instagram, including for the reasons stated above in Meta's

response to paragraph 2183. Record evidence shows that Meta has invested significantly in doing so. *See* Ex. 7 at ¶¶ 54-61 (Subrahmanian Rep.) (describing tools Meta uses to combat bullying and harassment on Instagram, including Limits, Restrict, Hidden Words, and warning labels), ¶¶ 49-53 (describing tools Meta uses to combat hate speech on Instagram, including XLM-R, Whole Post Integrity Embeddings, and Linformer), ¶ 62 (describing tools Meta uses to combat suicide and self-injury on Instagram, including a self-harm reporting tool and manual review of content such as live broadcasting for acts including self-harm), ¶¶ 52, 63-71, 85-88 (describing tools and teams Meta uses to combat dangerous organizations and violence and incitement on Instagram, including Linformer, Strategic Network Disruptions, and the Integrity Investigations & Intel Team). The FTC does not dispute that Meta provides Instagram users with features to block unwanted account and hide unwanted comments, and with reporting options for self-harm; partners with the 988 Suicide and Crisis Lifeline (f/k/a the National Suicide Prevention Lifeline); and uses tools and techniques known as Whole Post Integrity Embeddings (or WPIE), Linformer, a specialized cybercrime team (Meta's i3 Team). *See* Counter SMF ¶ 2218(a) (features including blocking); ¶ 2219(a) (self-harm reporting), ¶ 2222(a) (partnerships), ¶ 2223(a) (i3 Team); ¶ 2225(a)(iv) (WPIE and Linformer).

2251. Professor Subrahmanian only cited prevalence metrics regarding integrity issues on Instagram once in his October 2023 expert report. In paragraph 58 of his report, Professor Subrahmanian writes that in 2023 "an estimated 6 out of every 10,000 content views [on Instagram] contain bullying or harassment." PX9020, Subrahmanian Report at

¶ 58. However, Meta's last quarterly report estimated that the prevalence of content involving bullying or harassment had risen to 8 to 9 out of every 10,000 content views in the fourth quarter of 2023. *See* PX0340, *Bullying and Harassment*, Meta Transparency Center, https://transparency.meta.com/reports/community-standards-enforcement/bullying-and-harassment/instagram/ (last visited May 7, 2024).

Meta Response: Disputed in part. Undisputed that paragraph 58 of Professor Subrahmanian's report offered the quoted opinion and that the estimated prevalence of content involving bullying or harassment was 8 to 9 out of every 10,000 content views in the fourth quarter of 2023. Disputed that paragraph 58 is the only instance where Professor Subrahmanian cites prevalence metrics for Instagram. *See*, *e.g.*, Ex. 7 at App'x D (Subrahmanian Rep.) (including Instagram prevalence metrics for December 2020). Disputed that the statements in this paragraph create a genuine dispute of material fact to the extent they suggest that Professor Subrahmanian failed to consider all relevant data. PX0340 (Meta, *Bullying and Harassment*) contains data from the fourth quarter of 2023 – a period ending *after* the issuance of Professor Subrahmanian's report (dated October 3, 2023) – and, thus, he had no opportunity to consider or analyze the data contained in PX0340 when preparing his report.

c) The other metrics Meta cites suffer from limitations that Meta itself has acknowledged.

2252. In support of the claim that it has delivered integrity benefits to Instagram, Meta cites data it concedes has significant limitations as a tool for monitoring, assessing, and improving its integrity performance.

Meta Response: Disputed in part. Undisputed that Meta cites data showing that Meta delivered integrity benefits to Instagram and that integrity metrics have limitations when

used for purposes such as cross-platform comparisons. *See* Ex. 7 at ¶ 29 (Subrahmanian Rep.) (explaining that integrity metrics "usually do not allow for meaningful cross-platform comparisons, because there is wide variance in what metrics are used, how those metrics are calculated, and what data are reported, and . . . social platforms do not face a uniform set of integrity challenges" (footnotes omitted)).

Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Meta's integrity metrics, such as prevalence, proactive rate, and content actioned, have "significant limitations" for "monitoring, assessing, and improving" Instagram's "integrity performance." This paragraph and the subparagraphs below cite no evidence in support of that suggestion.

The evidence shows that Meta improved Instagram's ability to measure integrity metrics after the acquisition closed. Indeed, in August 2012, pre-acquisition Instagram "had basically no data science capabilities" and it "didn't have great tracking internally about . . . the prevalence of spam." PX6146 at 73:20-25, 135:7-11 (Krieger Dep. Tr.). Meta now issues a quarterly report of integrity metrics across multiple categories of content for Instagram, and, in 2022, Ernst & Young concluded that the metrics reported in Meta's Community Standards Enforcement Report for the fourth quarter of 2021 were "fairly stated, in all material respects." Ex. 7 at ¶¶ 27-29, 89, 96 (Subrahmanian Rep.). The evidence also establishes that Instagram's integrity systems greatly benefited from having access to Meta's integrity tools, systems, and know-how, for the reasons stated above in Meta's response to paragraph 2183. And the evidence shows that, as Meta developed new AI technologies, Meta improved Instagram's ability to proactively detect

policy-violating content, including terrorism and child sexual abuse material, on its platform, for the reasons stated above in Meta's response to paragraph 2240(a).

a. Meta shares its integrity metrics so that people can "review our enforcement decisions and judge our performance. This includes how well our enforcement technology can detect and take action on violating content and the fairness and accuracy of review team decisions." PX0615, *Sharing results: Community Standards Enforcement Report*, Meta Transparency Center, https://transparency.meta.com/mg-mg/policies/improving/sharing-results-enforcement-report/ (last updated Jan 19, 2022).

Meta Response: Disputed in part. Undisputed that Meta shares its integrity metrics for the reasons stated in the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2252, and because the statement in this subparagraph is incomplete to the extent it suggests that the quoted language is the sole or primary reason Meta shares integrity metrics. As other portions of PX0615 indicate, Meta also shares its integrity numbers to "track[ ] [Meta's] progress" regarding integrity issues, to "keep[ ] [Meta] accountable," to "push[ ] [Meta] to improve more quickly," to "offer[ ] people visibility into how [Meta] enforce[s] [its] policies," and to "give[ ] people access to the same data [Meta] use[s] to measure [its] progress internally." PX0615 at -001-002 (Meta, *Sharing Results: Community Standards Enforcement Report*). Meta also shares integrity metrics to "demonstrate[ ] how [it] continually invest[s] in technology and people to reduce harm and promote safety." *Id.* at -002.

b. Except for paragraph 58 of Professor Subrahmanian's expert report, Meta's September 2020 white paper and Professor Subrahmanian's October 2023 expert report only cite content actioned and proactive rates on Instagram. *See, e.g.,* PX4004, Meta White Paper, "Facebook's Acquisitions of Instagram and WhatsApp," at 40 (Sept. 18, 2020) (mentioning the number of fake accounts, "bad" or repetitive comments and "bad likes" Meta blocked or deleted from Instagram in 2014); PX9020, Subrahmanian Report at ¶ 41 (mentioning the percentage decrease in abusive accounts due to Meta's use of its Deep Entity Classification tool and number of fake accounts blocked with the help of its AI tools in 2020 and 2021); *id.* at ¶ 53 (mentioning the percentage of hate speech Meta's AI tools proactively removed on Instagram in 2023); *id.* at ¶ 57 (mentioning the percentage of users who edit or delete their comment in response to a warning message in 2019); *id.* at ¶ 58 (mentioning the percentage of bullying and harassment content Meta proactively removed from Instagram in 2021 and 2023); *id.* at ¶ 65 (mentioning the raw number and percentage of terrorism-related post Meta removed from Instagram in 2022 and 2023); *id.* at ¶ 68 (mentioning the number of videos of the Christchurch attack Meta removed in 2019); *id.* at ¶ 81 (mentioning the percentage of CSAM Meta removed from Instagram in 2021).

Meta Response: Disputed in part. Undisputed that Meta's White Paper and Professor Subrahmanian's report include and discuss the long list of metrics in this subparagraph. Disputed for the reasons stated above in Meta's response to paragraph 2252. Further disputed that paragraph 58 is the only instance where Professor Subrahmanian cites prevalence metrics regarding integrity issues on

Instagram. *See*, *e.g.*, Ex. 7 at ¶ 90 & App'x D (Subrahmanian Rep.) (including Instagram prevalence metrics for December 2020). Further disputed to the extent this statement suggests that Meta only measures content actioned and proactive rates for Instagram. The evidence shows that Meta measures and reports other integrity metrics for Instagram, including prevalence, appealed content, and restored content. *See*, *e.g.*, *id.*

c. Meta has acknowledged several limitations associated with relying on its content actioned and proactive rates to assess the effectiveness of these integrity solutions.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. Further disputed for the reasons stated above in Meta's response to paragraph 2252.

2253. With respect to content actioned, which measures the volume of content or accounts Meta acts on for violating its community standards, Meta explains: "It might be tempting to read our content actioned metric as an indicator of how effectively we find violations or the impact of those violations on our community. However, the volume of content we take action on is only part of the story. It doesn't reflect how long it took to detect a violation or how many times users saw that violation while it was on Facebook or Instagram . . . Content actioned also doesn't indicate how much of that spam actually affected users: people might have seen it a few times, or a few hundred or thousand times. (That information is captured in prevalence.)" PX0616, *Content actioned*, Meta

Transparency Center, https://transparency.meta.com/mg-mg/policies/improving/content-actioned-metric/ (last updated Nov. 7, 2023).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that Meta relies solely on the content actioned metric to measure the effectiveness of its integrity systems on Instagram, or that content actioned is the only data that show that Instagram's integrity benefited after the acquisition closed. The evidence shows that Meta reports and relies on multiple integrity metrics to track the progress of its integrity work on Instagram, including prevalence, proactive rate, appealed content, and restored content. *See*, *e.g.*, Ex. 7 at App'x D (Subrahmanian Rep.); PX0615 at -002 (Meta, *Sharing Results: Community Standards Enforcement Report*) ("We use 5 metrics to tell the story of what we're doing to upload our Community Standards and Community Guidelines."). Regarding the integrity benefits Instagram reaped after the acquisition closed, Meta incorporates its responses to paragraphs 2183 and 2252.

a. Regarding proactive rate, which captures the percentage of content or accounts Meta identified as violating its community guidelines before users flagged them, Meta states: "The metric can go up or down due to external factors" as well as "how our processes and tools change." In addition, "[s]ince this metric is based on the amount of content actioned, many of the same considerations apply. Our proactive rate doesn't reflect how long it takes us to detect violating content or how many times it was viewed before detection. It also doesn't reflect how many violations we failed to detect altogether or how many times that content was

viewed. And though the percentage of content we proactively detect can be very high — as high as 99% in some categories — even the remaining small percentage can cause significant impact to people." PX0334, *Proactive rate,* Meta Transparency Center, https://transparency.meta.com/mg-mg/policies/improving/proactive-rate-metric/ (last updated Feb. 22, 2023).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that "proactive rate" captures only content "Meta identified as violating," as the document makes clear that "proactive rate" measures content that Meta "f[inds] *and action*[*s*] before users report [it] to us." PX0334 at -001 (Meta, *Proactive Rate*) (emphasis added); PX0616 at -001 (Meta, *Content Actioned*) ("Taking action could include removing a piece of content from Facebook or Instagram, covering photos or videos that may be disturbing to some audiences with a warning, or disabling accounts."). Further disputed for the reasons stated above in Meta's response to paragraph 2253.

b. Moreover, "[m]achine learning technology that automatically identifies content that might violate our standards . . . is very promising but is still years away from being effective for all kinds of violations. For example, there are still limitations in the ability to understand context and nuance, especially for text-based content. This creates additional challenges for proactively detecting certain violations." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed because the FTC's characterization of the document is incomplete and misleading. It states, in relevant part: "The rate at which we can

proactively detect potentially violating content is high for some violations, meaning we find and action most content before users report it to us. This is especially true where we've been able to build machine learning technology that automatically identifies content that might violate our standards. Such technology is very promising but is still years away from being effective for all kinds of violations." PX0334 at -001-002 (Meta, *Proactive Rate*).

d) Meta did not cite quantitative measurements in its advocacy materials or Professor Subrahmanian's expert report despite having access to them.

2254. In the absence of prevalence metrics, online platforms can use a combination of qualitative measurements such as user reports, tracking surveys, sampling, and other techniques to estimate prevalence. *See* PX9002, McCoy Report at ¶ 46. Qualitative metrics can also provide insights into users' experiences and perceptions of the presence of bad and unwanted experiences on a platform. PX9002, McCoy Report at ¶ 48.

Meta Response: Disputed in part. Undisputed that online platforms can use a combination of qualitative measurements to estimate the prevalence of policy-violating content on a platform. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the cited paragraphs in Professor McCoy's report do not cite any evidence to support the assertions in this paragraph.

2255. Meta recognizes the value of qualitative measurements.

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta uses surveys like Tracking Reach in Integrity Problems Survey ("TRIPS"), Bad Experiences and Encounters Framework ("BEEF") surveys, and Problems of

Reels Integrity Survey Metrics ("PRISM") to capture user perceptions of bad experiences on Instagram. *See* PX3422, Meta document: "Bad Experiences and Encounters Framework (BEEF) Survey" (undated), FTC-META-006743947, at -947; PX3423 at -015, Meta presentation: "Reviewing the ACE survey: follow-up with proposed activities" (Mar. 11, 2019), FB_FTC_CID_02683423. TRIPS examines "how [] users view integrity issues on Instagram over time" whereas BEEF surveys, which Meta introduced in 2022, attempt to measure the impact of specific integrity-related product changes on user perceptions of bad experiences on Instagram. PX3422, Meta document: "Bad Experiences and Encounters Framework (BEEF) Survey" (*Feb. 26, 2021), FTC-META-006743947, at -947. PRISM, which Meta started using in 2021, is similar to TRIPS but limited to Instagram Reels and Explore. *See* PX3424, Meta document: "Product Brief: Bad Experience Measurement" (Feb. 18, 2021), FTC-META-011435699, at -701; PX3425, Meta document: "IG Relevance FYI" (Aug. 20, 2021), FTC-META-011763202, at -202.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the documents establish that there is an empirical causal relationship between the responses to TRIPS, BEEF, or PRISM and Meta's investments in its integrity systems.

b. Despite maintaining TRIPS, BEEFS, and PRISM measurements, Meta did not cite any of them in its September 2020 white paper or Professor Subrahmanian's October 2023 expert report to support Meta's claim that its acquisition of Instagram has delivered integrity benefits to Instagram. *See* PX4004, Meta White

Paper, "Facebook's Acquisitions of Instagram and WhatsApp," at 39-40 (Sept. 18, 2020); PX6176, Subrahmanian (Meta) Dep. Tr., at 45:14-18 (testifying that his report did not disclose any analysis of user satisfaction surveys regarding Instagram's enjoyability after the acquisition by Meta); *see generally* PX9020, Subrahmanian Report.

Meta Response: Undisputed that Meta's September 2020 white paper and Professor Subrahmanian's report do not directly address TRIPS, BEEFS, or PRISM.

c. Professor Subrahmanian also testified that he did not do an analysis of Meta's TRIPS or BEEF surveys. PX6176, Subrahmanian (Meta) Dep. Tr., at 85:3-86:7, 86:21-87:3.

Meta Response: Undisputed.

e) Instagram has experienced material integrity problems under Meta's control.

(1) Instagram has experienced a proliferation of child sexual abuse material under Meta's ownership.

2256. Meta's community standards prohibit "content or activity that sexually exploits or endangers children." PX0618, *Child Sexual Exploitation, Abuse, and Nudity*, Meta Transparency Center, https://transparency.meta.com/policies/community-standards/child-sexual-exploitation-abuse-nudity/ (last visited May 19, 2024).

Meta Response: Undisputed. However, PX0618 is an incomplete exhibit because the charts reflecting the content actioned, proactive rate, appealed rate, and appealed content data are omitted from the exhibit.

2257. Meta's integrity systems have not been effective at identifying and removing or blocking material sexualizing children on Instagram.

Meta Response: Disputed. The statements in this paragraph and its subparagraphs do not establish a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Meta's policies prohibit "content or activity that sexually exploits or endangers children." Counter SMF ¶ 2256. The evidence establishes that Meta's efforts to identify and remove content that violates the policy in paragraph 2256 are industry leading. *See* Ex. 7 at ¶¶ 76-84 (Subrahmanian Rep.). The National Center for Missing & Exploited Children (or NCMEC) explains on its website: "Meta works closely with NCMEC to combat online child sexual exploitation. By participating in voluntary NCMEC industry initiatives, Meta is proactive in detecting child sexual abuse material on its systems and works to prevent continued victimization. Meta remains on the cutting edge by developing tools to protect children and sharing best practices with other online companies." Ex. 529 at 3 (NCMEC, *Corporate Partners & Foundations*); *see also* Counter SMF ¶ 2217(d) (undisputed that NCMEC is the clearinghouse and comprehensive reporting center for all issues related to child victimization including child exploitation and abuse).

Indeed, Meta was the first platform outside of Microsoft to deploy PhotoDNA, an image-matching technology used to identify apparent child sexual abuse material. *See* Ex. 7 at ¶ 73 & n.170 (Subrahmanian Rep.) (citing T. Bishop, *Facebook to Use Microsoft's PhotoDNA to Combat Child Pornography*, Geek Wire (May 19, 2011), https://www.geekwire.com/2011/facebook-adopts-microsofts-photodna-combat-child-pornography/); *see also* Counter SMF ¶ 2217(a) (undisputed that Meta uses PhotoDNA to identify objectionable content, including child sexual abuse material on Instagram). Meta deployed PhotoDNA on Instagram for purposes of detecting and removing apparent

CSAM in 2013, and, in 2014, implemented changes to allow Instagram to add new hashes of apparent CSAM found on Instagram to Meta's database of hashes – years before other online platforms adopted the PhotoDNA technology. *See id.* at ¶ 74; *see also* PX15323 at -035 (FTC-META-012331035) (May 2014 post announcing "full integration of PhotoDNA into Instagram" after a "months-long effort," which was "an amazing improvement" to Instagram's "ability to fully address CEI on Instagram"); Ex. 7 at ¶ 152 & n.440, ¶ 160 & n.479 (Subrahmanian Rep.) ("Since 2016, Reddit has used Microsoft's PhotoDNA technology to scan for CSAM content."); PX9013 at ¶ 353 (McCoy Rebuttal Rep.) (not disputing [redacted] integrated PhotoDNA after Instagram did so).

Meta has since deployed additional tools to detect and remove content on Instagram that violates the policy described in paragraph 2256, including classifiers that use AI and machine learning to proactively detect child nudity and previously unhashed CSAM, Google's Content Safety API, PDQ, and SSN++. *See* Ex. 7 at ¶¶ 75-77 & nn.179, 189 (Subrahmanian Rep.). In 2019, Meta open sourced PDQ and TMK+PDQF – a photo-matching algorithm and a video-matching algorithm (respectively) that allow matching to perceptually similar images, not just exact matches. *See id.* at ¶ 76 & n.181. After Meta made those tools publicly available, NCMEC's then-president and CEO stated that Meta's "generous contribution" of "open-source technology will ultimately lead to the identification and rescue of more child sexual abuse victims." *Id.* at ¶ 76 & n.183. Meta also has launched the "Take it Down" program in partnership with NCMEC, which empowers individuals to remove online nude, partially nude, or sexually explicit

photos and video taken before they were 18 years old from online platforms. *See id.* at ¶ 78 & n.190.

Meta proactively removes CSAM at a very high rate: in the first quarter of 2024, for example, Meta reported that its integrity systems proactively removed more than 94.3% of the child sexual exploitation content from Facebook and more than 93.4% of such content from Instagram, before anyone reported it. *See id.* at ¶ 81 & n.196 (discussing related metrics from 2021). Meta also reports more apparent CSAM to NCMEC than any other online platform: reports from Facebook, Instagram, and WhatsApp accounted for approximately 92% of total reports in 2021 and 86% of total reports in 2022. *See id.* at ¶ 82 & fig. 7. Regulators and reporters have recognized that Meta's large number of reports to NCMEC reflect Meta's committed efforts and aggressive approach to detecting and removing apparent CSAM on its applications. *See id.* at ¶ 82 & nn.201-202.

a. In a May 2018 email reporting on the "State of IG Integrity," Guy Rosen expressed that "Harmful Behavior (e.g., grooming especially – [] really worries me given we're finding a lot of, umm, opportunity on FB, and given IG's younger audience I bet we'll find we have work to do there. I think it's worth taking the hit on speed and the forcing function to do things like understand how the classifiers and review tools work across two different messaging backends (which we've not really ever done, I think)." PX12339, Meta email: G. Rosen to A. Mosseri, re: "Instagram Integrity," (May 16, 2018), FB_FTC_CID_02857747, at -748.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated in Meta's response to paragraph 2257, and because the summary of the evidence is incomplete and missing necessary context. The FTC asked Mr. Rosen about the document at his deposition, and Mr. Rosen testified that he meant that "[t]here's opportunity to have an impact if we build and improve our systems" and that the email is discussing how Meta can "ensur[e] that we're doing it well on Instagram as well." PX6058 at 166:18-167:20 (Rosen Dep. Tr.). In addition, the context shows that Mr. Mosseri initiated this exchange around the same time he started a new project management role at Instagram. *See* PX6078 at 8:16-25 (Mosseri Dep. Tr.). In the cited evidence, Mr. Mosseri asked Mr. Rosen for his "take on a few things," including "[t]he state of Instagram integrity" and "[t]he state of the relationship between the teams – are we [Instagram] working well with [Central Integrity]." PX10899 at -428 (FB_FTC_CID_02848426). The FTC's own expert, Professor McCoy, recognizes that integrity programs must "be continually assessed for effectiveness," PX9002 at ¶¶ 30, 43 (McCoy Rep.), which is what the cited evidence reflects.

b. A June 7, 2023 article by *The Wall Street Journal* reporting on the findings of a study by the Stanford Internet Observatory reported that "Meta's automated screening for existing child exploitation content can't detect new images or efforts to advertise their sale." PX0478, Jeff Horwitz & Katherine Blunt, *Instagram Connects Vast Pedophile Network*, Wall St. J. (June 7, 2023), https://www.wsj.com/articles/instagram-vast-pedophile-network-4ab7189.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated in Meta's response to paragraph 2257, and because Meta has automated tools for detecting and removing potential Child Sexual Abuse Material ("CSAM") that include AI techniques that can identify potentially new CSAM material even if those images have been altered "by malicious actors in order to evade detection." *See* Ex. 7 at ¶¶ 75-77 (Subrahmanian Rep.) (discussing Meta's use of PDQ, TMK+PDQF, and SimSearchNet to identify and remove CSAM), ¶ 75 n.178 (quoting FTC Report to Congress titled "Combatting Online Harms Through Innovation," which states "Facebook also uses AI tools to spot new or unhashed CSAM").

2258. Moreover, recent studies indicate that Meta's automated systems and hashtags have promoted material sexualizing children on Instagram.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183 and 2257 and in Meta's responses to the subparagraphs below. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram is unique or singular in having to combat issues related to CSAM. *See* Ex. 7 at ¶ 72 (Subrahmanian Rep.) (quoting NCMEC webpage, which states that Child Sexual Abuse Material ("CSAM") "can be found in virtually any online realm").

a. In June 2023, the Stanford Internet Observatory published the findings of a study (the "Stanford Study") it had conducted, along with researchers at the University

of Massachusetts Amherst and reporters at *The Wall Street Journal*, examining the buying and selling of self-generated child sexual abuse material (SG-CSAM) on various online platforms. PX0477, David Thiel et al., *Cross-Platform Dynamics of Self-Generated CSAM*, Stan. Internet Observatory (June 7, 2023), https://stacks.stanford.edu/file/druid:jd797tp7663/20230606-sio-sg-csam-report.pdf.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2257, and 2258. Further disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

i. The Stanford Study found that "[d]ue to the widespread use of hashtags, relatively long life of seller accounts and, especially, the effective recommendation algorithm, Instagram serves as the key discovery mechanism for [the] community of buyers and sellers" searching for SG-CSAM. *Id.* at 7; *see also* PX0478, Jeff Horwitz & Katherine Blunt, *Instagram Connects Vast Pedophile Network*, Wall St. J. (June 7, 2023), https://www/wsj.com/articles/instagram-vast-pedophile-network-4ab7189.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2257, and 2258. Further disputed to the extent the statement suggests that CSAM is being exchanged on or posted to Instagram. The cited materials contradict that

suggestion. *See* PX0477 at -006-007 (Thiel, *Cross-Platform Dynamics of Self-Generated CSAM*) ("While sellers market their content on Instagram and Twitter, material generally does not appear to be actually exchanged on-platform. Actual content delivery appears to happen on file sharing services such as Dropbox or Mega[.]"). However, the cited evidence indicates that the Stanford Internet Observatory has detected CSAM on other online platforms besides Meta's. For example, the cited evidence states that "Twitter had an apparent regression allowing CSAM to be posted to public profiles, despite hashes of these images being available to platforms and researchers," and that the Stanford Internet Observatory has "detected known CSAM being distributed in public Telegram groups." *Id.* at -003, -009.

b. On September 21, 2023, the Stanford Internet Observatory published an update to its June 2023 report on SG-CSAM on online platforms. PX0480, *An update on the SG-CSAM ecosystem*, Stan. Internet Observatory: Cyber Policy Center (Sept. 21, 2023), https://cyber.fsi.stanford.edu/news/update-sg-csam-ecosystem. The September 21, 2023 update reported that although some issues identified in its June 2023 report had been addressed, "the overall [SG-CSAM] ecosystem remains active, with significant room for improvement in content enforcement." *Id.* For example, "multiple SG-CSAM-related hashtags were still in use [on Instagram]. Some hashtags had minor alterations made to avoid new blocking measures which should have been caught by a blocklisting function . . . Rather

than performing an exact string match, content enforcement systems should block any hashtag that contains substrings substantially related to SG-CSAM." *Id.*

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2257, and 2258.

c. On November 27, 2023, *The Wall Street Journal* reported on the findings of a different study that its reporters and the Canadian Center for Child Protection had conducted looking into Instagram's recommendation system. PX0481, Jeff Horwitz & Katherine Blunt, *Instagram's Algorithm Delivers Toxic Video Mix to Adults Who Follow Children*, Wall St. J. (Nov. 27, 2023), https://www.wsj.com/tech/meta-instagram-video-algorithm-children-adultsexual-content-72874155.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

i. *The Wall Street Journal*'s study found that "following only . . . young girls [on Instagram] triggered Instagram to begin serving videos from accounts promoting adult sex content alongside ads for major consumer brands, such as one for Walmart that ran after a video of a woman exposing her crotch." Moreover, "[w]hen [*The Wall Street Journal*'s] test accounts then followed some users who followed those same young people's accounts, they yielded even more disturbing recommendations. The platform served

a mix of adult pornography and child-sexualizing material, such as a video of a clothed girl caressing her torso and another of a child pantomiming a sex act." *Id.* According to Meta employees interviewed by *The Wall Street Journal* for its November 27, 2023 report, "the tendency of Instagram algorithms to aggregate child sexualization content from across its platform was known internally to be a problem." *Id.*

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2257, and 2258, and because the FTC's characterization of the material is incomplete and misleading. The FTC omits that the *Wall Street Journal* set up Instagram test accounts as adults and then followed "only young gymnasts, cheerleaders and other teen and preteen influencers active on the platform." PX0481 at -001, -003 (Horwitz, *Instagram's Algorithm Delivers Toxic Video Mix to Adults Who Follow Children*). In response to the reporting, Meta explained that the "tests produced a manufactured experience that doesn't represent what billions of users see," and the article acknowledges that Meta had set up a "task force" and "expanded its automated systems for detecting users who behave suspiciously, taking down tens of thousands of such accounts each month"; is "participating in a new industry coalition to share signs of potential child exploitation"; and had "introduced new brand safety tools that give advertisers greater

control over where their ads appears." *Id.* at -002. The FTC also omits statements indicating that Meta has "invested billions in safety, security and brand suitability solutions." *Id.*

2259. Meta knew that there were gaps in Instagram's integrity systems that left Instagram vulnerable to CSAM.

Meta Response: Disputed. The statements in this paragraph and its subparagraphs below do not create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183 and 2257, and for the reasons stated below in Meta's responses to the following subparagraphs.

a. In a 2019 internal document titled "Instagram Integrity One-Pager: Child Safety," Meta noted that "[redacted]." PX3095, Meta document: "Instagram Integrity One-Pager: Child Safety (DRI: TBD)" (*Apr. 30, 2019), FTC-META-006300294, at -295. The document listed the following among the capabilities [redacted]:

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2257, and 2259, and because the FTC's characterization of the evidence is incomplete and misleading. The FTC omits that there is a comment on the at-issue section of the document, which states: [redacted] PX3095 at -295 (FTC-META-006300294).

i. [redacted] *Id.* at -295-96.

ii. [redacted] *Id.* at -295.

iii. [redacted]

Id.

iv. [redacted] *Id.*

v. [redacted] *Id.*

vi. [redacted] *Id.*

b. In a July 2020 document titled "Child Safety – State of Play (7/20)," Meta listed [redacted] as an area of [redacted] PX3094, Meta document: "Child Safety – State of Play (7/20)" (July 2020), FTC-META-008711108, at -1109. Under [redacted] the document specified [redacted]

[redacted]

[redacted] *Id.* at -1110.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183, 2257, and 2259. Further disputed to the extent this subparagraph suggests that Meta has not invested significant resources in detecting and removing CSAM on Instagram. *See* Counter SMF ¶ 2217(a) (undisputed that Meta uses PhotoDNA to detect objectionable content, including child sexual abuse material on Instagram), ¶ 2225(a)(iv) (undisputed that Meta launched SSN++ in 2020), ¶ 2225(c)(ii) (undisputed that Meta has invested "heavily" in AI research). Indeed, the cited document shows Meta taking action to combat CSAM on Instagram with specific, focused integrity measures.

(2) Instagram has seen a proliferation of policy-violating adult nudity and pornography under Meta.

2260. In May 2014, almost two years after Meta acquired Instagram, Apple threatened to make Instagram unavailable to minors in the Apple App Store if Meta failed to address the issue of nudity and pornography on Instagram. *See* PX4004, Meta White Paper, "Facebook's Acquisitions of Instagram and WhatsApp," at 41-42 (Sept. 18, 2020); PX3105, Meta email chain: M. Velazquez to [redacted], re: "Instagram update," (May 14, 2014), FB_FTC_CID_10161139, at -147-48.

Meta Response: Disputed in part. Undisputed that Apple threatened to make Instagram unavailable for minors in the App Store because of nudity and pornographic content. Disputed that this issue first occurred two years after Instagram's acquisition by Meta. As PX4004 makes clear, "[s]ince Instagram's early days, it had received requests

from Apple to do a better job of addressing [nudity and pornographic] content." PX4004 at 41 (Meta White Paper, "Facebook's Acquisitions of Instagram and WhatsApp" (Sept. 18, 2020)); *see also* PX6033 at 84:11-19 (Velazquez Dep. Tr.) (testifying that "the Instagram community team that, this was before the Facebook acquisition, they had had conversations with Apple about pornography and the age rating"). Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the FTC's characterization of the evidence is incomplete and missing necessary context. When asked about Apple's threat at his deposition, Miguel Velazquez testified: "Q. And after receiving the question from Apple, did Instagram successfully reduce the amount of pornography on Instagram? A. Yes, I believe so, and we were able to keep the PG rating. So Apple was ultimately satisfied that we were doing enough to fight it." PX6033 at 167:15-22 (Velazquez Dep. Tr.).

a. According to Miguel Velazquez, "Apple [was] concerned about the amount of pornographic content on IG and how easily accessible it is . . . It seems like the bulk of the concerns are around hashtags that aren't blocked yet contain a substantial amount of nudity." PX3105, Meta email chain: M. Velazquez to [redacted] re: "Instagram update," (May 14, 2014), FB_FTC_CID_10161139, at -148.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2260. Further disputed to the extent this paragraph suggests that Meta has not invested significantly in identifying and eliminating nudity and pornographic content on Instagram since July 2014, the date of the quoted

document. *See*, *e.g.*, Ex. 485 at -480 (FB_FTC_CID_12201478) (December 2014 slide deck titled, "Instagram Proactive N&P Takedown," which states that Meta was "Conducting prevalence studies to understand [the] extent of N&P abuse on the platform"; "Surfacing & Blocking Abusive Hash-tags" – at the time, there were "2200 Hash-tags blocked"; "Developing Sigma Policies/Rules to catch bad actors (N&P Abuse) and manually review Users"; "Expanded the scope of policy for accounts to be taken down for N&P Abuse"; "Training X-ray N&P Classifiers and using the same to catch abusive media/users"); Ex. 486 at -367 (FTC-META-003065367) (March 2018 email, which states, "We do video detection for N&P. IG is using our XRAY OC . . . ."); Ex. 487 at -529 (FTC-META-006750526) (2019 H1/H2 AI for Integrity, which states, "In collaboration with IG, we delivered a defense against visual adversarial attacks on the IG N&P classifier . . . . Because of this collaboration, IG has now spun up a new adversarial ML team who will own further iterations and collaborate in H2 to build defenses against future attacks."); Ex. 530 at 2 (Meta, *New Tools to Help Protect Against Sextortion & Intimate Image Abuse*) (February 2024 blog post describing the "Nudity Protection in DMs" feature on Instagram, which "blurs images detected as containing nudity and encourages people to think twice before sending nude images").

b. In an email discussing Apple's threat, Monika Bickert, who in 2022 held a Vice President of Policy role at Meta, explained that she had "spent about 10 minutes on [Instagram] and was able to find crazy hard core porn just using variations on the hashtags [Apple] mentioned." *Id.* at -147; PX0619; Monika Bickert,

Community Standards Enforcement Report, Second Quarter 2022, Meta Newsroom (Aug. 25, 2022), https://about.fb.com/news/2022/08/community-standards-enforcementreport-q2-2022 (describing Ms. Bickert's role).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2260. Further disputed to the extent this paragraph suggests that Meta has not invested significantly in identifying and eliminating nudity and pornographic content on Instagram since July 2014, the date of the quoted document, for the reasons stated above in Meta's response to subparagraph 2260(a).

2261. In an October 10, 2015 email, a Meta employee stated that while spam was an issue on Instagram, "it's largely icing on top of a much larger [nudity and pornography] cake." PX10189, Meta email: [redacted] to [redacted] et al, re: "Schrep conversation," (Oct. 10, 2015), FTC-META-000301330, at -330. The employee further explained that "[t]he majority of violating content is public, but we wait for it to be reported." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed as incomplete and lacking context. As the quoted document makes clear, Meta "want[ed] to change [its] policy to delete public, violating content proactively," and had built out a roadmap to effectuate that change. PX10189 at -330, -345-346 (FTC-META-000301330). Disputed to the extent this paragraph suggests that Meta has not invested significantly in identifying and eliminating nudity and pornographic content on Instagram since October 2015, the date of the quoted document, for the reasons stated above in Meta's response to subparagraph 2260(a).

Further disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183.

2262. Meta also saw a [redacted]. PX12204, Meta presentation: "Learning from Impact of Loss of Reactive Review on N&P" (May 21, 2020), FTC-META-003071376, at -377, -380. In a May 2020 presentation, Meta explained that [redacted] *Id.* at -384.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the FTC's characterization of the evidence is incomplete and missing necessary context. The cited evidence explains that Meta [redacted] PX12204 at -377, -380 (FTC-META-003071375). The cited evidence explains that, by May 21, 2020, Meta had [redacted] *Id.* at -377. The document states that, as Meta [redacted]

[redacted] *Id.* at -394. [redacted]

Id.

(3) Instagram has suffered meaningful spam-related integrity problems under Meta.

2263. Instagram has suffered meaningful spam-related integrity problems under Meta. *See infra* CMF at ¶¶ 2263(a)-(b), 2264.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 2183 and subparagraph 2231(a). To the extent this paragraph incorporates the FTC's statements in subparagraphs 2263(a)-(b) and paragraph 2264, Meta incorporates its responses to those statements here.

a. In December 2012, Mark Zuckerberg and Kevin Systrom complained about receiving "tons of comments on Instagram complaining about spam." PX3428, Meta messages: M. Zuckerberg to [redacted], M. Krieger & K. Systrom, (Dec. 7, 2012), FB_FTC_CID_06210359, at -359. Mike Krieger explained that "[s]pam [on Instagram] spiked about a month ago" and that it was "mostly programmatic – a huge source was people abusing our platform." *Id.* He further noted that "[i]t's commercial spam, mostly advertising gift card/affiliate stuff" and that the "largest remaining source of spam is photo spam on hashtag, and spam followers." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2263 and subparagraph 2231(a), and because the quoted language is incomplete and misleading. As Mr. Krieger stated in the document, "[s]pam [on Instagram] spiked about a month ago, *and it's gotten better in the last week/week and a half with help from [Meta's Site Integrity team]*." PX3428 at -359 (FB_FTC_CID_06210359) (emphasis added). In addition, the document shows Mr. Zuckerberg offering help from Meta's Site Integrity team and otherwise asking how Meta could support Instagram's spam-fighting efforts. *See id.* (Mr. Zuckerberg, asking "How are we doing in fighting [spam]? What are the biggest open attack vectors currently? Are there more things the [Meta Site Integrity] team can be doing to help out?").

b. Less than four months later, in April 2013, a group of Instagram users protested spam outbreaks on the platform. PX3106, Meta email: K. Systrom to M. Zuckerberg et al., re: "Instagram HPM," (Apr. 15, 2013), FB_FTC_CID_06072841, at -841 (Kevin Systrom reporting that "[a] vocal group of users has started a 'blackout' protest over perceived higher levels of spam on Instagram. We believe this relates to an outbreak of comment spam that happened over the last two weeks using Webstagram as an attack vector.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2263 and subparagraph 2231(a), and because the FTC's characterization of the evidence is incomplete and misleading. The document

also states, "We are working hard with [the Meta Site Integrity team] to improve our situation here." PX3106 at -841 (FB_FTC_CID_06072841).

2264. In April 2014, Kevin Systrom wrote Mark Zuckerberg to ask for additional resources to "staff up" comments integrity and business integrity. PX15225, Meta email: K. Systrom to M. Zuckerberg, re: "Integrity HC @ IG," (Apr. 14, 2017), FB_FTC_CID_03123472, at -472. Regarding comments integrity, Mr. Systrom wrote: "Because of the public nature of Instagram, comments are the most sensitive aspect . . . , the place where the majority of abuse happens. We have lost public figures over this, come under criticism from policy groups, and generally taken heat in the media." *Id.* at -473. Regarding business integrity, he noted: "We need to build a business integrity team to ensure people don't continue to encounter ig-specific negative experiences (fraud, for example)." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 2183 and subparagraph 2231(a).

a. In a September 2014 internal document, Meta listed "Instagram spam" among the issues it needed to address and noted that it did not have "enough people to meet existing attacks which means that we can't get to the proactive work that changes the game." *See* PX10755, Meta document: "2014.09.23 Schrep/Jay Note," (Sept. 23, 2014), FB_FTC_CID_12223325, at -326.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2264 and subparagraph 2231(a). Further disputed to the

extent this paragraph suggests that Meta did not invest resources in fighting spam on Instagram. *See* Ex. 7 at ¶¶ 37-41 (Subrahmanian Rep.) ("Meta has evolved its spam-fighting systems by leveraging state-of-the-art technologies that make it harder and more expensive for attackers to post spam on the Family of Apps."). Indeed, the FTC does not dispute that Meta has deployed Sentry, Sigma, Blackhole, Karma, and Tally on Instagram to combat spam. *See* Counter SMF ¶ 2211(b) (Sigma), ¶ 2212(c) (Blackhole), ¶ 2213(c) (Karma and Tally), ¶ 2215(b) (Sentry).

b. In a December 2018 email, Mike Krieger reflected that "spam on IG was still growing" in 2015. PX10903, Meta email: M. Krieger to G. Rosen, re: "Integrity / IG centralization," (June 9, 2018), FB_FTC_CID_05085016, at -017 ("The biggest fear I have is a repeat of the spam handoff back in 2015. In that round we moved spam off the IG team to the centralized team, only to have them tell us a couple of months in that they couldn't work on it because Pages spam was a bigger priority (though spam on IG was still growing).").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2264 and subparagraph 2231(a). Further disputed because the FTC's characterization of the evidence is incomplete and missing necessary context. The FTC's own expert acknowledged that integrity issues typically increase as online platforms grow, and "the essential dynamic of integrity work is ongoing: it is not something that you ever solve." PX9002 at ¶¶ 27-28 (McCoy Rep.). The parenthetical in this statement also is misleading because it omits Guy

Rosen's response: "The good news is that spam was transitioned successfully in the [first half of 2018] and I've heard it's going pretty well. I think we're in a very different place now, and the prioritization framework and the family approach of [Javier Olivan's] org makes it clear we need to do IG work." PX10903 at -017 (FB_FTC_CID_05085016).

c. Spam on Instagram was still an issue at the end of 2016. *See* PX15001, Meta presentation: "Protect & Care 2016 H2 / 2017 H1" (Dec. 6, 2016), FB_FTC_CID_02327924, at -929 ("[spam] [a]ttacks continue on Instagram and Messenger").

Meta Response: Disputed in part. Undisputed that Instagram was still involved in efforts to combat spam at the end of 2016. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183 and 2264 and subparagraph 2231(a). Further disputed to the extent this paragraph suggests that spam was an "issue" above and beyond how spam ordinarily evolves on online platforms. *See* PX9002 at ¶ 133 (McCoy Rep.) (describing spam fighting as an "ongoing and iterative" process "because spam attacks are constantly evolving"); Ex. 7 at ¶ 40 (Subrahmanian Rep.) ("[S]pammers are adversarial: they constantly modify their behaviors, methods, and techniques to get around defenses erected by companies like Meta. To stay ahead of these emerging threads, Meta has evolved its spam-fighting systems by leveraging state-of-the-art technologies that make it harder and more expensive for attackers to post spam on the Family of Apps." (footnote omitted)); *see also id.* at ¶ 21 (agreeing with Professor McCoy that integrity

issues, such as spam, "affect all online platforms with user-generated content" (citation omitted)); PX10744 at -965 (FB_FTC_CID_06495964) (noting spam on Snapchat). And the FTC's own expert, Professor McCoy, recognizes that spam fighting is an "iterative" process because "attacks are constantly evolving." PX9002 at ¶ 133 (McCoy Rep.).

d. In April 2019, Meta acknowledged that "[n]egative experiences are common on Instagram, especially on Explore – over [redacted] of Instagrammers say they've encountered fake accounts, commercial spam, inauthentic engagement and misinformation in the last week." PX15316, Meta document: "Research and Data H1 2019 Insight Highlights," (*Apr. 30, 2019), FB_FTC_CID_12239944, at -944.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2264 and subparagraph 2231(a). Further disputed that the issues identified in April 2019 were persistent. By May 6, 2019, an updated version of the live document identified as PX15316 omits the language quoted above and further indicates, "We have improved our impression coverage of all major sources as a result of the Impression Coverage Project." PX15316 at -009 (FB_FTC_CID_12239943).

6. Meta has made policy choices that have impaired Instagram's integrity performance.

a) Meta's cross-check program has exposed Instagram users to significant harmful content.

2265. The cross-check program allows certain "high reach" accounts to entirely or temporarily void Meta's community standards.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the evidence establishes that Meta's cross-check program aims "to identify content that presents a greater risk of false positives and provide additional levels of review to mitigate that risk." PX0620 at -001 (Meta, *Reviewing High-Impact Content Accurately via Our Cross-Check System*).

Further disputed because the evidence establishes that, in 2021, Meta requested input and feedback from its Oversight Board regarding how to continue improving its cross-check program, demonstrating Meta's commitment to responsibly address integrity issues on its apps. *See* PX0333 at -003 (Oversight Board, *Policy Advisory Opinion on Meta's Cross-Check Program*) (explaining that "the Oversight Board accepted a request from [Meta] to review cross-check and make recommendations for how it could be improved"). In an Advisory Opinion responding to Meta's request, the Oversight Board recognized that "Meta's use of cross-check responds to broader challenges in moderating immense volumes of content." *Id.* at ¶ 72; *see id.* at ¶ 71 ("At the time of the Board's briefings with Meta, it performed about 100 million enforcement attempts on content every day."). The Oversight Board therefore "agree[d] that within this challenging context, Meta needs mechanisms to address both false positives and false negatives." *Id.* at ¶ 72; Ex. 7 at ¶ 184 (Subrahmanian Rep.) (observing that Meta's cross-check program reflects a choice made by Meta "in striking the balance between free expression and removing content"). The Oversight Board noted in the Advisory Opinion that Meta had already "made improvements to [the cross-check] system," but the Board concluded the program had areas for improvement and issued a series of recommendations in its

Advisory Opinion. PX0333 at ¶ 73, § VI (Oversight Board, *Policy Advisory Opinion on Meta's Cross-Check Program*).

An October 2023 publication by the Oversight Board reports that Meta's response to its Advisory Opinion has "led to substantial and positive changes, benefiting the people who use Facebook and Instagram." Ex. 524 at 1 (Oversight Board, *Q2 2023 Transparency Report: Board's Recommendations Lead to Key Changes in Meta's Cross-Check Program*, https://perma.cc/Y2UJ-PZ8J?type=standard). The Oversight Board found that, as of October 2023, Meta had "fully or partially implemented" 60 recommendations made in the Advisory Opinion, including by "establish[ing] clear criteria" for a cross-check policy that "exempted certain content from enforcement for specific policies" (referred to as "technical corrections"). *Id.* at 2, 4. That change "led to an immediate decrease in the overall size of the technical correction list by more than half (55%)." *Id.* at 2. Meta also "cleared all outstanding backlogs in its cross-check review queues dedicated to potentially violating content from entities on its lists, producing a 96% decrease in resolution time (time taken for review and any subsequent enforcement) for 90% of the jobs created in the first half of 2023, compared with the second half of 2022." *Id.* According to the Oversight Board, a "smaller backlog means that Meta can review and take enforcement action against potentially violating content faster," which, "in turn, helps the company reduce the risk of users being exposed to violating content while it is awaiting review." *Id.* at 3.

a. Meta's cross-check program allows content posted on Instagram or Facebook that Meta's integrity systems (automation or human review) have flagged as violating its community standards to remain viewable by users, pending further human

review. *See* PX0620, *Reviewing high-impact content accurately via our cross-check system*, Meta Transparency Center (last updated Apr. 29, 2024), https://transparency.meta.com/enforcement/detecting-violations/reviewing-high-visibility-content-accurately/; PX15324, Policy Advisory Opinion Press Release, *Meta's Cross-Check Program*, Meta Oversight Board (Dec. 6, 2022), https://www.oversightboard.com/decision/PAO-NR730OFI/; PX6058, Rosen (Meta) Dep. Tr., at 251:4-8 ("[I]f something ended up being found to be violating, then in retrospect it would have been shown to people and it would still have been accessible until we made the final determination.").

Meta Response: Disputed in part. Undisputed that Meta's cross-check program permits potentially violating content to remain visible to users while Meta conducts an additional level of human review. Disputed for the reasons stated above in Meta's response to paragraph 2265. Further disputed to the extent this paragraph suggests that the cross-check program applies to all content, as the cross-check program only covers "users or entities perceived to have higher associated risk with false positive actions against them." PX0620 at -003 (Meta, *Reviewing High-Impact Content Accurately Via Our Cross-Check System*); *see id.* at -001 ("false positives" are "erroneous removal of non-violating content"). As PX0620 explains, "[t]o balance these considerations" – that is, quickly reviewing and removing violating content while protecting against false positives to "protect users' voice" – "Meta implemented the cross-check system to identify content that presents a greater risk of false positives and provide additional levels of review to mitigate that risk. Cross-check provides additional levels of review for

certain content that our internal systems flag as violating (via automation or human review), with the goal of preventing or minimizing the highest-risk false-positive moderation errors that might otherwise occur due to various factors such as the need to understand nuance or context." *Id.* at -001.

b. Meta's cross-check program applies to "high profile" or "high reach" accounts with "many follows." [redacted]; *see also* PX0333, *Policy advisory opinion on Meta's cross-check program*, Meta Oversight Board (Dec. 6, 2022), at § 2, ¶¶ 14-15, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf (stating that cross-check includes groups like "health organizations," "news publishers," and "charitable organizations," as well as "users that are likely to generate money for the company, either through formal business relationships or because they draw users to the platform and keep them engaged there").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2265.

c. In an internal document titled "XCheck – Get Well Plan," Meta explained that [redacted] PX10939, Meta document: "XCheck – Get Well Plan" (undated), FTC-META-006296857, at -859; *see also* PX3089, Meta document: "[A_C Priv] Allowlist Audit – US2020 Lockdown

Research" (Sept. 23, 2021), FTC-META-012488880, at -883 [redacted].

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2265. Further disputed that [redacted]. *See* Ex. 488 at 21 (Meta's Suppl. Objs. & Resps. to FTC's Interrogs. Nos. 16-17, 19, 23 (June 9, 2023)) ("There are zero accounts or users that are exempt from any review under the [cross-check] Program since its inception."); *see also* Ex. 7 at ¶ 182 (Subrahmanian Rep.) ("[T]he [cross-check] program does not 'exempt' any user from review, but instead identifies certain users who, in the event their content is flagged as potentially violating, receive additional layers of human review before that content is removed."). Further disputed that PX3089 supports the assertion. The quoted portion of PX3089 [redacted]. *See* PX3089 at -883 (FTC-META-012488880).

2266. The delayed enforcement of Meta's integrity rules against content that has been flagged for violating its community standards is a "significant course of harm under the cross-check program." PX0333, *Policy advisory opinion on Meta's cross-check program*, Meta Oversight Board (Dec. 6, 2022), at § 2, ¶ 86, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2265, and because the FTC misquotes PX0333, which refers to a "source of harm," not "course of harm."

a. Meta recognizes that "most views happen when content is fresh, so speed in reviewing decisions and removing content quickly is crucial in preventing harm." PX0333, *Policy advisory opinion on Meta's cross-check program*, Meta Oversight Board (Dec. 6, 2022), at § 2, ¶ 39, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and attributes it to Meta without identifying a source. Disputed for the reasons stated above in Meta's response to paragraph 2265.

b. Despite this recognition, Meta takes "approximately 12 days on average" to reach a final decision on content that is subject to the cross-check program. PX0333, *Policy advisory opinion on Meta's cross-check program*, Meta Oversight Board (Dec. 6, 2022), at § 2, ¶ 35, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf. Moreover, a Meta internal document titled "XCheck – Get Well Plan" indicates that Meta [redacted]. PX10939, Meta document: "XCheck – Get Well Plan" (undated), FTC-META-006296857, at -859 [redacted].

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2265. Further disputed that it takes approximately 12 days

on average to reach a decision on all content subject to the cross-check program. As PX0333 makes clear, Meta's cross-check program includes two separate mechanisms: ERSR ("Early Response Secondary Review") and GSR ("General Secondary Review"). At the time the Oversight Board issued its Advisory Opinion, content flagged by the GSR mechanism would "stay on the platform for between two and four days before Meta remove[d] it from the review queue and applie[d] the enforcement action." PX0333 at -020 (Oversight Board, *Policy Advisory Opinion on Meta's Cross-Check Program*). Further disputed that either statistic cited in the above paragraph is accurate as of today. *See* Ex. 524 at 2 (Oversight Board, *Q2 2023 Transparency Report: Board's Recommendations Lead to Key Changes in Meta's Cross-Check Program*, https://perma.cc/Y2UJ-PZ8J?type=standard) (reporting that Meta had "cleared all outstanding backlogs in its cross-check review queues dedicated to potentially violating content from entities on its lists, producing a 96% decrease in resolution time (time taken for review and any subsequent enforcement) for 90% of the jobs created in the first half of 2023, compared with the second half of 2022").

c. In its December 2022 report on Meta's cross-check program, Meta's Oversight Board found that Meta's approach of delaying review of content posted by cross-check accounts means that "content identified as breaking Meta's rules is left up on Facebook and Instagram when it is most viral and could cause harm." PX0333, *Policy advisory opinion on Meta's cross-check program*, Meta Oversight Board (Dec. 6, 2022), at 4, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf; *see also* PX3090, Meta

document: "Anonymous Whistleblower Disclosure filed with the "SEC Office of the Whistleblower" (Oct. 29, 2021), FTC-META-006280870, at -890 ("[T]he current whitelist policy is protecting content that is especially likely to deceive, and hence to harm, people on our platforms. . . . Facebook routinely makes exceptions for powerful actors when enforcing content policy.").

Meta Response: Disputed in part. Undisputed that PX0333 contains the quoted language. Disputed for the reasons stated in Meta's response to paragraph 2265, and because the FTC's characterization of Meta's cross-check program is incomplete and missing necessary context. *See* Ex. 524 at 1, 2 (Oversight Board, *Q2 2023 Transparency Report: Board's Recommendations Lead to Key Changes in Meta's Cross-Check Program*, https://perma.cc/Y2UJ-PZ8J?type=standard) (reporting that Meta "established clear criteria" for a cross-check policy that "exempted certain content from enforcement for specific policies" (referred to as "technical corrections"), which "led to an immediate decrease in the overall size of the technical correction list by more than half (55%)"; and that Meta also "cleared all outstanding backlogs in its cross-check review queues dedicated to potentially violating content from entities on its lists, producing a 96% decrease in resolution time (time taken for review and any subsequent enforcement) for 90% of the jobs created in the first half of 2023, compared with the second half of 2022").

Further disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

PX3090 is an anonymous complaint and is hearsay not subject to any hearsay exceptions.

d. For example, in September 2021, international soccer player Neymar, whose account was part of Meta's cross-check program, posted non-consensual intimate imagery on his Facebook and Instagram accounts. Even though Neymar's post was a violation of Meta's community standards, Meta did not immediately remove it. The post had been viewed more than 55 million times before Meta took it down. PX0333, *Policy advisory opinion on Meta's cross-check program*, Meta Oversight Board (Dec. 6, 2022), at § 2, ¶ 37, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf; PX10939, Meta document: "XCheck – Get Well Plan" (*Nov. 16, 2021), FTC-META-006296857, at -859 [redacted]; PX0470, Dan Milmo, *Facebook: some high-profile users 'allowed to break platform's rules,'* The Guardian (Sept. 13, 2021), https://www.theguardian.com/technology/2021/sep/13/facebook-some-high-profile-users-allowed-to-break-platforms-rules.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted and paraphrased language. Disputed for the reasons stated above in Meta's response to paragraph 2265, and because the FTC's characterization of Meta's cross-check program is incomplete and missing necessary context. Indeed, the evidence shows that Meta's response to the Oversight Board's Policy Advisory Opinion on Meta's Cross-Check Program has "led to substantial and

positive changes, benefiting the people who use Facebook and Instagram." Ex. 524 at 2 (Oversight Board, *Q2 2023 Transparency Report: Board's Recommendations Lead to Key Changes in Meta's Cross-Check Program*, https://perma.cc/Y2UJ-PZ8J?type=standard). The Oversight Board stated that, after the Neymar incident, Meta had explained that "the reason for the prolonged accessibility of this violating content was a delay in reviewing the content due to a backlog at the time." *Id.* (internal quotation marks omitted). The Oversight Board called on Meta in its Advisory Opinion "not to operate cross-check at a backlog." *Id*. And, in connection with its Transparency Report for Q2 2023, the Oversight Board announced that Meta "cleared all outstanding backlogs in its cross-check review queues dedicated to potentially violating content from entities on its lists, producing a 96% decrease in resolution time (time taken for review and any subsequent enforcement) for 90% of the jobs created in the first half of 2023, compared with the second half of 2022." *Id.* The Oversight Board explained that a "smaller backlog means that Meta can review and take enforcement action against potentially violating content faster," which, "in turn, helps the company reduce the risk of users being exposed to violating content while it is awaiting review." *Id.* at 3. Further disputed that the single example described in this subparagraph reflects a systemic problem with Meta's cross-check program. Further disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h); PX0470 is not admissible evidence.

e. In a December 2021 document titled "Capitol Riots – BTG Response," that Meta created in an effort to [redacted] Meta concluded that while [redacted] PX15174, Meta document: "Capitol Riots – BTG Response" (*Dec. 3, 2021), FTC-META-006284905, at -905, -909.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language, except that the document [redacted]. Rather, the document suggests that the referenced pages are [redacted] PX15174 at -909 (FTC-META-006284905). Disputed for the reasons stated above in Meta's response to paragraph 2265, and because the FTC's characterization of the evidence is incomplete and missing necessary context. The evidence establishes that [redacted] Ex. 142 at 255:13-256:13 (Zuckerberg Dep. Tr.). Proactive planning to address future risks demonstrates Meta's commitment to addressing integrity issues on its platforms. *See* Ex. 7 at ¶ 24 (Subrahmanian Rep.) ("It is of course critical for an integrity program to be able to react to issues, but the challenge of integrity in the modern era is to deter and be proactive in identifying future

integrity-related issues, as well as taking steps to prevent or mitigate those issues before they are likely to occur.”).

2267. Meta does not track key data that would allow it to evaluate the effectiveness of the cross-check program and make changes to its policies when necessary.

Meta Response: Disputed for the reasons stated above in Meta’s response to paragraph 2265 and in Meta’s responses to the subparagraphs below.

a. Meta states that the purpose of its cross-check program is to reduce “false positives,” i.e., the mistaken removal of content that does not violate Meta’s community standards and thereby “protect users’ voice.” PX0620, *Reviewing high-impact content accurately via our cross-check system*, Meta Transparency Center (last updated Apr. 29, 2024), https://transparency.meta.com/enforcement/detecting-violations/reviewing-high-visibility-content-accurately. Meta’s Oversight Board found that “while Meta characterizes cross-check as a program to protect vulnerable and important voices, it appears to be more directly structured and calibrated to satisfy business concerns.” PX0333, *Policy advisory opinion on Meta’s cross-check program*, Meta Oversight Board (Dec. 6, 2022), at § 2, ¶ 89, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf. The Board also observed that “by providing extra protection to certain users selected largely according to business interests, cross-check allows content which would otherwise be removed quickly to remain up for a longer period, potentially causing harm.” *Id.* at § 1, p. 3.

Meta Response: Disputed in part. Undisputed that Meta has stated that the purpose of its cross-check program is to reduce false positives – i.e., the mistaken

removal of content that does not violate Meta's community standards – and thereby protect users' voices. *See* PX0620 (Meta, *Reviewing High-Impact Content Accurately*). Further undisputed that PX0333 contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2265, and because the FTC's characterization of the evidence is incomplete and misleading. *See* Ex. 524 at 1, 2, 4 (Oversight Board, *Q2 2023 Transparency Report: Board's Recommendations Lead to Key Changes in Meta's Cross-Check Program*, https://perma.cc/Y2UJ-PZ8J?type=standard) (observing that Meta's response to the Oversight Board's Advisory Opinion has "led to substantial and positive changes, benefiting the people who use Facebook and Instagram"; as of October 2023, Meta had "fully or partially implemented" 60 recommendations made in the Advisory Opinion; those changes include Meta "establish[ing] clear criteria" for a cross-check policy that "exempted certain content from enforcement for specific policies" (referred to as "technical corrections"), which "led to an immediate decrease in the overall size of the technical correction list by more than half (55%)," and Meta "clear[ing] all outstanding backlogs in its cross-check review queues dedicated to potentially violating content from entities on its lists, producing a 96% decrease in resolution time (time taken for review and any subsequent enforcement) for 90% of the jobs created in the first half of 2023, compared with the second half of 2022").

Further disputed that this paragraph supports the assertion that Meta does not track key data that would allow it to evaluate the effectiveness of the cross-check program and make changes to its policies when necessary; the cited

evidence does not discuss Meta's tracking of any data relating to its cross-check program. *Cf. id.* at 2-3 (discussing quantitative data related to the cross-check program).

b. Despite the harms that have and can stem from the cross-check program, Meta does not systematically track key data, such as cross-check's rate of false positives and negatives, that would allow Meta to determine "whether the program is meeting its core objectives of producing correct content moderation decisions, or to measure whether cross-check provides an avenue for Meta to deviate from its policies." PX0333, *Policy advisory opinion on Meta's cross-check program*, Meta Oversight Board (Dec. 6, 2022), at § 1, p. 4, https://www.oversightboard.com/wp-content/uploads/2024/05/512630074120983.pdf.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2265, and because subsequent publications by the Oversight Board establish that Meta is measuring data related to the cross-check program. *See*, *e.g.*, Ex. 524 at 1, 2-3 (Oversight Board, *Q2 2023 Transparency Report: Board's Recommendations Lead to Key Changes in Meta's Cross-Check Program*, https://perma.cc/Y2UJ-PZ8J?type=standard) (observing that Meta's response to the Oversight Board's Advisory Opinion has "led to substantial and positive changes, benefiting the people who use Facebook and Instagram"; and discussing quantitative data related to cross-check).

b) Meta's approach to integrity issues on Instagram has resulted in users having negative experiences on the platform and may have contributed to teen mental health issues.

2268. Meta knew from internal analysis that Instagram users were having bad experiences such as bullying, negative social comparison, and unwanted advances on Instagram.

Meta Response: Disputed in part. Undisputed that Meta has conducted internal analyses on Instagram users' experiences – some of them bad – with issues such as bullying, negative social comparison, and unwanted advances on Instagram. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed that the materials cited in the subparagraphs below establish that there is an empirical causal relationship between any internal analyses regarding perceived "bad experiences" on Instagram and Meta's investments in its integrity systems, or between Instagram use and user well-being. *Cf.* Ex. 313 at 40:9-18 (McCoy Dep. Tr.) ("Q. . . . [H]ave you ever studied whether there's a causal effect between social media and mental health? A. I don't believe that any of my research has gotten at a cause. Q. So is that a no? A. I have conducted studies where I've tried to shed light on these connections, but I don't believe that any of my work has shown a causal relationship."); *id.* at 51:4-9 ("Q. . . . Have you done any work that you think would establish a causal link between use of on-line services and user harm? A. No, I don't believe any of the work establishes that causal link."). Further disputed that any negative experiences on the platform have any connection to competition: the FTC's proffered experts have offered no evidence that any perceived "bad experience[]" on social media for teens or any other population is correlated with competition in any way.

a. Meta defines a "bad experience" as "[a]ny interaction with content or an account that a user considers harmful or personally objectionable. They can include anything that makes a user feel unsafe, unwelcome, or uncomfortable . . . they go beyond policy definitions of harms." PX3097 at -015, Meta presentation: "[redacted]" (*May 21, 2021), FTC-META-006743953.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2268.

b. An internal April 2019 presentation titled "Research and Data H1 2019 Insight Highlights" stated: [redacted] PX15316, Meta presentation: "Research and Data H1 2019 Insight Highlights" (*Apr. 30, 2019), FB_FTC_CID_12239943, at 943_0004-05.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2268.

c. In a February 2020 presentation [redacted] Meta reported that [redacted] PX3096, Meta presentation:

[redacted] (Feb. 24, 2020), FB_FTC_CID_11951256, at -271-72; *see also* PX3102, Meta presentation: [redacted] (*Oct. 15, 2019), FTC-META-004952921, at -921 (reporting that a study by Meta found that [redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2268.

d. A June 2021 internal presentation titled [redacted] reported that [redacted] PX3097 at -008-09, Meta presentation: [redacted] (*June 2021), FTC-META-006743953.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2268.

e. On October 5, 2021, Arturo Bejar wrote Mark Zuckerberg, Sheryl Sandberg, Adam Mosseri, and Chris Cox to express concerns about the bad experiences teens were experiencing on Instagram. Mr. Bejar shared "key numbers" from

Meta's TRIPS [Tracking Reach in Integrity Problems Survey] reflecting user responses over the previous seven days including that: "21.8% of 13-15 year olds said they were the target of bullying[;] 39.4% of 13-15 year olds said they experienced negative comparison[;] and 24.4% of 13-15 year old[s] said they received unwanted advances." PX10759, Meta email chain: A. Bejar to M. Zuckerberg, et al. re: "Gap in our understanding of harm and bad experiences," (Oct. 5, 2021), FTC-META-003754814, at -814-15.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2268.

2269. Meta knew from internal research, including a teen mental health study it had undertaken in 2019, that the negative experiences teens suffered on Instagram were impacting their mental health. PX3098, Meta presentation: "Teen Mental Health Deep Dive" (Oct. 2019), FTC-META-004952035, at -036; *see also* PX6052, Bejar (Meta) Dep. Tr., at 138:21-139:18 (testifying that he felt that issues like self-image and negative comparison were impacting users and "the data from [Meta's] own statistical surveys backed that up significantly.").

Meta Response: Disputed in part. Undisputed that Meta conducted a teen mental health study in 2019. *See* PX3098 (FTC-META-004952035). Disputed to the extent the statement suggests an empirical, causal relationship between Instagram use and mental health. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2183 and 2268, and because this research shows that Meta

devotes significant resources to understanding teen mental health issues and how best to address them. *See id.* at -005 ("Although framed as a response, this research is Instagram being proactive and response on these issues. One of the objectives here is to inform product teams. The research was an exploratory effort to hear from teens to understand how they think about 'mental health' and how they talk about it. The overarching goal was to help product and policy teams generate ideas on how to build products and messages that can support teens who might be having difficult experiences.").

Further disputed that the 2019 research was representative of the experience of all teens on Instagram or contained reliable data regarding a causal link between Instagram and teen mental health. The October 2019 presentation specifically notes that none of the conclusions contained in the report is meant to be representative of the experience of all teens or provide causal explanations. *See id.* ("[T]here is no consensus about the causal relationship between social media and effects on mental health. This research was not intended to (and does not) evaluate casual claims between Instagram and health or wellbeing."); *id.* at -049 ("The conclusions represented on this slide are based on discussions with 40 individuals who reported having negative experiences . . . . The slide was not intended to be representative of the experience of all teens, but was designed to help Instagram teams brainstorm and develop new ideas for helping people who are struggling; the study was designed to understand their feelings and perspective. This research was not intended to (and does not) evaluate causal claim between Instagram and health or wellbeing."). Further disputed that any negative experiences on the platform have any connection to competition: the FTC's proffered experts have offered no

evidence that any perceived "bad experience" on social media for teens or any other population is correlated with competition in any way.

a. In an October 2019 presentation titled "Teen Metal Health Deep Dive," Meta explained that:

> Instagram is coming under increasing scrutiny with relation to mental health problems. Both popular and academic press point to social media in general, and Instagram specifically, as having a negative effect on teens' mental health. These effects have included body dissatisfaction, self-esteem, negative mood, anxiety, depression, loneliness, self-harm, and suicide.

PX3098 at -004, Meta presentation: "Teen Mental Health Deep Dive" (Oct. 2019), FTC-META-004952035.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2269.

b. The October 2019 presentation then went on to report the findings of Meta's teen mental health study, including that: "[o]ne in five teens say that Instagram makes them feel worse about themselves"; "[t]eens blame Instagram for increases in the rates of anxiety and depression among teens"; "[c]onstant comparison on Instagram is 'the reason' why there are higher levels of anxiety and depression in young people"; and "[t]eens who struggle with mental health say Instagram makes it worse." PX3098 at -042, -048-49, Meta presentation: "Teen Mental Health Deep Dive" (Oct. 2019), FTC-META-004952035.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2269, and because the statement is missing necessary context. As the

notes to the slide indicate (at -043), "[a]lthough this headline emphasizes certain negative reported effects, it could have been written to note the positive or negative effect of Instagram on users: users reported feeling better about themselves (or no different) at higher rates than they reported feeling worse about themselves." PX3098 at -043, -048-049 (FTC-META-004952035); *see also id.* at -042 (noting that 41% of U.S. teens reported feeling "Somewhat better" or "Much better" as a result of Instagram).

c. The October 2019 presentation also identified three categories of harm on Instagram and linked each harm to its impact on teen mental health. "Impact from comparison to others" was linked to "self-esteem, anxiety, and insecurity"; "[i]mpact from pressure of looks/behaviors" was linked to "isolation, adopt unhealthy habits"; and "[i]mpact from others' behavior" was linked to "isolation, loneliness, depression." PX3098 at -058, Meta presentation: "Teen Mental Health Deep Dive" (Oct. 2019), FTC-META-004952035.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2269, and because the quoted portions of PX3098 are missing necessary context. As the notes to the slide indicate, "Throughout, the deck uses the term 'harm' – evaluating harm really isn't the purpose of the study." PX3098 at -059 (FTC-META-004952035)

2270. Meta knew that more users suffered bad experiences on Instagram than its user reports and surveys reflected, and that it rarely acted on the few bad experiences that users reported.

Meta Response: Disputed in part. Undisputed that Meta knew that not all users who suffered bad experiences reported them. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183, and because the evidence cited below does not support the assertion that Meta rarely acts on users' bad experiences. Further disputed that any negative experiences on the platform have any connection to competition: the FTC's proffered experts have offered no evidence that any perceived "bad experience[]" on social for teens or any other population is correlated with competition in any way.

a. In an internal June 2021 document, Meta "[redacted]." PX3074, Meta document: [redacted] (*June 24, 2021), FTC-META-006743979, at -982; *id.* at -980 ("[redacted]"); PX6052, Bejar (Meta) Dep. Tr., at 127:5-23.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2270.

b. In his October 5, 2021, email to Mark Zuckerberg, Sheryl Sandberg, Adam Mosseri, and Chris Cox, expressing concerns about teens' bad experiences on

Instagram, Arturo Bejar noted that "51% of Instagram users say 'yes' to having had a bad experience in the last 7 days. Out of those 1% report and of those 2% have the content taken down (i.e. 0.02%)." PX10759, Meta email chain: A. Bejar to M. Zuckerberg, et al. re: "Gap in our understanding of harm and bad experiences," (Oct. 5, 2021), FTC-META-003754814, at -014-15; *see also* PX0486 at -003, *Social Media and the Teen Mental Health Crisis: Hearing Before the Subcomm. on Privacy, Tech., and the Law on the S. Comm. on the Judiciary*, 118th Cong. (Nov. 7, 2023), at PX0486-003 (written testimony of Arturo Bejar that "only 2% of [user reports] succeeded in getting the offending content taken down").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2270.

2271. Meta knew that there were gaps in its reporting mechanism that limited Instagram's ability to address harmful content on the platform.

Meta Response: Disputed in part. Undisputed that Meta has acknowledged that it is not always able to capture or address how its users experience content that may be perceived as harmful. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed that any negative experiences on the platform have any connection to competition: the FTC's proffered experts have offered no evidence that any perceived "bad experience[]" on social media for teens or any other population is correlated with competition in any way.

a. In an internal June 2021 document, Meta noted that it was [redacted] PX3074, Meta document: [redacted] (*June 24, 2021), FTC-META-006743979, at -979. The document explained that [redacted] *Id.*; PX3097 at -018, Meta presentation: [redacted] (*June 2021), FTC-META-006743953 (noting that [redacted]).

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2271.

b. Arturo Bejar testified that while reviewing Instagram user reports in 2019, he "found that users did not have the options to flag the things that they were experiencing." PX6052, Bejar (Meta) Dep. Tr., at 100:21-102:3; PX3097 at -012, -037, Meta presentation: [redacted] (*June 2021), FTC-META-006743953 (noting that [redacted]

[redacted]).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2271.

c. In his October 5, 2021, email to Mark Zuckerberg, Sheryl Sandberg, Adam Mosseri, and Chris Cox, Arturo Bejar addressed what he believed was a "critical gap in how we as a company approach harm, and how the people we serve experience it." PX10759, Meta email chain: A. Bejar to M. Zuckerberg, et al. re: "Gap in our understanding of harm and bad experiences," (Oct. 5, 2021), FTC-META-003754814, at -014. Mr. Bejar explained that users of Instagram were having bad experiences on the platform and Meta's approach of "policy/reporting or having more content review" was not the solution. *Id.* at -015.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2271.

2272. Meta was slow to respond to the serious concerns raised about teen experiences on Instagram.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs – all of which are based on a single independent contractor's opinions – show that Meta has been slow to respond to concerns about teens' experiences on Instagram or create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2183. Further disputed that any negative

experiences on the platform have any connection to competition: the FTC's proffered experts have offered no evidence that any perceived "bad experience[]" on social media for teens or any other population is correlated with competition in any way.

a. On October 14, 2021, Arturo Bejar emailed Adam Mosseri a list of recommendations for how Instagram could reduce bad experiences on the platform. Mr. Bejar recommended that: 1) "Instagram . . . set goals [to reduce bad experiences to a specified percentage] based on TRIPS/BEEF, us[ing] people's experience as the north star for the work"; and 2) Instagram "[p]rovide features that help us understand the issues and content that people are experiencing so that we may develop interventions/features that help them . . . secondary actions to block/delete where we get user experience data." PX10758, Meta email: A. Bejar to A. Mosseri re: "Pre-read for our conversation tomorrow," (Oct. 14, 2021), FTC-META-003754797, at -798.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2272, and because the quoted language does not say anything about Meta's speed in responding to concerns about teens' experiences on Instagram. Further disputed that the cited evidence establishes that there is an empirical causal relationship between the responses to TRIPS or BEEF and Meta's investments in its integrity systems.

b. Arturo Bejar testified that for a year he tried to "get some goals in place around what people were experiencing" on Instagram but that "the process was very difficult." PX6052, Bejar (Meta) Dep. Tr., at 130:8-14. He explained that he sent

the October 5, 2021, email to Mark Zuckerberg, Sheryl Sandberg, Chris Cox, and Adam Mosseri, *see supra* CMF at ¶¶ 2268(e), 2270(b), 2271(c), because he "felt that . . . there was internal research about, like, self-image things and negative comparison that was statistically significant. And I was very disappointed that they weren't acknowledging that or doing the kind of work that we had done when we were aware of issues." PX6052, Bejar (Meta) Dep. Tr., at 138:21-139:10.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2272.

c. [redacted]

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2272, and because Mr. Bejar's part-time role with Meta ended in October 2021, and he admitted that he had no knowledge of Meta's or Instagram's integrity efforts since that time. *See* PX6052 at 27:18-19, 248:4-20 (Bejar Dep. Tr.). The evidence shows that Instagram was developing a number

of new tools to address negative user experiences, both while Mr. Bejar was at Instagram and after he left, that Mr. Bejar may not have even been aware of. *See* Ex. 7 at ¶ 190 (Subrahmanian Rep.); *see also id.* at ¶ 192 (describing how Instagram provides its users a number of ways to report negative experiences).

c) Meta's approach to advertising has resulted in users seeing harmful advertisements on Instagram.

2273. Meta does not run ads submitted for publication against all of its advertising integrity policies.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding whether Meta runs ads submitted for publication against all of its advertising integrity policies, because the cited evidence does not support that assertion as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's response to paragraph 2183.

a. Meta uses one platform to process ad buys from advertisers and serve ads on both Instagram and Facebook. PX6075, Schroepfer (Meta) Dep. Tr., at 280:17-23 (explaining that advertisers can "use [a] unified set of tools to place [an] ad on both or one of Instagram and Facebook").

Meta Response: Undisputed.

b. Advertisers wishing to run ads on Instagram must adhere to Meta's ad policies. These policies include Meta's Advertising Standards, Instagram's Community Guidelines, and Facebook's Community Standards. Meta's Advertising Standards "provide policy detail and guidance on the types of content [Meta] allow[s], and the types of ad content [it] prohibit[s]." PX0483 at -001,

Introduction to the Advertising Standards, Meta Transparency Center, https://transparency.fb.com/policies/adstandards/?source=https%3A%2F%2Fwww.facebook.com%2Fpolicies_center%2Fads (last visited May 9, 2024).

Meta Response: Undisputed. Undisputed, except the quoted language in PX0483 should read: "Our Advertising Standards provide policy detail and guidance on the types of ad content we allow, and the types of ad content we prohibit." PX0483 at -001 (Meta, *Introduction to the Advertising Standards*).

c. Meta reviews submitted ads "automatically before ads begin running." Meta's ad review system "relies primarily on automated tools to check ads and business assets against [its] policies." *Id.* at -006.

Meta Response: Undisputed.

d. Meta explains that the "review process may not detect all policy violations, and ads remain subject to re-review and may be rejected for violating our policies at any time." *Id.* at -005.

Meta Response: Undisputed. Undisputed, except the quoted language should read: "Our review process may not detect all policy violations, and ads remain subject to review and re-review and may be rejected for violating our policies at any time." PX0483 at -005 (Meta, *Introduction to the Advertising Standards*).

2274. Meta's advertising review system approved blatantly violent ads.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact because they are not supported by admissible evidence, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed because a single, unverifiable, inadmissible hearsay study of,

purportedly, 20 ads with violent language is not meaningful information to evaluate the overall effectiveness of Meta's integrity program, which has attracted more than 3 million advertisers worldwide and runs billions of ads per day. *See* Ex. 7 at ¶ 196 (Subrahmanian Rep.). Further disputed for the reasons stated above in Meta's response to paragraph 2183.

a. In 2022, Professor McCoy and Global Witness, a non-governmental organization, conducted a study to determine the efficacy of Meta's, YouTube's, and TikTok's ad review systems. PX0484, *"We're going to kill you all": Death threats against US election workers approved on Facebook*, Global Witness (Dec. 1, 2022), https://www.globalwitness.org/en/campaigns/digital-threats/were-going-to-kill-you-all-facebook-fails- to-detect-death-threats-against-election-workers-in-the-us-while-youtube-and-tiktok-succeed.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's response to paragraph 2274.

i. The researchers submitted 20 ads containing overt threats to "lynch," "murder," and "execute" election workers around the 2022 Election Day for publication by Meta, YouTube, and TikTok. PX0485, at -002, Stuart Thompson, *Facebook Failed to Stop Ads Threatening Election Workers*, N.Y. Times (Dec. 1, 2022), https://www.nytimes.com/2022/12/01/technology/facebook-ads-threats.html.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's response to paragraph 2274.

ii. Of the 20 ads submitted, Meta approved 15 for publication while YouTube and TikTok rejected all of them for violating their advertising policies. YouTube and TikTok also suspended the accounts the researchers had used to submit the ads. Meta did not suspend any of the accounts associated with the researchers' ads. PX0484, at -003, *"We're going to kill you all": Death threats against US election workers approved on Facebook*, Global Witness (Dec. 1, 2022), https://www.globalwitness.org/en/campaigns/digital-threats/were-going-to-kill-you-all-facebookfails- to-detect-death-threats-against-election-workers-in-the-us-while-youtube-and-tiktok-succeed.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's response to paragraph 2274.

iii. Professor McCoy and the researchers at Global Witness deleted the approved ads prior to publication by Meta. PX0485, Stuart Thompson, *Facebook Failed to Stop Ads Threatening Election Workers*, N.Y. Times (Dec. 1, 2022),

https://www.nytimes.com/2022/12/01/technology/facebook-ads-threats.html.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's response to paragraph 2274.

2275. Meta explained that its system approved the blatantly violent ads because certain classifiers were not turned on, in other words, it did not run the ads against certain integrity rules.

Meta Response: Disputed in part. Undisputed that Meta's advertising review system at the time of the purported study was not using certain classifiers for ads. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding whether Meta's advertising review system approves blatantly violent ads, for the reasons stated above in Meta's response to paragraph 2274. Further disputed for the reasons stated above in Meta's response to paragraph 2183.

a. In his October 2023 expert report, Professor Subrahmanian proffered an explanation for why Meta's integrity systems had failed to flag the 15 ads submitted by Professor McCoy and Global Witness. Professor Subrahmanian explained that "Meta's ad-review systems at the time were not using 'violence and incitement' classifiers for ads . . . Thus, the ads in question were screened for 'violence and incitement' using organic classifiers, which did not flag the content as violating." PX9020, Subrahmanian Report at ¶ 197.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2275.

b. Professor Subrahmanian also stated that "Meta has made numerous changes to its ad moderation systems" in response to Professor McCoy and Global Witness's study. *Id.* at ¶ 198. However, none of the changes Professor Subrahmanian described involved Meta running submitted ads against all of its community and advertising standards. *See id.* (stating that following the "incident" Meta "improved the models it uses to extract text from video ads so that those models are better able to detect potentially policy-violating ads," and "worked to adapt these models to provide for an increasing number of languages, including ones that are not based on Roman characters and languages that are not widely spoken").

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2275, and because the cited paragraphs from his report do not support the assertion in this subparagraph. Professor Subrahmanian was clear in his report that he was only citing "example[s]" of changes to its advertising moderation system. *See* Ex. 7 at ¶ 198 (Subrahmanian Rep.). Moreover, nothing about the use of models to extract text or increasing the number of languages supported is inconsistent with evaluating ads against all community and advertising standards.

2276. Meta's ad review system continued to approve policy-violating ads.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact regarding whether Meta's advertising review system continued to approve policy-violating ads, for the reasons stated above in Meta's response to paragraph 2183, and below in Meta's responses to the subparagraphs.

a. On November 27, 2023, The Wall Street Journal published the results of a study its reporters had conducted to determine what Instagram's recommendation system would display to users that the "algorithm decides might have a prurient interest in children." PX0481 at -001, Jeff Horwitz & Katherine Blunt, *Instagram's Algorithm Delivers Toxic Video Mix to Adults Who Follow Children*, Wall St. J. (Nov. 27, 2023), https://www.wsj.com/tech/meta-instagram-video-algorithm-children-adultsexual-content-72874155. The article reported that "[a]mong the ads that appeared regularly in the Journal's [Instagram] test accounts were those for 'dating' apps and livestreaming platforms featuring adult nudity, massage parlors offering 'happy endings' and artificial intelligence chatbots built for cybersex. Meta's rules are supposed to prohibit such ads." *Id.* at -008.

Meta Response: Disputed. Disputed that the statement is supported by admissible evidence as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Further disputed for the reasons stated above in Meta's responses to paragraphs 2183 and 2257 and subparagraph 2258(c)(i).

E. Meta's Acquisition of Instagram Was Not Necessary for Instagram to Scale Its Technical Infrastructure.

2277. Meta's acquisition of Instagram was not necessary for Instagram to scale its technical infrastructure or achieve Meta's claimed infrastructure benefits related to Instagram. *Infra* CMF at § V.E.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.E, Meta incorporates its responses to those statements here.

Further disputed that any of the statements in Section V.E. create a genuine dispute of material fact because they do not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the statements in Section V.E. suggest that, absent the acquisition, Instagram would have scaled as quickly, efficiently, or effectively as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See* Ex. 153 at 392:5-22 (Krieger Dep. Tr.) (Mr. Krieger agreeing that there is no way to determine with certainty what Instagram could have done in the "parallel world" absent the acquisition). Conversely, there is extensive evidence that Instagram was experiencing numerous technical challenges and scaling issues prior to the acquisition, *see* Meta SMF ¶¶ 685-694; Ex. 5 at ¶¶ 97-115 (Nieh Rep.), and that Instagram received enormous benefits because of the acquisition that enabled Instagram to scale quickly, efficiently, and effectively. *See* Meta SMF ¶¶ 755-762; Ex. 5 at ¶ 94 (Nieh Rep.) ("Instagram received enormous benefits from Meta and its infrastructure,

which enabled Instagram to scale more quickly, efficiently, and effectively than it could have using other alternatives."); Ex. 5 at ¶¶ 95-215 (setting forth those benefits). The evidence further shows that other companies that scaled without using Meta's infrastructure experienced a range of problems and downsides that Instagram avoided by using Meta's infrastructure. *See id.* at ¶¶ 309-364 (discussing the experiences of Snap, [redacted]).

Testimony from Instagram's founders confirms these benefits. Regarding Meta's improvements to Instagram's infrastructure, Mr. Systrom testified: "Q. . . . Facebook helped with the [Instagram] infrastructure? A. Yes. Q. How? A. They had a handful of experts at systems that came into our team very early on as soon as the deal closed past review that were helpful in thinking about how to architect our systems. . . . Q. During your negotiations with Mr. Zuckerberg, did he tell you that Facebook could help Instagram with its infrastructure? A. Yes." *Id.* at 244:24-245:22; *see also id.* at 246:3-12 ("Q. Did you think it was an advantage to Instagram to be able to use Facebook's expertise in scaling rather than have to develop that expertise itself? . . . A. . . . It was really nice to have people who had seen exactly what we were going through before sitting there giving you advice and – and helping. Yeah, that was – that was really nice."); *id.* at 250:23-24 ("They certainly gave us resources that allowed us to thrive, yes."). Mr. Krieger also testified extensively about how Meta's infrastructure expertise and resources helped Instagram's performance. He testified that, "going into 2012, as [Instagram] started getting into 5, 10, 20 million users, we were constantly hit with new infrastructure challenges." Ex. 302 at 127:19-22 (Krieger IH Tr.). Mr. Krieger testified that Instagram's struggle to manage its infrastructure problems pre-acquisition

contributed to why he and Mr. Systrom agreed to the acquisition. *See id.* at 158:20-159:17 ("[W]e had talked recently about the infrastructure challenges. Like, it had been difficult last time since launch till then in terms of the scaling the infrastructure or trying to hire the team. So I think we were both pretty underwater on that. And so getting to partner with Facebook, they had a much larger infrastructure and a much more built-out team, was appealing. And I had a ton of respect for their engineering team already at the time. . . . [W]e were so underwater from an engineering perspective that having assistance was very appealing."). Mr. Systrom testified that he "wish[ed] [he] had more time to spend on the product" prior to the acquisition, but "Mike [Krieger] and I were spending most of our time keeping the servers running." Ex. 151 at 219:1-23 (Systrom Dep. Tr.). And Mr. Krieger testified that Instagram's performance stabilized and improved after the acquisition by moving onto Meta's infrastructure and leveraging Facebook's expertise. *See* Ex. 302 at 231:15-24 (Krieger IH Tr.); *see also* Meta SMF ¶¶ 756, 761.

1. Instagram was growing rapidly on public cloud infrastructure prior to its acquisition by Meta and was well-positioned to continue growing without Meta's infrastructure.

2278. Instagram was growing rapidly on public cloud infrastructure prior to its acquisition by Meta and was well-positioned to continue growing without Meta's infrastructure. *Infra* CMF at § V.E.

Meta Response: Disputed in part. Undisputed that Instagram was growing rapidly prior to its acquisition. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and

therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.E, Meta incorporates its responses to those statements here. Further disputed because the phrase "well-positioned" is vague and undefined.

a) Instagram achieved immediate and sustained rapid growth on public cloud infrastructure prior to its acquisition by Meta.

2279. Instagram was an immediate success and maintained a trend of rapid growth before being acquired by Meta. *See supra* CMF at § V.A.1(a).

Meta Response: Undisputed.

a. Although Instagram was initially launched only on Apple devices, it acquired 25,000 registered users on its first day. PX6015, Krieger (Meta/Instagram) IH Tr., at 35:19-20, 60:25-61:6.

Meta Response: Undisputed.

b. By November 2010, Instagram had 570,000 registered users and was adding 10 to 20 new users per minute and 2 photo uploads per second. PX3523, Instagram email: K. Systrom to M. Krieger re: "Notes" (Nov. 8, 2010), FB_FTC_CID_08715198, at -198.

Meta Response: Undisputed.

c. By January 2011, Instagram had grown to 1.4 million registered users. [redacted]

Meta Response: Undisputed.

d. By mid-2011, Instagram had roughly 4 million registered users and was adding on average 250,000 users a week. PX3522, Instagram email chain: K. Systrom to [redacted]

[redacted] (Bloomberg) re: "Businessweek's best young entrepreneurs," (May 13, 2011), FB_FTC_CID_08715576, at -576.

Meta Response: Undisputed.

e. By the close of 2011, Instagram had 14 million registered users and was adding 1 new user per second (translating to ~2.6 million sign-ups per month), with 400 million photos uploaded. PX10568, Instagram document: "Instagram Company Overview" (Dec. 5, 2011), FB_FTC_CID_02991045, at -045.

Meta Response: Undisputed.

f. From April 2012 to August 2012, Instagram approximately tripled its user-base, growing from about 35 million registered users to 100 million. PX10023, Instagram email chain: S. Sweeney to D. Toffey, et al, re: "Happy 100 million users," (Aug. 29, 2012), FTC-META-003148234, at -243 ("Would you believe that one year ago we had less than 10 million users. To give even more perspective on how incredible growth has been, in less than five months we have had over 30 million Android users sign up.").

Meta Response: Undisputed, except the correct Bates number is FTC-META-003148243.

2280. Instagram accomplished this rapid growth while scaling on public cloud infrastructure offered by Amazon Web Services, or "AWS."

Meta Response: Disputed in part. Undisputed that Instagram used AWS prior to the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277.

a. AWS was the first provider of "public cloud" services, launching in 2006. PX9001, Bray Report at ¶ 81.

Meta Response: Undisputed.

b. Public cloud providers "are widely respected in the engineering community and thus able to attract elite employees in the areas of data center and network design, system reliability, and data security." PX9001, Bray Report at ¶ 82.

Meta Response: Undisputed that Mr. Bray offered the quoted opinion.

c. Public cloud providers "are able to make huge investments in state-of-the-art security, reporting, and auditing technology that would be out of reach for most organizations." PX9001, Bray Report at ¶ 82.

Meta Response: Undisputed that Mr. Bray offered the quoted opinion.

d. Public cloud providers allow "IT organizations of every size" to rent computer servers or storage; [redacted] PX9001, Bray Report at ¶¶ 83-84. AWS, in particular, "offered 21 different services" in January of 2012. PX9001, Bray Report at ¶ 85.

Meta Response: Undisputed that Mr. Bray offered the quoted opinion.

e. Public cloud providers "offer services to support scaling and sharding": "allowing a request load that is too high to be handled by any one computer to be distributed among an arbitrarily-large number of computers, and automating the work that is required to scale the necessary fleets up and down in response to load." PX9001, Bray Report at ¶ 85.

Meta Response: Undisputed that Mr. Bray offered the quoted opinion.

f. Prior to the acquisition, Instagram "used the following AWS core infrastructure services: Amazon Elastic Compute Cloud (EC2), Amazon Simple Storage Service (S3), and CloudFront." PX9001, Bray Report at ¶ 118.

Meta Response: Undisputed.

i. Instagram used EC2 to deploy servers. PX9001, Bray Report at ¶ 118.

Meta Response: Undisputed.

ii. "Instagram used S3 for media storage, i.e., for photos and videos." PX9001, Bray Report at ¶ 118.

Meta Response: Undisputed.

iii. Instagram used Amazon's CloudFront as its content delivery network, or "CDN." PX9001, Bray Report at ¶ 118. CDNs work "to position data requested by the user so that it arrives on their screen nearly instantly." PX9001, Bray Report at ¶ 57.

Meta Response: Undisputed.

g. In early 2012, Instagram had "doubl[ed] all of our infra" and most of it was sharded and "scalable." *See* PX3524 at -148, Meta presentation: "A Brief, Rapid History of Scaling Instagram (with a tiny team)" (Nov. 13, 2013), FB_FTC_CID_02644311.

Meta Response: Disputed. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because the cited evidence does not support the statement above in paragraph 2280. The quoted language appears in a section discussing "[e]nding the year" of Instagram's second year,

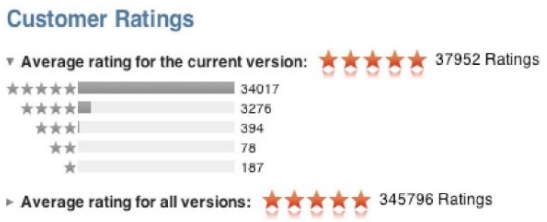
which does not support the statement that the quoted language describes Instagram's status "[i]n early 2012" when Instagram was only slightly over a year old. *See* PX3524 at -146. Further disputed because the FTC's characterization of the cited evidence is incomplete and misleading. The document discusses Instagram's scaling challenges on AWS, including in Instagram's first year running into its "[f]irst bottleneck: disk IO on old Amazon EBS," and in Instagram's second year, experiencing "[c]onnection limits everywhere," "[h]ard to track down kernel panics," and running "[o]ut of IO again." *Id.* at -048, -087, -089, -092.

Further disputed to the extent the statement suggests that Instagram's pre-acquisition infrastructure could have supported Instagram's continued growth. Evidence shows that scaling challenges get more complex as an application continues to scale. *See* Ex. 5 at ¶ 34 (Nieh Rep.) ("For large and dynamic apps, scaling challenges do not automatically become easier above some level, much less cease. On the contrary, engineering challenges often become more complex at greater scale.").

2281. While scaling on public cloud infrastructure, Instagram established itself as, according to Mark Zuckerberg, "the awesome iPhone camera app." PX1102, Meta Workplace Post: M. Zuckerberg post to [redacted] (Feb. 11, 2012), FB_FTC_CID_01548247, at -247.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277.

a. In 2012, users rated Instagram at an average of 5 stars, with more than 300,000 ratings and one user calling it "[t]he best social network ever way better than [F]acebook." [redacted]



Id.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

b. Sheryl Sandberg (former Meta Chief Operating Officer) described the pre-acquisition Instagram's product as "super-engaging" and recalled "people believing the [Instagram] product was better – simpler, cleaner, more elegant, more immersive" than was Facebook. PX6022, Sandberg (Meta) IH Tr., at 246:15-247:18, 241:17-242:1.

<u>Meta Response</u>: Undisputed that the witness provided the quoted testimony.

c. According to Mark Zuckerberg, in February of 2012, Instagram's "brand is established as the awesome mainstream camera" and that "even if [Meta was to] catch up on features they're still the awesome iPhone camera app." PX1102, Meta Workplace Post: M. Zuckerberg post to [redacted] (Feb. 11, 2012), FB_FTC_CID_01548247, at -247.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

b) After the acquisition, Instagram continued to use its public cloud infrastructure for a period of time—and continued to achieve significant scale.

2282. Instagram launched in 2010, and according to Mr. Krieger, "we survived [our] first four years because of AWS." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 77:19-78:3; *see supra* CMF at ¶ 2194(a).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Meta also incorporates its response to paragraph 2194(a) here.

2283. Instagram grew to 200 million monthly active users during the post-acquisition period using AWS. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 93:15-23; *see also* PX0666 at -001, Instagram Blog, "Instagram Today: 200 Million Strong," (Wayback Machine image dated Mar. 27, 2014), https://web.archive.org/web/20140327220015/https://blog.instagram.com/post/80721172292/200m ("Today, we're excited to share that the Instagram community has grown to more than 200 million Instagrammers capturing and sharing their lives every month.").

Meta Response: Disputed in part. Undisputed that Instagram reached over 200 million monthly active users worldwide in March 2014. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because, when Instagram reached over 200 million monthly active users worldwide in March 2014, Instagram was already relying on, and receiving benefits from, some of Meta's infrastructure services. *See* Ex. 5 at ¶ 120 (Nieh Rep.) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition.").

2284. Instagram relied on its own engineers to continue scaling on AWS. *See* PX6134, Systrom (Meta/Instagram) Dep. Tr., at 354:16-18 ("Facebook knew how to manage Facebook's infrastructure, and they didn't know how to manage the AWS infrastructure.")

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because the cited evidence does not support the statement, and the FTC's characterization of Mr. Systrom's testimony is incomplete and misleading. Mr. Systrom was asked whether he "agreed with the concept of moving Instagram's infrastructure over to Facebook's systems?" PX6134 at 354:4-6 (Systrom Dep. Tr.). Mr. Systrom replied, "I did." *Id.* at 354:8. He was then asked, "Is that because it was more efficient for Instagram to be on Facebook's infrastructure?" *Id.* at 354:9-11. Mr. Systrom answered: "I believed that being on Facebook's infrastructure came with a lot of benefits, whether they be cost savings, complexity. Employees from Facebook knew how to manage Facebook's infrastructure, and they didn't know how to manage the AWS infrastructure. So there were all sorts of reasons to eventually combine infrastructures." *Id.* at 354:13-20. The evidence also shows that Instagram began receiving assistance from Meta engineers immediately after the acquisition. *See* Ex. 5 at ¶ 120 (Nieh Rep.) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition."), ¶¶ 120-147 (discussing Instagram's initial migrations to Meta's infrastructure and the corresponding benefits).

2285. During the post-acquisition period using AWS, Instagram continued to scale its infrastructure and launch new features:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Even before Instagram migrated from AWS, it was using components of Meta's infrastructure and other Meta resources starting almost immediately after the acquisition. Ex. 5 at ¶ 120 (Nieh Rep.) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition."), ¶¶ 120-147 (discussing Instagram's initial migrations to Meta's infrastructure and the corresponding benefits).

a. Instagram improved its performance and ability to scale by completing its adoption and optimization of new storage service for its feed, Cassandra, which Instagram started before the acquisition with the help of Instagram's pre-acquisition hire, Rick Branson. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 120:9-121:5.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2285. Further disputed because the statement cites no evidence that Cassandra was Instagram's "new storage service for its feed" or that the adoption of Cassandra "improved [Instagram's] performance and ability to scale." Further disputed to the extent the statement suggests that, absent the acquisition, Instagram would have received superior benefits from using Cassandra than it did on Meta's infrastructure. That is purely speculative. Conversely, Instagram later migrated from Cassandra to Meta's proprietary infrastructure service ZippyDB and benefited from doing so. *See* Ex. 5 at ¶¶ 190-

193 (Nieh Rep.). As Professor Nieh documents, "Facebook, Twitter, and Discord all stopped using Cassandra due at least in part to challenges of using Cassandra at massive scale." *Id.* at ¶ 191. Before Instagram migrated from Cassandra to ZippyDB, it ran Cassandra – which Meta originally developed – over Meta's infrastructure and received the benefits of Meta's engineering expertise. *Id.* at ¶¶ 190-191.

b. Instagram developed and launched direct messaging on its own, prior to migrating to Meta's infrastructure. *See* PX6015, Krieger (Meta/Instagram) IH Tr., at 188:17-189:5; PX6027, Systrom (Meta/Instagram) IH Tr., at 249:20-250:4.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2285. Further disputed because the cited evidence does not support the statement in this subparagraph. Instagram was already relying on, and receiving benefits from, some of Meta's infrastructure services at the time Instagram launched direct messaging. *See* Ex. 5 at ¶ 120 (Nieh Rep.) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition.").

c. Instagram successfully scaled its infrastructure to launch a video feature prior to moving to Meta's infrastructure. PX3524 at -198-205, Meta presentation: "A Brief, Rapid History of Scaling Instagram (with a tiny team)" (Nov. 13, 2013), FB_FTC_CID_02644311 (describing that Instagram built a video transcoding service in Django, using AWS, to normalize videos from different video formats). On day one of launching video, Instagram successfully displayed 5 million videos. *Id.* at -213.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2585. Further disputed because the cited evidence does not support the statement that "Instagram successfully scaled its infrastructure to launch a video feature prior to moving to Meta's infrastructure." Instagram was already relying on, and receiving benefits from, some of Meta's infrastructure services at the time Instagram launched its video feature. *See* Ex. 5 at ¶ 120 (Nieh Rep.) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition."). Extensive evidence shows Instagram's launch of its video feature benefited from Meta's infrastructure and expertise. *See* Meta SMF ¶ 740; Ex. 5 at ¶ 201 (Nieh Rep.).

2286. AWS cloud infrastructure services expanded and grew during Instagram's use, *see* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 50:2-51:22 (describing improvements AWS made, including adding capacity and increasing performance), and continued to grow and improve thereafter. *See* PX9001, Bray Report at ¶¶ 81, 84-85.

Meta Response: Undisputed.

2287. At the end of April 2014, approximately 20 months after the acquisition closed, Instagram's compute infrastructure was moved from AWS to Meta. PX3414, Meta Workplace Post: N. Shortway post to Instagration (Apr. 25, 2014), FTC-META-012220197, at -197; *see also* PX6047, Cole (Meta/Instagram) Dep. Tr., at 132:19-21 ("[W]e did transition over to Meta infrastructure, but it was quite a long process to be able to do so.").

Meta Response: Disputed in part. Undisputed that Instagram finished migrating its compute infrastructure from AWS to Meta's data centers in April 2014. Disputed that

the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277.

2288. Mr. Krieger testified that "the primary motivation of moving over to Facebook infrastructure was not one of reliability." PX6015, Krieger (Meta/Instagram) IH Tr., at 227:23-24.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because the quote is incomplete and misleading. Mr. Krieger proceeded to explain that Instagram had two primary motivations for migrating onto Meta's infrastructure: "One was there were systems like the antispam system and some data science, like, analytic systems that we wanted to integrate, even from the fairly early time that we were there. Those integrations would be a lot more robust if they were done just inside the Facebook data center rather than connecting from an Amazon cloud to Facebook. So number one was to start doing some of these sort of value-added integrations that we, I think, primarily drove from Instagram. Because there were things that we wanted that we thought would be useful to have. And the other one was cost. Amazon was – was getting more and more expensive every month because we were having more and more traffic through it." PX6015 at 227:25-228:19 (Krieger IH Tr.). In addition, prior to the acquisition, Instagram was built to operate from only a single data center, which left it highly vulnerable to system-wide outages whether or not they occurred at the time of the acquisition. *See* Ex. 5 at ¶ 194 (Nieh Rep.).

a. Mr. Krieger testified that "it was rare" that Instagram suffered a complete outage: "Instagram never had what Twitter had as the Fail Whale[.]" PX6015, Krieger (Meta/Instagram) IH Tr., at 149:24-150:6; *see also* PX9022, Nieh Report at ¶ 324 ("Twitter's service had widespread reliability issues during its first several years of operations, giving birth to the infamous 'fail whale' when the service was overloaded.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2288. Further disputed that the quoted language accurately reflects Mr. Krieger's testimony. Mr. Krieger testified that AWS's hardware failed "quite frequent[ly] . . . it could happen three or four times a week, sometimes more if . . . there's some larger issue that was happening . . . ." PX6015 at 148:1-8 (Krieger IH Tr.). Mr. Krieger further testified that while AWS's hardware failures "could sometimes be more localized," the failures harmed Instagram's user experience because "if you were one of the unlucky group of users whose ID maps to the machine that had just gone down, then you wouldn't be able to use Instagram or maybe you couldn't post a photo until we fixed it." *Id.* at 149:16-23. Mr. Krieger also explained that while Instagram did not have a version of Twitter's Fail Whale, Instagram "certainly had pockets of things going wrong, you know, not infrequently." *Id.* at 150:1-6.

b. Mr. Krieger testified that there was "one curious exception" where Instagram was unavailable to all of its users, which he described as "a unicorn event," PX6015, Krieger (Meta/Instagram) IH Tr., at 151:2-11, where a storm "took out" AWS in

"all of US East [Region], which [was] the . . . data center" Instagram was using. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 49:18-23.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, and that a storm took out the entire AWS data center that Instagram was using, which caused an AWS outage and made Instagram unavailable to all of its users. Disputed for the reasons stated above in Meta's response to paragraph 2288. Further disputed to the extent the statement suggests that Instagram rarely encountered infrastructure issues on AWS. Evidence shows that Instagram was experiencing numerous technical challenges and scaling issues on AWS that negatively affected Instagram. *See* Meta SMF ¶¶ 685-694; Ex. 5 at ¶¶ 97-115 (Nieh Rep.).

c) Instagram was well positioned to continue growing, as it was on a well-proven path to scaling without Meta's infrastructure.

2289. Instagram was well positioned to continue growing, as it was on a well-proven path to scaling without Meta's infrastructure. *Infra* CMF at ¶¶ 2290-2303.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2290-2303, Meta incorporates its responses to those statements here.

2290. Instagram's founders were confident that they could have continued to scale absent the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Mr. Krieger testified that he had "real concerns around, you know, this thing is growing, meaning Instagram. But it is very hard to scale it with just the small team we had. And, you know, we were – I forget how old we were. 20, 24. So, you know, we – we didn't know what we – we didn't know what [we] didn't know. We also didn't know what we knew. And so there was an uncertainty about, you know, what – what the future might look like." Ex. 153 at 270:5-14 (Krieger Dep. Tr.). Mr. Krieger further testified that "the goal or sort of the driver behind agreeing to be acquired was reducing uncertainty on the infrastructure team and business side." *Id.* at 271:18-21.

a. Mr. Systrom believed that by April 2012, Instagram "was well-positioned to keep growing," PX6133, Systrom (Meta/Instagram) Dep. Tr., at 15:20-16:18, and would have been "able to continue to meet [Instagram's] infrastructure needs" where "Facebook had not acquired Instagram." PX6027, Systrom (Meta/Instagram) IH Tr., at 235:20-23; *see also* PX6015, Krieger (Meta/Instagram) IH Tr., at 229:11-230:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2290. Further disputed because the statement is incomplete. Mr. Systrom also testified that "being on Facebook's infrastructure came with a lot of benefits," PX6134 at 354:13-15 (Systrom Dep. Tr.), including that Meta's

infrastructure was faster and cheaper than AWS's infrastructure. *See id.* at 356:4-358:22; *see also* PX6027 at 182:25-183:4 (Systrom IH Tr.) ("[W]e could take these people who have clearly scaled extremely large services, and we could put their expertise over and help Instagram get through this tough period.").

b. Mr. Systrom testified that Instagram could have continued to scale its infrastructure: "Q. Was there anything unique to the Facebook server or infrastructure that enabled Instagram to continue scaling? A. Unique, no, meaning we could have -- it would have taken time, but we could have built similar things separately, and I think you see a lot of the large internet companies – consumer internet companies do. Q. So if Facebook had not acquired Instagram, would Instagram have been able to meet its continued infrastructure needs? A. I believe so." PX6027 (Systrom (Meta/Instagram) IH Tr., at 235:12-23.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2290. Further disputed that this testimony shows that Instagram could have scaled its infrastructure as quickly as it did after the acquisition. The quoted testimony makes clear that even if – theoretically – Instagram could have built its own infrastructure services, it "would have taken time" to do so. PX6027 at 235:12-23 (Systrom IH Tr.).

c. According to Mr. Systrom, "it was so easy to scale in the cloud and that if we had stayed independent, we likely would still be on the cloud today." PX6027 Systrom (Meta/Instagram) IH Tr., at 109:14-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2290. Further disputed because the FTC's characterization of Mr. Systrom's testimony is incomplete and misleading. The quoted testimony arose in the context of Mr. Systrom discussing whether Instagram would have built its own data center infrastructure from scratch absent the acquisition as opposed to staying on the public cloud and paying the "extremely large and mounting bills that were coming at us, you know, via Amazon Web Services." *See* PX6027 at 108:21-109:17 (Systrom IH Tr.) (Mr. Systrom explaining that Instagram "often thought about how much we were spending on the cloud, and we thought that we might be able to save by moving into our own data centers").

d. In 2012, according to Mr. Krieger, Instagram's infrastructure was "[i]n steady states" as it had "more automation around it" and was "more well equipped to handle . . . spikes in traffic." PX6015, Krieger (Meta/Instagram) IH Tr., at 143:24-144:4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2290. Further disputed because the cited evidence does not support the statement in paragraph 2290 that "Instagram's founders were confident that they could have continued to scale absent the acquisition." In addition, the FTC's characterization of Mr. Krieger's testimony is incomplete and misleading. Mr. Krieger's testimony illustrates that Instagram was experiencing scaling challenges and hardware failures on AWS. In his testimony, Mr. Krieger was asked: "So

how often did Instagram exceed the capacity that it had on AWS?" PX6015 at 143:16-17 (Krieger IH Tr.). Mr. Krieger answered: "I think it varied by – by time. So I think early on very often because we were – you know, we were very new at the whole process. So we were kind of learning as we went. So I would say at that point it was almost, you know, probably three or four times a week we'd have some issue. In steady states or, you know, call it 2012, it would probably still happen, you know, a couple times a month. But at that point we had little bit more automation around it or we were more well equipped to handle those kinds of spikes in traffic. And in 2012 it was less often that we would hit the capacity issue and more often that something will have failed and then we'd have to go in and intervene in that regard." *Id.* at 143:18-144:8. Extensive evidence shows that Instagram was experiencing numerous technical challenges and scaling issues on AWS that negatively affected Instagram. *See* Meta SMF ¶¶ 685-694; Ex. 5 at ¶¶ 97-115 (Nieh Rep.). Prior to the acquisition, Instagram was built to operate from only a single data center, which left it vulnerable to outages handling large spikes in traffic whether or not they occurred at the time of the acquisition. *See* Ex. 5 at ¶ 194 (Nieh Rep.).

e. Mr. Krieger testified that AWS was able to provide Instagram the infrastructure it required. *See id.* at 229:11-230:1 ("Was AWS able to offer these types of resources [a good storage solution and a database, and then rapid web servers]? A. Yeah.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2290. Further disputed because the quoted testimony does

not support the statement, as it refers to portions of the infrastructure that Instagram used, not all of the infrastructure it required, and therefore does not support the statement. Even with respect to the infrastructure Instagram required from AWS, the evidence shows it faced challenges obtaining it. *See* Ex. 5 at ¶¶ 105-112 (Nieh Rep.) (describing the "vertical and horizontal scaling issues" Instagram encountered on AWS); Ex. 156 at 71:23-72:3 (Shortway Dep. Tr.) ("[T]hat's not the only instance type that we were – we were running out of, and it was not the only time that we ran out of either instances or Provisioned IOPS. This was a constant theme that went through the time that we ever moved over to Facebook.").

2291. Meta's and the FTC's infrastructure experts agree that Instagram was likely to have continued to scale without the acquisition. PX9001, Bray Report at ¶ 33; PX9022, Nieh Report at ¶ 94.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because the statement in this paragraph mischaracterizes Professor Nieh's opinion. Professor Nieh opined that it is likely that Instagram could have continued to scale "to some extent" without Meta's infrastructure and resources. Ex. 5 at ¶ 94 (Nieh Rep.).

a. Mr. Bray concluded based on his experience and his review of evidence that "[i]n my opinion, Instagram had put in place a set of infrastructure services that would have sustained its growth independent of Meta." *See* PX9001, Bray Report at ¶ 33.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2291. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact. The statement relies on Mr. Bray's "infinite scale" theory that once an app adopts a certain architecture, it can scale infinitely. The evidence shows this theory finds no support in the industry and is contrary to the experience of Meta and many other apps. *See* Ex. 5 at ¶ 34 (Nieh Rep.) (refuting FTC's proffered expert's unsupported principle of "infinite scale" and explaining that "engineering challenges often become more complex at greater scale").

b. Professor Nieh stated that it not only was possible, but "I would agree even likely, that Instagram could have continued to scale to some extent without Meta's infrastructure and resources . . ." PX9022, Nieh Report at ¶ 94.

Meta Response: Disputed in part. Undisputed that Professor Nieh offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2291. Further disputed because the quote is incomplete and misleading. Professor Nieh's complete statement was that "[a]lthough it is possible, and I would agree even likely, that Instagram could have continued to scale to some extent without Meta's infrastructure and resources, the relevant question from a computer engineering perspective is how quickly, efficiently, and effectively it could have scaled using other alternatives." PX9022 at ¶ 94 (Nieh Rep.). Professor Nieh then answers the question: "the evidence overwhelmingly shows that Instagram received enormous benefits from Meta and its

infrastructure, which enabled Instagram to scale more quickly, efficiently, and effectively than it could have using other alternatives." *Id.*

2292. Mr. Bray also reviewed the complete record and concluded: "Instagram was already providing a strong user experience while growing on AWS. In my opinion it is reasonable to expect that Instagram could have continued to maintain its strong user experience independently." PX9001, Bray Report at ¶ 141.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed that Mr. Bray "reviewed the complete record"; the FTC cites no evidence showing that Mr. Bray reviewed the hundreds of millions of pages of material in the record. Further disputed on the ground that "strong user experience" is vague and undefined.

2293. Instagram's ability to maintain its trend of rapid growth prior to the acquisition is evidence it had a scalable infrastructure. PX9001, Bray Report at ¶¶ 140-41; *see also supra* at §§ V.A.1.,V.E.1.(a). According to Meta's infrastructure expert, Professor Nieh, "the ability of a system, application, or infrastructure to handle an increasing amount of data, users, or load without compromising performance or reliability" is a scalable infrastructure. PX9022, Nieh Report at ¶ 30.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in this paragraph does not support the statements in this paragraph. The description of Instagram's growth prior to

the acquisition discussed in Mr. Bray's report is not evidence that Instagram would have been able to maintain similar or increasing growth after the acquisition, particularly because engineering challenges increase with scale. *See* Ex. 5 at ¶ 34 (Nieh Rep.) ("[E]ngineering challenges often become more complex at greater scale."); *id.* at ¶ 93 ("Since the acquisition, Instagram has grown by more than [redacted] – from approximately [redacted] MAU in September 2012 to more than [redacted] in June 2022. It is impossible to know whether Instagram could have achieved this extraordinary growth on its own. Instagram's own founders recognized at the time of the acquisition that Instagram's path forward was uncertain."). Prior to the acquisition, Instagram was experiencing numerous technical challenges and scaling issues on AWS that negatively affected Instagram, *see* Meta SMF ¶¶ 685-694; Ex. 5 at ¶¶ 97-115 (Nieh Rep.). Instagram's single-region architecture also left it vulnerable to outages and traffic spikes. *See* Ex. 5 at ¶¶ 194-195 (Nieh Rep.) ("Scaling Instagram across multiple data centers helped make Instagram more reliable, by making it less vulnerable to performance issues or outages in case one data center region experienced a problem.").

Further disputed because the FTC's characterization of Professor Nieh's report is incomplete and inaccurate. Professor Nieh's complete statement defines scalability in the context of computing. Professor Nieh wrote: "In computing, scalability refers to the ability of a system, application, or infrastructure to handle an increasing amount of data, users, or load without compromising performance or reliability. As Internet services and other organizations grow, their computing requirements grow, which makes it necessary to scale their infrastructure to accommodate higher volume and complexity." *See id.* at ¶ 30.

To the extent this paragraph incorporates the FTC's statements in Sections V.A.1 and V.E.1(a), Meta incorporates its responses to those statements here.

(1) Instagram's infrastructure needs were not unique.

2294. Pre-acquisition, Instagram did not have infrastructure needs different from other companies that successfully scaled without using Meta's infrastructure, including by using public cloud infrastructure.

Meta Response: Disputed in part. Undisputed that, pre-acquisition, Instagram had some similar infrastructure needs to other companies that successfully scaled. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277.

a. According to Mr. Krieger, Instagram's infrastructure needs were:

> [n]ot so different[] from another mobile app. I think the needs were fairly similar, like a good storage solution and a database, and then rapid web servers. But I think that -- that was a need that would cut across any number of things, like, within the category of mobile apps.

PX6015, Krieger (Meta/Instagram) IH Tr., at 229:11-19.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2277.

b. Mr. Krieger also testified: "I think Snapchat has grown very large using -- I think they use Google Cloud primarily. So it's certainly doable to grow a site of that scale on AWS or on Google Cloud." *Id.* at 229:22-230:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to

paragraph 2277. Further disputed because this evidence does not support the statement in paragraph 2294; this testimony does not say anything about Instagram's pre-acquisition infrastructure needs.

c. Mr. Parikh testified that "[c]ompanies want to move to the cloud so that they can move faster and they can tap into the broader ecosystem of services so that they can innovate and build their businesses." PX6061 Parikh (Meta) Dep. Tr., at 92:24-93:13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2277. Further disputed because this evidence does not support the statement in paragraph 2294; this testimony does not say anything about Instagram's pre-acquisition infrastructure needs.

2295. Instagram's experience scaling in its early years before the acquisition was typical of any successful startup.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Disputed on the ground that "typical of any successful startup" is vague and undefined, and because the record does not establish a benchmark for a typical successful scaling experience of a startup.

a. "Although best design practices for scalable systems are well known, startups rarely begin their lives by adopting them. Instead they focus on accommodating a

growing number of users, ensuring they are building products for which there is a market demand." PX9001, Bray Report at ¶ 73; *see also id.* at ¶¶ 32, 132-133. A startup "cannot make a product more popular by having more scalable infrastructure, nor does having more scalable infrastructure long before it is needed provide any benefits, absent the users." PX9011, Bray Rebuttal at ¶ 36.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2295. Further disputed because the statements in this subparagraph ignore the relationship between scalable infrastructure and the success of a product and the benefits that accrue from "close technical integration between application and infrastructure." Ex. 5 at ¶ 71 (Nieh Rep.).

b. Mr. Krieger testified:

> I think the existence of the issues [that result in outages] was certainly part of just running a service with this many people on it, but the strategy really was to build out more of a team. So this is 2012, we're still a very small team. But to build a team that could engineer a more resilient system.

PX6015, Krieger (Meta/Instagram) IH Tr., at 150:11-16.

Meta Response: Disputed in part. Undisputed that Mr. Krieger provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2295. Further disputed because the quoted testimony is incomplete and misleading. Mr. Krieger went on to state that Instagram "didn't have enough people to – to build that out." PX6015 at 150:21-22 (Krieger IH Tr.). He further testified that Meta helped Instagram build out a team that could build a more resilient system. *See* Ex. 153 at 283:8-20 (Krieger Dep. Tr.).

c. Mr. Systrom testified that scaling presents "technical challenges that are not unique to Instagram; that are unique to any service that grows to a certain size." PX6027, Systrom (Meta/Instagram) IH Tr., at 232:16-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2295.

(2) Instagram was on a well-proven path for scaling that other large-scale companies have followed.

2296. Spreading a workload out across a large number of servers is an established technique for operating online products at large scale. PX9001, Bray Report at ¶ 65.

Meta Response: Disputed in part. Undisputed that, in 2024, spreading a workload out across a large number of servers is one technique to help facilitate scaling an online product. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact to the extent they suggest that any techniques for operating online products at scale were "established" at the time of Instagram's acquisition. Evidence shows that techniques for scaling have developed over time and that Meta has been a pioneer in deploying applications at massive scale. *See* Ex. 5 at ¶¶ 35-38 (Nieh Rep.) (explaining that Meta is a pioneer in containerization technology, "another technology that is used to facilitate scaling," and that Meta developed containerization and made it available to its applications, including Instagram, years before it was available via cloud providers); Ex. 289 at 146:4-147:8 (Bray Dep. Tr.) (FTC's proffered infrastructure expert testifying that "the great leap forward" in the

development of the single "known family of techniques for operating products of this scale" occurred at "Google and Meta"); *see also* Ex. 284 at 182:25-183:4 (Systrom IH Tr.) (Mr. Systrom explaining that a motivation for the acquisition was that Instagram "could take these people who have clearly scaled extremely large services, and we could put their expertise over and help Instagram get through this tough period.").

a. An infrastructure design capable of supporting 100 million active users, while operating from multiple geographic regions, should be capable of supporting a billion users. PX9001, Bray Report at ¶ 71; *see also* PX9011, Bray Rebuttal Report at ¶ 43 ("When two different systems both have designs that enable them to grow linearly by the straightforward addition of hardware, one cannot infer a scalability limitation from the fact that they have not yet been deployed to equivalently large user bases.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2296. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact. The statement relies on Mr. Bray's "infinite scale" theory that once an app adopts a certain architecture, it can scale infinitely. The evidence shows this theory finds no support in the industry and is contrary to the experience of Meta and many other apps. *See* Ex. 5 at ¶ 34 (Nieh Rep.) (refuting FTC's proffered expert's unsupported principle of "infinite scale" and explaining that "engineering challenges often become more complex at greater scale").

b. Instagram's present-day infrastructure under Meta can, then, be compared with the infrastructure of apps such as "Pinterest, Snapchat, and LinkedIn, although

they may have a smaller number of users." PX9011, Bray Rebuttal Report at ¶ 43.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2296. Further disputed because the quoted testimony does not refer to "Instagram's present-day infrastructure." The nature of the comparison referred to in both the statement and Mr. Bray's report is vague and undefined. Disputed that the statement in this subparagraph creates a genuine dispute of material fact. The cited paragraph in Mr. Bray's rebuttal report does not cite any evidence to support the quoted language, whereas extensive record evidence refutes it. The statement relies on Mr. Bray's "infinite scale" theory that once an app adopts a certain architecture, it can scale infinitely. The evidence shows this theory finds no support in the industry and is contrary to the experience of Meta and many other apps. *See* Ex. 5 at ¶ 34 (Nieh Rep.) (refuting FTC's proffered expert's unsupported principle of "infinite scale" and explaining that "engineering challenges often become more complex at greater scale").

2297. Indeed, there are numerous examples of companies providing online products that have followed a well-trodden path of scaling their products without access to Meta's infrastructure. *See* PX9001, Bray Report at ¶¶ 33, 70-72, 88-90, 147-149.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because the term "well-trodden path of scaling" is vague and undefined and the evidence does not support the implied assertion that there is a "well-trodden path of scaling" that guarantees an application will successfully scale. On the

contrary, there are many examples of applications that have failed at least in part due to their failure to scale effectively, including Friendster, Myspace, Tumblr, and Vine. *See* Ex. 5 at ¶¶ 365-376 (Nieh Rep.).

2298. Snapchat launched its application on Google's App Engine and scaled to more than 200MM users with a small team by the end of 2013. *See* PX11070, Meta Workplace Post: [redacted] post to Infra Leads [old], (Dec. 8, 2013), FTC-META-006908258, at -258 (Mr. Parikh, Meta's then-Vice President of Engineering, noted that "Instagram was sortof [sic] the same way."); *see* PX6021, Parikh (Meta) IH Tr., at 22:19-25. Currently, Snap operates using a multi-cloud infrastructure using both AWS and Google Cloud Platform (GCP), to host about 750 million monthly active users and perceives no upper limit on the number of users it can support on its current architecture. [redacted]; PX9001, Bray Report at ¶ 149 n.165.

<u>Meta Response</u>: Disputed in part. Undisputed that Snapchat launched its application on Google's App Engine [redacted]. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because [redacted] the benefits that Instagram received from having access to Meta's infrastructure. *See* Ex. 5 at ¶¶ 309-322 (Nieh Rep.). For example, [redacted] *Id.* at ¶ 311. [redacted] *Id.* at ¶¶ 314-315. [redacted]

[redacted] *Id.* at ¶ 317. [redacted] *Id.* at ¶ 319. By having access to Meta's infrastructure, "Instagram . . . [redacted]." *Id.* at ¶ 322.

2299. Pinterest launched in 2009 on AWS and continues to rely exclusively on AWS infrastructure. PX6083, Roberts (Pinterest) Dep. Tr., at 363:11-364:8. By 2014, Pinterest scaled to over 200 million users and 2 billion "boards" and 450 million users and 300 billion "pins" by 2022, supported [redacted] by AWS. PX9001, Bray Report at ¶ 149 & nn.167-68.

Meta Response: Disputed in part. Undisputed that Pinterest launched in 2009 using AWS and has scaled since it launched. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because Pinterest's experience demonstrates the significant benefits Instagram enjoyed by relying on Meta's infrastructure as compared to alternative approaches. *See* Ex. 5 at ¶ 352 (Nieh Rep.) ("Pinterest's experience shows how difficult it was to scale during the particularly critical 2012 period, and contradicts Mr. Bray's claim that this could be accomplished readily using marketplace offerings, including AWS, and how this success was far from certain. Pinterest's experience further illustrates the risks of being locked-in to a single cloud provider.").

2300. LinkedIn was launched in 2003, before public cloud providers were commercially available. PX9001, Bray Report at ¶ 149 & n.182. It currently operates within four data centers, which it leases from different providers. [redacted]. In 2015, prior to being acquired by Microsoft, LinkedIn scaled to 350 million users. PX14779 at -001, Josh Clemm, *A Brief History of Scaling LinkedIn*, LinkedIn Engineering (July 20, 2015), https://engineering.linkedin.com/architecture/brief-history-scaling-linkedin.

Meta Response: Disputed in part. Undisputed that LinkedIn launched in 2003 using its own data centers [redacted]. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because LinkedIn's experience demonstrates the significant benefits Instagram enjoyed by relying on Meta's infrastructure as compared to alternative approaches. *See* Ex. 5 at ¶ 346 (Nieh Rep.) ("[redacted] for similar reasons as Meta [redacted]

[redacted] as is the case with Meta [and] Instagram.”).

2301. Netflix, in 2008 began migrating from its own data centers to AWS and grew “by three orders of magnitude in eight years.” PX9001, Bray Report at ¶ 149 & n.172. Today, Netflix still runs on AWS and has grown to more than 200 million members in more than 190 countries streaming 125 million hours per day. PX9001, Bray Report at ¶ 149 & nn.177, 178.

Meta Response: Disputed in part. Undisputed that Netflix began migrating to AWS data centers in 2008 and that Netflix has grown in members and streaming hours globally since 2008. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 2277. Further disputed because Netflix’s experience demonstrates the significant benefits Instagram enjoyed by relying on Meta’s infrastructure as compared to alternative approaches. *See* Ex. 5 at ¶ 341 (Nieh Rep.) (“Although Netflix appears to have scaled its backend services on AWS, it does not use AWS for video delivery. The actual video content is delivered using Netflix’s own custom hardware and software infrastructure around the world connected via its own network backbone, not using public cloud infrastructure. The experience of Netflix with respect to its CDN demonstrates that . . . there are considerable benefits of owning and operating one’s own CDN above and beyond relying on third-party providers, particularly when it is a critical component to the application, as is the case with both Instagram and WhatsApp.”). Further disputed because the cited evidence does not establish that Netflix grew because of its migration to AWS. On the contrary,

Netflix does not use AWS (or any third party) for a key component of its infrastructure, its content delivery network, which it built in 2011. *See id.* at ¶¶ 337-339.

2302. Spotify was founded in 2006 and launched two years later using its own data center. PX9001, Bray Report at ¶ 149 nn.194-195. [redacted] In that time Spotify more than doubled its paid subscription users, going from 60 million to 140 million by the close of 2017. PX9001, Bray Report at ¶ 149 & n.200.

Meta Response: Disputed in part. Undisputed that Spotify launched using its own data centers, that Spotify migrated to GCP in 2017, and that Spotify has grown its user base since launch. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because Spotify's experience demonstrates the significant benefits Instagram enjoyed by relying on Meta's infrastructure as compared to alternative approaches. *See* Ex. 5 at ¶ 362 (Nieh Rep.) ("Spotify recognized the advantages of scaling on its own infrastructure instead of using the public cloud, but encountered various difficulties trying to continue to do so, causing it to have to fall back to using third-party cloud infrastructure. Instagram . . . avoided this risk by taking advantage of Meta's already proven ability to scale its infrastructure. Meta provided Instagram . . . all of the benefits that motivated Spotify's outsourcing of its infrastructure to cloud providers, but for much lower cost. Instagram . . . also avoided or mitigated the risk of being locked into a cloud provider.").

2303. TikTok has grown to hundreds of millions of users worldwide, relying on a combination of its own data centers and cloud providers. PX9001, Bray Report at ¶ 149 & nn. 207-

208. TikTok currently routes its United States user traffic through Oracle's cloud platform, [redacted]. PX6097, Presser (TikTok) Dep. Tr., at 239:16-19, 243:14-19.

Meta Response: Disputed in part. Undisputed that [redacted] and that [redacted]. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed because [redacted], and therefore has no bearing on the infrastructure options available to Instagram at the time of the acquisition. *See* Ex. 5 at ¶ 354 (Nieh Rep.).

d) Instagram had access to engineering expertise, which would have further helped Instagram scale absent the acquisition and which did not require Meta's acquisition.

2304. Under the acquisition agreement, Instagram was not permitted to hire any new employees without written approval from Meta until the acquisition closed. *See* PX3525, Meta document: "Action by Written Consent of the Stockholders of Instagram, Inc." (Apr. 20, 2012), FB_FTC_CID_08938535, at -568-569 (§ 4.2 Restrictions on Conduct of Business of the Company, subsection (e) Employees: Consultants; Independent Contractors: Instagram "shall not . . . (except as expressly provided otherwise in this Agreement or as consented to in writing by the Acquirer) . . . (i) Hire any additional officers or other employees, or any consultants or independent contractors").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277.

2305. Instagram had access to the resources and expertise it needed to continue growing absent the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Extensive evidence shows that Instagram benefited from having access to Meta's specialized expertise. *See*, *e.g.*, Ex. 5 at ¶¶ 135-136 (Nieh Rep.) (explaining how Instagram benefited from having access to Meta's in-house expertise in Hive, a data warehouse developed by Meta).

a. Instagram need not have been acquired by Meta to continue hiring experts with the key skills it needed. PX9001, Bray Report at ¶¶ 289-304.

Meta Response: Disputed in part. Undisputed that Instagram may have been able to hire some skilled employees absent the acquisition. Disputed for the reasons stated above in Meta's response to paragraph 2305.

b. Instagram's investors put them in contact with specialized expertise or provided that expertise themselves. *See, e.g.*, PX3526, Instagram email: [redacted] (Sequoia Capital) to K. Systrom, et al. re: "introduction" (Jan. 23, 2012), FB_FTC_CID_08717370, at -370. For example, Meta's former Chief Technology Officer and Instagram investor, [redacted] offered his expertise and assistance to Instagram. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 25:4-18; *see also* PX6015, Krieger (Meta/Instagram) IH Tr., at 64:4-9, 133:24-134:7.

Meta Response: Disputed in part. Undisputed that some of Instagram's investors helped Instagram obtain expertise. Disputed for the reasons stated above in Meta's response to paragraph 2305.

c. Instagram need not have been acquired by Meta to take advantage of third-party consulting services, as it had been doing prior to the acquisition. PX6015, Krieger (Meta/Instagram) IH Tr., at 138:14-25 ("We engaged a consultant around our scaling our Postgres -- PostgreSQL databases. They were called PG experts, and they were very helpful in . . . optimizing the use of []our databases.").

Meta Response: Disputed in part. Undisputed that Instagram hired third-party consulting services prior to the acquisition. Disputed for the reasons stated above in Meta's response to paragraph 2305.

d. Instagram need not have been acquired by Meta to take advantage of expertise in-house at cloud providers. PX6067, Greenfield (Google Cloud) Dep. Tr., at 73:1-6 ("Rather than hiring experts to manage your service for you, we will run that service for you. And we have a number of examples of that across our portfolio, especially both in the Software as a Service and Platform as a service space."); *id.* at 325:3-326:15 (describing a technical account manager as "a consultant you would hire from Google to work with you to represent your issues and raise issues with your account to the rest of Google"); PX6136, Bennett (Amazon) Dep. Tr., at 83:12- 84:10 (describing Amazon's managed services as "we're doing some of the quote-unquote, undifferentiated heavy lifting to support our customers so they don't have to manage it."); PX6161, Jain (Snap) Dep. Tr., at 84:17-85:5 ("[W]e

have access to engineers from [Google Cloud and AWS] to be able to solve our problems.”).

Meta Response: Disputed in part. Undisputed that, in 2024, AWS, Google, [redacted] offer managed services. Disputed for the reasons stated above in Meta’s response to paragraph 2305.

2306. Instagram did not need to be acquired by Meta to continue hiring employees, as it had access to venture capital funding, investor connections, and technology recruiters.

Meta Response: Disputed in part. Undisputed that Instagram may have been able to hire some additional employees absent the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 2277. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Instagram would have been able to continue hiring all the employees it needed, particularly engineers. Evidence shows that, before the acquisition, Instagram was struggling to hire the engineers it needed. *See* Ex. 5 at ¶ 99 (Nieh Rep.) (“According to Mr. Krieger, Instagram also was ‘underwater’ from an engineering resources perspective, and it ‘is very hard to scale it with just the small team we had.’ Mr. Krieger referred to this condition as the ‘recruiting cycle of death,’ which he explains ‘as a negative feedback cycle where you’re not able to keep pace — you’re not able to scale the team. And because you’re not able to scale the team, your existing work keeps getting harder.’” (citations omitted)).

a. Prior to the acquisition, the Instagram founders planned to use their $50 million series B funding to hire more employees. PX6146, Krieger (Meta/Instagram)

Dep. Tr., at 20:22-21:9; PX6027, Systrom (Meta/Instagram) IH Tr., at 108:21-109:4. Instagram was in the process of implementing that plan—having hired two new engineers shortly before the acquisition, and retained a recruiting firm that lists Meta and many other tech firms as clients. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 21:18-22:12; PX9001, Bray Report at ¶ 297 & nn. 482-484.

Meta Response: Disputed in part. Undisputed that Instagram intended to hire more employees prior to the acquisition and that Instagram hired two engineers shortly before the close of the acquisition. Disputed for the reasons stated above in Meta's response to paragraph 2306.

b. Instagram also had access to hiring assistance from its venture capital investors. *See, e.g.*, PX6147, Krieger (Meta/Instagram) Dep. Tr., at 435:12-436:5 (noting "[redacted] was helpful in one or two cases," and "we received some helpful recruiting support from Greylock . . . they had . . . built out an internal recruiting function to their venture fund").

Meta Response: Disputed in part. Undisputed that Instagram received some hiring assistance from its venture capital investors. Disputed for the reasons stated above in Meta's response to paragraph 2306.

c. Before being acquired by Meta, Instagram had access to the same technology recruiting firms that Meta uses. PX3527, Meta email: K. Systrom to [redacted] (Me.com) (July 11, 2011), FB_FTC_CID_02979860, at -860 ("We actually just hired a [recruiting] firm [Connery Consulting] to come on full time"); PX0670 at -002, -004, -011-012, *Clients*, Connery Consulting,

https://www.conneryconsulting.com/clients/ (listing Facebook, Twitter, Uber, FourSquare, Airbnb, and many others as clients) (last visited July 17, 2023).

Meta Response: Disputed in part. Undisputed that Instagram used a recruiting firm prior to the acquisition. Disputed for the reasons stated above in Meta's response to paragraph 2306. Further disputed because the statement is misleading. Mr. Krieger testified that prior to the acquisition, Instagram had "hired both the – a first-party recruiter and a third party recruiting firm, neither of which really yielded the kind of hiring that we were looking for." PX6147 at 435:8-11 (Krieger Dep. Tr.).

2307. After the acquisition, Instagram used this access to continue to independently recruit and hire engineers. PX11032, Meta email chain: K. Systrom to M. Schroepfer re: "Summary of IG incremental 45 heads plan," (June 22, 2016), FB_FTC_CID_06207799, at -800 ("We will use our IG-dedicated recruiters (we have a few) to manage this process. We will run our typical loops and manage the candidates throughout the process as we do when we find specialists for IG—all while keeping the hiring bar extremely high."). It was at times easier for Instagram to hire through its own efforts than through Meta's boot camp process. PX6133, Systrom (Meta/Instagram) Dep. Tr., at 104:10-105:12 (discussing PX15226, Meta email chain: K. Systrom to [redacted], et al. re: "Headcount++," (May 30, 2017), FB_FTC_CID_02603178).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the phrase "independently recruit and hire" is vague and undefined in the post-acquisition context. Contrary to the FTC's implied assertion, the statement

confirms that Meta helped Instagram hire employees. Even if it were "at times easier for Instagram to hire through its own efforts than through Meta's boot camp process," that necessarily establishes that in other instances Instagram benefited from Meta's boot camp process. To the extent the statement suggests that Instagram could have hired employees at the same level absent the acquisition, that claim is purely speculative as stated above in Meta's response to paragraph 2306.

2308. Instagram's founders confirmed that Instagram would have been able to hire the employees that Instagram needed and would have hired more employees had Instagram not been acquired. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 20:9-14, 21:10-25, 23:20-25, 62:24-63:6, 146:19-24; PX6027, Systrom (Meta/Instagram) IH Tr., at 232:25-233:19.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277 and because the evidence cited does not support the statements in this paragraph, for the reasons stated above in Meta's responses to paragraphs 2306 and 2307.

2. Meta did not contemplate migrating Instagram to its infrastructure at the time of the acquisition, and while Meta has provided little to no support for its claims, Instagram would have been able to achieve the claimed benefits without Meta's infrastructure.

a) Before and after the acquisition's close, Meta made no plans to move Instagram onto Meta infrastructure.

2309. Meta made no specific plans to move Instagram onto Meta infrastructure before the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the term "specific plans" is

vague and undefined. Evidence shows that prior to the acquisition, Instagram and Meta anticipated benefits from migrating Instagram to Meta's infrastructure. *See* PX6146 at 270:22-271:5 (Krieger Dep. Tr.) ("The appeal on the engineering side was they had built an engineering culture that I was familiar with through their open-source project, through their public communication, and blog posts. . . . And [Facebook] itself had sort of succeeded where Myspace had not in some part due to its infrastructure and the ability to scale up."); Ex. 5 at ¶ 116 (Nieh Rep.) ("According to Mr. Krieger, one of the driving forces behind Instagram's decision to merge with Meta was the ability to use Meta's infrastructure to solve Instagram's scaling issues and its problems with AWS.").

a. When asked whether "Instagram provided Meta with any information related to its infrastructure prior to the acquisition announcement in April of 2012," Mr. Krieger testified that he provided "[a]t most a sort of high-level view of the fact that we were on AWS and then a -- I recall putting together a list of open-sourced technologies that we used as part of the diligence on the deal." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 74:11-75:1.

   Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2309.

b. When asked whether he considered migrating to Meta's infrastructure before the acquisition, Mike Krieger testified he did "not recall having sort of made either a decision or really explored it deeply before the -- before the close." *Id.* at 274:4-12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed because the FTC's characterization of Mr. Krieger's testimony is incomplete and misleading. Evidence shows that prior to the acquisition Mr. Krieger anticipated the benefits of migrating to Meta's infrastructure. *See* PX6146 at 270:22-271:5 (Krieger Dep. Tr.) ("The appeal on the engineering side was they had built an engineering culture that I was familiar with through their open-source project, through their public communication, and blog posts. . . . And [Facebook] itself had sort of succeeded where Myspace had not in some part due to its infrastructure and the ability to scale up."). Further disputed for the reasons stated above in Meta's response to paragraph 2309.

c. On April 16, 2012, Dave Ebersman, then Meta's CFO, wrote: "I think we should not waste any time discussing moving them to our infrastructure in 2012." PX3528, Meta email chain: D. Ebersman to D. Levy, et al. re: "Instagram capex," (Apr. 16, 2012), FB_FTC_CID_01545019, at -019.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2309. Further disputed that this statement supports the FTC's assertion that "Meta made no specific plans to move Instagram onto Meta infrastructure before the acquisition." Evidence shows that Instagram migrated some portions of its infrastructure immediately after acquisition, and other portions on a longer timeline due to various considerations, such as to reduce operational complexity and to allow Instagram's engineers to focus on product development. *See* Ex. 5 at ¶ 119 (Nieh Rep.); PX6146 at 80:14-81:2 (Krieger Dep. Tr.) ("One of the goals of

Instagration was, in terms of our actual stack, make fairly minimal changes between our – how we operate on AWS and how we operated at Facebook. . . . So rather than change where we were hosted and also change our stack, let's, first, deal with the hosting question and then we can think about, you know – and we did over time – do things like replace our use of Memcached operated by Instagram to moving more to Facebook's caching tier, for example."); Ex. 156 at 99:23-100:12 (Shortway Dep. Tr.) ("We didn't change the serving stack to start because we knew we had a lot of launches that were happening during the time, video direct, et cetera. We didn't want to block . . . engineers from getting their work done too. So we tried to make the whole thing transparent. The plan was to make it so that . . . the team didn't even notice that we migrated other than noticing that the servers were a lot more cooled down and – and worked a lot better in general. The – the opportunistic migrations to migrate to Facebook services after that were – were all taken one by one as we – as we found them to be useful.").

2310. Meta had no immediate plans to move Instagram onto Meta infrastructure after the acquisition closed.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Evidence shows that almost immediately following the acquisition, Instagram began integrating with some of Meta's infrastructure services, *see* Ex. 5 at ¶¶ 120-147 (Nieh Rep.) (discussing

Instagram's initial migrations to Meta's infrastructure and the corresponding benefits), and completed the full migration incrementally to balance various objectives, including to reduce operational complexity and to allow Instagram's limited number of engineers to focus on product development. *See id.* at ¶ 119; PX6146 at 80:14-81:2 (Krieger Dep. Tr.) ("One of the goals of Instagration was, in terms of our actual stack, make fairly minimal changes between our – how we operate on AWS and how we operated at Facebook. . . . So rather than change where we were hosted and also change our stack, let's, first, deal with the hosting question and then we can think about, you know – and we did over time – do things like replace our use of Memcached operated by Instagram to moving more to Facebook's caching tier, for example."); Ex. 156 at 99:23-100:12 (Shortway Dep. Tr.) ("We didn't change the serving stack to start because we knew we had a lot of launches that were happening during the time, video direct, et cetera. We didn't want to block . . . engineers from getting their work done too. So we tried to make the whole thing transparent. The plan was to make it so that . . . the team didn't even notice that we migrated other than noticing that the servers were a lot more cooled down and – and worked a lot better in general. The – the opportunistic migrations to migrate to Facebook services after that were – were all taken one by one as we – as we found them to be useful.").

a. The Instagram team did not start working at Meta until "somewhere around September 9th" 2012, after the acquisition closed on August 31, 2012. PX15544 at -008-09, Meta Obj. & Resp. to FTC Request for Admission No. 18 (May 5, 2023) (Meta confirming that Facebook's acquisition of Instagram closed on August 31, 2012); PX6037, Toffey (Meta) Dep. Tr., at 91:19-25.

Meta Response: Disputed in part. Undisputed that the Instagram team started working at Meta shortly after the acquisition closed. Disputed for the reasons stated above in Meta's response to paragraph 2310. The cited testimony does not support the statement that "Meta had no immediate plans to move Instagram onto Meta infrastructure after the acquisition closed"; it shows that the Instagram team started working at Meta roughly a week after the acquisition closed.

b. In September 2012, Mr. Zuckerberg described the "gameplan" for the Instagram acquisition, saying:

> We want to help them out with whatever we can but we have no agenda in terms of making them go onto our infrastructure or something. A lot of times companies force companies that they're integrating to do stuff like that. I think that is primarily a waste of time; we're not going to do any of that.

PX15178, *TechCrunch Disrupt Fireside Chat with Facebook Founder and CEO Mark Zuckerberg*, YouTube, (Sept. 11, 2012), at 20:39-21:13, https://www.youtube.com/watch?v=o2wPzjH2xwA&list=PLHRxVckaE8daTWvm6ZJcP9nPYCKd1NY5p&index=8.

Meta Response: Disputed in part. Undisputed that cited video contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2310.

c. According to Mike Krieger, Instagram did not start planning for the integration into Meta's infrastructure until after the acquisition's close "and not for several months, if not a year-plus after the close is when we started thinking about and planning it." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 77:13-18.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2310. Further disputed because the FTC's characterization of Mr. Krieger's testimony is incomplete and misleading. Mr. Krieger's quoted testimony relates to "Instagration," which was Instagram's migration from AWS's data centers to Meta's data centers. *See* PX6146 at 77:13-18 (Mr. Krieger responding to the question: "And when did planning for Instagration start?"); Ex. 5 at ¶ 148 (Nieh Rep.). Prior to Instagration, Instagram had already integrated with some of Meta's infrastructure services. *See* Ex. 5 at ¶ 120 (Nieh Rep.) ("Instagram began integrating with some of Meta's infrastructure services almost immediately following the acquisition.").

d. In February 2013, Meta was still assessing whether it would "actually benefit us to move [Instagram] off of AWS." PX3529, Meta email chain: [redacted] to J. Parikh, et al. re: "Infra Financials Review" (Feb. 8, 2013), FB_FTC_CID_09700046, at -046.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2310. Further disputed because the FTC's characterization of the document is incomplete and misleading. The cited document is an infrastructure "[f]inancials [r]eview"; it is not a document assessing whether there were benefits to Instagram of migrating Instagram off AWS.

2311. [Intentionally Left Blank]

b) The infrastructure that Instagram had been using before migrating was capable of supporting Instagram's scaling needs and was often better performing than Meta's infrastructure.

2312. The infrastructure that Instagram had been using before migrating was capable of supporting Instagram's scaling needs, and was often better performing than Meta's infrastructure. *Infra* CMF at ¶¶ 2313-46.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2313-2346, Meta incorporates its responses to those statements here.

2313. "Instagram was well-positioned to continue using the options it had been relying on before the acquisition, and it is reasonable to expect that it would have continued to do so or would have used available alternatives to improve its user experience." PX9001, Bray Report at ¶ 152.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the quoted opinion in Mr. Bray's report cites no supporting evidence.

(1) Instagram's pre-acquisition media storage provided better reliability and performance than Meta's media service.

2314. Instagram's pre-acquisition media storage provided better reliability and performance than Meta's media service. *Infra* CMF at ¶¶ 2315-21.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and

therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2315-2321, Meta incorporates its responses to those statements here.

2315. Prior to the acquisition, Instagram used Amazon's S3 for storing media, such as photos or videos. PX9001, Bray Report at ¶ 118.

Meta Response: Disputed in part. Undisputed that Instagram used Amazon's S3 for storing media prior to the acquisition. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the cited evidence does not support the statement that Instagram used S3 to store *videos* prior to the acquisition. Instagram released its first video product after the acquisition. *See* Ex. 5 at ¶ 201 (Nieh Rep.).

2316. Instagram's pre-acquisition media storage service, AWS S3, was extremely reliable and high performing.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The cited evidence also does not establish that Instagram could have received the same benefits from Amazon's S3 as it did from adopting Everstore. *See* Ex. 5 at ¶¶ 159-162 (Nieh Rep.) (explaining how "Instagram received numerous benefits from Everstore compared to S3").

a. S3 is widely regarded across the industry as one of the safest places that data can be stored. PX9011, Bray Rebuttal Report at ¶ 240 ("Since S3's launch in 2006, reliable reports of S3 losing data are nonexistent.") (internal quotes omitted).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2316. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact, because the cited paragraph in Mr. Bray's report does not cite any evidence that supports the quoted language. The blog post that Mr. Bray cites, which is titled "S3's Durability Guarantees Aren't What You Think," explains that although AWS claimed that S3 has high durability, "disasters aren't included in the calculation of S3's durability." *See* Ex. 531 at 3 (Last Week in AWS, *S3's Durability Guarantees Aren't What You Think*, https://perma.cc/CAA3-JQLV?type=standard). The author further cautions that "using S3 doesn't remove the need for backups." *Id.*

b. In December 2012, Instagram engineer Rick Branson noted S3's strong performance: "Performance-wise, S3 has been very solid, and we'd like to keep our 99.8% latency at somewhere in the ballpark of ~25ms." PX3530, Meta email chain: R. Branson to [redacted], et al. re: "Some Infra Cost Q's," (Dec. 11, 2012), FTC-META-002710290, at -290.

Meta Response: Undisputed that the document contains the quoted language.

2317. About a year and a half after the acquisition, from April to May 2014, Instagram migrated to using Meta's Everstore for storing new photos and video. PX11059, Meta email: [redacted] to J. Parikh re: "Instagration: 04-23-2014 Report," (Apr. 26, 2014),

FTC-META-003085514, at -514 (Internal post titled "Instagration: 04-23-2014 Report") ("As of 4/21, we're at 35% of IG photos being read from Everstore . . . ."); PX9001, Bray Report at ¶ 122, n.114. Between 2015 and 2016, Meta moved Instagram's older media from S3 to Everstore. PX6055, Shortway (Meta) Dep. Tr., at 56:11-16.

Meta Response: Undisputed.

2318. Instagram experienced superior performance and reliability on AWS S3 compared to Meta's media storage service, Everstore.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Conversely, extensive evidence shows that Instagram received performance, reliability, and cost-performance benefits as a result of migrating from S3 to Everstore. *See* Ex. 5 at ¶¶ 159-162 (Nieh Rep.); Ex. 289 at 76:1-6 (Bray Dep. Tr.) ("In the course of my history in the extremely competitive fast-moving, high-tech domain, the overwhelming reason why you introduce new infrastructures is usual – is to improve user experience. That is really the reason we do these things.").

a. An internal Meta email from the software engineering manager for Everstore indicated that S3 was easier to use and perceived as more reliable than Everstore PX6088, Janardhan (Meta) Dep. Tr., at 77:11-13; PX13039, Email from [redacted] to J. Parikh re: "everstore for Instagram?" (Apr. 29, 2014), FTC-META-011044108, at -108 ("My worry is much more around reliability/SEVs. The general sense I got from the Instagram folks is that S3 gave them little operational

trouble (it just works). I don't have concrete data but no one ever described any Facebook system as 'it just works'").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2318. Further disputed because the FTC's characterization of the cited evidence is incomplete and misleading. The cited email chain is from April 2014, prior to Instagram completing its migration to Everstore, and thus discusses performance during the process of migrating Instagram to Everstore and does not bear on whether, once completed, that migration benefited Instagram. *See* PX13039 (FTC-META-011044108). Meta made certain modifications to Everstore to optimize its performance for Instagram, which improved Instagram's performance on Everstore. *See* Ex. 5 at ¶ 160 (Nieh Rep.). Further disputed that the cited evidence supports the statement in paragraph 2318. On the contrary, the cited document establishes that "[f]or Photo, Everstore performs much better than s3," and that for video, Everstore and S3 were "in the same ballpark." PX13039 at -108 (FTC-META-011044108). The cited document also details Meta's continued efforts to improve Everstore's performance for Instagram. *Id.* (explaining that Meta "improved latency significantly," and that for video reads, Meta was in the process of working on "around ~300ms of latency we can improve at the web layer").

b. Meta internal data showed that S3 had better performance for video write times than did Everstore. PX13039, Email from [redacted] to J. Parikh re: "everstore for Instagram?" (Apr. 29, 2014), FTC-META-011044108, at -108. Upon migrating Instagram's existing media to Everstore, Instagram found that its users were

experiencing increased latency when trying to upload photos and videos. PX3495, Meta Workplace Post: P. Bozeman post to Instagration, (Feb. 10, 2014), FTC-META-012220245, at -245 ("Upload latencies are worse than what we are used to with s3, but not so bad that we will turn things back off."); PX3416, Meta messages: [redacted] to [redacted], et al. (Feb. 18, 2018), FB_FTC_CID_07715859, at -860 ("The IG team is seeing unacceptably high latency on writes, and this is affecting user interactions. We need to debug this in order for Instagram to be able to use Everstore for its video storage. Right now, the claim is that the application is seeing 3 to 4 seconds of latency whereas [AWS] S3 sees sub second latencies for a write success of 15s (max) videos."); PX3496, Meta Workplace Post: [redacted] post to Instagration, (Feb. 12, 2014), FTC-META-012220243, at -243 ("We had a convo about using blob/everstore to serve IG videos. There was some concern about performance. . . .The read data looks good, but the write times seem to be not fast enough.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2318. Further disputed because the cited evidence does not support the statements in this subparagraph. The cited document establishes that "[f]or Photo, Everstore performs much better than s3," and that for video, Everstore and S3 were "in the same ballpark." PX13039 at -108 (FTC-META-011044108). The cited document also details Meta's continued efforts to improve Everstore's performance for Instagram. *Id.* (explaining that Meta "improved latency significantly," and that for video reads, Meta was in the process of working on "around ~300ms of latency we can improve at the web layer").

The cited evidence also does not support the statement that "[u]pon migrating Instagram's existing media to Everstore, Instagram found that its users were experiencing increased latency when trying to upload photos and videos." The FTC cites three documents from February 2014 to support this statement, all of which pre-date Instagram's migration to Everstore, and thus do not bear on whether, once completed, the migration to Everstore benefited Instagram. *See* Meta Resp. to Counter SMF ¶ 2317 ("About a year and a half after the acquisition, from April to May 2014, Instagram migrated to using Meta's Everstore for storing new photos and video.").

c. In an example of Everstore's reliability challenges, it experienced an outage in 2013 where users were unable to upload photos for six hours; Instagram engineer Nick Shortway's response was to say, "maybe they should move to s3 ;)." PX3531, Meta messages: N. Shortway to M. Krieger, et al. (Apr. 28, 2013), FB_FTC_CID_12203126, at -129.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2318. Further disputed because the cited evidence does not support the statements in this subparagraph. The cited document is from 2013, approximately a year before Instagram migrated to Everstore, and thus does not bear on whether, once completed, the migration to Everstore benefited Instagram. Further, outages are expected in any complex infrastructure systems. *See* PX9001 at ¶ 143 (Bray Rep.) (explaining that "[o]utages, even serious ones, are to be expected given the complexities of the infrastructure supporting online

products"). AWS's S3 has suffered significant outages. *See*, *e.g.*, Ex. 532 (Forbes, *Amazon S3 Outage Has Broken a Large Chunk of the Internet*).

d. At the time of the migration, Everstore was struggling with issues related to storing insufficient copies of uploaded files. PX3532, Meta Workplace Post: Post [redacted] post to Infrastructure FYI, (Mar. 25, 2013), FTC-META-002978461, at -461-62. ("Durability: We have made huge progress on this front. Every piece of content should normally have 3 copies [sic] However, for various reasons (transient/permanent), they can have fewer copies so we focused on finding the reasons and fixing those issues. For photos, percentage of content with 2 copies (Jan: 9.2%, June: 2.6%, Nov: 0.5%) For Videos: percentage of content with 2 copies (August: 15%, Dec: 0.63%) For Videos: percentage of content with 1 copy! (August: 0.75%, Dec: 0%).").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2318. Further disputed because the cited evidence does not support the statements in this subparagraph or paragraph 2318. The cited document is from March 2013, which is approximately a year before Instagram migrated to Everstore, and thus does not bear on whether, once completed, that migration benefited Instagram. Further, the cited document establishes that "[i]n the last 6 months, the key improvements" to Everstore included "ma[king] huge progress" on durability by fixing instances where content did not have three copies. PX3532 at -461-462 (FTC-META-002978461).

e. Meta was prepared to move Instagram uploads back to S3 in the event that Everstore had capacity issues. PX3533, Meta Workplace Post: R. Branson post to

Instagration, (Feb. 4, 2013), FTC-META-012220336, at -337 ("We should also be able to switch back to S3 in a pinch . . . I am 100% confident we can rely on Everstore, but it's relatively trivial to switch new photo writes back to S3 temporarily if there are capacity issues.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2318. Further disputed because the cited evidence does not support the FTC's statement in paragraph 2318. The cited document discusses Instagram's plan for migrating to Everstore and does not bear on whether, once completed, that migration benefited Instagram.

2319. Instagram needed to devote engineering effort to Everstore to match S3's performance and prevent the worsening of Instagram's user experience. As Mr. Krieger put it, "there were a set of changes that they made and performance improvements that we kind of helped drive, knowing what we knew from S3, to make it as sort of useful and -- and as performant as S3 was." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 307:14-17.

Meta Response: Disputed in part. Undisputed that Meta dedicated engineering effort and other resources to Everstore, and that Instagram benefited as a result. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph.

a. In February 2014, Meta's [redacted] emailed Patrick Bozeman, former director of engineering at Instagram, to say, "I think we should honestly and

openly talk to them about how to handle the IG use case in Everstore/Haystack and push on the kinds of things we are getting in S3 without even worrying about it." PX3534, Meta email: [redacted] to P. Bozeman re: "Everstore Team Info," Feb. 22, 2014), FTC-META-000060750, at -750.

Meta Response: Undisputed that the document contains the quoted language.

b. Meta needed to improve Everstore's "write latency" by 80% "so that it would be as fast as S3." PX10883, Meta document: "Mike Krieger Self-Review," (July 16, 2014), FB_FTC_CID_08939436, at -436 ("[W]orking with Everstore, we got their write latency down 80% so that it would be as fast as S3.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the document does not support the claim that Everstore had lower performance than S3. Everstore was designed for Facebook, and before Meta migrated Instagram to Everstore modifications were made to meet Instagram's needs so that Everstore could provide the same or better performance for Instagram as S3. *See* Ex. 5 at ¶¶ 159-162 (Nieh Rep.).

2320. Instagram had a number of other viable and scalable third-party media storage options if, absent the acquisition, it had opted to change from S3.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the

subparagraphs below does not support the statement in this paragraph. Further, even if Instagram could have adopted an alternative media storage service, it is purely speculative that Instagram would have received superior benefits from an alternative media storage service than it received from Everstore. Conversely, extensive evidence shows that Instagram received unique benefits from adopting Everstore. *See* Ex. 5 at ¶¶ 159-162 (Nieh Rep.).

a. Mr. Acton described the media storage options offered by AWS, Google, and Microsoft as all "viable alternatives to Everstore." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 277:5-19 ("Q. Are the storage services that you gave examples of -- Amazon and Google and potentially Microsoft -- are those services scaleable? A. Yes. And they're viable alternatives to EverStore.").

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2320. Further disputed because the FTC's characterization of Mr. Acton's testimony is incomplete and misleading. Mr. Acton was not familiar with Microsoft's media storage service. When asked whether Microsoft offered such a service, Mr. Acton stated: "I think they do. I would be hard-pressed to know it by name." PX6086, at 277:11-14 (Acton Dep. Tr.). Further disputed that this testimony supports the statement in paragraph 2320. Mr. Acton's testimony discusses the available media storage services as of April 2023 (the time of his deposition), not as of the time Instagram decided to migrate to Everstore in 2013. *See id.* at 277:5-19. Evidence shows that Google and Microsoft did not offer viable media storage options at the time Instagram migrated to Everstore. *See*

Ex. 5 at ¶ 162 n.387 (Nieh Rep.). Mr. Acton elsewhere testified that Everstore "was a unique piece of software that we were able to leverage" and he "wasn't really aware of anything available in the industry or in open source" that was comparable. Ex. 314 at 196:20-24 (Acton IH Tr.).

b. Many other technology companies have scaled using media storage other than Meta's Everstore, including LinkedIn, TikTok, Reddit, and Netflix. PX6090, Pinto (LinkedIn) Dep. Tr., at 23:16-24:8 (describing LinkedIn's storage systems: "you have internal systems that LinkedIn created and you also use third-party systems? A. That's right."); PX6097, Presser (TikTok) Dep. Tr., at 238:20-239:5 [redacted]; PX6115, Raymond (Reddit) Dep. Tr., at 307:5-7 ("Q. Did Reddit's -- did Reddit grow its user base while using Amazon's S3 storage? A Yes."); *see* PX0673, *MezzFS – Mounting object storage in Netflix's media platform*, Netflix Technology Blog, (Mar. 6, 2019), https://netflixtechblog.com/mezzfs-mounting-object-storage-innetflixs-media-processing-platform-cda01c446ba.

Meta Response: Disputed in part. Undisputed that other technology companies use media storage other than Meta's Everstore. Disputed for the reasons stated above in Meta's response to paragraph 2320. Further disputed that this statement supports the statement in paragraph 2320. Even if Instagram could have adopted these alternative media storage services, it is purely speculative that the

alternatives would have provided viable and scalable solutions to Instagram. The cited evidence does not indicate when these claimed alternatives were available, or what their capabilities and costs were at various points in time.

c. Meta itself scaled on storage other than Everstore until 2011. PX6061, Parikh (Meta) Dep. Tr., at 67:19-68:10 ("Q. Was Meta operating entirely through storage infrastructure that it owned and operated in 2011? A. It was in transition. There was some more conventional -- as we talked about earlier, conventional storage, having bought from third parties big storage appliances. And there was some storage that was growing and we were investing in building out that was the Facebook-designed, -built, and - operated storage.").

Meta Response: Disputed in part. Undisputed that Meta used other media storage solutions prior to developing Everstore. Disputed for the reasons stated above in Meta's response to paragraph 2320. Further disputed that the cited testimony supports the statement in this subparagraph and paragraph 2320. Meta developed and optimized Everstore for Meta's unique workloads "because traditional filesystems perform poorly under [Meta's] workload." *See* Ex. 5 at ¶ 159 (Nieh Rep.).

2321. Instagram could have scaled and continued improving its user experience without Everstore. PX9001, Bray Report at ¶ 224.

Meta Response: Disputed in part. Undisputed that Instagram could have continued to scale to some extent without adopting Everstore. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Even if Instagram could have adopted an

alternative media storage service, it is purely speculative that Instagram could have scaled more quickly, efficiently, or effectively on an alternative media storage service, or achieved greater improvements to its user experience, than Instagram did as a result of adopting Everstore. Conversely, extensive evidence shows that Instagram received unique benefits from adopting Everstore. *See* Ex. 5 at ¶¶ 159-162 (Nieh Rep.).

(2) It took years for Instagram to migrate to Meta's in-house CDN, and there is no evidence that Meta provided performance benefits that Instagram could not have achieved through alternative available solutions.

2322. Prior to the acquisition, and for months following the acquisition, Instagram used Amazon AWS's CloudFront as their Content Delivery Network ("CDN") to serve media. *See supra* CMF at ¶ 2280(f)(iii).

Meta Response: Undisputed.

2323. CloudFront was a viable option for Instagram to continue using as it scaled, as it had been performing well for Instagram.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Even if Instagram could have continued using CloudFront, it is purely speculative that Instagram would have received greater benefits from CloudFront than it did from Meta's Content Delivery Network ("CDN"). Conversely, extensive evidence shows that Instagram received performance and cost benefits from moving off of CloudFront to Meta's CDN. *See* Ex. 5 at ¶¶ 121-124, 169-172 (Nieh Rep.) (describing how Instagram benefited from migrating off of CloudFront).

a. In October 2012, Rick Branson observed that "CloudFront is mostly something we don't spend too much time thinking about. It's very reliable and has (at least in most regions) solid performance . . . CloudFront performs well in the US & EU regions." PX3099, Meta email: R. Branson to [redacted], et al. re: "Instagram CDN," (Oct. 23, 2012), FB_FTC_CID_06403659, at -660.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2323, and because the FTC's characterization of Mr. Branson's statement is incomplete and misleading. Mr. Branson wrote: "CloudFront performs well in the US & EU regions, but leaves much to be desired elsewhere. It's also very expensive – it represents something like 40% of our infra spend at this point." PX3099 at -660 (FB_FTC_CID_06403659). Mr. Branson further explained that Instagram only used CloudFront to serve one day old images, but that "if we can make the CDN more significantly more cost effective, it might make sense to use it for a broader timeframe (say, 3d old images instead of ld?) to increase overall application performance to drive our MAU goals." *Id.* In addition, the date of the document is October 26, 2012.

b. "CloudFront has continued to expand its geographic footprint. In 2013, CloudFront had at least 49 Points of Presence; in 2023 it has over 450, and 13 regional edge caches in over 90 cities across 49 countries." PX9001, Bray Report at ¶ 208, n.328.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2323. The cited evidence does not support the statement in

paragraph 2323. The mere existence of a CDN service does not establish that it was a viable option for Instagram to continue using as it scaled.

2324. Akamai, another third-party CDN provider, was also capable of supporting Instagram's scaling, which it did following the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Even if Instagram could have continued using Akamai, it is purely speculative that Instagram would have received greater benefits from Akamai than it did from Meta's CDN. Conversely, extensive evidence shows that Instagram benefited from migrating from Akamai to Meta's CDN. *See* Ex. 5 at ¶¶ 169-172 (Nieh Rep.) (describing Instagram's decision to migrate from Akamai to Meta's CDN and the resulting benefits).

a. Instagram could have used Akamai prior to the acquisition: Akamai had been soliciting Instagram's business since 2011, stating we "have a high level of confidence in our technology, support, and pricing we will provide you an overall solution to help grow your business." PX3111, Instagram email chain: [redacted], (Akamai) to K. Systrom et al., Meta/Instagram, (May 4, 2011), ("I'm reaching out in the hopes of opening a discussion about leveraging Akamai."); *see* PX9001, Bray Report at ¶ 205 ("Akamai is a generally available commercial CDN provider.").

Meta Response: Disputed in part. Undisputed that Instagram could have used Akamai as a CDN provider prior to the acquisition. Disputed for the reasons

stated above in Meta's response to paragraph 2324. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact. Instagram did not use Akamai prior to the acquisition. Further, evidence shows that the acquisition facilitated Instagram's ability to use Akamai. *See* Ex. 5 at ¶ 124 (Nieh Rep.) ("[E]ven though Instagram's initial CDN migration relied on Akamai infrastructure to some extent, Instagram's ability to use this superior solution benefitted significantly from Meta's existing contract and discounts with Akamai, as well as from Meta's CDN engineers.").

2325. In March and April of 2013, Instagram migrated its CDN from CloudFront to Akamai. PX3536, Meta Workplace Post: M. Krieger post in Instagram Internal, (Apr. 5, 2013), FB_FTC_CID_10311221, at -221 (noting that Akamai was "serving 100% of [Instagram] traffic").

Meta Response: Undisputed.

2326. For over a year following the acquisition, Instagram used Akamai. PX3112, Meta Workplace Post: J. Parikh post to Instagram FYI (Mar. 26, 2014), FTC-META-010630523, at -826 ("One of the fastest drivers of organic CDN growth is Instagram, and they've been solely on Akamai until last week. We recently completed the integration work to support Instagram on our native FBCDN and started trickling traffic over.").

Meta Response: Undisputed.

2327. Akamai was a "strong alternative" and "independent of Meta." PX9001, Bray Report at ¶ 209; *see also* PX3535, Meta email chain: R. Branson to, [redacted] (Akamai), et al. (June 17, 2013), FTC-META-002710084, at -084 ("[W]e're really happy to be working with a CDN partner with the capacity to take on this big challenge on such short notice.").

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2277 and 2324.

2328. In March 2014, more than a year and a half after the acquisition, Instagram started its migration to Meta's in-house CDN, and the migration continued until at least November 2015. PX3112, Meta Workplace Post: J. Parikh post to Instagram FYI (Mar. 26, 2014), FTC-META-010630523, at -826 ("We recently completed the integration work to support Instagram on our native FBCDN and started trickling traffic over."). Instagram continued to use Akamai in some countries into 2017. PX3330, Meta email chain: N. Shortway to [redacted], et al. re: "Instagram/Zero-Rating Client-Side," (Aug. 11, 2016), FTC-META-000312347, at -347 ("It seems that we will be using Akamai for blocked countries (IR, etc) indefinitely. We will also be using it for the near future in Brazil and other areas not well covered by FBCDN.").

Meta Response: Undisputed.

2329. Meta has not proffered any quantitative evidence showing that its in-house CDN performs better than either of the commercial CDNs it used previously. PX9001, Bray Report at ¶ 208 ("Furthermore, Meta has not produced any evidence showing that its CDN offers qualitatively better service than those available on the commercial market."); *see also* PX9011, Bray Rebuttal Report at ¶ 187 ("None of Meta's proffered 'performance benefits' associated with its in-house CDN were unique to Meta.").

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Extensive evidence shows that Instagram benefited from

migrating to Meta's CDN. *See* Ex. 5 at ¶¶ 169-172 (Nieh Rep.) (describing Instagram's decision to migrate to Meta's CDN and the resulting benefits). In addition, the quoted language attributed to paragraph 187 of Mr. Bray's rebuttal report does not appear in that paragraph or anywhere in his rebuttal report.

2330. Instagram had several other viable and scalable third-party CDN options in addition to CloudFront and Akamai.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2277, 2323, and 2324, and because this paragraph and its subparagraphs do not indicate what the capabilities and costs of these supposed alternatives were at various points in time. The mere existence of a CDN service does not establish that it was a viable and scalable option for Instagram.

a. CDN providers Cloudflare and Fastly were also available in 2013. PX9001, Bray Report at ¶ 210, n.332.

Meta Response: Disputed in part. Undisputed that Cloudflare and Fastly offered CDN services in 2013. Disputed for the reasons stated above in Meta's response to paragraph 2330.

b. "Adopting a different third-party CDN is a relatively straightforward engineering project." PX9001, Bray Report at ¶ 210; *see also* PX3099, Meta email: R. Branson to [redacted] et al., re: "Instagram CDN," (Oct. 23, 2012), FB_FTC_CID_06403659, at -660 (Instagram engineer Rick Branson noting that changing a CDN was "an hour project (from a code perspective)").

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion, and that PX3099 contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2330.

(3) Meta's migration of Instagram to Meta's in-house graph database was not completed until four years after the acquisition, and during this time Instagram could have achieved equivalent performance in a similar timeframe.

2331. Meta's migration of Instagram to Meta's in-house graph database was not completed until four years after the acquisition, and during this time Instagram could have achieved equivalent performance in a similar timeframe. *Infra* CMF at ¶¶ 2332-37.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2332-2337, Meta incorporates its responses to those statements here.

2332. Instagram's pre-acquisition "backend software stack" included Postgres, "an open-source relational database management system," and Redis, "an open-source in-memory data storage system." PX9022, Nieh Report at ¶ 96. Instagram used PostgreSQL and Redis to store its social graph. *See* PX9001, Bray Report at ¶ 226.

Meta Response: Undisputed.

2333. Instagram was still using PostgresSQL and Redis when it scaled to 200 million users. *See* PX9001, Bray Report at ¶ 226.

Meta Response: Undisputed.

2334. Instagram experienced challenges in adopting Meta's social graph infrastructure. *See* PX9011, Bray Rebuttal Report at ¶ 278 ("The migration process necessitated building a

separate version of TAO called 'InstaTAO.' Meta's former Infrastructure Vice President David Mortenson explained that building InstaTAO allowed engineers to make changes 'to support the functionality that Instagram needed' before moving 'them over to use the regular version of TAO.'"); PX6062, Mortenson (Meta) Dep. Tr., at 123:6-22 ("[W]e had augmented TAO to support the functionality that Instagram needed . . ."); *see also* PX9011, Bray Rebuttal Report at ¶ 278 ("The fact that Meta needed to develop a customized version of TAO for Instagram is evidence that it was not optimized for Instagram's needs when it made the decision to adopt it."); PX3571, Meta Workplace Post: [redacted] post to Core Data Internal (July 16, 2016), FTC-META-002490331, at -332 ("Instagram on TAO pushed the TAO team to make considerable improvements to TAO's reliability[.]").

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited does not support the statements in this paragraph. The characterizations of Mr. Mortenson's testimony are incomplete and misleading. Mr. Mortenson's complete statement was: "[O]ne of the efforts we worked with Instagram on to help them out and allow them to move faster and build features faster is moving them to use TAO, to move – to use the graph cache and access system. As is standard and common with these kinds of large migrations, it was a multi-step process. One of the steps in that process is we provided a specific version of TAO that had some amount of what we call special casing so a specific functionality or specific behaviors for Instagram that made the migration easier. Then as is typical with these migrations, once we were able to change the business logic and work with them to

get to the point where everything was working with – either with the standard version of what we had in TAO, or we had augmented TAO to support the functionality that Instagram needed, then we moved them over to use the regular version of TAO and not a separate instance that had special casing as we said for them. That has significant benefits from a number of dimensions. One dimension is by having both Instagram and [Facebook] on the same set of servers and systems for TAO, it's much more efficient from an overall capacity needs perspective. The migration for Instagram to use TAO also was a good way for us to build some important functionality that while initially was important for Instagram, benefited [Facebook] and the rest of the family of apps over time." PX6062 at 122:24-124:8 & errata (Mortenson Dep. Tr.). Further, extensive evidence shows that adopting TAO provided Instagram numerous benefits, including improving Instagram's performance, helping Instagram scale more efficiently and effectively, and helping Instagram improve its existing features and develop new features. *See* Ex. 5 at ¶¶ 177-182 (Nieh Rep.) (describing the benefits Instagram received as a result of adopting TAO); PX9001 at ¶ 228 (Bray Rep.) (acknowledging that "[t]he benefits to developers here [as a result of Instagram adopting TAO] seem real, and it is plausible that they might have accelerated the development of certain Instagram features").

2335. Adopting TAO exposed Instagram to increased reliability risks. As TAO was one of Meta's shared "Core Data" systems, activity from Facebook's usage of TAO could overload it, disrupting Instagram's performance and reliability: "[redacted]

[redacted]" PX11042, Meta Workplace Post: [redacted] to 1:1 [redacted]/Jay, (Dec. 3. 2019), FTC-META-003086546, at -546.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited does not support the statements in this paragraph. Nothing in the cited document states that TAO exposed Instagram to increased reliability risks, or that activity from Facebook's usage of TAO could overload TAO and disrupt Instagram's performance and reliability. Further, even if TAO experienced occasional outages, it does not follow — and the FTC cites no evidence to show — that Instagram faced greater reliability risks than on its pre-TAO infrastructure. Conversely, extensive evidence shows that adopting TAO improved Instagram's reliability. *See* Ex. 5 at ¶¶ 177-182 (Nieh Rep.) (describing the benefits Instagram received as a result of adopting TAO).

2336. Instagram could have achieved the proffered performance benefits from TAO through alternatives, such as "develop[ing] its own specialized database for tracking relationships, [redacted]" without needing to have been acquired by Meta. PX9001, Bray Report at ¶ 228, n.366; PX9011, Bray Rebuttal Report at ¶ 281 ("Instagram's adoption of TAO did not provide benefits that could not have been achieved absent the acquisition.").

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the

subparagraphs below does not support the statements in this paragraph. The cited paragraphs in Mr. Bray's reports do not cite any evidence to support the statement in this paragraph. The mere existence of supposed alternatives to TAO does not establish that they were a viable option for Instagram to continue using as it scaled. This paragraph and its subparagraphs do not indicate what the capabilities and costs of these supposed alternatives were at various points in time. Even if Instagram theoretically could have adopted or developed an alternative to Meta's TAO, it is purely speculative that Instagram could have done so as quickly, reliably, or as efficiently as it adopted TAO, let alone that Instagram could have matched or exceeded TAO's performance or efficiency. Extensive evidence shows that adopting TAO provided Instagram numerous benefits, including improving Instagram's performance, helping Instagram scale more efficiently and effectively, and helping Instagram improve its existing features and develop new features. *See* PX9022 at ¶¶ 177-182 (Nieh Rep.) (describing the benefits Instagram received as a result of adopting TAO); PX9001 at ¶ 228 (Bray Rep.) (acknowledging that "[t]he benefits to developers here [as a result of Instagram adopting TAO] seem real, and it is plausible that they might have accelerated the development of certain Instagram features").

a. Meta's migration of Instagram to TAO was not completed until four years after the acquisition: Instagram started its migration to Meta's TAO in June 2015, but did not complete the migration until 2016. PX9022, Nieh Report at ¶ 178. Substantial "time and effort [was] required for Instagram to adopt TAO." PX9011, Bray Rebuttal Report at ¶ 275, n.640.

Meta Response: Disputed in part. Undisputed that Instagram began migrating to TAO in June 2015 and completed the migration in 2016. Disputed for the reasons stated above in Meta's response to paragraph 2336. It is purely speculative that Instagram could have adopted an alternative graph storage system, or developed its own graph storage system, in the time that Instagram migrated to TAO.

b. Had Instagram remained independent, "there would have been a strong incentive for it to develop its own specialized database for tracking relationships." PX9001, Bray Report at ¶ 228.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2336. Merely having an incentive to develop a complex infrastructure system does not demonstrate that Instagram could have successfully done so.

c. [redacted]

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2336.

2337. "[I]t is also reasonable to conclude that, without the acquisition, Instagram would have been able to continue to improve Postgres or implement another approach in the time it took to move Instagram's workload to TAO." PX9011, Bray Rebuttal Report at ¶ 275.

Meta Response: Disputed. Disputed that the opinion creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs

2277 and 2336, and because the cited paragraphs in Mr. Bray's rebuttal report do not cite any evidence that supports the quoted language.

(4) Operating from multiple data centers is not at all unique to Meta and did not require Meta's acquisition of Instagram.

2338. Operating from multiple data centers is not at all unique to Meta and did not require Meta's acquisition of Instagram. *Infra* CMF at ¶¶ 2339-42.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2339-2342, Meta incorporates its responses to those statements here.

2339. Prior to the acquisition, Instagram was operating out of a single AWS region. PX9001, Bray Report at ¶ 165, n.233.

Meta Response: Undisputed.

2340. Instagram did not begin operating out of multiple Meta data centers until years after the acquisition, in 2015. PX0674, *Instagration Pt.2: Scaling our infrastructure to multiple data centers*, Instagram Engineering, (Nov. 11, 2015), https://instagramengineering.com/instagration-pt-2-scaling-our-infrastructure-to-multiple-data-centers-5745cbad7834.

Meta Response: Undisputed.

2341. Instagram's migration to multiple Meta data centers was not to increase Instagram's reliability, but rather forced upon Instagram because the single Meta data center it was in would have "run[] out of the power needed for [Instagram's] growth." PX3537, Meta email chain: P. Bozeman to M. Krieger, et al. re: "DC Conversion," (Sept. 17, 2014),

FB_FTC_CID_02615641, at -641 ("We actually have to be multi-site capable in Q4 of 2014 because in Q1 of 2015 FRC runs out of the power needed for IG growth."); *see also* PX3538, Meta messages: M. Krieger to [redacted], et al. (Sept. 18, 2014), FB_FTC_CID_02637541, at -541 ("The current plan of record (motivated not just by wanting to have a good [disaster readiness] solution but also by [data center] FRC capacity issues) is to be multi-[data center] by the end of year and running in ASH and ATN by end of H1 2015").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the cited evidence does not support the statements in this paragraph. On the contrary, the evidence cited by the FTC shows that Instagram chose to scale its infrastructure geographically across multiple data centers to improve its reliability. In the first document cited by the FTC, [redacted] wrote that "Instagram is too critical/important to be not [disaster recovery]-ready. In order to make [disaster recovery]-ready, there is some major product a[r]chitectural change to make." PX3537 at -641 (FB_FTC_CID_02615641). [redacted] further wrote: "In terms of [data center] readiness and availability, I can make sure to push it happen as long as we have a product [disaster recovery] roadmap vetted out. With enough lead time, I can engage all Infra helps to make sure the [data center] and hardware are there to let Instagram move in." *Id.* In the second document cited by the FTC, Mr. Krieger explained that Instagram "want[ed] to have a good [disaster recovery] solution" and stated that moving to multiple data centers "will be a great step up from our current [single data center] only story." PX3538 at -541 (FB_FTC_CID_02637541). Mr. Krieger also wrote that Instagram was "working on

integrating with FB technology that is already very multiple-[data center] capable (like TAO) which should make further [data center] rollouts much easier," and that he was "really excited to not be dancing on the edge of disaster in one [data center] :)." *Id.* Extensive evidence shows that scaling Instagram across multiple geographically distributed data centers helped make Instagram more reliable. *See* Ex. 5 at ¶¶ 194-195 (Nieh Rep.) (describing the benefits from scaling Instagram across multiple geographically distributed data centers).

2342. Meta's acquisition of Instagram was not necessary for Instagram to operate out of multiple data centers. PX9001, Bray Report at ¶ 160 ("The option of using multiple, geographically distributed data centers is not uniquely available from Meta.").

Meta Response: Disputed in part. Undisputed that Instagram may have been able to operate out of multiple data centers absent the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statements in this paragraph. It is purely speculative whether Instagram could have implemented a multi data center architecture absent the acquisition, how long it would have taken, and what it would have cost. Extensive evidence shows that, in fact, Instagram was able to operate out of multiple data centers more quickly and efficiently because of its ability to rely on Meta infrastructure. *See* Ex. 5 at ¶¶ 194-195 (Nieh Rep.) (explaining that "[a]lthough AWS offered some multi-region capabilities pre-acquisition, an app must be configured to operate across multiple regions in order to take advantage of such offerings, and Instagram was not so configured. Meta, by contrast, had demonstrated strengths in

running very large-scale apps across multiple data center regions, and used those capabilities to help Instagram scale its infrastructure geographically across multiple data centers." (footnote omitted)).

a. Instagram was already familiar with the benefits of operating from multiple-regions and was considering how they might leverage them. Instagram understood that transitioning to a multi-data-center solution was in its future. *See* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 49:9-13; PX6147, Krieger (Meta/Instagram) Dep. Tr., at 423:15- 23.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2342. Further disputed because the FTC's characterization of Mr. Krieger's testimony is incomplete and misleading. Instagram was aware of the dangers of operating out of a single data center because in June 2012, an outage, in the sole AWS data center in which Instagram was operating, took down Instagram for at least 20 hours. *See* PX6146 at 49:17-23 (Krieger Dep. Tr.) ("[S]ometime in 2012 – I think maybe due to storms – there was, like, an outage that took out, not just one availability zone, but I think all of US East, which is the North Virginia data center that we were using.); Ex. 5 at ¶ 194 & n.487 (Nieh Rep.).

b. Mr. Krieger confirmed that Instagram could "have pursued a multi data center architecture before the Meta acquisition." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 62:21-23; *see also* [redacted].

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, and that Mr. Bray offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2342.

c. Circa the 2012 acquisition, AWS had a global footprint of numerous data centers worldwide, which Instagram could have used. PX6146, Krieger (Meta/Instagram) Dep. Tr., at 62:21-63:6. AWS has and has had one of the largest data center networks in the world, and Meta has acknowledged [redacted]. PX9001, Bray Report at ¶ 173; PX3543, Meta Workplace Post: [redacted] post to IaaS (Infrastructure as a Service) Working Group (June 16, 2022), FTC-META-007025251, at -251.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2342. Further disputed that the statements in this subparagraph create a genuine dispute of material fact, including because, prior to the acquisition, Instagram's own technical architecture was unable to operate across multiple data centers, even assuming multiple data centers had been available. *See* Ex. 5 at ¶ 194 (Nieh Rep.) "(Although AWS offered some multi-region capabilities pre-acquisition, an app must be configured to operate across multiple regions in order to take advantage of such offerings, and Instagram was not so configured").

Further disputed that the cited evidence supports the FTC's assertion that "Meta has acknowledged [redacted]." The document cited by the FTC is a June 2022 analysis conducted by Meta which found the following: "[redacted]

[redacted]" *See* Ex. 5 at ¶ 77 & nn.128-131 (Nieh Rep.) (quoting PX3543 (FTC-META-007025251)).

d. Instagram's process of migrating to multiple Meta data centers relied on standard techniques and approaches, not unique Meta technology. *See* PX9001, Bray Report at ¶ 167 (observing that Meta's description of the process for Instagram's multi-region data center deployment "center[ed] on known techniques and widely-available technology").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2342. Further disputed because extensive evidence shows that Instagram was able to operate out of multiple data centers more quickly and efficiently because of its ability to rely on Meta infrastructure. *See* Ex. 5 at ¶¶ 194-195 (Nieh Rep.) (explaining that "[a]lthough AWS offered some multi-region capabilities pre-acquisition, an app must be configured to operate across multiple regions in order to take advantage of such offerings, and Instagram was

not so configured. Meta, by contrast, had demonstrated strengths in running very large-scale apps across multiple data center regions, and used those capabilities to help Instagram scale its infrastructure geographically across multiple data centers." (footnote omitted)).

(5) Meta decided to migrate Instagram to its ZippyDB database for internal consolidation reasons and did not start this migration until nearly seven years after the acquisition.

2343. Both prior to the acquisition and for years afterwards, Instagram relied on the open-source Cassandra database for a variety of functions. PX9022, Nieh Report at ¶ 191 ("Instagram adopted Cassandra in 2012 to replace Redis, before Meta had finished the development of ZippyDB."); PX0675 at -001, *Open-sourcing a 10x reduction in Apache Cassandra tail latency*, Instagram Engineering (Mar. 5, 2018), https://instagram-engineering.com/open-sourcing-a-10x-reduction-in-apache-cassandra-tail-latency-d64f86b43589 ("At first we ran Cassandra clusters in an AWS environment, but migrated them over to Facebook's infrastructure when the rest of Instagram moved."); *see also* PX6146, Krieger (Meta/Instagram) Dep. Tr., at 120:9-18 ("So there were places where we wanted the kind of high write throughput that Redis provided, but we wanted some more easy scaling that Cassandra had. As well as Cassandra has the ability to maintain data that scales beyond the – the capacity of the memory on the individual machine.").

Meta Response: Undisputed.

2344. Instagram began the process of migrating from Cassandra to Meta's ZippyDB database in 2019, but it did not actually retire its usage of Cassandra until 2021. PX9001, Bray Report at ¶ 235; PX3541, Meta Workplace Post: [redacted] to Instagram Infra FYI (Apr.

22, 2021), FTC-META-006908316, at -316 ("We're supporting the Cassandra deprecation, which is almost done! (but [not quite].").

Meta Response: Undisputed.

2345. Meta's motivation for migrating Instagram to ZippyDB was a desire to consolidate technologies internally between Instagram and Facebook—not to improve the user experience. *See* PX3542, Meta Workplace Post: [redacted] to Core Data Team (Nov. 26, 2019), FTC-META-002978288, at -288("IG made the decision to move away from Cassandra. This was a tough call, made for the greater good of better leveraging existing infrastructure and teams.").

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the cited evidence does not support the statement in this paragraph. The cited document states that Instagram anticipated "several significant upsides" to migrating to ZippyDB, including "tighter integration with other infrastructure at Facebook," "reduc[ing] our operational overhead," "boost[ing] our infra top priorities like reliability and efficiency," enabling new features "without putting significant engineering efforts to re-implement the wheel," "simplify[ing] our capacity planning process," and "free[ing] up engineering time" and thus allowing Instagram "to be more focused on Instagram product needs." PX3542 at -289 (FTC-META-002978288). The document summarized: "simplifying Instagram['s] underlying storage systems will have significant positive impact to Instagram's future success." *Id.* Extensive evidence shows that Instagram received benefits by migrating from Cassandra to ZippyDB. *See* Ex. 5 at ¶¶ 190-193 (Nieh Rep.).

2346. Meta has provided no "quantitative data or contemporaneous documents showing that Instagram's migration to ZippyDB provided benefits to Instagram's users." PX9011, Bray Rebuttal Report at ¶ 316.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the cited evidence does not support the statement in this paragraph. Extensive evidence shows that Instagram benefited by migrating from Cassandra to ZippyDB. *See* Ex. 5 at ¶¶ 190-193 (Nieh Rep.). Mr. Bray testified that he had no basis to rule out whether Meta's apps are the fastest, have the highest availability, or have the lowest variability on the planet. *See* Meta SMF ¶ 154.

c) Meta's infrastructure has not been shown to improve Instagram's user experience.

2347. Meta and its experts have not shown that Meta's infrastructure improves Instagram's user experience. *Infra* CMF at ¶¶ 2348-54.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2348-2354, Meta incorporates its responses to those statements here.

(1) There is an absence of reliable data from which to conclude that Meta infrastructure was necessary to improve the user experience on Instagram.

2348. There are industry-standard metrics used to measure the performance of infrastructure systems.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraph below does not support the statement in this paragraph.

a. To measure performance and reliability, industry practitioners typically use measurements of a product's latency (speed), and availability. PX9011, Bray Rebuttal Report at ¶ 16 ("[T]he industry-standard metrics used to quantify improvements to performance and reliability include measurements (both averaged and distributions) of a product's latency, availability, and durability, as experienced from the end-user's point of view.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2277. The FTC's proffered infrastructure expert, Mr. Bray, testified that his reports did not identify any industry standards for speed at the time of Instagram's acquisition, and that "[t]here is no such industry standard" for availability "because the availability requirements for different kinds of applications are deeply different. And even within applications the availability requirements for particular operations are different. So it would not be really appropriate to try and pull out an industry standard." Ex. 289 at 36:18-22, 42:14-43:10 (Bray Dep. Tr.). Mr. Bray also testified that he did not analyze how Instagram's speed or availability compared to other apps or services at any point in time, *see id.* at 41:2-9, 43:15-21, and admitted that his reports did not discuss whether Instagram meets or exceeds an industry level for speed or availability, *see id.* at 37:3-12, 42:20-43:10. Extensive evidence shows that migrating to

Meta's infrastructure improved Instagram's performance and reliability. *See* Ex. 5 at ¶ 155 (Nieh Rep.) ("Extensive evidence confirms that Instagram received performance and reliability benefits from migrating to Meta's infrastructure.").

2349. "The guiding principle of reporting performance measurements should be reproducibility—list everything another experimenter would need to duplicate the results." PX0676, John L. Hennessey & David A. Peterson, Computer Architecture: A Quantitative Approach 41 (Todd Green & Nate McFadden eds., Morgan Kaufman 5th ed. 2012) (from a section titled "Measuring, Reporting, and Summarizing Performance") ; *see also* PX6181, Nieh (Meta) Dep. Tr., at 73:5-6 ("Reproducibility is often a useful principle when doing performance measurements . . . ."); *id.* at 73:13-17 ("Q. Do engineers use performance metrics to measure the impact of changes to a system? . . . A. Engineers can use performance metrics to measure performance changes.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that Professor Nieh provided the quoted testimony. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. In addition, the quoted paragraph from Hennessey & Patterson (not Peterson, as stated in this paragraph, and from "Morgan Kaufmann," not Kaufman, as stated in this paragraph) is from a section of the textbook addressing measuring, reporting, and summarizing performance of a *computer*, not of an infrastructure, or of an application running on an infrastructure. *See* PX0676 at -065 (Hennessey & Patterson, *Computer Architecture: A Quantitative Approach*) ("When we say one computer is faster than another is, what do we mean?"), *id.* at -070 ("The guiding principle of reporting performance measurements should be

reproducibility – list everything another experimenter would need to duplicate the results. A SPEC benchmark report requires an extensive description of the computer and the compiler flags, as well as the publication of both the baseline and optimized results.”).

2350. To measure performance of a product as perceived by users, practitioners typically measure changes in end-to-end latency, i.e., the delay between a user’s request and the application’s response. *See* PX9001, Bray Report at ¶¶ 98-100.

Meta Response: Disputed. Disputed this statement creates a genuine dispute of material fact including for the reasons stated above in Meta’s response to paragraph 2277, and because the cited paragraphs in Mr. Bray’s report do not cite any evidence to support the paraphrased opinion and do not identify a single company outside of Meta that Mr. Bray asserts measures the end-to-end performance of its apps. Further disputed because, the extent to which it is “typical[ ]” for companies to measure changes in end-to-end latency in 2024 is irrelevant to whether Instagram actually conducted such measurements at the time of the acquisition. On the contrary, evidence shows that Instagram did not measure end-to-end latency at the time of the acquisition. PX13039 at -108 (FTC-META-011044108) (“Instagram does not have end-to-end measurements.”). In his deposition, Mr. Bray admitted that he did not identify any tools that could be used to measure end-to-end performance of a mobile app in 2012 or 2014, and that the single tool he did identify did not exist until the middle of 2015. *See* PX6172 at 143:9-22 (Bray Dep. Tr.); Ex. 533 (Amazon, *Amazon Web Services Announces AWS Device Farm*, https://perma.cc/XVU6-G5BW). Further disputed because the term “typically” is vague and undefined.

Further disputed to the extent the statement suggests that measurements in end-to-end latency are the sole method to measure the performance of a product. Extensive evidence shows that migrating to Meta's infrastructure improved Instagram's user experience, including performance data measuring the latency of Instagram's data fetching, contemporaneous documents and presentations, and the testimony of Instagram's founders. *See*, *e.g.*, Ex. 5 at ¶¶ 155-158 (Nieh Rep.) (discussing the "[e]xtensive evidence [that] confirms that Instagram received performance and reliability benefits from migrating to Meta's infrastructure"); Ex. 153 at 287:13-30 (Krieger Dep. Tr.) (testifying that Instagram "saw significant latency reduction post-Instagram").

a. When assessing whether users have experienced application latency improvement, Mr. Bray testified that "[m]y experience has taught me, and I do believe that in systems that have any complexity at all, there is absolutely no substitute for directly measuring the end-to-end latency as experienced by the end user." PX6172, Bray (FTC) Dep. Tr., at 136:7-12; *see also id* at 134:15-135:6; *see also* PX6181, Nieh (Meta) Dep. Tr., at 88:15-18 (agreeing that it is "possible to make changes to how a system operates that would not be visible to an end user.").

<u>Meta Response</u>: Disputed in part. Undisputed that Mr. Bray and Professor Nieh provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2350.

b. Meta engineers are familiar with and use end-to-end metrics to measure latency. *See, e.g.*, PX3540, Meta Workplace Post: P. Bozeman to Instagration (Feb. 25, 2014), FTC-META-012220240, at -240; *see also* PX3539, Meta Workplace Post:

J. Parikh to Infrastructure FYI (Jan. 5, 2016), FTC-META-004749611, at -613 (Discussion Board Post by J. Parikh, Meta, to Infrastructure FYI, Jan. 5, 2016).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2350.

2351. To assess the reliability of a product, practitioners typically measure the availability of a product, i.e., the percentage of time that the service is available. PX9001, Bray Report at ¶ 102.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. In addition, Mr. Bray offered the opinion that availability is only one component of reliability. *See* PX9001 at ¶ 101 (Bray Rep.) ("There are multiple metrics used in analyzing and reporting on three components of reliability: 'availability,' 'variability,' and 'durability.'"). During his deposition Mr. Bray was asked: "For purposes of your analysis, what percentage of time a service is available did you consider an industry standard level of availability?" Ex. 289 at 42:14-17 (Bray Dep. Tr.). Mr. Bray answered: "There is no such industry standard, to my knowledge." *Id.* at 42:18-19. Mr. Bray further testified that "it would not be meaningful to try and assert an industry standard across the industry, because the availability requirements for different kinds of applications are deeply different. And even within applications the availability requirements for particular operations are different. So it would not be really appropriate to try and pull out an industry standard." *Id.* at 43:2-10. Mr. Bray was also asked

whether he "compare[d] the availability of Instagram . . . to the availability of other apps." *Id.* at 43:15-17. He responded: "No, that was not in the scope of the issues I was asked to address." *Id.* at 43:20-21.

Mr. Bray also provided the opinion that "[t]he industry-standard methods for assessing reliability are based on measuring the number and duration of outages (common metrics are 'MTBF,' Mean Time Between Failures, and 'MTTR,' Mean Time To Resolve)." PX9011 at ¶ 107 (Bray Rebuttal Rep.). Mr. Bray admitted that he did not cite any source indicating that those measures were industry standard, and did not cite any examples of any company using these metrics. Ex. 289 at 54:6-55:1 (Bray Dep. Tr.). Mr. Bray also testified that he did not "believe there is such a thing as an industry standard level of outages. . . . I think the appropriate industry standard depends really a lot on what industry you're in. And the industry standards for uptime in online banking are quite different from the industry standards, to the extent they exist, for online photo browsing." *Id.* at 55:2-21. Mr. Bray admitted that he did not cite any industry standard level of outages for online photo browsing. *Id.* at 56:2-5.

a. Engineers typically measure reliability in terms of the amount of the time the service is available (uptime) and unavailable (downtime) as described by WhatsApp co-founder, Mr. Acton. He described "reliability" as:

> How many minutes or seconds per year you're up versus how many you're down. So reliability, a lot of times I would talk about six nines of reliabilities which would be 99.9999 percent uptime in a given year, which a lot of times would -- I think roughly estimates about 15 minutes of downtime for a given uptime of six nines.

PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 111:8-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2351.

b. Meta engineers are familiar with and use downtime to measure reliability. *See* PX10087, Meta document: "DevInfra Deep Dive" (undated), FTC-META-012239137, at -166.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2351.

2352. Without industry-standard metrics, like end-to-end latency or availability, one cannot accurately assess whether proffered improvements to infrastructure actually resulted in improved user experience. *See* PX9011, Bray Rebuttal Report at ¶ 16 ("the industry-standard metrics used to quantify improvements to performance and reliability include measurements (both averages and distributions) of a product's latency, availability, and durability, as experienced from the end-user's point of view. I further explain that it is crucial that these metrics quantify the end-user's experience, as opposed to the performance of one internal subsystem or another. This is because the relationship between subsystem performance and end-user experience is complex and nonlinear.").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the cited evidence does not support the statements in this paragraph. Extensive evidence shows that Instagram's user experience improved as a result of migrating to Meta's infrastructure. *See* Ex. 5 at ¶¶ 155-158 (Nieh Rep.) (explaining the performance benefits Instagram received as a result of migrating from AWS to Meta's

infrastructure). For example, Mr. Krieger testified that Instagram "saw significant latency reduction post-Instagration." Ex. 153 at 287:13-20 (Krieger Dep. Tr.). Mr. Bray testified that he had no basis to rule out whether Meta's apps are the fastest, have the highest availability, or have the lowest variability on the planet. *See* Meta SMF ¶ 154.

2353. It is textbook in computer architecture that "the only consistent and reliable measure of performance is the execution time of real programs, and that all proposed alternatives to time as the metric or to real programs as the items measured have eventually led to misleading claims or even mistakes in computer design." PX0676, John L. Hennessey & David A. Peterson, Computer Architecture: A Quantitative Approach 36 (Todd Green & Nate McFadden eds., Morgan Kaufman 5th ed. 2012) (from a section titled "Measuring, Reporting, and Summarizing Performance"); *see also* PX6181, Nieh (Meta) Dep. Tr., at 73:1-4 ("So Hennessy and Patterson, the -- the quantitative approach textbook for computer architecture is a -- is a useful book in the context of computer architecture.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and Professor Nieh provided the quoted testimony. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. The quoted paragraph from Hennessey & Patterson is from a section of the textbook addressing measuring, reporting, and summarizing performance of a *computer*, not of an infrastructure, or of an application running on an infrastructure. *See* PX0676 at -065 (Hennessey & Patterson, *Computer Architecture: A Quantitative Approach*) ("When we say one computer is faster than another is, what do we mean? . . . . Unfortunately, time is not always the metric quoted in comparing the performance of computers ").

2354. Meta's experts do not present standard end-to-end latency or availability metrics from which to assess claimed infrastructure improvements.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Extensive evidence shows that "Instagram received enormous benefits from Meta and its infrastructure, which enabled Instagram to scale more quickly, efficiently, and effectively than it could have using other alternatives." *See* Ex. 5 at ¶ 94 (Nieh Rep.); *id.* at ¶¶ 94-215 (setting forth those benefits). Mr. Bray testified that he had no basis to rule out whether Meta's apps are the fastest, have the highest availability, or have the lowest variability on the planet. *See* Meta SMF ¶ 154.

a. Meta and its experts have provided no data that measures the end-to-end experience of users. *See* PX9011, Bray Rebuttal Report at ¶ 17 ("[N]one of the provided data measures the end-to-end experience of users."), ¶ 228 ("No end-to-end measurements are provided in the Nieh Report, nor are they discussed in any contemporaneous documents.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2354. Further disputed on the ground that "end-to-end experience of users" is vague and undefined, and the FTC provides no evidence of industry standard measure of the end-to-end experience of users. In addition, the evidence shows that Instagram did not keep end-to-end latency metrics at the time

of the acquisition. PX13039 at -108 (FTC-META-011044108) ("Instagram does not have end-to-end measurements.").

b. For example, Professor Nieh's report presents no metrics that reflect the number and severity of user service disruptions before and after Instagram or WhatsApp's migration to Meta's infrastructure. *See* PX9011, Bray Rebuttal Report at ¶¶ 107-108.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2354. Further disputed because Professor Nieh discussed outages in his report. Ex. 5 at ¶¶ 212-215 (Nieh Rep.).

c. Mr. Bray observed that the relevant Meta and Instagram teams "understood the value of metrics that captured the observed user experience," and concluded that, "[h]ad the motivation for, or expected impact of, migrating to Meta's infrastructure been to improve the user experience, I would have expected the engineering teams to measure and compare the end-to-end user experience and for the results to appear in contemporaneous documents." PX9011, Bray Rebuttal Report at ¶ 18.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2354.

(2) Meta's experts' claimed latency benefit claims are flawed.

(a) Meta's experts have claimed certain latency benefits stemming from Instagram's migration to Meta's infrastructure.

2355. Meta conceded that it could not, and need not, quantify any procompetitive benefit that resulted from Meta's acquisition of Instagram. *See, e.g.*, PX10092 at -061, Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023) at 60 ("[I]t is not Meta's burden to quantify the amount of each Procompetitive Benefit . . . [n]or is it possible to do so . . . .").

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because this characterization of Meta's Interrogatory responses is incomplete and misleading. In Meta's Supplemental Response to the FTC's Interrogatory No. 10, Meta stated: "It is not Meta's burden to identify or quantify the Procompetitive Benefits associated with the Instagram and WhatsApp acquisitions, much less to do so at the impossibly granular level of detail requested in this Interrogatory. This is not a typical merger case involving competing predictions of future consequences. Here, the Transactions occurred many years ago, and under Meta's ownership Instagram and WhatsApp have achieved great success that has benefited consumers and competition. It is the FTC's burden to demonstrate that the net effect of each Transaction was anticompetitive, which requires it to show that Instagram and WhatsApp would have been even more successful and created even greater benefits for consumers and competition if Meta had not acquired them." PX10092 at 11-12, Meta's Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrogs. Nos. 10 & 12 (May

31, 2023)). Meta further wrote: "Meta does not keep in the ordinary course analyses of the amount of benefits that resulted from the improvements made to its products over the last eight to ten years, nor can such a list be reconstructed through reasonable inquiry of its current employees. Further, just as the benefits themselves are too interrelated and numerous to identify separately, they likewise cannot be quantified separately. All of the improvements and growth in performance, reliability, integrity, users, engagement, and monetization that Instagram and WhatsApp have experienced since the acquisitions are due at least in part to contributions that Meta has made, and to a wide array of interrelated factors." *Id.* at 60, Meta's Resp. to FTC's Interrog. No. 10(b). Meta then provided numerous and detailed examples of the improvements and growth in performance, reliability, integrity, users, engagement, and monetization that Instagram and WhatsApp have experienced since the acquisitions. *Id.* at 27-59.

2356. Nevertheless, Meta experts Professor Nieh and Professor Carlton rely on latency data in an internal Meta spreadsheet that does not indicate its source or methodology.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The data Professor Nieh and Professor Carlton rely on was collected by Meta and produced to the FTC at Bates number FTC-META-012478685 in response to the FTC's request for data Meta's experts relied upon (Request for Production No. 86), all of which Meta explained to the FTC in Meta's production cover letter, as subparagraph 2356(a) below acknowledges. The FTC never asked for more information about these data during fact

discovery. In expert discovery, Professor Nieh testified about the data: "[redacted]." PX6181 at 121:19-22 (Nieh Dep. Tr.). Further disputed to the extent the statement suggests that this data is the sole support for the fact that Instagram received performance benefits as a result of migrating to Meta's infrastructure. *See* PX9022 at ¶¶ 155-158 (Nieh Rep.) (explaining the performance benefits Instagram received as a result of migrating from AWS to Meta's infrastructure); PX9019 at ¶ 249 (Carlton Rep.) (same). Extensive evidence, in addition to the performance data Meta produced to the FTC, shows that Instagram received performance benefits from migrating to Meta's infrastructure. *See* PX9022 at ¶ 155 (Nieh Rep.) ("Extensive evidence confirms that Instagram received performance and reliability benefits from migrating to Meta's infrastructure."); *id.* at ¶¶ 155-158 (discussing that evidence). For example, Mr. Krieger testified that Instagram "saw significant latency reduction post-Instagration." Ex. 153 at 287:13-20 (Krieger Dep. Tr.).

a. In response to the FTC's request for data used by Meta's experts, Meta produced a document at Bates number FTC-META-012478685. *See* PX15567 at -001, Ltr. from M. Reade (Meta Counsel) to N. Brenner (FTC) (May 19, 2023) (regarding production volume "FTC-META-209" and enclosing "data files, which bear Bates numbers FTC-META-012478664 through FTC-META-012478759" that were "responsive to Request for Production No. 86"); PX15568 at -017, Meta's Objs. & Resps. To FTC's Third Set of Requests for Prod. (Aug. 11, 2022) (objecting to RFP 86, i.e., data relied upon by Meta's experts).

<u>Meta Response</u>: Undisputed.

b. FTC-META-012478685 is a spreadsheet containing latency data for fetching an unspecified part of the Instagram feed. PX6181, Nieh (Meta) Dep. Tr., at 131:20-132:3 (describing data in FTC-META-012478685 as "a key component of what is involved for showing the feed to the user, but it is one of the components."); *see also* PX9022, Nieh Report at ¶ 157 ("[redacted]").

<u>Meta Response</u>: Disputed in part. Undisputed that FTC-META-012478685 is a spreadsheet containing latency data. Disputed for the reasons stated above in Meta's response to paragraph 2356.

c. The [redacted] data in FTC-META-012478685 extend from [redacted]. PX10089, Meta data production: Meta's Resp. to FTC's Req. for Prod No. 86, (May 19, 2023), FTC-META-012478685.

<u>Meta Response</u>: Undisputed.

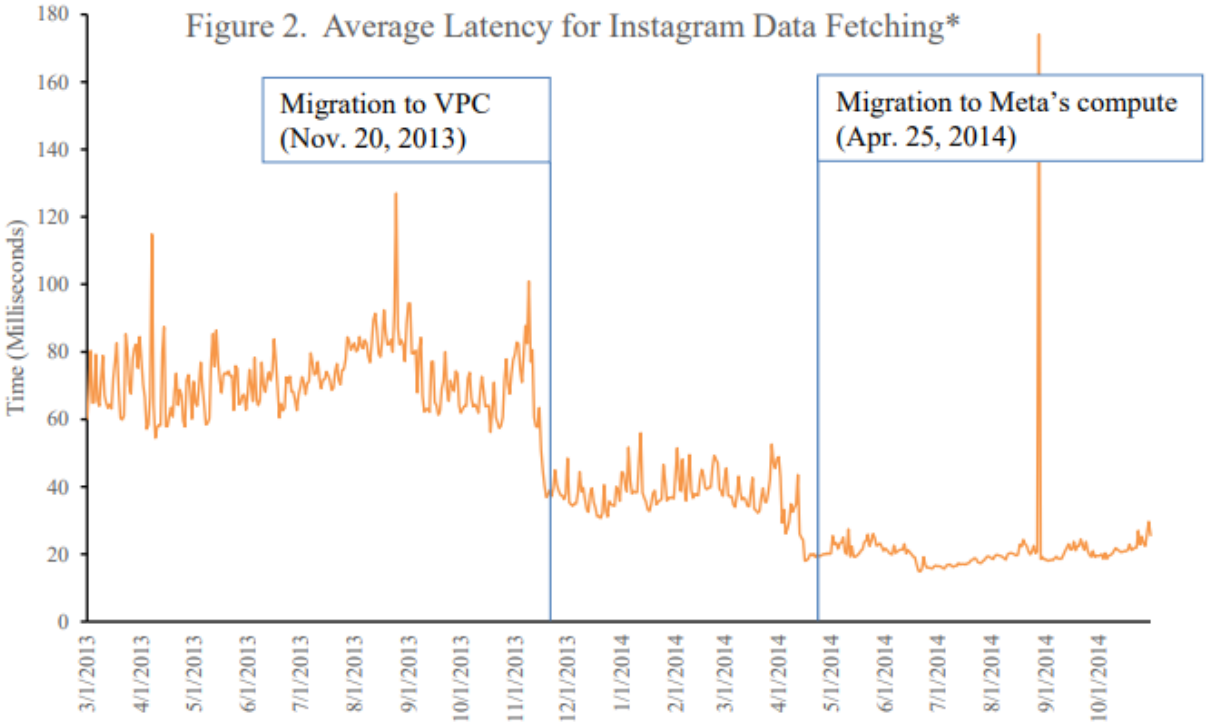
d. This latency data is referenced in the reports of Meta's infrastructure expert, Professor Nieh, and Meta's economist, Professor Carlton. PX9022, Nieh Report at ¶ 157, Figure 2 (graphing average latency data from March 2013 through October 2014); PX9019, Carlton Report at ¶ 250, Figure 14 (graphing data reflecting the time taken to fetch Instagram content metadata for [redacted]). (Professor Carlton has conceded that he is "not an expert on infrastructure" and "not an engineer." PX6179, Carlton (Meta) Dep. Tr., at 329:11-12).

<u>Meta Response</u>: Undisputed.

e. Both Professor Nieh's Figure 2 and Professor Carlton's Figure 14 graph a daily average of the "average" latency data in FTC-META-012478685. PX9022, Nieh Report at ¶ 157, Figure 2 (graphing average latency data from March 2013 through October 2014); PX9019, Carlton Report at ¶ 250, Figure 14 (graphing average time taken data for [redacted]). Below are reproductions of these experts' respective Figures.

Meta Response: Undisputed.

f. PX9022, Nieh Report at ¶ 157, Figure 2:



*Daily values are calculated by averaging the hourly average latency for Instagram data fetching per day.
Sources: FTC-META-012478685, FB_FTC_CID_02635094, FTC-META-012220197

Meta Response: Undisputed.

PX9019, Carlton Report at ¶ 250, Figure 14:

[redacted]

Meta Response: Undisputed.

2357. Professor Nieh and Professor Carlton each rely upon this unspecified latency data in making benefit claims.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2356.

a. Professor Nieh claims, citing to his Figure 2, that "Instagram's average latency for data fetching decreased significantly after migrating onto Meta's compute infrastructure." PX9022, Nieh Report at ¶ 157.

Meta Response: Undisputed.

b. Professor Carlton claims, citing to his Figure 14, that "there was a decrease in the average time taken for each fetch [of Instagram feed metadata] following the transition to Meta's infrastructure, dropping from about 40 milliseconds before integration to about 20 milliseconds after integration." PX9019, Carlton Report at ¶ 250.

Meta Response: Undisputed.

(b) The majority of Instagram's latency reduction occurred by virtue of Instagram migrating to updated AWS infrastructure.

2358. As Professor Nieh notes in his Figure 2 (and otherwise in his report), on November 20, 2013, Instagram completed an update of its AWS infrastructure capabilities, migrating from Amazon's AWS EC2 to Amazon's Virtual Private Cloud, or "VPC." PX9022, Nieh Report at ¶¶ 153-54 (acknowledging that "Instagram first had to migrate to Amazon's Virtual Private Cloud (VPC), and from there to Meta's data centers" and that "Meta and Instagram completed the migration of Instagram's computing workloads from AWS EC2 to [Amazon's] VPC in November 2013"); PX9022, Nieh Report at ¶ 157, Figure 2 (noting a "Migration to VPC" on November 20, 2013).

Meta Response: Disputed in part. Undisputed that Instagram completed its migration from AWS EC2 to VPC in November 2013. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the characterization of Instagram's migration from AWS EC2 to VPC is incomplete and misleading. AWS did not provide a way for Instagram to migrate from AWS EC2 to VPC, so Instagram had to develop its own custom software and process to accomplish the migration. *See* PX9022 at ¶ 153 (Nieh Rep.). It is purely speculative that Instagram could have received superior performance

benefits from VPC as it did from Meta's infrastructure. On the contrary, extensive evidence shows that Instagram received performance benefits from migrating from VPC to Meta's infrastructure. *Id.* at ¶¶ 155-158.

2359. As Professor Nieh acknowledges in his report, "Amazon later developed VPC 'as a companion product to the existing EC2 offering, though it quickly became considered to be EC2 2.0, as it remedied many of the commonly accepted EC2 downfalls.'" PX9022, Nieh Report at ¶ 153, n.363 (quoting PX0611, Nick Shortway, *Migrating from AWS to AWS*, Instagram Engineering (Oct. 23, 2014), https://instagram-engineering.com/migrating-from-aws-to-aws-f4b16a65e13c).

Meta Response: Undisputed.

2360. As Mr. Bray observed, "the majority of the latency improvement" in Professor Nieh's Figure 2 showing Instagram's move from Amazon Classic to Amazon VPC to Meta's data center "is attributable to Instagram's migration to Amazon VPC in late 2013." PX9011, Bray Rebuttal Report at ¶ 227.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted and paraphrased opinions. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because it is not supported by the cited evidence. Figure 2 in Professor Nieh's report shows a significant drop in latency in April 2014 resulting from Instagram's migration from Amazon VPC to Meta's data center. *See* Ex. 5 at ¶ 157 & Figure 2 (Nieh Rep.) ("Instagram's average latency for data fetching decreased significantly after migrating onto Meta's compute infrastructure."). That latency reduction is not attributable to Instagram's migration from AWS Classic to AWS VPC; instead, the latency reduction is

an improvement over Instagram's performance on VPC. *Id.* Extensive evidence shows that Instagram received performance benefits from migrating from VPC to Meta's infrastructure. *See id.* at ¶¶ 155-158.

2361. Professor Nieh and Meta personnel have both acknowledged that Instagram would have achieved the benefits of migrating to Amazon's VPC absent the acquisition by Meta.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Further disputed to the extent the statement suggests that Instagram would have received superior benefits on AWS VPC to those it received on Meta's infrastructure. That is purely speculative. Extensive evidence shows that Instagram received performance benefits from migrating from VPC to Meta's infrastructure. *See* PX9022 at ¶¶ 155-158 (Nieh Rep.).

a. In his expert report, Professor Nieh concedes that "[a]lthough the migration to VPC was challenging, Instagram would have needed to perform this migration even if it stayed on AWS in order to migrate to a new version EC2." PX9022, Nieh Report at ¶ 153.

Meta Response: Disputed in part. Undisputed that Professor Nieh offered the quoted opinion. Disputed that he "concede[d]" anything. Further disputed for the reasons stated above in Meta's response to paragraph 2361.

b. Mr. Shortway acknowledged in his deposition that Instagram had decided that "regardless of whether or not we . . . were going to migrate to [Meta], we needed

to migrate into Virtual Private Cloud." PX6055, Shortway (Meta) Dep. Tr., at 116:16-18.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2361.

(c) Meta's claimed latency benefits are contradicted by Meta's own underlying data, which shows [redacted].

2362. Professor Nieh's Figure 2 ends at approximately October 2014. PX9022, Nieh Report at ¶ 157, Figure 2.

Meta Response: Undisputed.

2363. Professor Carlton opined that "[a]s Instagram has added features and functionality, [redacted]." *See* PX9019, Carlton Report at ¶ 250.

Meta Response: Undisputed.

a. Professor Carlton cites no evidence in support of this proposition. *See generally* PX9019, Carlton Report at ¶ 250 (providing no citation).

Meta Response: Disputed in part. Undisputed (and facially obvious) that Instagram has added features and functionality over time, which requires more data to be sent and received. Disputed that the statement in this subparagraph is material to the resolution of either party's motion.

b. Professor Carlton's Figure 14 does not extend beyond [redacted]. *See* PX9019, Carlton Report at ¶ 250, Figure 14.

Meta Response: Undisputed.

2364. A graph of the complete time period represented in the data produced for Meta's experts, as shown in PX8011 at -004, Declaration of Alexander Gaynor (FTC) (May 22, 2024), at -004, Figure A below, [redacted].

Meta Response: Disputed. Meta objects that the Declaration of Alexander Gaynor, disclosed by the FTC for the first time as an exhibit to its summary judgment papers, is improper expert testimony that was not timely disclosed pursuant to Federal Rule of Civil Procedure 26(a)(2). The contents of his Declaration are accordingly not evidence that can be presented in a form admissible at trial pursuant to Federal Rule of Civil Procedure 56(c)(2) and therefore cannot be relied on at summary judgment. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277. Further disputed to the extent the statement suggests that [redacted]. The FTC cites no evidence to support such a claim. [redacted] *See* Ex. 5 at ¶¶ 155-158 (Nieh Rep.). Further disputed to the extent the statement suggests that Instagram would have superior latency absent the acquisition, which is speculative and not supported by any evidence cited in this paragraph and its subparagraphs. The Gaynor Declaration fails to compare Instagram's performance on Meta's infrastructure to any competitive benchmark.

a. Figure A from the Gaynor Declaration, below, [redacted], which is not included in either Meta expert's Figure. PX8011, Declaration of Alexander Gaynor (FTC) (May 22, 2024), at ¶ 7 ([redacted]), ¶ 12 ([redacted]), ¶ 13 (noting that Figure A, below, graphs all available data points in FTC-META-012478685 [redacted]), ¶ 15 ([redacted]), Figure A. [redacted]

[redacted]

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2364.

b. Figure A, above, demonstrates that, by 2016, latency for the graphed subsystem [redacted]. *See* PX8011, Declaration of Alexander Gaynor (FTC) (May 22, 2024), at -004, Figure A; *id.* at ¶ 11 (noting the dates of Instagram's migration to AWS's VPC and its migration from AWS to Meta's compute infrastructure, as reported by Professor Nieh's Figure 2).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2364.

c. Figure A, above, demonstrates that, since migrating to Meta infrastructure [redacted]. *See* PX8011, Declaration of Alexander Gaynor (FTC) (May 22, 2024), at -004, Figure A.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2364.

d. Figure A demonstrates that, since migrating to Meta infrastructure [redacted]. *See* PX8011, Declaration of Alexander Gaynor (FTC) (May 22, 2024), at -004, Figure A.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2364.

3. After migrating to Meta's infrastructure, Instagram faced significant infrastructure challenges and performance issues.

2365. After migrating to Meta's infrastructure, Instagram has faced significant infrastructure challenges and performance issues. *Infra* CMF at § V.E.3(a)-(c).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections V.E.3(a)-(c), Meta incorporates its responses to those statements here.

a) Certain Meta technologies performed worse than publicly available alternatives or required significant engineering work to adapt to Instagram's needs.

2366. Instagram's migration from AWS and adoption of Meta's shared infrastructure systems was a complex and multi-phase process. Some Instagram subsystems remained on third-party services; some remained on Instagram's home-built infrastructure; and others migrated to Meta systems. This piecemeal migration took place over at least a seven-year period from 2014 to 2021. PX9001, Bray Report at ¶¶ 120-22, 125.

Meta Response: Disputed in part. Undisputed that Instagram decided to migrate to Meta's infrastructure and adopt Meta's infrastructure services at various points in time, with some migrations happening immediately after the acquisition and others occurring on a longer timeline due to various considerations. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277.

2367. As Instagram migrated piecemeal to Meta's infrastructure, engineers discovered that some Meta infrastructure components performed worse than had Instagram's pre-acquisition infrastructure. *See infra* CMF at ¶¶ 2368-69.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2368-2369, Meta incorporates its responses to those statements here.

2368. Meta's media storage system, Everstore, required significant engineering effort to equal the level of quality that Instagram's pre-migration media storage system, S3, had provided. *See supra* CMF at § V.E.2(b)(1).

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The evidence cited in the subparagraphs below discusses performance during the process of migrating Instagram to Everstore and does not bear on whether, once completed, the migration benefited Instagram. The evidence shows that it did. *See* Ex. 5 at ¶¶ 159-162 (Nieh Rep.). Further disputed on the ground that "significant engineering effort" is vague and undefined.

a. Instagram's storage needs differed from Facebook's, with "the main difference between FB & Instagram [being] the liveness of the dataset driven by [the] typical

use case . . . ." PX3530, Meta email chain: R. Branson to [redacted] and [redacted] re: "Some Infra Cost Q's," (Dec. 11, 2012), FTC-META-002710290, at -290.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2368.

b. Instagram expressed concern about being able to preserve the level of performance that S3 was providing after migration: "I think we should honestly and openly talk to them about how to handle the IG use case in Everstore/Haystack and push on the kinds of things we are getting in S3 without even worrying about it." PX3534, Meta email chain: [redacted] to P. Bozeman re: "Everstore Team Info," (Feb. 23, 2014), FTC-META-000060750, at -750.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2368.

c. According to a Meta engineer: "My worry is much more around reliability/SEVs. The general sense I got from the Instagram folks is that s3 gave them little operational trouble (it just works). I don't have concrete data but no one ever described any Facebook system as 'it just works.' PX13039, Meta email chain: [redacted] to J. Parikh and S. Janardhan re: "everstore for instagram ?" (Apr. 29, 2014), FTC-META-011044108, at -108.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2368.

d. Mr. Krieger included "working with Everstore" as an achievement in his 2014 self-review that Instagram: "[G]ot [Everstore's] write latency down 80% so that it would be as fast as S3." PX10883, Meta document: "Self Review: Mike Krieger" (*July 16, 2014), FB_FTC_CID_08939436, at -436.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2368.

2369. In 2014, Instagram migrated from using Foursquare's location data to using Meta's "Places" location data. But Meta's "Places" performed worse than Foursquare had, resulting in a reduction of the number of photos tagged with locations and user complaints.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Evidence shows that that Instagram benefited by migrating from Foursquare to Places. *See* Ex. 5 at ¶ 175 (Nieh Rep.). Further disputed because even if one element of Instagram's user experience temporarily got worse following the migration, it does not follow – and the FTC cites no evidence to support – that Instagram's overall user experience got worse as a result of the acquisition. *See* Meta SMF ¶ 155 (Mr. Bray, the FTC's proffered infrastructure expert, testified that he had "not offered an opinion that Instagram offers a worse user experience" following the acquisition (quoting Ex. 289 at 128:11-18 & errata (Bray Dep. Tr.))). On the contrary, extensive evidence shows that Instagram's user

experience improved as a result of migrating to Meta's infrastructure. *See*, *e.g.*, Ex. 5 at ¶ 149 (Nieh Rep.) ("Mr. Krieger acknowledged that the many different Meta services to which Instagram was able to connect contributed to improving the latency, stability, reliability, and user experience of Instagram."); *id.* at ¶¶ 174-175.

a. A presentation from before Meta completed the migration to Meta's "Places" database cites "[p]roblem[s]" with Places' "[q]uality" and "[r]anking[s]," and notes that there are "[b]etter results on Foursquare." PX3520 at -003-07, Meta presentation: "Places Update" (Mar. 6, 2014), FB_FTC_CID_08412109.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language (at -008). Disputed for the reasons stated above in Meta's response to paragraph 2369, and because the cited document discusses the performance of Places before Instagram migrated to Places and does not bear on whether, once completed, the migration benefited Instagram.

b. The migration to Meta's "Places" and removing of "the 'fallback to 4sq' feature" caused a 5-6% drop in the number of photos uploaded to Instagram with location tags. PX3514, Meta email chain: M. Krieger to M. Levine and [redacted] re: "Foursquare API / Instagram" (Jan. 12, 2015), FB_FTC_CID_02618293, at -29.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2369, and because the cited evidence does not support the assertion in this subparagraph. The cited document only discusses performance in a narrow context – the 5-6% drop only applied in Russia and in the limited circumstances where Meta's Places did not return data for a location – and thus does not bear on the question of whether Instagram overall benefited from

migrating to Places. *See* PX3514 at -293, -296 (FB_FTC_CID_02618293). The cited document also establishes that Instagram believed the benefits of adopting Places for Instagram outweighed any tradeoffs. *Id.* at -293 (Mr. Krieger stating that the "drop is probably not large enough to justify an ongoing relationship with 4sq, so I think we should move forward on removing the fallback").

c. Users responded negatively to the migration to Meta's "Places," with one user writing: "the product is worse because of this change. Facebook's place database is a nightmare of mislabeled and mislocated geo-barf. The data makes Apple Maps look like a pristine globe of information." PX0677 at -004, M.G. Siegler, *Instagram Just Geotagged Us to Hell: When Politics Drive Product Decisions, We All Lose,* 500ish (May 12, 2014), https://500ish.com/instagram-just-geotagged-us-to-hell-dad4c3736409.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2369. Further disputed that the cited evidence supports the statement in the subparagraph, or accurately reflects how users viewed the migration to Places, as opposed to the views of a single user shortly after the migration.

2370. As Instagram migrated to Meta infrastructure, Instagram engineers also had to develop new engineering solutions to adapt Meta infrastructure products—which had been built and customized for Facebook specifically— to Instagram's needs. *See infra* CMF at ¶ 2371.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and

therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraph 2371, Meta incorporates its responses to those statements here.

2371. Instagram's adoption of Meta's TAO database required significant engineering time and effort to allow Instagram to use this infrastructure.

Meta Response: Disputed in part. Undisputed that Instagram's adoption of Meta's TAO database required engineering time and effort. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277 and in Meta's responses to the subparagraphs below, and because extensive evidence shows that Instagram benefited from its migration to TAO. *See* Ex. 5 at ¶¶ 177-182 (Nieh Rep.) (describing the benefits Instagram received as a result of adopting TAO); PX9001 at ¶ 228 (Bray Rep.) (acknowledging that "[t]he benefits to developers here [as a result of Instagram adopting TAO] seem real, and it is plausible that they might have accelerated the development of certain Instagram features"). The FTC does not claim, or cite evidence to support, that the short-term costs of migration to TAO offset, much less outweigh, the long-term benefits.

a. Instagram's migration to TAO was not completed until almost four years after the acquisition, and the migration itself took about a year to complete. *See, e.g.,* PX3544, Meta email chain: M. Krieger to K. Weil and [redacted] re: "Random question," (May 10, 2016), FTC-META-004144241,at -241 ("Postgres will be almost done by end of H1"); PX3545, Meta email: [redacted] to [redacted], et al. re: "[INSTAGRAM][SEV] instatao leaders in FRC unhpapy [sic]," (Mar. 14,

2015), FB_FTC_CID_03117062, at -062 (discussing SEV impacting InstaTAO in March 2015); PX6055, Shortway (Meta) Dep. Tr., at 186:22-24 ("Q. When did ... Instagram start using TAO? A. I'm almost positive sometime in 2016."); *see also* PX9011, Bray Rebuttal Report at ¶¶ 278-79.

Meta Response: Disputed in part. Undisputed that Instagram began migrating to TAO in June 2015 and completed the migration approximately a year later. Disputed for the reasons stated above in Meta's response to paragraph 2371, and because the statement in this subparagraph is misleading and does not create a genuine dispute of material fact. It is common for large-scale technical migrations to take time. *See* PX6062 at 122:24-123:6 (Mortenson Dep. Tr.) (describing Instagram's migration to TAO and stating that, "[a]s is standard and common with these kinds of large migrations, it was a multi-step process"); *see also* Ex. 5 at ¶ 317 (Nieh Rep.) (explaining that [redacted]).

b. The migration necessitated building a separate version of TAO, ("InstaTAO") so engineers could make changes "to support the functionality that Instagram needed" before moving "them over to use the regular version of TAO." *See* PX9011, Bray Rebuttal Report at ¶ 278; PX6062, Mortenson (Meta) Dep. Tr., at 123:6-22; *id.* at 126:21-22 (referring to it as "InstaTAO").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2371, and because the statement in this subparagraph is misleading and does not create a genuine dispute of material fact. It is common to develop new solutions to facilitate migration. *See*, *e.g.*, Ex. 5 at ¶ 153 (Nieh Rep.)

(describing how Instagram had to "develop custom software and processes" to migrate between AWS's EC2 to AWS's VPC), ¶ 317 (discussing [redacted]).

c. That Meta needed to develop a customized version of TAO for Instagram is evidence that it was not optimized for Instagram's needs. PX9011, Bray Rebuttal Report at ¶ 278.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2371, and because the statement in this subparagraph is misleading and does not create a genuine dispute of material fact. The cited paragraph in Mr. Bray's rebuttal report does not cite any evidence to support the paraphrased opinion, whereas extensive record evidence refutes the statement. Meta's creation of a customized version of TAO was merely a step in the process of migrating Instagram to TAO, which Mr. Mortenson explained is "typical with these migrations." *See* PX6062 at 122:24-124:8 (Mortenson Dep. Tr.) ("[O]ne of the efforts we worked with Instagram on to help them out and allow them to move faster and build features faster is moving them to use TAO, to move – to use graph cache and access system. As is standard and common with these kinds of large migrations, it was a multi-step process. One of the steps in that process is we provided a specific version of TAO that had some amount of what we call special casing so a specific functionality or specific behaviors for Instagram that made the migration easier. Then as is typical with these migrations, once we were

able to change the business logic and work with them to get to the point where everything was working with – either with the standard version of what we had in TAO, or we had augmented TAO to support the functionality that Instagram needed, then we moved them over to use the regular version of TAO and not a separate instance that had special casing as we said for them. That has significant benefits from a number of dimensions. One dimension is by having both Instagram and [Facebook] on the same set of servers and systems for TAO, it's much more efficient from an overall kind of capacity needs perspective. The migration for Instagram to use TAO also was a good way for us to build some important functionality that while initially was important for Instagram, benefited [Facebook] and the rest of the family of apps over time.").

Additional evidence shows that TAO is uniquely optimized for Instagram's social workload. *See* Ex. 5 at ¶ 70 (Nieh Rep.) ("Many of Meta's infrastructure software systems and databases also are optimized for Meta's apps. For example, TAO ('The Associations and Objects') is a unique distributed data store that handles Meta's workload for its massive social graph – among the largest and most complex databases in the world. Meta began developing TAO in 2007 to handle this unique social workload, when Meta's prior solution based on memcached and MySQL began to experience scaling issues."), ¶ 178 ("Prior to adopting TAO, Instagram stored social graph data in Postgres and used memcached caching servers to reduce load on the database servers and improve performance, an approach that was similar to Meta's pre-TAO architecture (a lookaside cache using memcached). Accordingly, migrating to TAO enabled Instagram to avoid

the same scaling issues of this type of an approach that caused Meta to abandon it for social graph data and develop TAO.”).

2372. Adopting TAO exposed Instagram to increased reliability risks. *See supra* CMF at ¶ 2335.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC’s statements in paragraph 2335, Meta incorporates its responses to those statements here.

b) As part of Meta, Instagram lost control over its own infrastructure capacity and has suffered from capacity restrictions imposed by Meta’s allocation processes.

2373. As part of Meta, Instagram lost control over its own infrastructure capacity and has suffered from capacity restrictions imposed by Meta’s allocation processes. *Infra* CMF at § V.E.3(b)(1).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC’s statements in Section V.E.3(b)(1), Meta incorporates its responses to those statements here.

(1) Instagram was able to readily access needed capacity on AWS whereas Meta’s capacity allocation process deprioritized Instagram’s capacity needs.

2374. Prior to moving to Meta’s infrastructure, Instagram had access to capacity on-demand from AWS. This capacity on-demand enabled Instagram to “move faster” and adopt nimble, short development cycles.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. It is purely speculative whether AWS could have provided Instagram the capacity it needed as it scaled. On the contrary, the evidence shows that prior to Instagram's migration to Meta's data centers Instagram was experiencing numerous capacity constraints and scaling issues on AWS. *See* Meta SMF ¶¶ 685-694; Ex. 5 at ¶¶ 97-115 (Nieh Rep.). In addition, "Meta is one of the world's four largest providers of what is sometimes referred to as 'hyperscale' infrastructure" and that, "unlike the other three largest infrastructure providers (AWS, Google, and Microsoft), Meta's infrastructure is dedicated solely to Meta's Family of Apps, whereas AWS, Google, and Microsoft each uses their own infrastructure to support not only their own apps as Meta does, but also to provide public cloud computing services to millions of third party customers, large and small." Ex. 5 at ¶ 43 (Nieh Rep.). The FTC's proffered infrastructure expert, Mr. Bray, estimated that running Instagram on AWS would require approximately [redacted] of AWS's total capacity today. *See* PX9011 at ¶ 89 (Bray Rebuttal Rep.). The FTC has not cited any evidence to support that AWS could have infinitely supported the capacity needs of a customer that required [redacted] of AWS's total capacity, while simultaneously providing capacity for millions of other customers. All infrastructures, including AWS, necessarily have limits to the capacity they can provide. *See* PX6181 at 286:14-22 (Nieh Dep. Tr.) ("On any infrastructure, as far as I know, there are limits in terms of capacity. . . . AWS has a certain amount of capacity as well. In fact, AWS even has their own designated error

codes that tell users 'sorry, insufficient capacity.' So all infrastructures have some capacity limits.").

It is also purely speculative whether Instagram could have afforded to pay for the capacity it needed from AWS. *See* Ex. 289 at 354:9-356:9 (Bray Dep. Tr.) (admitting that he assumed that Instagram would have been able to pay for as much capacity on AWS as it wanted). That assumption is contrary to the evidence that prior to the acquisition Instagram was facing significant growing costs on AWS and was considering moving off of AWS as a result. *See* Ex. 5 at ¶¶ 114-115 (Nieh Rep.).

a. Mr. Krieger testified that:

> Amazon, luckily, has a pretty easy-to-use website where you could, you know, create more machines -- or rent more machines as part of your infrastructure. That was step one. And then step two would be we would have to do what's called provisioning . . . [S]o running Instagram software and [staying] up to date on all of those things.
>
> PX6015, Krieger (Meta/Instagram) IH Tr., at 142:8-17.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2374.

b. Mr. Krieger explained that under AWS, "you could have a new [web server] up and running in 20 minutes or so." Id. at 143:1-6. By contrast, the time frame for a traditional data center "operates more on a[n] . . . order form, '[g]et the machine in, get it installed' kind of time frame rather than a '[w]e need capacity in the next 20 minutes' sort of time frame." PX6146, Krieger (Meta/Instagram) Dep. Tr., at 43:24-44:4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2374.

c. Companies move to the public cloud for quick and easy access to new server capacity and because it allows them to "move faster." *See, e.g.*, PX6061, Parikh (Meta) Dep. Tr., at 93:9-13 ("Companies want to move to the cloud so that they can move faster and they can tap into the broader ecosystem of services so that they can innovate and build their business."). Public cloud providers work to enable developer productivity and rapid feature development. *See* PX9011, Bray Rebuttal Report at ¶ 59 n.74.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2374, and because the characterization of Mr. Parikh's statements is incomplete and misleading. Mr. Parikh was discussing the choice between companies "buying/building their own infrastructure" or moving to the cloud. PX6061 at 92:24-93:13 (Parikh Dep. Tr.). Rather than having to choose between building its own infrastructure or adopting the cloud, Instagram was able to leverage Meta's infrastructure, which benefited Instagram. *See* Ex. 5 at ¶ 87 (Nieh Rep.) ("By adopting Meta's infrastructure, Instagram . . . avoided these various cost performance limitations and associated risks of scaling on a public cloud service, and instead received the unique benefits of Meta's highly efficient infrastructure that could be optimized for their workloads.").

2375. After migrating to Meta infrastructure, Instagram became subject to Meta's central capacity allocation process, which was ill-suited to Instagram's shorter development cycles.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The FTC does not provide evidence that following the acquisition Instagram lacked the capacity to grow or introduce new features. Nor does the FTC identify "Instagram's shorter development cycles," or provide any evidence to compare them to Meta's or any other entity's, or explain the relationship between such cycles and the capacity allocation process. The statement ignores that, absent the acquisition, Instagram would have been subject to the central capacity allocation process of AWS or whatever third-party public cloud provider Instagram chose.

a. Prior to moving to Meta's data centers, "IG . . . had shorter product dev cycles," causing an engineer to observe that Instagram's "[redacted]" PX3551, Meta Workplace Post: [redacted] to Capacity Discussion – Issues and Wins (Apr. 7, 2017), FTC-META-004722850, at -853.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2375.

b. Meta established a budget for Instagram's capacity on an annual basis and allocated capacity quarterly, "manag[ing] [capacity] centrally through the capacity engineering and analysis team." PX6061, Parikh (Meta) Dep. Tr., at 133:5-134:12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2375.

c. Working within Meta's capacity allocation process was "challenging for our team [and] . . . IG teams in general as we tend to make decisions faster and grow a lot faster, which makes planning and communicating months even quarters in advance hard." PX3552, Meta email chain: [redacted] to [redacted], et al. re: "Archive capacity discussion" (May 25, 2017), FB_FTC_CID_02999876, at -878.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2375.

2376. As part of Meta, Instagram must compete for infrastructure capacity against other Meta products.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The FTC does not allege or provide evidence to support that following the acquisition Instagram lacked the capacity to grow or introduce new features. Nor does the FTC allege or show how

supposed competition for infrastructure against other Meta products resulted in Instagram receiving less capacity than it would have but for the acquisition. The statement ignores that, absent the acquisition, Instagram would have been resource constrained, just like any other company, and would have competed for infrastructure capacity against all the other products served by AWS or whatever third-party public cloud provider Instagram chose.

a. As part of Meta, Instagram lacked full autonomy over the capacity it was allocated: Mr. Parikh testified that the capacity "allocation happen[s] from the infra CEA [Capacity Engineering and Analysis] team to the Instagram team. Within that allocation to the Instagram team, the Instagram engineering team could and had autonomy to decide certain aspects of how to use it." PX6061, Parikh (Meta) Dep. Tr., at 231:20-232:4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2376.

b. At Meta, capacity is allocated among Meta's products (*e.g.*, Instagram, Facebook, Oculus, Metaverse, Libra), shared feature services (*e.g.*, Ads, Feed, AI), and shared infrastructure services (*e.g.*, storage, databases). *See* PX3553, Meta document: "Capacity Lifecycle Planning and Management" (undated), FTC-META-012239124, at -125-127; PX3468, Meta document: "Infra Capacity Planning Update" (Feb. 9, 2023), FTC-META-012487514, at -515; PX3555, Meta document: "Unified Budged Planning (UBP) Framework and 2020 PG Budgets Pre-Read" (July 26, 2019), FTC-META-012489192, at -199.

Meta Response: Disputed in part. Undisputed that, at Meta, capacity is allocated among Meta's products and services. Disputed for the reasons stated above in Meta's response to paragraph 2376.

c. Instagram competes with Meta's other products and shared service groups for capacity: [redacted] PX3556, Meta presentation: "Capacity Allocation/Management" (Apr. 26, 2022), FTC-META-003247348, at -350; *see also* PX3553, Meta document: "Capacity Lifecycle Planning and Management" (undated), FTC-META-012239124, at -125.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2376.

2377. As part of Meta, Instagram's infrastructure capacity needs have often been prioritized below other company priorities.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The FTC does not allege or provide evidence to support that following the acquisition Instagram lacked the capacity to grow or introduce new features. Nor does the FTC allege or show how supposed competition for infrastructure against other Meta products resulted in Instagram receiving less priority than it would have but for the acquisition. The statement ignores that, absent the acquisition, Instagram would have been resource constrained, just like

any other company, and would have competed for infrastructure capacity against all the other products served by AWS or whatever third-party public cloud provider Instagram chose.

a. In a 2014 response regarding a 2013 server capacity request, [redacted], a technical program manager for Instagram, observed: "I am fully aware of capacity [sic] generally works, and what you've [redacted] at Meta] said is two things: 1. we [Instagram] planned our capacity well, and someone else messed up. now that we need it, we're fucked because we planned well. 2. facebook.com is more important than Instagram." PX3559, Meta message board post: [redacted] post to Tasks (Feb. 10, 2014), FTC-META-002710367, at -368; PX6061, Parikh (Meta) Dep. Tr., at 114:16-115:1 ("There was a number of engineers, managers in Instagram . . . [redacted] was our key technical program manager . . . [h]e used to be an engineer. Then he moved into technical program management.")

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, and that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2377, and because the cited document discusses capacity planning in advance of Instagram's migration to Meta's infrastructure and does not bear on whether, once completed, that migration benefited Instagram.

b. In a May 2017 email, an Instagram employee complained that "[t]here's a lot of pressure to trade-off against existing upcoming IG features, but we don't have good visibility into how IG requests are traded off against other features across

FB property." PX3562, Meta email chain: [redacted] to [redacted], et al. re: "Archive capacity discussion" (May 25, 2017), FTC-META-004753870, at -871.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2377, and because the email also reflects the view of a single employee at one point in time; it does not support any broader claim regarding Meta's allocation of capacity to Instagram over the many years following the acquisition.

c. Meta's 2019 capacity allocations prioritized advertising over other Instagram products, including Feed:

> With the top down constrained budget cycle we are going into, people are going to be disappointed with the # of servers they get for growth – while Ads gets what they want, services that it depends on will not and will look to Ads to share some of their budget. Their natural reaction is going to be to blame the messenger (CEA) and seek more clarifications, explanations and justifications (e.g. Feed wants to understand why Ads gets more money than they do). We have seen this increasing over the last year already and it will get worse.

PX3563, Meta email chain: [redacted] to [redacted], et al. re: "TCO details" (June 21, 2019), FTC-META-011041361, at -364.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2377, and because the quoted language does not show that Instagram did not ultimately receive the capacity it wanted for Feed, or that the capacity it received was insufficient for its needs.

2378. An independent Instagram would have been able to make its own capacity allocation decisions and would not have been constrained by Meta's capacity allocation decisions. *See* PX9011, Bray Rebuttal Report at ¶ 106.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the statement in this paragraph is misleading. The statement ignores that, absent the acquisition, Instagram would have been resource constrained, just like any other company, and could at most have requested capacity from AWS or whatever third-party public cloud provider Instagram chose and would have been constrained by that provider's capacity allocation decisions.

(2) Meta's capacity limits have negatively impacted Instagram and Instagram's users.

2379. Meta's capacity limits have negative impacted Instagram and Instagram's users. *Infra* CMF at ¶¶ 2380-86.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2380-2386, Meta incorporates its responses to those statements here.

2380. As part of Meta, Instagram engineers observed that they had to constrain growth to fit within the infrastructure capacity that Meta had allocated to Instagram. PX3558, Meta document: "Instagram Efficiency Program [WIP]" (Oct. 26, 2018), FB_FTC_CID_13059417, at -420 ([redacted]

[redacted]).

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the cited document does not provide any evidence that Instagram "had to constrain growth," or show that Instagram was unable to grow due to capacity constraints. Record evidence shows that Instagram has achieved massive scale since the acquisition and that the acquisition helped Instagram scale more quickly, efficiently, or effectively than it could have absent the acquisition. *See supra* Meta Resp. to Counter SMF ¶ 2374.

2381. When Instagram did not receive enough infrastructure capacity to accommodate its normal growth, it was forced to pursue three strategies, with each having negative impacts on users:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The statements in the subparagraphs also ignore the resource and capacity constraints that Instagram would have faced as a separate company on AWS or whatever public cloud service it chose.

a. Instagram could develop ways to [redacted], *see infra* CMF at ¶ 2382;

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2381, and because this paragraph cites no specific evidence

in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraph 2382, Meta incorporates its responses to those statements here. The FTC does not provide a single example of where Instagram was required to selectively degrade quality due to capacity constraints.

b. Instagram could [redacted], *see infra* CMF at ¶ 2383; and

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2381, and because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraph 2383, Meta incorporates its responses to those statements here. The FTC does not provide a single example of where Instagram was required to use its emergency reserved capacity or DR buffer due to capacity constraints.

c. Instagram could divert engineering resources to "efficiency engineering" to reclaim server capacity with engineering improvements, which thereby impacted Instagram's ability to launch new features, *see infra* CMF at ¶ 2384.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2381, and because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and

Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraph 2384, Meta incorporates its responses to those statements here. The FTC does not provide a single example of where Instagram was required to divert engineering resources due to capacity constraints.

d. *See* PX9011, Bray Rebuttal Report at § VI.A.

Meta Response: Disputed. Disputed because a citation to a section of an expert report is not a statement, and therefore no response is required.

2382. [redacted]

PX3546, Meta document: "[redacted]" (Aug. 17, 2018), FTC-META-008622139, at -139; *see also* PX3547 at -005, Meta presentation: "[redacted]" (Apr. 27, 2018), FB_FTC_CID_02635522 ([redacted]).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the cited evidence does not support the statement in this paragraph.

[redacted]

[redacted] *See* Ex. 5 at ¶ 34 n.26; *see also* Ex. 156 at 249:2-11 (Shortway Dep. Tr.) ([redacted]).

2383. Because of capacity limits, [redacted].

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The FTC does not provide [redacted]. The FTC's statement also ignores the resource and capacity constraints that Instagram would have faced as a separate company on AWS or whatever public cloud service it chose. [redacted] *See* Ex. 156 at 248:7-10, 249:12-250:6 (Shortway Dep. Tr.) [redacted]

[redacted]; *see also* Ex. 5 at ¶ 61 (Nieh Rep.) (explaining that Meta's reliability organization provides [redacted]).

a. [redacted]

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2383, and because the statement and cited document describe Meta's forward-looking capacity allocation process in 2023, not the capacity allocation priorities that Meta used for Instagram in the decade following the acquisition.

b. Despite [redacted], a 2018 summary noted that, [redacted] PX3546, Meta document:

"Capacity/Efficiency Problems" (Aug. 17, 2018), FTC-META-008622139, at -139.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2383, and because the FTC's characterization of the cited document is incomplete and misleading. The cited document establishes that Meta enabled Instagram to scale without having to consider the amount of resources Instagram was consuming. *See* PX3546 at -139 (FTC-META-008622139) (explaining that Instagram was "historically focused on shipping product as quickly as possible, while only being marginally concerned about the backend resources consumed. We ensured that there were no egregious regressions in products, but [redacted]. The document does not show that Instagram [redacted].

c. A 2019 Meta Workplace post explained that [redacted]

[redacted] PX3549, Meta Workplace post: [redacted] post to Capacity & Efficienc (Aug. 6, 2019), FTC-META-004727327, at -328.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2383, and because the FTC's characterization of the cited document is incomplete and misleading. The cited document details Meta's efforts to improve the efficiency of its infrastructure, [redacted]. PX3549 at -328 (FTC-META-004727327) ([redacted]). The FTC does not allege, and the document does not show, what it means to be [redacted].

d. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2383, and because the document [redacted]

[redacted]

e. [redacted] *See* PX9011, Bray Rebuttal Report at ¶¶ 97-100.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2383, and because the cited paragraphs in Mr. Bray's report do not provide a [redacted].

2384. Because of capacity limits, Instagram was forced to devote engineering time to reclaiming capacity rather than other user-facing improvements.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. The FTC does not provide a single example of a user-facing improvement that Instagram was unable to make or was delayed due to Instagram supposedly needing to reclaim capacity. The statement also ignores the resource and capacity constraints that Instagram would have faced as a separate company on AWS or whatever public cloud service it chose. The FTC's proffered infrastructure expert, Mr. Bray, acknowledged that it is beneficial to devote engineering time to efficiency efforts. PX9011 at ¶ 101 (Bray Rebuttal Rep.)

("The practice of making an application more efficient is a normal practice at technology companies, and can be used to great effect to use fewer resources and reduce costs.").

a. Efficiency engineering is the practice of using engineers to make a feature or application "more efficient on its power utilization so that then you can fund that extra power that you don't have the budget for." PX6055, Shortway (Meta) Dep. Tr., at 233:17-24; PX6062, Mortenson (Meta) Dep. Tr., at 170:14-22 ("[W]hat we ended up doing [in a period when capacity was particularly tight] is doing [sic] significant efficiency work to reclaim servers; so we could use it for new product launches . . . ."); *see also supra* CMF at ¶ 2099.

Meta Response: Undisputed.

b. Instagram used efficiency engineering to address capacity shortfalls as early as 2015 and into 2016. PX3467, Meta email chain: [redacted] to [redacted] re: "capacity crunch 'priorities'" (Nov. 17, 2015), FTC-META-004713091, at -091 (referring to an "upcoming capacity crunch" and asking "What's plan B? Specifically, have we discussed/publicized/decided on what we wouldn't do or what we would turn off if our efficiency goals aren't hit. Naturally, I emphasized that we need to get this done and Santosh talked a bit about defcon."); PX3561, Meta document: "M3 Review - & Reliability" (May 3, 2016), FTC-META-008609583, at -583-84 (describing a variety of efficiency goals).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2384, and because the cited evidence does not support the statement in this subparagraph. The first cited document does not mention Instagram. *See* PX3467 (FTC-META-004713091). The second cited document

discusses efficiency work, *see* PX3561 (FTC-META-008609583), which the FTC's proffered infrastructure expert, Mr. Bray, explains "is a normal practice at technology companies, and can be used to great effect to use fewer resources and reduce costs." PX9011 at ¶ 101 (Bray Rebuttal Rep.). Neither the statement nor the cited documents demonstrate that Instagram actually faced capacity shortfalls.

c. By 2020 Instagram concluded that [redacted] PX3469, Meta presentation: "IG EFFICIENCY" (Jan. 2020), FTC-META-004554322, at -324.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2384, and because neither the statement nor the cited document demonstrates that Instagram actually faced capacity shortfalls that limited its ability to launch new features or products.

d. [redacted] PX3560, Meta document: "Instagram H2 2021 – 1-Pager [IG Leads]" (undated), FTC-META-004633272, at -273 ([redacted]).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2384, and because the characterization of the cited document is incomplete and misleading. [redacted]

[redacted] PX3560 at -273 (FTC-META-004633272) (emphasis added). Neither the statement nor the cited document demonstrates that Instagram actually faced capacity shortfalls that limited its ability to launch new features or products.

2385. Capacity constraints on Meta's infrastructure impacted Instagram's ability to launch new features.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Extensive evidence shows that the acquisition enabled Instagram to develop and launch new features more quickly and efficiently than it could have absent the acquisition. *See* Ex. 5 at ¶ 196 (Nieh Rep.) ("Instagram was only two years old when Meta acquired it. Meta has now operated Instagram for the past 11 years. During that time, the Instagram application has been almost completely rewritten. The vast majority of Instagram's new feature development has occurred while Instagram has been integrated with Meta, relying on Meta's infrastructure and other extensive resources that are dedicated to Meta's Family of Apps. Instagram was able to rely on Meta's talent pool and hiring expertise for its product teams; offload the infrastructure-related issues related to developing and launching new features to Meta's Infrastructure Organization; and use Meta's developer tools, logging and data analytics, continuous deployment systems, and AI systems. Meta's infrastructure, engineering resources, and technical capabilities helped Instagram

develop and launch new features and functionality more rapidly and efficiently at massive scale." (internal citations omitted)).

a. In 2017, Instagram planned several high-priority launches, all of which assumed that photos and videos could be kept forever and required more Everstore storage capacity, which Instagram had already "maxed out." PX3557, Meta email chain: [redacted] to [redacted], et al. re: "Archive capacity discussion," (May 25, 2017), FB_FTC_CID_02613640, at -641. Meta's Everstore team advised Instagram that "any new request would require trade-off against other IG projects (e.g., Post-Live)" or to delay the launch. *Id.* Then-Instagram Vice President Kevin Weil replied about the proposed trade-offs that "[e]ither of these restrictions would be a major bummer, obviously." PX3557, Meta email chain: K. Weil to K. Systrom, et al. re: "Archive capacity discussion," (May 25, 2017), FB_FTC_CID_02613640, at -641.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2385, and because the cited evidence does not show that any of Instagram's planned feature launches were actually impacted.

b. In 2018, Instagram employees wrote that Instagram did not have enough capacity to launch IGTV without efficiency work. PX3558, Meta document: "Instagram Efficiency Program [WIP]" (Oct. 26, 2018), FB_FTC_CID_13059417, at -417.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2385, and because the cited evidence does not show that any of Instagram's planned feature launches were actually impacted.

c. An Instagram engineer stated in 2020 that Instagram was [redacted] and have [redacted]. PX10800 at -005, Meta Workplace Post: [redacted] post to Instagram Media FYI (Mar. 19, 2020), FB_FTC_CID_12177806 ([redacted]).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2385, and because the characterization of the cited document is incomplete and misleading. Mr. Shortway explained that the cited document, which is from March [redacted]. Ex. 156 at 253:25-254:20 (Shortway Dep. Tr.) ("COVID provided a really odd situation where everybody was using the product a lot more, much more than we could have even imagined[.] . . . So, you know, we were providing a lot of great services for all of the people who were stuck at home and bored and using their phones. [redacted]); *see also* PX10800 at -808 (FB_FTC_CID_12177806) (explaining that [redacted]

[redacted]. IG compute usage . . . , originally projected to grow [redacted], has now been revised to grow [redacted] instead."). The cited document also makes clear that Meta prioritized and encouraged Instagram's launch of new features. PX10800 at -809_0001 (FB_FTC_CID_12177806) ("[redacted]").

d. In 2021, Instagram hypothesized that its popular Reels feature experienced "[redacted]." PX10799, Meta presentation: "Family Reels and Video Competitive Landscape" (Sept. 2021), FTC-META-000006277, at -287.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2385, and because neither the statement nor the document demonstrates that Instagram [redacted].

2386. Meta has experienced capacity shortfalls for years.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the

subparagraphs below does not support the statement in this paragraph. The FTC does not cite any evidence to show that Meta faced capacity shortfalls that affected any of its products, much less that any supposed shortfalls differed from what Instagram experienced before the acquisition or would have experienced absent the acquisition.

a. A March 2015 Meta planning document explained that "[o]verall we are constrained at regional levels in FRC, PRN and ATN in 2016 and face deficits starting 2017" and "[w]e face severe shortfall starting Q1 2017 despite migration of tiers." PX3564, at -005, -013, Meta presentation: "LRP 2015 Global and regional demand planning" (Mar. 2015), FTC-META-003089986.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2386.

b. Instagram engineer Nick Shortway testified that "[s]o we only in 2018, 2019 were starting to realize that, like, our product was outpacing the capacity." PX6055, Shortway (Meta) Dep. Tr., at 9:16, 247:7-9.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2386, and because the characterization of Mr. Shortway's testimony is incomplete and misleading. Mr. Shortway explained that historically, Instagram was not "spending the – the due effort to focus on efficiency across the product teams. Product teams were basically – there's so many product engineers and they were just shipping more and more features anytime they wanted without consideration of whether or not they need to be doing it efficiently or trying to

build things with others in mind. . . . So a lot of these calls to efficiency were to tell the engineers that, hey, we want you to build your products, but you have to be paying attention to how much of a drain it has on the – on the infrastructure." Ex. 156 at 243:16-245:24 (Shortway Dep. Tr.). He further explained that "it was hard to continue to grow at the unbelievable rate that we were growing at. So the expectation was that we would – we are still building more data centers, we are still scaling things up, but we have to be mildly conscientious with the – with what we're building so that we make sure we don't push through our buffers. But note that we also did have buffers. This is something that, you know, if we compare back to the earlier days of – of being on [AWS] – you asked when we were hitting physical limits. We didn't have any buffers. There was no such thing as a buffer. We actually – they just – there just weren't servers. So in comparison to – and also the scale that we were able to operate over the, you know, five-plus years between that and this time, we scaled very, very fluidly. So we only in 2018, 2019 were starting to realize that, like, our product was outpacing the capacity." *Id.* at 246:13-247:9.

c. A July 2018 Meta efficiency update document noted that

> the demand for servers continues to run close to our maximum available supply of data center space, even as we continue to build additional capacity. We . . . are constrained both by our balance sheet and by physical limitations on how much infrastructure we can support . . . . This is an unprecedented challenge for Facebook, and improving our service and product efficiency to reduce resource consumption is critical for the long-term health of our business.

PX3565, Meta document: "[shipped] Jay Efficiency 2018 H1 Update" (July 31, 2018), FTC-META-005533802, at -807.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2386, and because the characterization of the cited document is incomplete and misleading. The document details Meta's innovative work to improve the efficiency of its infrastructure. *See* PX3565 (FTC-META-005533802) (detailing that Meta's efficiency efforts "are helping us to reduce power demand by more than an entire data center building (30 MW) and cut down our server capex by $450M+.").

d. A 2018 Meta document stated that [redacted] PX3558, Meta document: "Instagram Efficiency Program [WIP]" (Oct. 26, 2018), FB_FTC_CID_13059417, at -417.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2386.

e. A November 2018 Meta document concerning efficiency stated that [redacted] PX10808, Meta document: "Why do we care about Efficiency?" (Nov. 20, 2018), FTC-META-009703469, at -475.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2386, and because the characterization of the cited document is

incomplete and misleading. When discussing the exhibit, Mr. Shortway explained that Instagram's demand was growing because Instagram was not "spending the – the due effort to focus on efficiency across the product teams. Product teams were basically – there's so many product engineers and they were just shipping more and more features anytime they wanted without consideration of whether or not they need to be doing it efficiently or trying to build things with others in mind. . . . So a lot of these calls to efficiency were to tell the engineers that, hey, we want you to build your products, but you have to be paying attention to how much of a drain it has on the – on the infrastructure." Ex. 156 at 243:16-245:24 (Shortway Dep. Tr.). He further explained that "it was hard to continue to grow at the unbelievable rate that we were growing at. So the expectation was that we would – we are still building more data centers, we are still scaling things up, but we have to be mildly conscientious with the – with what we're building so that we make sure we don't push through our buffers. But note that we also did have buffers. This is something that, you know, if we compare back to the earlier days of – of being on [AWS] – you asked when we were hitting physical limits. We didn't have any buffers. There was no such thing as a buffer. We actually – they just – there just weren't servers. So in comparison to – and also the scale that we were able to operate over the, you know, five-plus years between that and this time, we scaled very, very fluidly. So we only in 2018, 2019 were starting to realize that, like, our product was outpacing the capacity." *Id.* at 246:13-247:9.

f. In a March 2020 Workplace exchange, a Meta employee observed that "[redacted]

[redacted]" PX10800, Meta Workplace Post: [redacted] post to Instagram Media FYI (Mar. 20, 2020), FB_FTC_CID_12177806, at -806.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2386, and because the characterization of the cited document is incomplete and misleading. [redacted] Ex. 156 at 253:25-254:20 (Shortway Dep. Tr.) [redacted]; *see also* PX10800 at -808 (FB_FTC_CID_12177806) (explaining that [redacted]). The cited document also makes clear that Meta prioritized and encouraged Instagram's launch of new features. PX10800 at -

809_0001 (FB_FTC_CID_12177806) ([redacted]).

g. A September 2021 Meta presentation noted that [redacted] PX10799, Meta presentation: "Family Reels and Video Competitive Landscape" (Sept. 2021), FTC-META-000006276, at -278.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2386.

c) As Meta has grown, so too have outages and internal reports of cascading failures, impacting users.

2387. Meta's growth has meant additional outages—[redacted] PX13041, Facebook Workplace Post: S. Janardhan post to Infra FYI (Aug. 19, 2019), FTC-META-002978313, at -314.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2277, and because the evidence cited in the subparagraphs below does not support the statement in this paragraph. Even if Meta's infrastructure experienced occasional outages, it does not follow – and the FTC cites no evidence to show – that Meta did not improve Instagram's reliability. *See* PX9001 at

¶ 143 (Bray Rep.) (explaining that "[o]utages, even serious ones, are to be expected given the complexities of the infrastructure supporting online products"). The FTC's proffered infrastructure expert, Mr. Bray, admitted that he did not analyze whether Instagram meets or exceeds an industry standard of outages. *See* Ex. 289 at 56:6-12 (Bray Dep. Tr.) (stating "that was not within the scope of the questions which I was asked"). Mr. Bray further stated that he was not aware of evidence comparing Instagram's outages before and after the acquisition. *See id.* at 61:20-62:9. Extensive evidence shows that migrating to Meta's infrastructure improved Instagram's reliability. *See*, *e.g.*, Ex. 5 at ¶ 212 (Nieh Rep.) ("[T]he reliability of Instagram benefitted greatly overall from migrating to Meta's infrastructure. Instagram also obtained access to Meta's large and talented pool of reliability engineers that have helped Instagram maintain high reliability over the past decade."); *see also* Ex. 153 at 277:18-278:10 (Krieger Dep. Tr.) (testifying that adopting Meta's infrastructure services improved Instagram's stability and reliability). The statement does not allege and the supporting evidence does not show that Meta or Instagram experienced more outages than any other hyperscale infrastructure provider, much less that Instagram would have faced fewer outages absent the acquisition than it did since migrating to Meta's infrastructure.

a. A 2017 Meta discussion board post by then-Vice President Jay Parikh states that [redacted] PX11050, Meta Workplace Post: J. Parikh post to Infrastructure FYI (Oct. 24, 2017), FTC-META-006196445, at -445.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2387, and because it is axiomatic that as you add additional components to an infrastructure, the chance of failures becomes more common. *See* Ex. 5 at ¶ 32 (Nieh Rep.) ("[W]hen using many servers, server failures become more common, so apps and software infrastructure need to be designed to tolerate such failures."); PX11050 at -447 (FTC-META-006196445) [redacted] The cited document details Meta's innovative efforts to build reliable systems that handle failures. *See* PX11050 at -445 (FTC-META-006196445) (Mr. Parikh explaining that the post "[D]iscusses the systems, processes, and tools that we plan on working on over the next couple of years to improve the resiliency of our infrastructure.").

b. Mr. Zuckerberg stated in 2019 that Meta experienced "more downtime this year than the last few years combined" and "[w]e're doing worse on this now than we were before." PX3566, Meta email chain: [redacted] (Revue) to [redacted] (Meta) re: "Why Facebook keeps going down," (Oct. 7, 2019), FTC-META-006196269, at -271-272.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2387.

c. In a 2019 post, Mr. Janardhan [redacted] PX13041, Facebook Workplace Post: S. Janardhan post to Infra FYI (Aug. 19, 2019), FTC-META-002978313, at -314 (emphasis omitted); PX6055, Shortway (Meta) Dep. Tr., at 180:12-14 (noting that "SEV0" means "everything is completely out.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2387, and because the characterization of the cited evidence is incomplete and misleading. The cited document details Meta's innovative efforts to improve the reliability of its infrastructure at massive scale. *See*, *e.g.*, PX13041 at 313-314 (FTC-META-002978313) (explaining that Meta's "physical infrastructure spans [redacted], and our accompanying software systems have grown to [redacted]. We should take pride in what our team has accomplished," and explaining that Meta was "raising the bar on reliability" and developing "world-class innovation to reach the next level").

d. In the same 2019 post, Mr. Janardhan also observed that [redacted]

PX13041, Facebook Workplace Post: S. Janardhan post to Infra FYI (Aug. 19, 2019), FTC-META-002978313, at -313.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2387, and because the characterization of the cited evidence is incomplete and misleading, for the reasons stated above in Meta's response to paragraph 2387(c).

2388. Instagram users were impacted by Instagram's outages. PX6181, Nieh (Meta) Dep. Tr., at 86:5-7 (stating that "certainly, if a service is not available to the user, then that would impact the user's experience with that service"); PX9001, Bray Report, App'x B (providing a sample of outages of Meta products, including outages on Instagram from 2014 onwards, which coincides with the time that Instagram was operating from Meta's data center(s)); *see also id.* at ¶ 144 & n.153 (describing that the incidents produced by Meta were SEV0 and SEV1, which have significant user-visible impact on the site's availability).

Meta Response: Disputed in part. Undisputed that outages impact the user experience. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2277 and 2387.

2389. An undated Meta document, titled "DevInfra Deep Dive," details challenges from site reliability problems at Meta, including persistent outages. *See* PX10087, Meta document: "DevInfra Deep Dive" (undated), FTC-META-012239137. Among the document's findings were that:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2277 and 2387, and because the characterization of the cited document is incomplete and misleading. The cited document details Meta's innovative efforts to improve the reliability of its infrastructure at massive scale. *See*, *e.g.*, PX10087 at -162 (FTC-META-012239137) ([redacted]).

a. Meta established a [redacted] *Id.* at -159.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2389.

b. [redacted] *Id.* at -165.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2389.

c. According to a senior software engineer at Instagram, [redacted] *Id.* at -165.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2389, and because the time period is vague and undefined.

d. [redacted]

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2389, and because this subparagraph cites no supporting evidence.

2390. PX10087, Meta document: "DevInfra Deep Dive" (undated), FTC-META-012239137, at -166. *Compare* PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 112:1-5 ("I would say we probably achieved on the order of -- in -- in – let's say in 2013, which was a full year, we probably had five nines of reliability [99.999%], not six nines of reliability [99.9999%]; and our goals were always to achieve six nines of reliability [99.9999%]."), *with* [redacted] ("[A]t this particular point in time [2021], our uptime is -- our availability is overall around 99.5 percent and above.").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed because citations without explanation do not constitute a statement of fact. In addition, PX6181 is the Nieh deposition transcript, not the Jain deposition transcript.

F. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Succeed and Grow

2391. Meta's acquisition of WhatsApp was not necessary for WhatsApp to succeed and grow. *Infra* CMF at §§ V.F.1-2.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections V.F.1-2, Meta incorporates its responses to those statements here.

Further disputed that any of the FTC's statements in Section V.F create a genuine dispute of material fact because they do not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the FTC's statements in Section V.F suggest that, absent the acquisition, WhatsApp would

have been able to succeed and grow as successfully as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. Conversely, there is extensive evidence that WhatsApp has experienced tremendous growth in the United States since the acquisition, *see* Meta SMF ¶¶ 833-835, and that Meta has invested significantly in WhatsApp's features, infrastructure, integrity, and monetization, *see id.* at ¶¶ 839-850 (new features), ¶¶ 851-854 (privacy), ¶¶ 855-865 (infrastructure), ¶¶ 866-869 (spam), ¶¶ 825-832 (monetization); *see also*, *e.g.*, Meta Resps. to Counter SMF ¶ 2400 (features), ¶ 2427 (monetization), ¶ 2452 (infrastructure), ¶ 2511 (integrity).

1. Meta's acquisition of WhatsApp was not necessary for WhatsApp to continue its rapid growth.

2392. WhatsApp grew rapidly following its launch and was still growing rapidly at the time of its acquisition. Prior to its acquisition, WhatsApp was the global leader in mobile messaging, and it was growing in the United States and well-positioned to keep growing. *See supra* CMF at § III.C.2.a.1-2.

Meta Response: Disputed in part. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.C.2.a.1-2, Meta incorporates its responses to those statements here.

2393. Mark Zuckerberg acknowledged that WhatsApp "would have been on the same trajectory" without being acquired by Meta. PX2473, Meta email chain: M. Zuckerberg to A. Schultz re: "Draft Earnings Script," (July 19, 2018), FB_FTC_CID_08846269, at -271.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2391, and because the quoted language is misleading and incomplete. Mr. Zuckerberg's full statement reads:

> My understanding is we've done several analyses of how much of IG growth has been driven by FB and we conclude it's ~25% annually. If you compound this over time, you get a number in the range of what I have here. This is meant to be an estimate and the real number could be lower or higher. In general I've found we tend to underestimate the impact of the integrations (eg when we removed some last year it moved IG down in the app store so we lost more growth than we expected) and these analyses have mostly focused on promotions rather than using the graph data (which may be even greater impact than the promotions). My range of 300-400 is meant to be a conservative estimate, since 75% of growth rate compounded over 6 years would actually get you closer to 178 million, not even 300-400 million. I'm assuming if we hadn't used these tactics we would have done something else though. But intuitively, it makes sense that without this massive effort Instagram would be in the range of every other social app (Twitter, Snapchat, Pinterest, LinkedIn, etc) and that's 200-400 million actives.
>
> Since this isn't a forward-looking estimate or analysis that impacts our business outlook, I'm not sure how precise it needs to be. I suggested a range to imply it's not precise and is more directional.
>
> I'd like to make the point about how the teamwork and integration have really mattered though. That is – this isn't just a case like WhatsApp where IG would have been on the same trajectory without this. I think that's a nice and important story to tell to emphasize that FB Inc has been a good operator and not just lucky to buy good companies.

PX2473 at -271 (FB_FTC_CID_08846269). As the full statement makes clear, Mr. Zuckerberg was discussing how the Instagram acquisition benefited Instagram's growth, particularly due to Instagram's integrations with Meta's systems and cross-platform promotions. He was not discussing or analyzing the WhatsApp acquisition or WhatsApp's growth. Additionally, Mr. Zuckerberg expressly stated that "I've found we tend to underestimate the impact of the integrations." *Id.* Evidence shows Meta similarly

integrated with WhatsApp and contributed to its post-acquisition growth. *See* Meta SMF ¶¶ 855-865 (infrastructure integration), ¶¶ 833-835 (growth).

Further disputed because Mr. Zuckerberg's passing reference to WhatsApp in the quoted document does not relate to WhatsApp's growth trajectory in the United States, the FTC's alleged relevant geographic market. Mr. Acton testified that, pre-acquisition, "[g]rowth in the United States was slow." Ex. 314 at 98:13-16, 99:13-16 (Acton IH Tr.). And when asked: "Did you have any specific projections for WhatsApp's growth in the United States," Mr. Acton responded with: "No." *Id.* at 104:1-3. Additionally, Mr. Acton testified: "[A]s I mentioned before, we were never sort of – even in 2014 we were never top of mind for a lot of U.S. users. A lot of U.S. growth actually happened after 2014, probably from awareness of the acquisition as a – as a – to raise the awareness of the product. The rest of it happened organically and internationally." *Id.* at 143:11-17.

2394. WhatsApp co-founders Brian Acton and Jan Koum testified that WhatsApp had positive prospects for continued success and growth.

Meta Response: Disputed in part. Undisputed that Mr. Acton and Mr. Koum testified about WhatsApp's positive prospects for growth. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2391, and because the record contains ample evidence, including testimony from Mr. Acton and Mr. Koum, that WhatsApp's growth in the United States – the FTC's alleged geographic market – was slow. Ex. 314 at 147:7-17 (Acton IH Tr.) (in February 2014, "the U.S. market was a hard market for us because people were using adjacent messaging products. They were using iMessage. They were using Facebook Messenger. And so our growth in the U.S. was

quite slow"); PX1371 at -004 (FB_FTC_CID_03200983) (explaining that in "[e]arly 2012," WhatsApp was "just starting to see traction in US, Russia, China, Finland, and Eastern Europe"); Ex. 137 at -582 (MetaFTC-DX-679, [redacted]; *see also* Meta SMF ¶¶ 773-782. Further disputed as not material to the resolution of either party's motion to the extent the assertion and the evidence cited does not relate to WhatsApp's prospects for success and growth in the United States, the FTC's alleged relevant geographic market.

a. Mr. Acton testified that of the OTT mobile messengers, WhatsApp was "the most successful in the U.S." PX6009, Action (Meta/WhatsApp) IH Tr., at 144:21-24.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony as to WhatsApp's success in the United States against over-the-top ("OTT") mobile messengers including LINE, Kakao, Telegram, and Hike Messenger. *See* PX6009 at 144:1-24 (Acton IH Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2394, and because the statement is incomplete and misleading because, as to all mobile messengers in the United States, Mr. Acton testified that, as of February 2014, "the U.S. market was a hard market for [WhatsApp] because people were using adjacent messaging products. They were using iMessage. They were using Facebook Messenger. And so our growth in the U.S. was quite slow." *Id.* at 147:7-17.

b. Mr. Acton "felt that [WhatsApp] would grow in every country of the world, including the United States, knowing that every country would have a different

growth rate and a different adoption rate in each country." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 272:1-5.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2394, and because the statement is incomplete. Mr. Acton further testified that he believed WhatsApp would continue to grow in the United States "[b]ecause we had a rock solid product that was delightful to its users, and *eventually* people would come to realize that and use it." PX6086 at 272:6-12 (Acton Dep. Tr.) (emphasis added).

c. Mr. Acton testified that, prior to WhatsApp's acquisition by Meta, its user base was "slowly trending up" in terms of growth in the United States. *Id.* at 271:11-18.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2394, and because the statement is incomplete and misleading. Mr. Acton testified that he thought WhatsApp's user base in the United States was slowly trending up "[a]t the time of the acquisition," not prior to the acquisition. PX6086 at 271:17-18 (Acton Dep. Tr.). His complete testimony was that ultimately growth at the time of the acquisition was "relatively flat": "At the time of the acquisition, I think [WhatsApp's user base] was slowly trending up. But I think you had a document even presented today that showed a .009, you know, growth rate or something. That seems relatively flat, in my opinion." *Id.* at 271:17-21; *see also* Meta SMF ¶ 779 ("Q. So thinking about the U.S. in

particular, what did growth in the U.S. of WhatsApp look like during that time period? A. Growth in the United States was slow." (quoting Ex. 314 at 99:13-16 (Acton IH Tr.))).

d. Mr. Koum described WhatsApp's global growth trajectory prior to February 2014, when the acquisition was announced, as "phenomenal." PX6010, Koum (Meta/WhatsApp) IH Tr., at 102:8-11.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2394. Further disputed as not material to the resolution of either party's motion because the testimony does not relate to WhatsApp's growth trajectory in the United States, the FTC's alleged relevant geographic market.

e. As Mr. Koum explained, WhatsApp was "growing internationally in the emerging market, which was mobile space." *Id.* at 96:17-97:8.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2394. Further disputed as not material to the resolution of either party's motion because the testimony does not relate to WhatsApp's growth trajectory in the United States, the FTC's alleged relevant geographic market.

f. Mr. Koum testified that WhatsApp was growing in the United States prior to the Meta acquisition and had positive growth in the U.S. the entire time between 2009 and 2014. *Id.* at 105:1-4.

Meta Response: Disputed in part. Undisputed that Mr. Koum provided the paraphrased testimony. Disputed as incomplete. Immediately after the

paraphrased testimony, Mr. Koum testified, as to WhatsApp's growth in the United States, "I would caveat it by saying that maybe we didn't grow as fast in the United States as we grew in some other countries, but we also didn't grow as slow as we grew in some other countries. So it was – if it was a country where we grew, we didn't lose users, like you said. But it wasn't a country like Netherlands or Italy where WhatsApp just took off." PX6010 at 105:13-20 (Koum IH Tr.).

g. Mr. Acton believed that WhatsApp would continue to grow in the United States "[b]ecause we had a rock solid product that was delightful to its users, and eventually people would come to realize that and use it." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 272:6-12.

Meta Response: Undisputed that the witness provided the quoted testimony.

2395. Professor Rim likewise testified that WhatsApp was well-positioned to continue to be successful, independent of any acquisition by Meta.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2391. Further disputed as not material to the resolution of either party's motion because the FTC proffers no evidence that the opinions relate to WhatsApp's success in the United States, the FTC's alleged relevant geographic market. Further disputed on the ground that "well-positioned" is vague and undefined and not explained or supported by the testimony cited in the subparagraphs below.

a. Professor Rim testified that he believed WhatsApp "would have been very successful if [it was] not acquired by Meta." PX6182, Rim (FTC) Dep. Tr., at 71:17-19; *id.* at 104:10-12.

Meta Response: Disputed in part. Undisputed that Professor Rim provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2395.

b. Professor Rim also opined that:

> While I agree that managing and growing a startup is a challenging task, I disagree with Professor Kaplan that the challenges he identifies, which are general and apply to many companies, were at all likely to cause the downfall of . . . WhatsApp. The reason is that [WhatsApp] had [a] phenomenal product[] which had led to extraordinary engagement and growth, even prior to their acquisition by Meta, and [was] led by extremely capable founders who were assisted by top-tier VCs. As a result, . . . WhatsApp [was] very well-positioned to overcome these problems."

PX9014, Rim Rebuttal Report at ¶ 64.

Meta Response: Disputed in part. Undisputed that Professor Rim offered the quoted opinion. Disputed for the reasons stated above in Meta's response to paragraph 2395.

2. After its acquisition of WhatsApp, Meta prioritized the promotion of Facebook and Facebook Messenger.

2396. Following Meta's acquisition of WhatsApp, Meta was responsible for decisions related to promotions of WhatsApp via Meta's other applications. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 165:14-22.

Meta Response: Undisputed.

2397. Meta did not put much effort into promoting WhatsApp in the United States in the first four years after it acquired WhatsApp, instead prioritizing Facebook Messenger.

Meta Response: Disputed in part. Undisputed that Meta sometimes promoted WhatsApp and Messenger differently in different geographic markets based on a host of strategic factors specific to each app. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2391, and because they do not support or cite any evidence for the proposition that Meta's relative prioritization of the two apps had any detrimental effect on WhatsApp or consumers. As Mr. Zuckerberg explained, Meta focused on growth and improvements to WhatsApp's infrastructure and features in those early years, which was followed by strong growth in the United States. PX6127 at 144:5-146:12 (Zuckerberg Dep. Tr.) (explaining that, after the acquisition, Meta made WhatsApp free, which helped it "unlock a lot of growth," provided WhatsApp with better infrastructure, which "allowed the WhatsApp team to go build products that would be very difficult to do otherwise," such as video chat, and helped WhatsApp to launch privacy-related features, such as end-to-end encryption); Meta SMF ¶¶ 833-835. Further disputed because the phrase "did not put much effort into" is vague and undefined.

a. Meta did not focus on promoting WhatsApp in the U.S. from after Meta's acquisition through June 2018. [redacted]; PX15191, Meta email: M. Imam to C. Daniels, et al. re: "WA in iOS Countries," (June 26, 2018), FB_FTC_CID_02496775, at -775.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony and that the document contains the paraphrased statement. Disputed for the reasons stated above in Meta's response to paragraph 2397.

b. Mr. Zuckerberg testified that that he could not recall Meta [redacted]. PX6127, Zuckerberg (Meta) Dep. Tr., at 156:14-23; *see also id.* at 157:5-158:3.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased and quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2397.

2398. Meta prioritized the growth of Facebook Messenger over the growth of WhatsApp where it considered Facebook Messenger a "leader," which included the United States.

Meta Response: Disputed in part. Undisputed that Meta sometimes prioritized growth differently for WhatsApp and Messenger in different geographic markets based on a host of strategic factors specific to each app. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2391.

a. After Meta's acquisition of WhatsApp, Meta expressed "reservation[s]" about "expanding [WhatsApp] promotions . . . in countries where Messenger is the leader (and WhatsApp has less reach/engagement but where lies greater opportunity)." PX15197, Meta email chain: M. Imam to J. Koum & B. Acton re: "Growth Marketing Update," (Nov. 25, 2014), FB_FTC_CID_02566667, at -667 (attaching an excel titled "WhatsApp Growth Marketing.xlxs.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2398.

b. Shortly after Meta's acquisition, WhatsApp worked with Meta's growth team to "put together a strategy to help frame markets where WhatsApp had greater reach and engagement versus Messenger to make sure we have alignment on which ones we should focus on from a family perspective." PX15191, Meta email: M. Imam to C. Daniels, et al. re: "WA in iOS Countries," (June 26, 2018), FB_FTC_CID_02496775, at -775; [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except "versus" should read "vs." Disputed for the reasons stated above in Meta's response to paragraph 2398.

c. In 2018, Meta elected to prioritize the growth of Facebook Messenger within the United States, at the expense of prioritizing the growth of WhatsApp. PX6127, Zuckerberg (Meta) Dep. Tr., at 155:13-156:2.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg generally agreed with the paraphrased statement that Meta prioritized the growth of Messenger within the United States in 2018. Disputed because the statement omits necessary context, including Mr. Zuckerberg's testimony that Meta prioritized WhatsApp in other years. Mr. Zuckerberg testified: "[redacted]

[redacted]" PX6127 at 156:3-23 (Zuckerberg Dep. Tr.); *see also id.* at 156:18-19 ([redacted]). Further disputed for the reasons stated above in Meta's response to paragraph 2398.

d. In 2018, Mubarik Imam, Director for Growth and Business Development for WhatsApp, cautioned that "[i]f we double down on efforts in US/Canada we should clear that with the Messenger team so it doesn't come as a surprise." PX15191, Meta email: M. Imam to C. Daniels, et al. re: "WA in iOS Countries," (June 26, 2018), FB_FTC_CID_02496775, at -775; PX6130, [redacted].

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2398.

2399. WhatsApp had to push Meta executives for promotion in countries where WhatsApp and Facebook Messenger were similarly popular. *See* PX15197, Meta email chain: M. Imam to J. Koum & B. Acton re: "Growth Marketing Update," (Nov. 25, 2014), FB_FTC_CID_02566667, at -667 ("Close Run countries are a toss-up . . . and Facebook is more amenable to promoting us in these . . . . At a minimum we should push [Meta] for markets where we are Close Run – since WhatsApp's engagement is higher than Messenger in those markets."). Despite Meta's prioritization of Facebook Messenger in the United States, WhatsApp has grown to [redacted] monthly active users in the United

States in June 2022. PX3464, Meta Response to FTC's RFP 41(a)-(b), (Feb. 28, 2023), FTC-META-01200497 (producing data).

Meta Response: Disputed in part. Undisputed that PX15197 contains the quoted language. Further undisputed that WhatsApp grew to [redacted] monthly active users in the United States in June 2022. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2391, and because the cited evidence does not support the statements that "WhatsApp had to push Meta executives for promotion in countries where WhatsApp and Facebook Messenger were similarly popular," or that WhatsApp grew in the United States "despite Meta's prioritization of Facebook Messenger in the United States," and on the ground that "push for" is vague and undefined. PX15197 shows a strategic discussion between WhatsApp executives about how to promote WhatsApp in different geographic markets based on a host of strategic factors specific to the app – it does not show that WhatsApp had to "push" Meta for anything or that Meta's growth initiatives as to Messenger had any effect on WhatsApp's growth. PX3464 contains user data for WhatsApp, not Messenger, and also does not show that Meta's growth initiatives as to Messenger had any effect on WhatsApp's growth.

G. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Add Features

2400. Meta's acquisition of WhatsApp was not necessary for WhatsApp to add features. *Infra* CMF at §§ V.G.1-5.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement

incorporates the FTC's statements in Sections V.G.1-5, Meta incorporates its responses to those statements here.

Further disputed that any of the FTC's statements in Section V.G create a genuine dispute of material fact because they do not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the FTC's statements in Section V.G suggest that, absent the acquisition, WhatsApp would have been able to add features as successfully as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See* Ex. 5 at ¶ 266 (Nieh Rep.) (explaining that "the relevant question is not whether Meta's infrastructure was 'necessary' to develop new features, but whether Meta helped WhatsApp develop or launch new features more quickly, reliably, and efficiently than it was likely to accomplish otherwise"). Conversely, there is extensive evidence that Meta's infrastructure was a significant advantage to the success of new features on WhatsApp. *See*, *e.g.*, Ex. 209 at -939 (FTC-META-002530938) ("The launches of voice calling and video calling [on WhatsApp] were made possible by the FB network infrastructure and would have been much harder / impossible to do without it. We now serve [redacted]."); *see also* Meta SMF ¶¶ 859-860; Ex. 163 at 249:6-9 (Acton Dep. Tr.) (Mr. Acton testified that "[Meta's] network infrastructure that enabled us to roll out our voice and video calling were two areas of improvement for WhatsApp that were the quick wins that I had talked about."). Likewise, the fact that other companies may have successfully launched other similar features does not, by itself, indicate that WhatsApp would have been able to do so, much less that those companies' features are comparable to what Meta helped enable. Ex. 5 at ¶ 266 (Nieh

Rep.). As the record shows, Meta helped WhatsApp develop and launch of new features more quickly, reliably, and efficiently than it was likely to accomplish otherwise. *See* Meta SMF ¶¶ 839-850 (new features), ¶¶ 851-854 (privacy), ¶¶ 855-865 (infrastructure). For example, Neeraj Arora – WhatsApp's former chief business officer – testified that WhatsApp's "speed of execution went up" after being acquired by Meta because "[a]s a startup you have to be very careful about how much you spend and how fast you spend, and being a part of [Meta] made it easier for us to have more resources cheaply, cheaper than what we could do . . . ourselves and faster as well. . . . We had more engineers to work on things that we wanted to work on . . . ." Meta SMF ¶ 839 (quoting Ex. 165 at 16:21-17:1, 162:2-23 (Arora Dep. Tr.)).

1. Prior to the acquisition, WhatsApp had a strong record of enriching its product and adding attractive new features.

2401. SMS ("short messaging service") is a protocol "that allows two mobile phones that are connected to a mobile network to send each other information and display that information to users of those mobile devices, in essence creating a sort of out-of-band communication network." PX6010, Koum (Meta/WhatsApp) IH Tr., at 42:15-24.

<u>Meta Response</u>: Undisputed.

2402. Prior to the acquisition, WhatsApp offered users an over-the-top (OTT) messaging application that was a superior alternative to mobile messaging via the SMS protocol. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 48:20-49:5 ("[I]t [is] harder for SMS as a product to iterate and build features. And I think also the way SMS is designed into the phone firmware, it's also not easy to upgrade. Whereas, with WhatsApp being an application, it's much easier to upgrade and release functionality and do constant iteration over the product quality.").

Meta Response: Disputed in part. Undisputed that WhatsApp offered an OTT messaging application prior to the acquisition. Disputed on the ground that "superior" is vague and undefined.

2403. Prior to the acquisition, WhatsApp added a group messaging feature to its app that was superior to group messaging via the SMS protocol.

Meta Response: Disputed in part. Undisputed that WhatsApp added a group messaging feature prior to the acquisition. Disputed on the ground that "superior" is vague and undefined.

a. WhatsApp implemented group messaging in 2010. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 57:23-58:1.

Meta Response: Undisputed.

b. When asked for the "reasons that users in the U.S. would use WhatsApp instead of a default SMS application," Meta's Javier Olivan replied: "For example, group messaging does not work as well on the SMS protocol, so if you are trying to rely on the SMS protocol to do group messaging and/or rich media sharing, it – the experiences I have seen are a little bit worse, especially when people are on different devices. So, one reason could be consistent experience across devices, which the SMS protocol cannot ensure." PX6017, Olivan (Meta) IH Tr., at 217:7-218:3.

Meta Response: Undisputed that the witness provided the quoted testimony.

c. WhatsApp added the group messaging feature in response to user requests. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 58:22-59:8.

Meta Response: Undisputed that the witness testified that WhatsApp developed group messaging after some users requested a group chat feature.

d. WhatsApp expanded the size of user chat groups progressively as it "felt like we had the technical infrastructure in place to deal with the load and volume." *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 58:2-20.

Meta Response: Undisputed that the witness provided the quoted testimony.

2404. Prior to the acquisition, WhatsApp added and expanded upon another feature—photo sharing—that provided better-quality photos than did photo sharing on SMS.

Meta Response: Undisputed.

a. Mr. Acton testified that OTT messengers such as WhatsApp provided better quality photos than SMS or MMS. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 36:1-11 ("Q. And when you say the limits on the size of the photos, do you recall what the difference between the limits on SMS versus an OTT messaging system could provide? A. I don't remember the exact limits. I think that the SMS – or MMS were quite constrained. I think they required some pictures to be 320 by 200, which is extraordinarily low resolution. Whereas, you know, essentially, on an over-the-top app you can send unlimited-sized 25-megabyte pictures if you want with high fidelity and high definition.").

Meta Response: Undisputed that the witness provided the quoted testimony.

b. The ability to send and receive photos on WhatsApp increased user growth. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 53:3-7 ("Q. So did the ability to send and receive photos also increase user growth generally? A. Growth – all numbers

across the board, yes: daily active, monthly active, retention, and engagement, et cetera. Everything improved.").

Meta Response: Undisputed that the witness provided the quoted testimony.

c. WhatsApp expanded its photo-sharing capabilities prior to the acquisition. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 53:12-15 ("Q. Did WhatsApp add any other photo-sharing capabilities between then and early 2014? A. I think we just expanded. So you could send five photos at a time instead of one.").

Meta Response: Undisputed that the witness provided the quoted testimony.

2405. Prior to the acquisition, WhatsApp added a host of other messaging features in response to user requests, including:

Meta Response: Disputed in part. Undisputed that WhatsApp added some version of the features listed below before the acquisition. Disputed on the ground that "a host" is vague and undefined. Further disputed because the testimony cited in the subparagraphs below does not support the statement that WhatsApp added location sharing, profile photos, audio sharing, transport encryption, and message backup and restore in response to user requests.

a. A broadcast feature, which allowed users to "identify a set of people and . . . send the same message to all those people" in the form of direct messages. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 64:10-24, 65:11-66:1.

Meta Response: Undisputed.

b. Read receipts. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 59:19-60:10.

Meta Response: Undisputed.

c. Privacy blocking, last-seen timestamps, and read receipts deactivation. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 59:19-60:13.

Meta Response: Undisputed.

d. Location sharing. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 66:8-13.

Meta Response: Undisputed.

e. Profile photos. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 67:11-17.

Meta Response: Undisputed.

f. Audio sharing, which allowed users to share both stored audio and in-app recorded audio. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 54:6-55:7.

Meta Response: Undisputed.

g. Video sharing, which enabled users to share videos that they had taken on WhatsApp itself or separately recorded using another camera application. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 55:24-56:3, 56:13-57:22.

Meta Response: Undisputed.

h. "Transport encryption," which allowed for encryption of communications between a user's phone and WhatsApp's messaging server. PX6009, Acton (Meta/WhatsApp) IH Tr., at 63:3-6.

Meta Response: Undisputed.

i. Message backup and restore. PX6009, Acton (Meta/WhatsApp) IH Tr., at 43:5-21, 50:4-22.

Meta Response: Undisputed.

2406. Prior to the acquisition, WhatsApp had a strong record of enriching its product and adding attractive new features. *See* PX9001, Bray Report at ¶ 424 ("These included,

between 2009 and 2014, the ability to send pictures, videos, and voice messages, group chat (with several increments to group size), the ability to block other users, profile photos, group photos, location sharing, message backup and restore, and broadcast messages.”).

Meta Response: Disputed in part. Undisputed that WhatsApp added new features before the acquisition. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 2400, and because the terms “a strong record of enriching its product” and “attractive new features” are vague and undefined and not supported or explained by the cited report. The cited paragraph in Mr. Bray’s report lists features WhatsApp added, but does not cite any evidence regarding the quality of those features or how quickly or efficiently WhatsApp was able to launch those features. Evidence shows that WhatsApp in fact struggled to add some of these new features prior to the acquisition. For example, with respect to transport encryption, which was added around 2011 or 2012, Mr. Acton explained that WhatsApp “didn’t publicize [the addition of transport encryption] too much” in part “[b]ecause we thought it was probably something we should have done earlier.” Ex. 314 at 63:6-64:3 (Acton IH Tr.). Regarding the message backup and restore feature, Mr. Acton testified that the addition of the feature was “a spectrum,” it was done “only on two platforms,” and that on Android “it was a more painful transfer process.” *Id.* at 43:5-12. Other weaknesses included that WhatsApp “[c]annot function across multiple devices,” “[n]o iPod/iPad support,” “[s]mall max group size,” and “[f]eatures are minimal.” PX10329 at -375 (FTC-META-003702375). Pre-acquisition WhatsApp was generally reluctant to add new features to not “burden[ ] [the app] with all these

complexities with these additional features." Meta SMF ¶ 786 (quoting Ex. 285 at 70:6-11 (Koum IH Tr.)). WhatsApp did not add features such as voice and video calling and end-to-end encryption until after the acquisition. *See id.* at ¶¶ 786, 840-846, 852.

2. WhatsApp had begun developing end-to-end encryption, voice calling, video calling, and other features prior to its acquisition by Meta, and Meta's acquisition was not necessary for WhatsApp to launch these features.

a) WhatsApp had begun developing end-to-end encryption prior to the acquisition, and Meta's acquisition was not necessary for WhatsApp to launch this feature.

2407. WhatsApp was already developing end-to-end encryption prior to the acquisition.

Meta Response: Disputed in part. Undisputed that WhatsApp started to develop end-to-end encryption prior to the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400. Further disputed to the extent the statements in this paragraph and its subparagraphs imply that WhatsApp had made any meaningful progress on end-to-end encryption prior to the acquisition. As Mr. Acton explained in subparagraph 2407(a) below, it took WhatsApp more than two years to launch end-to-end encryption, and most of that work was done after the acquisition. PX6009 at 51:15-18 (Acton IH Tr.).

a. Mr. Acton testified that WhatsApp had "started the end-to-end encryption work before we were acquired, even before we announced to be acquired, but we completed it like two years later." PX6009, Acton (Meta/WhatsApp) IH Tr., at 51:15-18.

Meta Response: Undisputed.

b. WhatsApp was "developing end-to-end encryption" because "[w]e felt that it was generally a good privacy feature to build that could further protect our users from surveillance." *Id.* at 69:8-12.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed to the extent this subparagraph suggests this is the only reason WhatsApp developed end-to-end encryption. Mr. Acton also testified that WhatsApp decided to add end-to-end encryption because he "was afraid of getting too many requests from law enforcement to produce content in response to government requests." PX6086 at 61:25-62:6 (Acton Dep. Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 2407.

c. WhatsApp contracted with Signal and its [redacted] to consult on adding end-to-end encryption to WhatsApp, and [redacted] began work before Meta's acquisition of WhatsApp closed in October 2014. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 62:15-19; *see also* PX3199, WhatsApp email chain: J. Koum, (WhatsApp) to [redacted] (Google) re: "meeting today," (Apr. 5, 2014), FB_FTC_CID_03113817, at -818 ("[B]tw, confidentially: [redacted] from Open WhisperSystems is starting to work with us on E2E this monday - i can't tell you how excited i am to get this done and rolled out to half a billion users."); PX3209, Meta Workplace Post: J. Sullivan post to Security FYI, (Nov. 23, 2014), FB_FTC_CID_12242591, at -591 ("WhatsApp Encryption — A surprise blog post from Whisper Systems on Tuesday announced that they have been working with WhatsApp for the past half year to build their TextSecure

protocol for end-to-end encryption directly into WhatsApp. The encryption currently works on the most recent WhatsApp Android client release.").

Meta Response: Undisputed.

2408. Meta did not help WhatsApp develop end-to-end encryption, launch it sooner, or roll it out. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 211:20-212:4 ("Q. I know we talked about end-to-end encryption as well. Do you remember when that was launched post acquisition? A. 2016. Q. Did Facebook provide WhatsApp the resources it needed to add this feature? A. No. Q. Would it have taken WhatsApp longer to add this feature had it not been acquired by Facebook? A. No."); *id*. at 268:12-20 ("Q. On end-to-end encryption, you testified that that didn't get rolled out until I think 2016; is that right? A. Correct. Q. Did Facebook help you get that product rolled out? A. No. Q. You did that all on your own? A. Yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, except the testimony does not appear in the cited transcript, but rather in PX6086 at 268:12-20 (Acton Dep. Tr.). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400, and because evidence shows that Meta contributed to the development of end-to-end encryption on WhatsApp. *See* Ex. 142 at 146:18-24 (Zuckerberg Dep. Tr.) (Mr. Zuckerberg testifying that, for WhatsApp to launch end-to-end encryption, Meta provided it with "technical resources" and "policy resources").

2409. WhatsApp would have had the ability to add end-to-end encryption without being acquired by Meta. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 172:18-21.

Meta Response: Disputed in part. Undisputed that the witness provided the paraphrased testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400.

2410. Other companies, [redacted], have developed end-to-end encryption for messaging without using Meta's resources or infrastructure. *See* PX9011, Bray Rebuttal Report at ¶ 399.

Meta Response: Disputed in part. Undisputed that other companies have developed end-to-end encryption. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400, and because the statement is incomplete and misleading. Mr. Acton testified that WhatsApp launched end-to-end encryption before iMessage and Skype, Ex. 163 at 63:9-17 (Acton Dep. Tr.), which put WhatsApp in a "leadership position . . . in terms of protecting communication privacy, which helped both retention engagement and monthly actives." Ex. 314 at 212:9-14 (Acton IH Tr.).

b) WhatsApp had begun developing voice and video calling prior to the acquisition, and Meta's acquisition was not necessary for WhatsApp to launch these features.

2411. WhatsApp had already "written the software to [launch voice and video calling] in SoftLayer infrastructure" prior to the acquisition, although WhatsApp "eventually just launch[ed] it on Facebook infrastructure." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 117:10-16.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400. Further disputed as incomplete and misleading to the extent

this paragraph and its subparagraphs suggest that voice and video calling on WhatsApp did not benefit from Meta's infrastructure, or only used Meta's infrastructure to launch. Mr. Acton further testified that voice calling "leveraged networking infrastructure, predominantly in Facebook," and that both video and voice calling "employed Facebook's networking infrastructure." PX6086 at 117:10-21 (Acton Dep. Tr.). Other evidence shows that Meta's infrastructure was a significant advantage to the success of voice and video calling on WhatsApp. *See*, *e.g.*, Ex. 209 at -939 (FTC-META-002530938) ("The launches of voice calling and video calling [on WhatsApp] were made possible by the FB network infrastructure and would have been much harder / impossible to do without it. We now serve [redacted]."); *see also* Meta SMF ¶¶ 859-860. Mr. Acton also testified that "[Meta's] network infrastructure that enabled us to roll out our voice and video calling were two areas of improvement for WhatsApp that were the quick wins that I had talked about." PX6086 at 249:6-9 (Acton Dep. Tr.); Ex. 5 at ¶¶ 260-266 (Nieh Rep.) (explaining multiple ways Meta assisted WhatsApp's development of voice and video calling, including providing engineering resources, edge infrastructure, and CDN).

a. Meta's expert, Professor Nieh, acknowledged that WhatsApp had already begun developing a voice calling feature prior to the acquisition. *See* PX9022, Nieh Report at ¶ 260; *see also* PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 230:5-12 ("Voice was almost ready to launch prior to the acquisition."); PX6009, Acton (Meta/WhatsApp) IH Tr., at 50:16-19.

<u>Meta Response</u>: Disputed in part. Undisputed that Professor Nieh acknowledged that WhatsApp had begun developing voice calling before the

acquisition. Disputed for the reasons stated above in Meta's response to paragraph 2411, and because the statement is incomplete and misleading. In the same paragraph of Professor Nieh's report that the FTC cites, Professor Nieh, citing documents created before the acquisition closed, stated that "WhatsApp missed its original launch date for VOIP due to technical challenges. Despite WhatsApp's intentions to offer voice calling, it had not yet developed a high-quality product." PX9022 at ¶ 260 (Nieh Rep.) (footnote omitted). In addition, Mr. Acton stated in an email that he tried a test version of WhatsApp's pre-acquisition version of voice calling and "found [his] experience" to be "tremendously disappointing." Meta SMF ¶ 842 (quoting Ex. 187 at -602 (FB_FTC_CID_02595602)). In March and April 2015, Meta released free voice calling on WhatsApp for Android and iOS users, respectively. *See* PX9022 at ¶ 262 (Nieh Rep.).

b. Mr. Acton testified that WhatsApp "absolutely" would have added voice calling had it not been acquired, and it "would [not] have taken [WhatsApp] longer . . . to build it." PX6009, Acton (Meta/WhatsApp) IH at 211:11-19.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2411.

c. Similarly, Mr. Acton and Mr. Koum had decided to add video calling to WhatsApp prior to the acquisition, as they thought of video calling "as a natural extension" of the voice calling feature. PX6009, Acton (Meta/WhatsApp) IH Tr., at 214:6-13.

Meta Response: Disputed in part. Undisputed that the witness testified that WhatsApp planned to add video calling prior to the acquisition. Disputed for the reasons stated above in Meta's response to paragraph 2411.

2412. WhatsApp could have added video calling had it remained independent; underscoring this, Meta provided no additional resources to WhatsApp, beyond access to its content delivery network ("CDN"), to add video calling. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 214:14-21.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraphs 2400 and 2411, and because the evidence shows that Meta provided WhatsApp with engineering resources, its Edge Network, and its CDN to facilitate video calling. *See* Ex. 5 at ¶¶ 229, 260-266 (Nieh Rep.). Further disputed to the extent this paragraph suggests that access to Meta's CDN was not a significant benefit to WhatsApp. As the record shows, prior to the acquisition, WhatsApp did not use any CDN, which impacted its performance with respect to latency-sensitive and bandwidth-intensive features like video calling. *See id.* at ¶ 228. Meta's CDN also offered capabilities that were unavailable on third-party CDNs. *See id.* at ¶ 234.

2413. Mr. Bray opined that he was "not convinced that Meta's CDN [content delivery network] was the only good option available to WhatsApp for building two-way voice conversations in the United States in 2014." PX9011, Bray Rebuttal Report at ¶ 392.

Meta Response: Disputed in part. Undisputed that Mr. Bray offered the quoted opinion. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2400 and 2413.

2414. Other apps had introduced voice and video calling by the time WhatsApp did so, without Meta's aid or infrastructure.

Meta Response: Disputed in part. Undisputed that some apps launched voice and video calling by the time WhatsApp did. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2400, 2411, and 2412.

a. In a document that Meta submitted to the European Commission in association with the European Commission's review of Meta's acquisition of WhatsApp, Meta noted that "Viber, LINE, Skype, Google Hangouts and BBM . . . focus on providing a range of communications functionalities, i.e., video, voice (end-to-end VoIP and VOID-to-PSTN [sic]) and messaging." PX3474, Meta document: "Form RS Relating to Reasoned Submissions Pursuant to Article 4(5) of Regulation (EC) No. 139/2004 Case M. 7217 – Facebook, Inc./WhatsApp Inc." (May 19, 2014), FB_FTC_CID_00004251, at -268.

Meta Response: Undisputed that most of the quoted language appears in the document, except this subparagraph misquotes the parenthetical, which in Meta's submission reads "(end-to-end VoIP and VoIP-to-PSTN)" (and thus does not require a correction). PX3474 at -268 (FB_FTC_CID_00004251).

b. Meta's expert Professor Nieh acknowledged that other apps—like Line, KakaoTalk, and Skype—had already introduced voice calling by the time WhatsApp had done so, without Meta's aid or infrastructure. *See* PX9022, Nieh Report at ¶ 260; *see also* PX9011, Bray Rebuttal Report at ¶ 393 (explaining that

"other companies (such as Line, KakaoTalk, and Skype) had already introduced" voice calling by 2015).

Meta Response: Disputed in part. Undisputed that Professor Nieh offered the paraphrased opinion, and that Mr. Bray offered the quoted opinion. Disputed for the reasons stated above in Meta's responses to paragraphs 2400, 2411, and 2412.

c. The video-calling app Skype launched in 2003 – over a decade before Meta's acquisition of WhatsApp. PX9001, Bray Report at ¶ 428.

Meta Response: Disputed in part. Undisputed that Skype launched voice calling before WhatsApp did. Disputed for the reasons stated above in Meta's responses to paragraphs 2400, 2411, and 2412.

2415. Had WhatsApp remained independent, it would have been able to improve its voice and video calling latency by running its code on a third-party cloud or CDN provider's edge network. *See* PX9011, Bray Rebuttal Report at ¶ 392; *see also* PX6009, Acton (Meta/WhatsApp) IH Tr., at 196:25-197:4 ("[A] global content delivery network is something you can get from Akamai or Cloudflare. You can get it from a number of different providers just as a service that you purchase.").

Meta Response: Disputed in part. Undisputed that, had WhatsApp remained independent, it may have been able to launch voice and video calling and may have been able to use a third-party cloud or CDN provider to improve its voice and video calling. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2400, 2411, and 2412.

3. Meta's acquisition of WhatsApp was not necessary for WhatsApp to launch other features such as a Status feature and asserted improvements to WhatsApp's camera features.

2416. Meta's acquisition of WhatsApp was not necessary for WhatsApp to launch a Status feature.

Meta Response: Disputed in part. Undisputed that WhatsApp may have been able to launch a status feature absent the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400. As Mr. Koum testified, when asked whether WhatsApp would have developed its status feature absent the acquisition, "probably not, but . . . it's impossible to speculate what we would have done with that functionality if we stayed independent." PX6010 at 174:2-8 (Koum IH Tr.).

a. WhatsApp already had a Status feature pre-acquisition. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., 173:12-20 ("[W]e ended up replacing our original Status 1.0 functionality with the Stories, the 'new status,' what we called it internally.").

Meta Response: Disputed in part. Undisputed that WhatsApp had a status feature pre-acquisition, and that Mr. Koum provided the quoted testimony. Disputed as misleading and incomplete to the extent the statements in this subparagraph suggest that WhatsApp's pre-acquisition status feature was comparable to the Status feature it launched after the acquisition. WhatsApp's pre-acquisition status feature was an entirely different product from the Status feature Meta introduced after the acquisition. Mr. Koum explained in his testimony: "Well, originally we had WhatsApp 1.0 Status still left over in our app and it's been neglected for about four years at that point, four or five years at that

point, and Facebook really wanted us to build a stories product and they wanted us to put it into our app. And we ended up replacing our original Status 1.0 functionality with the Stories, the 'new status,' what we called it internally, which was basically a stories feature." PX6010 at 173:10-20 (Koum IH Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 2416.

b. WhatsApp "would have eventually implemented the [new] Status feature" had Meta not acquired it. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 275:21-276:2.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed as incomplete and misleading. Mr. Acton further testified, "I couldn't tell you sort of whether we would have [implemented the Status feature] one or two or three years later." PX6086 at 276:3-4 (Acton Dep. Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 2416.

2417. Meta's acquisition of WhatsApp was not necessary for WhatsApp to make asserted improvements to its camera features.

Meta Response: Disputed in part. Undisputed that WhatsApp may have been able to make improvements to its camera features absent the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400. As Mr. Acton agreed, "WhatsApp benefited from the improved camera features" that WhatsApp implemented after the acquisition, and when asked "[w]ould WhatsApp have added [these camera feature improvements] eventually had it not been acquired by"

Meta, Mr. Acton stated that "[i]t was not in my knowledge or ambition to do so." Ex. 314 at 209:2-10 (Acton IH Tr.).

a. In October 2016, WhatsApp added the ability for users to write or draw on photos and videos, add emojis, use a phone's front-facing flash, zoom while recording, and switch between a phone's front-facing and rear cameras. PX9011, Bray Rebuttal Report at ¶ 397.

Meta Response: Undisputed.

b. Other products, including Snapchat, offered the ability to write or draw on photos and videos, add emojis to photos or videos, use front-facing flash when taking photos, use the zoom function when recording videos, and switch between front- and rear-facing cameras quickly, without Meta's aid or infrastructure. *See* PX9011, Bray Rebuttal Report at ¶ 397.

Meta Response: Disputed in part. Undisputed that Snapchat offered the listed features. Disputed for the reasons stated above in Meta's response to paragraph 2417.

c. With respect to adding camera features, WhatsApp "knew how to do it" (and turned down Meta's offer of resources in adding such a feature post-acquisition), but WhatsApp did not implement the feature pre-acquisition because "[i]t was a question of prioritization." PX6009, Acton (Meta/WhatsApp) IH Tr., at 208:23-209:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2417.

d. Mr. Acton testified that he "never felt that [a camera feature] was like a feature that would knock the ball out of the park. I think it was just an incremental improvement and I still think that to this day." PX6009, Acton (Meta/WhatsApp) IH Tr., at 209:15-19.

Meta Response: Disputed in part. Undisputed that Mr. Acton provided the quoted testimony. Disputed as incomplete and misleading. Immediately before the quoted testimony, Mr. Acton testified that the improved camera features "improved engagement," and agreed that "WhatsApp benefit[ed] from the improved camera features." Ex. 314 at 209:8-12 (Acton IH Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 2417.

2418. Meta's acquisition of WhatsApp was not necessary for WhatsApp to launch its Channels feature.

Meta Response: Disputed in part. Undisputed that WhatsApp may have been able to launch a broadcast feature absent the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400.

a. Meta describes WhatsApp's Channels feature as "a one-way broadcast tool for admins to send text, photos, videos, stickers, and polls" for the purpose of creating "a simple, reliable, and private way to receive important updates from people and organizations, right within WhatsApp." PX0660, *Introducing WhatsApp Channels. A Private Way to Follow What Matters*, WhatsApp (June 8, 2023), https://blog.whatsapp.com/introducing-whatsapp-channels-a-private-way-to-follow-what-matters.

Meta Response: Undisputed.

b. Broadcast is "a conceptually simple feature from an infrastructure perspective." PX9011, Bray Rebuttal Report at ¶ 400 ("[B]y the time that WhatsApp launched its Channels feature in June 2023, features similar to Channels were ubiquitous among apps.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2418, and because Mr. Bray does not cite any support for his assertion that broadcast is "a conceptually simple feature from an infrastructure perspective." PX9011 at ¶ 400 (Bray Rebuttal Rep.).

c. Other products, like Slack, Discord, Snapchat, Telegram, and Microsoft Teams, offer a feature similar to WhatsApp's Channels feature, and launched this feature without Meta's aid or infrastructure. *See* PX9011, Bray Rebuttal Report at ¶ 400.

Meta Response: Disputed in part. Undisputed that some of the listed products have broadcast tools. Disputed for the reasons stated above in Meta's response to paragraph 2400.

2419. As a general matter, Mr. Koum could not recall any user features that WhatsApp wanted to build but could not have done so independently. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 172:22-173:2 ("Q. Are there any user features that you can think of that WhatsApp would not have had the ability to develop if Facebook had not acquired WhatsApp? A. I can't think of any. I think if we wanted to have built something, we would go and build it.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2400 and 2411.

4. Meta pushed WhatsApp to develop a payment feature that failed, while other apps have themselves developed payment features successfully.

2420. Mr. Zuckerberg directed WhatsApp to implement a person-to-person money transfer feature in 2016, but this feature ran counter to WhatsApp's overall strategy, and Mr. Acton considered it to be "a failure across the board" and "[i]t was a big cesspool of a project. A lot of time and money, though, spent on it." *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 215:14-216:16.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400. Further disputed that the payment feature failed; as conceded in paragraph 2421 below, it has successfully been deployed in several countries. *See* Counter SMF ¶ 2421; *see also* Ex. 5 at ¶ 267 n.684 (Nieh Rep.).

2421. WhatsApp's payment feature has only been deployed in India, Brazil, and Singapore. *See* PX9011, Bray Rebuttal Report at ¶ 396.

Meta Response: Disputed in part. Undisputed that WhatsApp's payment feature has been deployed in India, Brazil, and Singapore. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2400 and 2420.

2422. Meta's expert Professor Nieh omits mention of the failures and limitations of WhatsApp's payment feature. *Compare* PX9022, Nieh Report at ¶ 267, *with* PX6009,

Acton (Meta/WhatsApp) IH Tr., at 215:14-216:16, PX9011, Bray Rebuttal Report at ¶ 396.

Meta Response: Disputed in part. Undisputed that Professor Nieh's report only briefly mentions the payment feature, accurately stating that Meta helped WhatsApp develop the feature and citing evidence regarding the deployment of the feature in India and Brazil. *See* PX9022 at ¶ 267 & n.684 (Nieh Rep.). Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2400 and 2420.

2423. Many other apps—such as Apple Messages, WeChat, Line, Kakao, and Zalo—have themselves developed payment features without Meta's aid or infrastructure. *See* PX9011, Bray Rebuttal Report at ¶ 396.

Meta Response: Disputed in part. Undisputed that some non-Meta apps developed payment features. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2400 and 2420, and because the statement cites no evidence that other apps have developed more successful payment features than WhatsApp. Further disputed to the extent the statement suggests that WhatsApp could have developed a payment feature on its own. The paragraph cites no evidence in support of that claim. Mr. Acton testified that WhatsApp "[p]robably [could] not," "without substantial investment," have developed a payment feature without Meta's resources. Ex. 314 at 216:20-23 (Acton IH Tr.).

5. Meta's infrastructure expert's analysis of Meta's introduction of features on WhatsApp has several limitations.

2424. Professor Nieh does not discuss whether the asserted features improved engagement or user experiences, in which geographic regions these features were available to users, how

long these features were available to consumers, or how the development of most of these features purportedly benefitted from the acquisition. *See* PX9022, Nieh Report at ¶¶ 257-67.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400, and because the cited paragraphs of Professor Nieh's report describe how Meta's infrastructure and resources helped WhatsApp develop and launch new features more quickly and efficiently, focusing on voice and video calling, and also mention a payment feature, improved camera features, a status feature, end-to-end encryption, and Channels. Professor Nieh's report explains that WhatsApp introduced these features to provide users with new capabilities and improve engagement, and that the benefits from Meta's infrastructure included reduced latency and enhanced quality. PX9022 at ¶¶ 259, 263 (Nieh Rep.). Professor Nieh indicated when each of these features was launched, and Meta is not aware of any FTC claim that any of the features, except for payments, were not made available in the United States or have been discontinued.

2425. Professor Nieh does not address in his report whether the acquisition of WhatsApp by Meta was "necessary" for WhatsApp to develop new features. *See* PX9022, Nieh Report at ¶¶ 257-67.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2400, and because the cited evidence does not support the statement in this paragraph. Professor Nieh explained that "the relevant question is not whether Meta's infrastructure was 'necessary' to develop new features, but whether Meta helped WhatsApp develop or

launch new features more quickly, reliably, and efficiently than it was likely to accomplish otherwise." PX9022 at ¶ 266 (Nieh Rep.).

2426. Professor Nieh concedes in his report that WhatsApp was positioned to deploy certain features and that other apps had themselves deployed other features. *See supra* CMF at ¶¶ 2411, 2414.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2411 and 2414, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraphs 2400, and because Professor Nieh's report analyzes at length how Meta's infrastructure helped WhatsApp launch and develop new features more quickly and efficiently. *See*, *e.g.*, Ex. 5 at ¶¶ 257-267 (Nieh Rep.).

H. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Monetize Successfully

2427. Meta's acquisition of WhatsApp was not necessary for WhatsApp to monetize successfully or to achieve Meta's claimed monetization-related benefits related to WhatsApp. *See infra* CMF §§ V.H.1-5; PX9003, Aral Report at ¶ 11(b); PX9008, Aral Rebuttal Report at ¶ 15(b).

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact. The cited paragraphs in Professor Aral's reports do not cite any evidence to support the assertions in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Likewise, the reference to the FTC's statements in Sections V.H.1-5 cites no specific evidence in support of any fact as

required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph incorporates the FTC's statements in Sections V.H.1-5, Meta incorporates its responses to those statements here.

Further disputed that any of the statements in Section V.H create a genuine dispute of material fact because they do not address whether consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the statements in Section V.H suggest that, absent the acquisition, WhatsApp would have been able to monetize as successfully as it did as part of Meta. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. Evidence shows that Meta's acquisition of WhatsApp has delivered significant monetization benefits to WhatsApp. *See*, *e.g.*, Meta SMF ¶¶ 825-832 (describing Meta's investments in WhatsApp's post-acquisition monetization), ¶ 831 ("Global revenue from Click-to-WhatsApp has grown from [redacted]," and "[a]s of 2022, Click-to-WhatsApp had 'passed a $1.5 billion run rate' and was 'growing more than 80% year-over-year'" (quoting Ex. 453 at 3 (Meta Q3 Earnings Call Tr.))), ¶¶ 828-829 (in 2022, paid messaging generated more than [redacted] in revenue in the U.S. and more than [redacted] worldwide, and global paid messaging revenue is expected to reach [redacted]). In his deposition, the FTC's proffered monetization expert, Professor Aral, could not name any standalone messaging app that has monetized more successfully than WhatsApp. *See id.* at ¶ 832 ("Q. Can you name any stand-alone

messaging app that has monetized more successfully than WhatsApp? . . . A. I don't know." (quoting Ex. 287 at 139:20-140:2 (Aral Dep. Tr.))).

2428. Meta's acquisition of WhatsApp has not delivered particular monetization advantages or abilities that WhatsApp could not have achieved as well or better on its own. PX9003, Aral Report at ¶ 276.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2427, and because the cited paragraph in Professor Aral's report does not cite any evidence to support the assertions in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h).

1. Meta's assertions about the benefits it brought to WhatsApp monetization have significant limitations.

2429. Professor Kaplan—Meta's proffered entrepreneurship expert—stated in his report that "WhatsApp has not yet reached the point of generating significant revenue." PX9023, Kaplan Report at ¶ 151. Professor Tucker—Meta's proffered monetization expert—did not dispute Professor Kaplan's finding. PX6169, Tucker (Meta) Dep. Tr., at 233:16-234:5.

Meta Response: Disputed in part. Undisputed that Professor Kaplan offered the quoted opinion and that Professor Tucker did not dispute Professor Kaplan's quoted opinion in her deposition. Disputed to the extent this suggests Professor Tucker had the requisite context to weigh in on Professor Kaplan's opinion. As she testified, "it's just a bit difficult to agree or disagree with a statement in abstract. . . . I would trust [Professor Kaplan's] financial analysis, but it's difficult to say without having read the report or seen the statement." PX6169 at 233:16-234:5 (Tucker Dep. Tr.). Further disputed that

the statement in this paragraph creates a genuine dispute of material fact for the reasons stated above in Meta's response to paragraph 2427.

2430. Professor Catherine Tucker—Meta's proffered monetization expert—conceded several additional limitations of any purported monetization benefits Meta brought to WhatsApp:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2427 and in Meta's responses to the subparagraphs below.

a. Professor Tucker's report makes no claims about Meta's WhatsApp revenue prior to 2022. PX6169, Tucker (Meta) Dep. Tr., at 235:22-236:7.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2427. Further disputed that the statement in this subparagraph shows that Professor Tucker "conceded" anything. This paragraph does not accurately paraphrase Professor Tucker's testimony or her report. She testified that, while her report did not include revenue "numbers" from before 2022, it did address WhatsApp's revenue from before 2022: "Q. So you don't make any claims in your report about WhatsApp's revenue before 2022, correct? A. So I think I do, in that, if you read my report carefully, I talk about pre-acquisition, the problems, difficulties that were faced in trying to implement a freemium model, so I do discuss that. That's in an earlier section, earlier paragraph. And I think I – you know, that's paragraph 105 is what I'm thinking about." PX6169 at 235:12-21, 236:6-7 & errata (Tucker Dep. Tr.); *see also*

PX9015 at ¶ 105 (Tucker Rep.) (discussing WhatsApp's inability to generate sufficient revenue before the acquisition).

b. Professor Tucker did not dispute that Meta had no "sustainable monetization plan for WhatsApp at the time of the acquisition," PX6169, Tucker (Meta) Dep. Tr., at 247:16-248:1, and that WhatsApp's only revenue is "occurring in more recent years," *id*. at 228:16-229:3.

Meta Response: Disputed in part. Undisputed that Professor Tucker acknowledged that Professor Aral "has pointed to documents which suggest that is the case [that Meta didn't have a sustainable monetization plan for WhatsApp at the time of the acquisition]." PX6169 at 247:16-248:1 (Tucker Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2427. Further disputed that the statements in this subparagraph show that Professor Tucker "conceded" anything. As Professor Tucker further testified, Meta made strategic decisions about WhatsApp's monetization soon after the acquisition: "Meta recognized and realized that this plan of making people pay a dollar after a year of usage just wasn't working out, there were too many exceptions, that it just wasn't scalable, and made strategic decisions to move away from what was ultimately not going to be a successful means of monetization." *Id.* at 248:5-11 & errata. She also described Meta's revenue from WhatsApp in recent years as a significant monetization benefit: "if I was Mr. Zuckerberg, I would be pretty pleased about this, for example, [redacted] in revenue in 2022. You know, it's beginning to show sizable revenues." *Id.* at 228:20-229:2.

c. Other than Click-to-WhatsApp ads and business messaging through the WhatsApp Business API, WhatsApp does not have any other significant revenue streams. PX6169, Tucker (Meta) Dep. Tr., at 241:3-17.

Meta Response: Disputed in part. Undisputed that Click-to-WhatsApp ads and business messaging through the WhatsApp Business API are the significant revenue sources for WhatsApp. Disputed for the reasons stated above in Meta's response to paragraph 2427.

d. The technology for Click-to advertising and paid business messaging exists outside of Meta. PX6169, Tucker (Meta) Dep. Tr., at 241:18-242:14.

Meta Response: Disputed in part. Undisputed that Professor Tucker acknowledged in the cited testimony that "when it comes to these innovations, such as 'Click-to-WhatsApp' or the business API, I think Dr. Aral, at least in his reply report, you know, seemed to take a very similar tack in that, you know, his point is that these innovations may exist elsewhere, and so therefore you can conclude that WhatsApp would have implemented them just as successfully in any but-for world." PX6169 at 242:3-13 & errata (Tucker Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2427. Further disputed that the statement in this subparagraph shows that Professor Tucker "conceded" anything. As she further testified, "And as you know, it is my opinion that the mere existence of technology is not enough to ensure its successful implementation. . . . I also lay out reasoning why these technologies that ended up implementing in business-to-business markets enjoyed complementarities with Meta's technical expertise, know-how, cloud computing

infrastructure and so on." *Id.* at 242:10-13, 243:1-5 & errata; *see also* PX9015 at ¶ 75 & nn.125-131 (Tucker Rep.) (discussing scholarship finding that infrastructure, organizational capabilities, and digital business models, among other inputs, are crucial to effective adoption of technology).

i. The functions offered through the WhatsApp Business API are "not unique." PX6169, Tucker (Meta) Dep. Tr., at 250:1-20.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2427. Further disputed that the quoted and paraphrased testimony, which is incomplete and misleading, supports the assertion. Professor Tucker did not agree in the cited testimony that the functions offered through the WhatsApp Business API are not unique. *See* PX6169 at 250:1-20 (Tucker Dep. Tr.). Rather, she testified that the WhatsApp Business API is "unusually efficient and able to do things at scale," and when asked whether "other messaging apps have those features," she testified, "you know, honestly, I don't quite know what you have in mind. It is, of course, you know, it's possible, of course, that as a business owner, I could use regular SMS to achieve these functions; it just wouldn't be as efficient or as convenient or as good." *Id.* at 250:7-9, 15-20.

ii. The cloud API that WhatsApp's paid business messaging service relies upon, which Professor Tucker conceded is "the only example [she] provide[s] for Meta's purported success in building WhatsApp business API features in a way that benefitted the users of WhatsApp," is not

unique. PX6169, Tucker (Meta) Dep. Tr., at 254:19-256:4; *id*. at 260:1-261:19.

Meta Response: Disputed in part. Undisputed that Professor Tucker agreed in her deposition that the only example she provided of Meta's success in building WhatsApp business API features in a way that benefited the users of WhatsApp is the use of Meta's Cloud API. *See* PX6169 at 254:19-255:2 (Tucker Dep. Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2427. Further disputed that the statement in this subparagraph shows that Professor Tucker "conceded" anything. As she further testified, "it is my opinion that a lot of firms try and make cloud computing infrastructure work for them and that Meta has been working on this problem for a long time, has technical know-how and expertise, which WhatsApp business API benefitted from in the actual world. . . . [W]e have here a very successful implementation of cloud infrastructure to aid an important business function in the actual world, which for me is evidence of just how Meta has benefitted WhatsApp in its attempts at monetization." *Id.* at 255:21-256:4, 260:11-16.

e. "[C]lick-based advertising," such as Click-to-WhatsApp, is "platform agnostic," and the platform on which the user clicks and the platform to which the user is sent after clicking do not need to be owned by the same company. PX6169, Tucker (Meta) Dep. Tr., at 271:7-19; *id*. at 273:7-16.

Meta Response: Disputed in part. Undisputed that Professor Tucker testified that click-based advertising is "*in some sense* platform-agnostic." PX6169 at 271:13-15 & errata (Tucker Dep. Tr.) (emphasis added). Disputed for the reasons stated above in Meta's response to paragraph 2427. Further disputed that the statement in this subparagraph shows that Professor Tucker "conceded" anything or creates a genuine dispute of material fact. The quoted and paraphrased testimony is incomplete and missing necessary context. As Professor Tucker's complete testimony shows, Click-to-WhatsApp's specific type of click-based advertising had distinct benefits: "As I've said, you can do click-based advertising, for example, on SMS-based format, that is in some sense platform-agnostic, and that's certainly possible. I just haven't seen any examples of SMS marketing being this successful [as Click-to-WhatsApp] or, you know, having had this particularized design, which really played to the strengths of the format." *Id.* at 271:12-19 & errata.

f. Professor Tucker does not "vouch" for Meta's projection cited in her report that predicts WhatsApp's business API's revenue will [redacted]. PX6169, Tucker (Meta) Dep. Tr., at 263:9-264:5; *see also* PX9015, Tucker Report at ¶ 112 [redacted].

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2427. Further disputed that the statement in this subparagraph shows that Professor Tucker "conceded" anything. The quoted and paraphrased testimony does not support the assertion in this paragraph, which

mischaracterizes Professor Tucker's testimony, is incomplete, and is missing necessary context. Professor Tucker's actual testimony was: "Q. You're not vouching for that growth projection [Meta's projection in the cited document that WhatsApp's business API's revenue will [redacted]], correct? A. I mean, I think that's a big question. I don't think – it's very hard for anyone to vouch for any projection, because the point is it's a projection, it's your best guess about what's going to happen. But my memory of that document is that it did seem based on analysis rather than just being fanciful or something like that." PX6169 at 263:18-264:5 (Tucker Dep. Tr.).

2. Meta has failed to effectively monetize WhatsApp to date.

2431. Since 2016, when Meta announced that it would no longer charge a subscription fee on WhatsApp, PX9000, Hemphill Report at ¶ 1114, "Meta has offered the WhatsApp service for free, without advertising," *id*. at ¶ 49; *see also* PX6040, Idema (Meta) Dep. Tr., at 22:20-21 ("There are no ads on WhatsApp.").

Meta Response: Undisputed.

2432. Instead, Meta has tried to monetize WhatsApp using paid messaging and Click-to-WhatsApp advertisements. *See* PX6040, Idema (Meta) Dep. Tr., at 22:12-17; PX6118, Cathcart (Meta) Dep. Tr., at 140:4-25; PX6084, Hegeman (Meta) Dep. Tr., at 210:11-20.

Meta Response: Undisputed that Meta has monetized WhatsApp using paid messaging and Click-to-WhatsApp advertisements.

2433. In its response to FTC information requests in this matter, Meta [redacted]. *See* PX9005, Hearle Report at ¶ 64 (relying on FB_FTC_CID_02127365 (Meta email: A. Acharya to W. Cathcart re: "WhatsApp LRP: summary and next steps," (Apr. 11, 2019))

and FB_FTC_CID_12112661 (Meta email chain: A. Acharya to [redacted], et al. re: "Redwood Discussion," (Feb. 8, 2020))).

Meta Response: Disputed. Disputed for the reasons stated in Meta's responses to the subparagraphs below, and because the Meta document cited in this paragraph does not support the statement about what Meta did in response to FTC information requests in this matter.

a. In Meta's data production of [redacted]. PX3337, Meta data responsive to FTC's RFP 68(b) (Feb. 28, 2023), FTC-META-012005015.

Meta Response: Undisputed that [redacted] **in the cited data file (FTC-META-012005015).**

b. In Meta's data production of [redacted]. PX15556 at 2, Letter from L. Smith to D. Matheson re: Meta data responsive to FTC's Second Set of RFPs (Dec. 2, 2022) ("There are no ads on WhatsApp and therefore no data for WhatsApp is included here.").

Meta Response: Disputed in part. Undisputed that [redacted] in the December 2, 2022 data production described in PX15556. Disputed to the extent this statement suggests that Meta did not produce any revenue data for WhatsApp, for the reasons stated below in Meta's response to subparagraph 2433(c).

c. [redacted] PX15269, Meta email: A. Acharya to W. Cathcart re: "WhatsApp LRP: summary and next steps," (Apr. 11, 2019), FB_FTC_CID_02127365, at -367; PX15561 at 9-11 (Meta's Objs. & Resps. to FTC's Fourth Set of Interrogs. (May 5, 2023)) ([redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed on the ground that the statement is incomplete and missing necessary context. As the document explains: [redacted] PX15269 at -367 (FB_FTC_CID_02127365). Further disputed that Meta did not produce Click-to-WhatsApp revenue data; Meta produced [redacted], in response to the FTC's Fourth Set of Interrogatories, Interrogatory No. 14, at Bates number FTC-META-012309813. *See* Ex. 469 at 3 (May 5, 2023 Production Cover

Letter). Further disputed for the reasons stated above in Meta's response to paragraph 2427.

d. Click-to-WhatsApp ads are displayed only on Facebook and Instagram, PX6040, Idema (Meta) Dep. Tr., at 26:24-28:02, and, as such, [redacted], PX15273, Meta email chain: A. Acharya to [redacted], et al. re: "Redwood Discussion," (Feb. 8, 2020), FB_FTC_CID_12112661, at -661.

Meta Response: Disputed in part. Undisputed that Click-to-WhatsApp ads are displayed on Facebook and Instagram. Disputed that "[redacted]" for the reasons stated above in Meta's responses to paragraph 2433 and subparagraph 2433(c).

2434. Meta's internal documents suggest as little as [redacted] and only as much as [redacted] of Click-to-WhatsApp revenue is "incremental" to Meta's consolidated revenues and attributable to WhatsApp.

Meta Response: Disputed in part. Undisputed that there are Meta documents that suggest that between [redacted] and [redacted] of Click-to-WhatsApp revenue is incremental. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp's profitability is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed for the reasons stated in Meta's responses to paragraphs 1888, 2427, and 2435.

a. In March 2019, using three different approaches, Meta found that Click-to-WhatsApp incrementality was "within the range of [redacted]." PX15275, Meta Workplace Post: [redacted] post to Notes (Mar. 12, 2019), FTC-META-011627747, at -747.

Meta Response: Disputed in part. Undisputed that the quoted document contains a single employee's March 2019 conclusion that Click-to-WhatsApp's "incrementality is likely within th[e] range of [redacted]." PX15275 at -747 (FTC-META-011627747). Disputed for the reasons stated in Meta's responses to paragraphs 1888, 2427, and 2435.

b. In June 2021, a Meta post stated that "[h]istoric calculations put this at [redacted] of CtWA [Click-to-WhatsApp] revenue but a revised calculation shows this is now [redacted]." PX15277, Meta Workplace Post: [redacted] post to Notes (June 24, 2021), FTC-META-012249178, at -178.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated in Meta's responses to paragraphs 1888, 2427, and 2435.

c. In June 2021, another Meta post stated that approximately "[redacted] of CtWA revenue is incremental." PX2993, Meta Workplace Post: [redacted] post to Notes (Nov. 29, 2021), FTC-META-011737951, at -951.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated in Meta's responses to paragraphs 1888, 2427, and 2435.

2435. From 2015, after Meta acquired WhatsApp, to the second quarter of 2022 (the latest point for which Meta provided discovery on this issue), Meta [redacted] operating WhatsApp. *See* PX9005, Hearle Report, Table 6.1-6.3.*See* PX9005, Hearle Report, Tables 6.1-6.3.

<u>Meta Response</u>: Disputed in part. Undisputed that Meta has incurred losses at certain times with respect to WhatsApp. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1888 and 2427, and because WhatsApp's profitability is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed that the FTC's proffered expert, Mr. Hearle, offered an accurate calculation of those losses for all the months and years in which Click-to-WhatsApp earned revenue. Mr. Hearle's calculations of Meta's purported losses from operating WhatsApp in those years are based on the assumption that [redacted], [redacted] of Click-to-WhatsApp revenue should be allocated to WhatsApp. *See* PX9005 at ¶ 8(c) & pp. 48-50, tbls. 6.1-6.3 (Hearle Rep.). Mr. Hearle does not justify allocating [redacted] of Click-to-WhatsApp's revenue to WhatsApp beyond noting that, in its financial records, [redacted]. *See id.* at ¶ 64. And Mr. Hearle chose his [redacted] range based on three employees' calculations of WhatsApp's possible incremental revenue in March 2019 (an analysis the employee noted had a "wide range of error and many caveats build into [it]," PX15275 at -747 (FTC-META-011627747)); June 2021; and November 2021, and then used those

calculations for all months and years in which Click-to-WhatsApp earned revenue between 2018 and the second quarter of 2022. *See* PX9005 at ¶ 8(c) & pp. 48-50, tbls. 6.1-6.3 (Hearle Rep.). Evidence shows that, soon after these analyses, WhatsApp began to generate significant revenue for Meta that is not included in Mr. Hearle's calculations. *See* Meta SMF ¶ 831 ("Global revenue from Click-to-WhatsApp has grown from [redacted] to [redacted]," and "[a]s of 2022, Click-to-WhatsApp had 'passed a $1.5 billion run rate' and was 'growing more than 80% year-over-year'" (quoting Ex. 453 at 3 (Meta Q3 Earnings Call Tr.))), ¶¶ 828-829 (in 2022, paid messaging generated more than [redacted] in revenue in the U.S. and more than [redacted] worldwide, and global paid messaging revenue is expected to reach [redacted]). The FTC provides no evidence of what the incrementality of Click-to-WhatsApp revenue has been since this dramatic growth in the use of those ads.

Further disputed that [redacted], at Bates numbers FTC-META-012309813 and FTC-META-012489088, respectively. *See* Ex. 469 at 3 (May 5, 2023 Production Cover Letter); Ex. 497 at 1 (May 31, 2023 Production Cover Letter). Mr. Hearle did not include this additional revenue data in his calculations.

<u>FTC Reply:</u> Meta's response confirms that Meta has incurred [redacted] losses in operating WhatsApp.

These losses constitute a material fact because it is evidence of Meta's willingness to continue to [redacted] on WhatsApp for almost a decade, even after

overpaying for WhatsApp, in order to maintain a moat around its PSN services. *See, e.g.*, CMF at ¶ 1802(g) (Mr. Zuckerberg describing mobile messaging as "the next biggest consumer risk" given that a successful messaging app could "transform[] that into a broader social network"); CMF at ¶ 1887(c) (Mr. Zuckerberg acknowledging that winning in messaging was "the biggest . . . mitigation to the biggest threat we face today" (i.e., messaging apps pivoting)); *see also* CMF at ¶¶ 1885-90.

Meta's dispute as to the accuracy of the WhatsApp profitability numbers is solely about the appropriate percentage of Click-to-WhatsApp ad revenue that should be allocated to WhatsApp. Mr. Hearle calculated numbers using [redacted], [redacted] attribution of this revenue to WhatsApp, based upon Meta's interrogatory responses and internal documents. PX9005, Hearle Report at ¶¶ 62-66; FTC Resp. SMF at ¶ 827. Meta suggests that the attribution percentage to WhatsApp should be higher without providing a number it believes is appropriate or any explanation as to why higher revenue numbers should also lead to higher attribution.

While the FTC disputes Meta's implication that the attribution percentage should be higher, the losses are substantial even if all Click-to-WhatsApp ad revenue is attributed to WhatsApp. With a 100% attribution rate, WhatsApp [redacted]. *See* PX9005, Hearle Report, Table 6.3 (adding all Click-to-WhatsApp ad revenue to the total revenue number instead of just [redacted], adding columns [B] + [C] instead of [B] + [D] to get column [E]).

Finally, while Meta did provide revenue numbers through March 2023, Meta only provided data for WhatsApp's expenses through the third quarter of 2022. *See generally*

PX3147, Meta data production: Meta's Resp. to FTC's Req. for Prod. No. 79, FTC-META-009687124 (Dec. 15, 2022); PX15547 at 4-5, Letter from L. Smith to D. Matheson re: Meta data responsive to FTC's Second Set of Req. for Prod. (Dec. 15, 2022). Mr. Hearle thus calculated total profitability and loss numbers for WhatsApp based on the time period of information that Meta produced in discovery, which was not complete through March 2023.

2436. Indeed, WhatsApp has experienced [redacted] since Meta acquired it. PX9005, Hearle Report at ¶ 70.

Meta Response: Disputed in part. Undisputed that Meta has incurred losses on WhatsApp since acquiring it. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp's profitability is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

a. In the last quarter of 2014, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Table 6.1.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

b. In 2015, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Table 6.1.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

c. In 2016, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Table 6.1.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

d. In 2017, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Table 6.1.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

e. In 2018, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Tables 6.1, 6.3.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

f. In 2019, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Tables 6.1, 6.3.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

g. In 2020, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Tables 6.1, 6.3.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

h. In 2021, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Tables 6.1, 6.3.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

i. In the first half of 2022, Meta [redacted] on WhatsApp. PX9005, Hearle Report, Tables 6.1, 6.3.

Meta Response: Disputed in part. Disputed in part for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

2437. The [redacted] losses that Meta incurred on WhatsApp from its acquisition of WhatsApp to mid-2022 does not account for additional indirect costs that are shared across Meta's products, suggesting that [redacted]. PX15547 at 4-5, Letter from L. Smith to D. Matheson re: Meta data responsive to FTC's Second Set of RFPs (Dec. 15, 2022) ("Each of Facebook Blue, Instagram, WhatsApp, and Messenger incur direct and indirect costs and expenses. . . . [redacted] . . . .").

Meta Response: Disputed in part. Undisputed that WhatsApp may have incurred indirect costs that are shared across Meta's products. Disputed that this statement creates a genuine dispute of material fact, including because WhatsApp's profitability is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

2438. Meta's senior leadership, including Mr. Zuckerberg, have themselves conceded that Meta has failed to successfully monetize WhatsApp:

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because WhatsApp's profitability is irrelevant to whether Meta's acquisition of WhatsApp caused harm to competition or consumers, which the FTC must (but cannot) show to establish that Meta's conduct was anticompetitive. Further disputed for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435, and for the reasons stated in Meta's responses to the subparagraphs below.

a. Mr. Zuckerberg testified that Meta was "[redacted]" the purchase price it paid for WhatsApp. PX6127, Zuckerberg (Meta) Dep. Tr., at 149:17-150:10.

Meta Response: Disputed in part. Undisputed that Mr. Zuckerberg provided the quoted testimony. Disputed as incomplete and misleading. Mr. Zuckerberg's complete testimony was: "I think we're [redacted] that in terms of the business that we've built yet, but I think we will. I think it's a great experience, and people love it. And, you know, our approach to building these things has always been first focus on building the consumer experience that people want and then reach scale, and then we have the opportunity to build a business on top of that, and I think through business messaging and things like that, I think we'll have the opportunity to do that here." PX6127 at 150:8-18 (Zuckerberg Dep. Tr.). Evidence shows that WhatsApp has begun to generate significant revenue for Meta. *See* Meta SMF ¶ 831 ("Global revenue from Click-to-WhatsApp has grown from [redacted]," and "[a]s of 2022, Click-to-WhatsApp

had 'passed a $1.5 billion run rate' and was 'growing more than 80% year-over-year'" (quoting Ex. 453 at 3 (Meta Q3 Earnings Call Tr.))), ¶¶ 828-829 (in 2022, paid messaging generated more than [redacted] in revenue in the U.S. and more than [redacted] worldwide, and global paid messaging revenue is expected to reach [redacted]). Further disputed for the reasons stated above in Meta's response to paragraph 2438.

b. Amin Zoufonoun—Meta's former Vice President of Corporate Development at the time of its acquisition of WhatsApp—testified that "[w]e haven't been successful in monetizing WhatsApp thus far." PX6028, Zoufonoun (Meta) IH Tr., at 20:7-13, 263:21-264:6.

Meta Response: Disputed in part. Undisputed that Mr. Zoufonoun provided the quoted testimony. Disputed on the ground that Mr. Zoufonoun's testimony is outdated and does not reflect WhatsApp's current monetization. Mr. Zoufonoun's testimony is from August 12, 2020. *See* PX6028 (Zoufonoun IH Tr.). Since then, WhatsApp has begun to generate significant revenue, for the reasons stated above in Meta's response to subparagraph 2438(a). Further disputed for the reasons stated above in Meta's response to paragraph 2438.

2439. Much of the revenue WhatsApp generated under Meta's direction [redacted]; for example, of the [redacted] in revenue accrued through the WhatsApp Business API in 2022, [redacted]. PX9015, Tucker Report at ¶ 112 (relying on FTC-META-012489088 (WhatsApp Revenue Data) and FTC-META-012005015 (RFP 68(b) Data)).

Meta Response: Disputed in part. Undisputed that Professor Tucker calculated that [redacted] of WhatsApp's Business API revenue [redacted] in 2022. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 1888, 2427, and 2435.

3. WhatsApp had the ability, incentive, and ultimate need to monetize if not acquired by Meta.

2440. Prior to its acquisition by Meta, WhatsApp needed a viable monetization approach beyond its subscription fee. *See supra* CMF at § III.C.2(a)(4).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.C.2(a)(4), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 2427.

2441. If not acquired by Meta, a pivot to PSN services—and the accompanying advertising revenue stream—would have offered WhatsApp a viable monetization approach. *See supra* CMF at § III.C.2(a)(4).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section III.C.2(a)(4), Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 2427.

4. Meta's acquisition of WhatsApp was not necessary for WhatsApp to introduce paid messaging.

2442. WhatsApp offers a paid messaging service through which certain businesses can "send or receive messages to consumers either directly through WhatsApp or via Meta for a fee" using the WhatsApp Business API. PX9003, Aral Report at ¶ 17.

Meta Response: Undisputed.

2443. Business messaging functionality "is common across messaging apps." PX9003, Aral Report at ¶ 286. A "Business Messaging Review" presentation to Sheryl Sandberg, Meta's former Chief Operations Officer, PX6022, Sandberg (Meta) IH Tr., at 15:24-25, [redacted], PX10060, Meta presentation: "Business Messaging Review" (Jan. 30, 2020), FTC-META-001402152, at -170; *see also* PX6040, Idema (Meta) Dep. Tr., at 51:10-25 (confirming that Google, Apple, WeChat, and LINE all offer business messaging products).

Meta Response: Disputed in part. Undisputed that Google, Apple, WeChat, and LINE offer business messaging products. Disputed that this supports the assertion that business messaging functionality is "common" across messaging apps other than Google, Apple, WeChat, and LINE. None of the cited evidence states that, and therefore this paragraph fails to create a genuine dispute of material fact. Further disputed to the extent this paragraph suggests that other messaging apps offer the same business messaging functionality as WhatsApp; none of cited evidence supports that claim. Further disputed for the reasons stated above in Meta's response to paragraph 2427.

2444. Several other players have invested heavily in business messaging with services similar to the WhatsApp Business API, leading innovations in the space and offering specific

business line elements such as integrated payments and reengagement capabilities. PX6177, Aral (FTC) Dep. Tr., at 313:21-314:6.

Meta Response: Disputed. Disputed that the cited testimony supports the assertion or creates a genuine dispute of material fact. Professor Aral, in the cited testimony, did not list a single other "player[ ]" that invested in business messaging, describe the extent of any such investments, or explain how these other "players[']" messaging services were similar to the WhatsApp Business API. PX6177 at 313:21-314:6 (Aral Dep. Tr.). Further disputed that "invested heavily" is vague and undefined. Further disputed for the reasons stated above in Meta's response to paragraph 2427.

2445. Nitin Gupta, Meta's Vice President of Engineering responsible for WhatsApp, confirmed that WeChat, Apple, Telegram, and LINE are other companies that offer similar services to WhatsApp Business API. PX6039, Gupta (Meta) Dep. Tr., at 6:6-8, 154:13-155:10.

Meta Response: Undisputed that Mr. Gupta provided the paraphrased testimony.

2446. As the foregoing statements indicate, Meta's acquisition of WhatsApp was not necessary for WhatsApp to introduce paid messaging. *See supra* CMF at ¶¶ 2442-45.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in paragraphs 2442-2445, Meta incorporates its responses to those statements here. Further disputed for the reasons stated above in Meta's response to paragraph 2427.

5. Meta's acquisition of WhatsApp was not necessary for WhatsApp to utilize Click-to-WhatsApp-style advertising.

2447. Click-to-WhatsApp ads are ads that have a 'Send Message' button that users can click on that takes them to WhatsApp to start a conversation with the advertiser. PX9015, Tucker Report at ¶ 114.

Meta Response: Undisputed.

2448. A button to connect a consumer with a digital advertiser, such as Click-to-WhatsApp, "is not unique in the digital advertising industry." PX9003, Aral Report at ¶ 289. For example, Google uses similar "click to SMS links" in some of its advertising. *See* PX13283, Meta email chain: M. Idema to D. Fischer, et al. re: "[redacted] & WA," (Aug. 6, 2018), FB_FTC_CID_02514892, at -893. LinkedIn similarly offers "Click-to-Message" functionality for its advertisements. PX9008, Aral Rebuttal Report at ¶ 213.

Meta Response: Disputed. Disputed that the cited evidence supports the statements in this paragraph or creates a genuine dispute of material fact. The cited paragraph in Professor Aral's rebuttal report does not cite any evidence to support the assertions in this paragraph, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). The statement also mischaracterizes the quoted language in the cited document, PX13283. That document does not state that Google uses click to SMS links in its advertising, or that any such click to SMS links are similar to Click-to-WhatsApp. The document states only that "[redacted]" PX13283 at -893 (FB_FTC_CID_02514892). The cited paragraph in Professor Aral's rebuttal report states only that LinkedIn offers Click-to-Message advertisements, but does not describe that functionality in any detail or explain

how it is similar to Click-to-WhatsApp. PX9008 at ¶ 213 (Aral Rebuttal Rep.). This paragraph also misquotes paragraph 289 in Professor Aral's report, which refers to "display advertising," not "digital advertising." Further disputed for the reasons stated above in Meta's response to paragraph 2427.

2449. Click-to-call ads also appear in the open display ad ecosystem. PX9003, Aral Report at ¶ 290.

Meta Response: Undisputed.

2450. Apps other than Meta have sought to include Click-to-WhatsApp advertising in their own advertising offerings. For example, [redacted]. PX13283, Meta email chain: M. Idema to D. Fischer, et al. re: "[redacted] & WA," (Aug. 6, 2018), FB_FTC_CID_02514892, at -893. When David Fischer, Meta's former Chief Revenue Officer, PX6092, Fischer (Meta) Dep. Tr., at 27:2-16, was made aware of this, he wrote that [redacted] PX13283, Meta email chain: D. Fischer to M. Idema, et al. re: "[redacted] & WA," (Aug. 7, 2018), FB_FTC_CID_02514892, at -892; *see also* PX6092, Fischer (Meta) Dep. Tr., at 169:8-170:6 (confirming [redacted]).

Meta Response: Disputed in part. Undisputed that [redacted], and that Mr. Fischer provided the quoted testimony. Disputed that this paragraph supports the assertion that multiple "[a]pps" have sought to include Click-to-WhatsApp

advertising in their own advertising offerings or that any "app[ ]" has sought to do so in the FTC's alleged relevant geographic market of the United States. *See* PX13283 at -893 (FB_FTC_CID_02514892). The document cited identifies [redacted]. *See id.* The statements in this paragraph fail to create a genuine dispute of material fact and are not material to the resolution of either party's motion. Further disputed for the reasons stated above in Meta's response to paragraph 2427.

2451. As the foregoing statements indicate, Meta's acquisition of WhatsApp was not necessary for WhatsApp to launch Click-to-WhatsApp-style advertising. *Supra* CMF at ¶¶ 2447-50; *see also* PX9003, Aral Report at ¶ 290 ("[T]he record suggests that WhatsApp would have been capable of launching such a feature—even on Instagram and Facebook—as an independent company.").

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2427. The only evidence Professor Aral cites in support of his otherwise unsupported statement that WhatsApp would have been able to launch Click-to-WhatsApp as an independent company is a single email showing that, [redacted], which are not in the FTC's alleged relevant geographic market of the United States. *See* PX9003 at ¶ 290 & n.475 (Aral Rep.). Likewise, the reference to the FTC's statements in paragraphs 2447-2450 cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent this paragraph

incorporates the FTC's statements in paragraphs 2447-2450, Meta incorporates its responses to those statements here.

I. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Scale Its Underlying Technical Infrastructure

2452. Meta's acquisition of WhatsApp was not necessary for WhatsApp to scale its underlying technical infrastructure. *Infra* CMF at §§ V.I.1-5.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections V.I.1-5, Meta incorporates its responses to those statements here.

Further disputed that any of the statements in Section V.I create a genuine dispute of material fact because none of the statements establishes that consumers would have been better off in a but-for world without the acquisition. Further disputed to the extent the statements in Section V.I suggest that, absent the acquisition, WhatsApp would have scaled its infrastructure as quickly, efficiently, and effectively as it was in fact able to do because of the acquisition. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See* Ex. 5 at ¶¶ 14, 16, 18, 218-219 (Nieh Rep.); *id.* at ¶ 218 ("It is impossible to know whether WhatsApp could have achieved [its] extraordinary [post-acquisition] growth on its own.").

Evidence shows that "WhatsApp received enormous benefits from Meta and its infrastructure that enabled [it] to scale more quickly, efficiently, and effectively than [it] could have using other alternatives." *Id.* at ¶ 219; *see also id.* at ¶¶ 220-269 (setting forth those benefits); Meta SMF ¶ 844 (discussing Mr. Acton's 2015 statement that the

"biggest change" to WhatsApp's infrastructure to support voice calling "was the addition of voice relay infrastructure. The nice part of that is that we were able to build and deploy this inside of Facebook's global network and, as such, did not have to make significant changes to our own core infrastructure," and his testimony that "[Meta's] network infrastructure that enabled us to roll out our voice and video calling were two areas of improvement for WhatsApp that were the quick wins that I had talked about"). The unique benefits that Meta provided to WhatsApp include, but are not limited to: (1) use of Meta's CDN and Edge Network, which helped improve WhatsApp's performance and reliability, *see* Ex. 5 at ¶¶ 228-231 (Nieh Rep.); (2) use of Meta's Everstore service to store multimedia content, which helped improve WhatsApp's performance and reliability and reduce its costs, *see id.* at ¶¶ 235-237; and (3) use of Meta's infrastructure instead of Softlayer, which helped improve WhatsApp's performance and reliability, reduce its costs, and develop and launch new features more rapidly and efficiently, *see id.* at ¶¶ 249-267.

WhatsApp's documents confirm these and additional benefits. A 2017 WhatsApp document states: "Our infrastructure improvements that landed in 2017 will allow us to serve [a] much larger amount of traffic at the NYE peak than we would have previously been able." Ex. 489 at -163 (FTC-META-012303163). A 2018 WhatsApp presentation on the migration states "[w]e are in a better position" and lists six improvements: "[1] Multi-region[; 2] Automation to reduce operational cost[; 3] Direct access to all [Meta] services[; 4] Trained tons of people in our code base, troubleshooting and operation[; 5] Improved message delivery time thanks to [Meta] point of presence[; and 6] More in common with FB stack, easier to recruit." Ex. 198 at -.007 (FB_FTC_CID_07025255).

Nitin Gupta, the head of engineering at WhatsApp, described "multiple wins" from migration, including: "1. Messaging has become more performant & reliable. Before [Meta] infra, we had 1 active region and 1 cold region. We never did a [disaster recovery] exercise. [redacted] This has allowed for better load balancing across regions leading to lower messaging latency, higher reliability especially being able to handle NYE spikes." Ex. 209 at -938 (FTC-META-002530938); *see* Ex. 164 at 12:10-22 (Gupta Dep. Tr.).

Testimony of WhatsApp's founders further confirms these benefits. *See* Ex. 5 at ¶ 226 (Nieh Rep.). For example, Mr. Acton testified that, by being acquired by Meta, WhatsApp could "leverage the infrastructure they have already prebuilt and optimized," allowing WhatsApp to "substantially cut costs or leapfrog in some way." Ex. 314 at 200:17-201:8 (Acton IH Tr.). Mr. Koum testified that WhatsApp expected considerable cost savings from adopting Meta's infrastructure because "[Meta] has millions of servers and because [Meta] has their own data centers and because [Meta] operates on such a global scale, their cost would be different from what we were paying to SoftLayer." Ex. 285 at 187:3-188:7 (Koum IH Tr.).

Further, Mr. Bray, the FTC's proffered infrastructure expert, testified that he had no basis to rule out whether Meta's apps are the fastest, have the highest availability, or have the lowest variability on the planet. *See* Meta SMF ¶ 154.

2453. Meta has not supported its claims that its infrastructure or expertise helped improve WhatsApp's user experience, or that the claimed improvements could not have been achieved by WhatsApp independently. PX9001, Bray Report at ¶ 36. Meta has not identified the metrics used to measure any claimed improvement to end-user experience,

such as performance or reliability, or the actual improvement achieved. *See* PX9001, Bray Report at ¶ 36.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the cited paragraph in Mr. Bray's report does not support the assertion in this paragraph. It rests on the unsupported claim that Meta is required to provide specific performance data metrics regarding the subjective user experience before and after the WhatsApp acquisition. *See* PX9001 at ¶ 113 (Bray Rep.) (asserting with no support that "any claims of infrastructure-related performance improvements to the user experience must be accompanied by data demonstrating changes in request latency *as it is perceived by the end user*" (emphasis in original)). The benefits that Meta's infrastructure and expertise provided to WhatsApp are supported by significant record evidence, for the reasons stated above in Meta's response to paragraph 2452.

1. WhatsApp demonstrated it could scale successfully on third party infrastructure because it in fact did.

2454. WhatsApp demonstrated that it could scale successfully on third party infrastructure because in fact it did. *Infra* CMF at §§ V.I.1(a)-(c).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections V.I.1(a)-(c), Meta incorporates its responses to those statements here.

a) WhatsApp had already achieved significant scale on its pre-acquisition infrastructure prior to being bought by Meta.

2455. WhatsApp grew to a significant size prior to its acquisition by Meta.

Meta Response: Disputed in part. Undisputed that WhatsApp grew prior to its acquisition by Meta. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452.

a. WhatsApp launched as a messaging platform in mid-2009. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 182:13-18.

Meta Response: Undisputed.

b. By February 2011, WhatsApp was adding 100,000 users per day with 44% of its users active on a daily basis. [redacted]

Meta Response: Undisputed that the document contains the stated figures.

c. By October 2011, WhatsApp was delivering more than 1 billion messages per day. PX0657 at -001, *one billion messages*, WhatsApp Blog (Oct. 31, 2011), http://web.archive.org/web/20111113142706/http://blog.whatsapp.com/index.php/2011/10/one-billion-messages/.

Meta Response: Undisputed.

d. In 2014, WhatsApp had 450 million monthly active users from around the world and a "[m]essaging volume approaching the entire global telecom SMS volume." PX13794, Meta document: "Facebook to Acquire WhatsApp" (Feb. 19, 2014), FB_FTC_CID_03831593, at -593.

Meta Response: Undisputed.

2456. WhatsApp had already built a scalable infrastructure prior to its acquisition by Meta by using the third-party infrastructure provider SoftLayer.

Meta Response: Disputed in part. Undisputed that WhatsApp built infrastructure using SoftLayer prior to the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because none of the statements in this paragraph and its subparagraphs supports the statement that WhatsApp's pre-acquisition infrastructure was scalable in an unidentified way and to an unidentified extent. *See*, *e.g.*, Ex. 5 at ¶¶ 222-223 (Nieh Rep.) (more fully describing the deficiencies of WhatsApp's pre-acquisition infrastructure); *see also id.* at ¶ 34 (refuting FTC's proffered expert's unsupported principle of "infinite scale" and explaining that "engineering challenges often become more complex at greater scale").

a. Before being acquired and for some time after being acquired, WhatsApp operated on servers rented from SoftLayer, a third-party infrastructure provider. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 103:18-105:18.

Meta Response: Disputed in part. Undisputed that WhatsApp rented servers from third-party SoftLayer. Disputed for the reasons stated above in Meta's response to paragraph 2456.

b. WhatsApp engineered its SoftLayer infrastructure in order to handle scaling and rapid growth. PX6009, Acton (Meta/WhatsApp) IH Tr., at 185:12-24 ("Q. And was the engineering focused on making sure the hardware configurations were set up for handling scaling and growth on WhatsApp? A. Certainly, yes. Our general principle of provisioning was to double capacity. So once we would -- you know, we would buy, let's say, 16 servers and they would provision to a certain capacity level. And then when we reached some redline, we would buy

double number of servers, 32, and that would give us a runway of 18 months or so as the traffic eventually caught up of the user base. And then we'd go through the process all over again.").

Meta Response: Disputed in part. Undisputed that WhatsApp used SoftLayer infrastructure to scale and grow prior to the acquisition. Disputed in part for the reasons stated above in Meta's response to paragraph 2456, and because the statement in this subparagraph does not specify any particular dimension or degree of either scaling or growth. Further, the cited evidence addresses only the way in which WhatsApp selected among SoftLayer's hardware offerings; it does not support the broader statement in this subparagraph. Further disputed because a primary motivation of WhatsApp for choosing Softlayer was that it was low cost. *See* Ex. 5 at ¶ 221 (Nieh Rep.).

c. WhatsApp had the ability to support a growing userbase on SoftLayer, including to one billion users, by simply provisioning the infrastructure hardware from SoftLayer. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 108:20-109:4 ("Q. Was there a limit to the number of users that WhatsApp's technical architecture was capable of supporting prior to WhatsApp's acquisition by Facebook? A. The limits were dictated by the provisioned hardware that we had in place. There weren't – they were not architectural limitations. They were physical limitations. And if the user base were to grow to, say, for example, 1 billion, we would have just provisioned hardware from SoftLayer to accommodate that growth.").

Meta Response: Disputed in part. Undisputed that WhatsApp used SoftLayer to scale and grow prior to the acquisition. Disputed in part for the reasons stated

above in Meta's response to paragraph 2456, and because the cited testimony speaks to WhatsApp's "technical architecture," which is not the same as its physical infrastructure. *See* Ex. 5 at ¶¶ 313-317 (Nieh Rep.) (noting the distinction between infrastructure and architecture, [redacted]). The cited statement also does not support the subparagraph's implied assertion that it would have been simple for WhatsApp to obtain the physical infrastructure required to support a billion-user service from SoftLayer. The statement also ignores scaling issues with WhatsApp's technical architecture that would have impeded further scaling, including the lack of a multi-region architecture, as well as the fact that engineering challenges often become more complex at greater scale. *See id.* at ¶¶ 34, 250.

d. WhatsApp co-founder Brian Acton testified that no one from Meta requested information about WhatsApp's infrastructure during the acquisition negotiations. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 114:17-22.

Meta Response: Disputed. Disputed because this statement misstates Mr. Acton's testimony. Mr. Acton testified that "[n]o one from WhatsApp sought" "any information from Facebook about Facebook's infrastructure." PX6086 at 114:17-22 (Acton Dep. Tr.). Further disputed because Mr. Acton also testified that when Mr. Zuckerberg described his pre-acquisition "pitch" to Mr. Acton, Mr. Zuckerberg indicated that "I think the general reasons were we have great technology that can help you and we can help you grow your user base faster." PX6009 at 167:12-19 (Acton IH Tr.).

b) Prior to the acquisition, Meta recognized WhatsApp as already operating at a much larger scale than Facebook Messenger, with WhatsApp outperforming Facebook Messenger by a "huge gap" and "stark" difference.

2457. Prior to the acquisition, Meta recognized WhatsApp as operating at a much larger scale and outperforming Facebook Messenger.

Meta Response: Disputed in part. Undisputed that prior to the acquisition Meta recognized that WhatsApp had more global usage than Facebook Messenger. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452 and for the reasons stated in Meta's responses to the subparagraphs below.

a. In May 2013, Peter Deng, who started Meta's Messenger team, observed that one reason that WhatsApp was outperforming Meta was that "there's a huge gap in perceived performance of our Messenger app compared to Whatsapp . . . ." PX3201, Meta email chain: P. Deng to [redacted], et al. re: "[redacted]," (May 6, 2013), FB_FTC_CID_04109587, at -590; *see also* PX6054, Deng (Meta) Dep. Tr., at 22:3-8 (noting "I had started that team," referring to Messenger).

Meta Response: Undisputed that the document contains the quoted language and the witness provided the quoted testimony.

b. In May 2013, Mike Schroepfer, then Meta CTO, reported that "Peter [Deng] and I just did a side by side test of WhatsApp, Viber, and Messenger Master (most recent build) and the difference is stark. WhatsApp and Viber are both near instant (from push send to received on peters phone). We take seconds." PX2477, Meta email chain: M. Schroepfer to R. Endres re: "Send Latency," (May

8, 2013), FB_FTC_CID_02941561, at -563; *see also* PX6075 Schroepfer (Meta) Dep. Tr., at 37:4-6 (confirming he was Meta's chief technology officer).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because the quoted portion of the document is incomplete; the remainder of the document makes clear that that language refers to a test that isolated latency, ignoring other differences across applications and other aspects of performance. *See* PX2477 at -561 (FB_FTC_CID_02941561) ("Based on some tests we have run, we know that there is delay introduced in the client between receiving a message and showing it to the user. Part of it is code complexity and part of it is due to the fact that client downloads more data before showing the message to the user.").

c. In August 2013, Meta's Head of Growth, Javier Olivan, shared with Amin Zoufonoun, Meta's Vice President of Corporate Development, that WhatsApp's success was a significant concern. Mr. Olivan stated: "Trust me - this keeps me awake every night. We are definitely not playing in the same field as whatsapp does (as evidenced by the fact that we only have 200M messenger to messenger daily sends as opposed to their 12B daily sends by now)." PX12127, Meta email chain: J. Olivan to A. Zoufonoun re: "WhatsApp/FB sends," (Aug. 28, 2013), FB_FTC_CID_06085872, at -872; *see also* PX6076, Olivan (Meta) Dep. Tr., at 30:5-8 (confirming he became Head of Growth around 2011).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony and that the document contains the quoted language. Disputed

for the reasons stated above in Meta's response to paragraph 2452, and because the quoted portion of the document is incomplete; the remainder of the document makes clear that it concerned a branding matter – whether consumers would come to see Facebook Messenger (historically associated with Facebook) as an alternative to a "clear, simple and reliable sms replacement" (such as WhatsApp). *See* PX12127 at -872 (FB_FTC_CID_06085872).

2458. In August 2013, WhatsApp was performing so well that Facebook engineering leader Jocelyn Goldfein identified it as an "existential threat." PX10268, Meta email chain: J. Goldfein to [redacted], et al. re: "help for messaging," (Aug. 9, 2013), FB_FTC_CID_06852370, at -370 (requesting Meta employee help to focus on Facebook Messenger's "Mobile quality," "Messenger perf optimization," and "Fast switching" to compete with WhatsApp); *see also* PX6041, Endres (Meta) Dep. Tr., at 141:19-21 (explaining that Jocelyn Goldfein "was the engineering leader for the Facebook Blue app" at the time of the email).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because the cited email does not refer to WhatsApp alone as an "existential threat," but rather to "WhatsApp and similar SMS replacements" collectively.

c) WhatsApp continued to scale on its pre-acquisition infrastructure for years after its acquisition by Meta.

2459. WhatsApp's ability to scale without Meta's infrastructure is demonstrated by the fact that it continued to growth for years after the acquisition, when not on Meta's infrastructure.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

above in Meta's response to paragraph 2452, and for the reasons stated in Meta's responses to the subparagraphs below.

a. WhatsApp passed one billion monthly active users in 2016, two years after its acquisition by Meta and a year before it began to migrate to Meta's data center infrastructure. PX6009, Acton (Meta/WhatsApp) IH Tr., at 201:21-22 ("I think it was sometime in 2016 that we passed a billion monthly active users."); PX10101, Meta presentation: "WhatsApp Move to FB Infra" (May 22, 2017), FB_FTC_CID_10150358, at PX10101-006-08 (showing that WhatsApp began migrating to Meta's data centers in 2017).

Meta Response: Disputed in part. Undisputed that WhatsApp passed one billion monthly active users in 2016 and that WhatsApp began migrating to Meta's data centers in 2017. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because the evidence shows that WhatsApp began using other key components of Meta's infrastructure, including Meta's content delivery network and media storage service, within months after the acquisition, and both contemporaneous documents and testimony attribute important benefits to these aspects of Meta's infrastructure. *See* Ex. 5 at ¶¶ 228-234 (Nieh Rep.) (addressing CDN); *see also* Meta SMF ¶ 844 (discussing Mr. Acton's 2015 statement that the "biggest change" to WhatsApp's infrastructure to support voice calling "was the addition of voice relay infrastructure. The nice part of that is that we were able to build and deploy this inside of Facebook's global network and, as such, did not have to make significant changes to our own core infrastructure."); *id.* at ¶¶ 863-864 (discussing

Mr. Acton's testimony regarding CDN and Everstore benefits provided "straightaway in 2014, 2015").

b. By May 2017, WhatsApp had more than 1.3 billion monthly active users and 970 million daily active users. PX10101 at -022, Meta presentation: "WhatsApp Move to FB Infra" (May 22, 2017), FB_FTC_CID_10150358. However, as of May 2017, WhatsApp had not yet migrated to Meta's infrastructure, and was still using SoftLayer's infrastructure. PX6021, Parikh (Meta) IH Tr., at 209:5-9 ("By the end of 2018, the WhatsApp team had transitioned off of SoftLayer and was running in Facebook infrastructure.").

Meta Response: Disputed in part. Undisputed that, by May 2017, WhatsApp had more than 1.3 billion monthly active users and 970 million daily active users. Disputed that WhatsApp had not yet migrated to Meta's infrastructure in May 2017 for the reasons stated above in Meta's response to paragraph 2459(a). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

2. WhatsApp did not migrate to Meta's infrastructure to improve its performance or reliability.

2460. Through using its own unique infrastructure, WhatsApp delivered to users a highly reliable and low-latency messaging service using a relatively small number of servers and with a small team of engineers. *See* PX9011, Bray Rebuttal Report at ¶¶ 349, 362; *see also* PX0659 at -002, *How WhatsApp Grew To Nearly 500 Million Users, 11,000 Cores, And 70 Million Messages A Second*, High Scalability (Mar. 31, 2014), https://highscalability.com/how-whatsapp-grew-to-nearly-500-million-users-11000-cores-an/ ("Handling this level of growth"—tenfold traffic growth in two years—"with

so few engineers is what Rick [Reed, WhatsApp engineer,] is most proud of: 40 million users per engineer. This is part of the win of the cloud. Their engineers work on their software. The network, hardware, and datacenter is handled by someone else.").

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the terms "unique," "highly reliable," "low-latency," and "relatively small" are vague and undefined, as is the time frame. Evidence shows both that WhatsApp's pre-acquisition infrastructure had substantial limitations and that WhatsApp's pre-acquisition growth (largely outside the United States) does not support this paragraph's unqualified characterization of that infrastructure. *See*, *e.g.*, Ex. 5 at ¶¶ 222-223 (Nieh Rep.) (more fully describing the deficiencies of WhatsApp's pre-acquisition infrastructure); *see also id.* at ¶ 34 (refuting FTC's proffered expert's unsupported principle of "infinite scale" and explaining that "engineering challenges often become more complex at greater scale").

2461. WhatsApp did not migrate onto Meta's infrastructure to improve WhatsApp's reliability or to continue improving WhatsApp's product.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452 and in Meta's responses to the subparagraphs below.

a. When asked whether "WhatsApp migrate[d] to Facebook's infrastructure in order to improve the reliability of WhatsApp's infrastructure," Mr. Acton testified: "No." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 118:13-16.

Meta Response: Disputed in part. Undisputed that the witness's answer to the stated question begins with "No." Disputed for the reasons stated above in Meta's response to paragraph 2452, and because the statement in this subparagraph incompletely characterizes Mr. Acton's answer, which continues: "We migrated predominantly for cost and operability reasons." PX6086 at 118:13-18 (Acton Dep. Tr.). Further, Mr. Acton left the company before WhatsApp migrated to Meta's data center infrastructure. *See id.* at 117:22-23. Evidence shows that reliability benefits, such as the desire to adopt a multi-region architecture, were among the key reasons WhatsApp migrated to Meta's data center infrastructure. *See* Ex. 5 at ¶¶ 222, 242-244 (Nieh Rep.) (discussing contemporaneous internal documents and sworn testimony).

b. Mr. Koum testified that he did not think that WhatsApp needed to move onto Meta's infrastructure in order to reduce the frequency of WhatsApp's outages or to continue improving the WhatsApp product. PX6010, Koum (Meta/WhatsApp) IH Tr., at 188:8-15 ("Q. Did you need to move on to Facebook to reduce the frequency of WhatsApp's outages? A. No . . . one didn't have anything to do with the other. Q. Did you need to move onto Facebook infrastructure to continue improving the WhatsApp product? A. I don't think so.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because Mr. Koum's testimony that migration was not required to achieve the stated goals does not support this paragraph or address whether Meta's infrastructure helped WhatsApp grow more quickly, efficiently,

and effectively than it likely could have using other alternatives, particularly since Mr. Koum left Meta before the migration was completed, *see* PX6010 at 191:25-192:1 (Koum IH Tr.).

2462. Mr. Koum believed that WhatsApp's "performance or latency" did not justify a migration to Meta's infrastructure, as no users had "complain[ed] that [WhatsApp] [was] slow." PX3484, Meta email chain: [redacted] to J. Parikh, et al. re: "qq," (May 14, 2015), FTC-META-003113279, at -279 ("[T]here's not much we can say in terms of performance or latency etc to try to influence Jan because his response is that nobody complains that WA is slow and that they are fast enough today. Even with added round-trips from SoftLayer to FB, it's still fast enough in his eyes . . . .").

Meta Response: Disputed in part. Undisputed that the document, which was sent a few months after the acquisition, contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because evidence from shortly after the acquisition indicates that Mr. Koum personally sought Meta's assistance with WhatsApp's voice feature, which WhatsApp had struggled to launch on its own and ultimately launched in reliance on Meta's content delivery network, *see* Ex. 5 at ¶¶ 262-263 (Nieh Rep.) (discussing this evidence), and because performance cannot be assessed in isolation from cost, *see id.* at ¶ 75 ("A key consideration with respect to computing infrastructure for any company is cost performance – the cost required to achieve a desired performance level. To make an apples-to-apples comparison of different systems, it is critical to consider not only the performance they can achieve, but also how much it costs to achieve that performance."). Mr. Koum testified that one of "two reasons" for WhatsApp's partial migration to Meta's infrastructure during his tenure was

"purely from the financial reason and the cost reason, because Facebook has millions of servers and because Facebook has their own data centers and because Facebook operates on such a global scale, their cost would be different from what we were paying to SoftLayer. And I think from a financial point it makes sense to take our infrastructure and move it inside of Facebook because it would be a lot cheaper and we don't have to pay the bill to SoftLayer every month, which at some point got to be very expensive." PX6010 at 187:22-188:7 (Koum IH Tr.).

3. WhatsApp's infrastructure migration was motivated by the fact that Meta lacked expertise in WhatsApp's bespoke infrastructure.

2463. WhatsApp had a technical architecture that was less mainstream and very different from Meta's and, as a result, many of Meta's in-house technologies were less applicable to WhatsApp's architecture. PX9001, Bray Report at ¶ 37.

Meta Response: Disputed in part. Undisputed that WhatsApp's technical infrastructure pre-acquisition was different from Meta's. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because WhatsApp used many of Meta's technologies after the acquisition, *see* Ex. 5 at ¶ 219 (Nieh Rep.) (summarizing how WhatsApp benefited from its use of Meta's technologies). Further disputed on the ground that the phrases "less mainstream" and "less applicable" are vague and undefined.

2464. Prior to the acquisition, WhatsApp relied on several less-mainstream technologies to build its systems.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the phrase "less mainstream" is

vague and undefined. Further disputed to the extent the statement in this paragraph suggests that WhatsApp did not receive benefits from Meta's infrastructure because WhatsApp and Meta used different technologies pre-acquisition, which is not supported by any of the cited evidence.

a. According to Meta's Santosh Janardhan, WhatsApp was "bespoke" in part because "it was a messaging app that was built in Erlang. Erlang is a [programming] language that most people don't use . . . ." PX6088, Janardhan (Meta) Dep. Tr., at 93:21-25.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because the quotation of Mr. Janardhan's testimony is incomplete. *See* PX6088 at 93:20-94:7 & errata (Janardhan Dep. Tr.) ("WhatsApp was custom built – was bespoke on a couple of different sort of axes. One, it was a messaging app that was built in Erlang. Erlang is a language that most people don't use and WhatsApp chose to use. It was bespoke in the sense that most people don't use Erlang. It was bespoke in the sense that it ran as a standalone – it ran only in a single standalone center when we acquired. So regardless of how well it ran or not, if anything happened to that data center, WhatsApp was dead in the water. It would not come up at all. That was the only place that they had stored data.").

b. WhatsApp relied on the FreeBSD operating system for its servers. PX6039, Gupta (Meta) Dep. Tr., at 61:12-14.

Meta Response: Undisputed.

2465. In contrast to WhatsApp, Meta uses more common and general-purpose infrastructure components.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452 and for the reasons stated in Meta's responses to the subparagraphs below, and because the statement in this paragraph is not supported by any of the cited evidence. Further disputed on the ground that the phrases "more common" and "general-purpose" are vague and undefined.

a. Meta's applications are built around more commonly used programming languages like Python, Java, C++, and PHP. PX3485 at -009, Meta presentation: "WhatsApp Migration: the journey" (Nov. 30, 2018), FB_FTC_CID_07025256 (noting that WhatsApp and Meta use "[d]ifferent language[s] (Erlang vs. C++/Java/Python)"); *see also* PX6039, Gupta (Meta) Dep. Tr., at 122:7-11 ("Historically, Meta's – Meta's experience with these kind of languages has been -- has not been that great both with Python as well as with PHP, where they have to optimize the virtual machine so that the run time can execute much faster.").

Meta Response: Disputed in part. Undisputed that some of Meta's applications were built using Python, Java, C++, and PHP. Disputed that this statement creates a genuine dispute of material fact. Meta uses many other programming languages for other use cases. *See* Ex. 534 (Engineering at Meta, *Programming Languages Endorsed for Server-Side Use at Meta*, https://perma.cc/3YCQ-22FL). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

b. Mr. Acton explained that Meta's infrastructure is "a generally decent, general-purpose infrastructure." PX6009, Acton (Meta/WhatsApp) IH Tr., at 195:7-13 ("I think Facebook's infrastructure is built largely to serve Facebook, which includes delivery of media, you know, rich content, and a variety of other use cases. I wouldn't say that it's tuned for any one thing in particular. I think their infrastructure is a generally decent, general-purpose infrastructure.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because the quotation is incomplete and does not accurately characterize Mr. Acton's testimony or create a genuine dispute of material fact. The question Mr. Acton addressed was whether "Facebook's infrastructure" had been "specifically tuned for social networking." PX6009 at 195:5-13 (Acton IH Tr.). Mr. Acton was not knowledgeable on that topic. *See id.* at 195:14-18 (when asked if "Facebook's infrastructure" had "any certain features that allowed it to serve News Feed type content better than other – other services," answering: "I don't know. I never worked with News Feed."). Further, evidence demonstrates that Meta has built one of the most advanced infrastructures of its kind in the world. *See* Ex. 5 at ¶¶ 35-38 (Nieh Rep.) (explaining [redacted] Meta developed years before it was available via cloud providers); Ex. 289 at 146:4-147:8 (Bray Dep. Tr.) (FTC's infrastructure expert testifying that "the great leap forward" in the development of the single "known family of techniques for operating products of this scale" occurred at "Google and Meta"). The evidence further shows that many components of Meta's infrastructure were specifically

optimized for the services that Meta provides. *See* Ex. 5 at ¶¶ 39-45 (Nieh Rep.) (explaining that "Meta's infrastructure is an engineering marvel that has contributed substantially to the user experience, performance, and reliability of Meta's apps"); *id.* at ¶ 49 ("Meta can [redacted]"); *id.* at ¶¶ 50-51 (describing Meta's edge network, composed of [redacted] (cleaned up)); *id.* at ¶¶ 52-53 (explaining that Meta has developed its own backbone infrastructure by, among many other things, [redacted] and that it has [redacted]); *id.* at ¶ 56 ("Meta's [redacted]"); *id.* at ¶ 57 (describing the [redacted] – [redacted] – that also are part of Meta's infrastructure); *see generally id.* at ¶¶ 67-74 (describing evidence that "Meta's infrastructure is [redacted]").

c. Mr. Acton testified that, at Meta, everything other than Everstore was "essentially a clone or a copy of something Google had, or the rest of the industry had." PX6009, Acton (Meta/WhatsApp) IH Tr., at 197:18-20.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 2452 and subparagraph 2465(b), and because the quotation is incomplete and does not accurately characterize Mr. Acton's testimony or create a genuine dispute of material fact. Mr. Acton prefaced the quoted testimony by limiting it with "[i]n my utilization of Facebook." PX6609 at 197:18 (Acton IH Tr.).

2466. WhatsApp's chat service, and certain infrastructure components supporting it, are written in Erlang, but Meta lacked Erlang expertise when it acquired WhatsApp, which inhibited Meta's ability to support WhatsApp.

Meta Response: Disputed in part. Undisputed that certain components of WhatsApp were written in Erlang. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452 and for the reasons stated in Meta's responses to the subparagraphs below, and because the statement in this paragraph is not supported by any of the cited evidence.

a. Erlang is "a functional programming language that is [sic] invented by Ericsson for switches. It's just a very different programming pattern than, say, a C or a Java language." PX6039, Gupta (Meta) Dep. Tr., at 114:20-24. WhatsApp server-side systems were written in Erlang. PX6039, Gupta (Meta) Dep. Tr., at

114:25-115:2 ("Q. WhatsApp server-side systems were written in Erlang when you joined Meta; is that right? A. That is correct.").

Meta Response: Undisputed.

b. WhatsApp also used several Erlang-based open-source infrastructure components, including Mnesia for data storage. PX6039, Gupta (Meta) Dep. Tr., at 39:4-6, 101:5-9; *see also* PX0658 at -004, Cosette Cressler, *Understanding WhatsApp's Architecture & Subsystem Design*, CometChat Blog (Oct. 11, 2021), https://www.cometchat.com/blog/whatsapps-architecture-and-system-design (describing WhatsApp's Erlang-based infrastructure components, including Ejabberd, Mnesia, BEAM, and YAWS).

Meta Response: Undisputed.

c. WhatsApp has continued using Erlang programming language and architecture, and has further developed Erlang components, to the present day. PX6039, Gupta (Meta) Dep. Tr., at 128:19-22 ("Q. Today have you concluded that you can scale with Erlang? A. We still use Erlang, and it still works reasonably well for our code messaging in this case."); PX0658 at -004, Cosette Cressler, *Understanding WhatsApp's Architecture & Subsystem Design*, CometChat Blog (Oct. 11, 2021), https://www.cometchat.com/blog/whatsapps-architecture-and-system-design (describing WhatsApp's Erlang-based infrastructure components, including Ejabberd, Mnesia, BEAM, and YAWS).

Meta Response: Undisputed.

d. When Meta acquired WhatsApp, Meta did not use Erlang for its other applications and did not have expertise in the language. *See* PX3213, Meta

messages: J. Parikh to [redacted], (Feb. 20, 2014), FTC-META-004725823, at -823 ("Compared to java for msg passing, erlang is way superior . . . . Our channel used to be in erlang . . . It was terrible . . . . We clearly weren't that good at erlang.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this statement establishes that Meta did not use Erlang for any of its applications or that Meta's vastly larger engineering organization lacked "expertise in" Erlang. Further disputed that WhatsApp's choice to adopt a rarely used programming language prevented Meta's infrastructure from supplying many benefits to WhatsApp. *See* Ex. 164 at 120:13-121:15 (Gupta Dep. Tr.) ([redacted]); PX6088 at 95:15-16 (Janardhan Dep. Tr.) ("Erlang was a language that almost no other major provider used, so it was a different thing."). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

e. WhatsApp's use of Erlang required Meta to [redacted]. *See* PX3206, Meta document: "The more robust WA infra" (Mar. 1, 2019), FB_FTC_CID_11013298, at -303 ([redacted]).

Meta Response: Disputed in part. Undisputed that [redacted]. Disputed that the cited testimony supports

the claim that Meta was required [redacted]. Further disputed for the reasons stated above in Meta's response to paragraph 2452.

f. Even in 2021, [redacted] PX13038, Meta document: "WhatsApp Org Reliability Review Pre-read" (*Mar. 23, 2021), FTC-META-006711529, at -533.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this single document's vague reference to [redacted] correctly characterizes the resources that Meta has devoted to Erlang specifically to support WhatsApp. *See* Ex. 164 at 120:13-121:15 (Gupta Dep. Tr.) ([redacted]). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

g. Jay Parikh wrote in 2019 that, "[redacted]" PX10106, Meta email chain: J. Parikh to R. Endres, et al. re: "interop thoughts," (July 23. 2019), FB_FTC_CID_02366761, at -762.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that a 2019 email discussing [redacted] supplies any basis to suggest that WhatsApp did not receive

benefits from Meta's infrastructure because WhatsApp and Meta used different technologies pre-acquisition. Further disputed for the reasons stated above in Meta's response to paragraph 2452.

2467. As both WhatsApp co-founders and Professor Nieh have made clear, WhatsApp did not migrate to Meta's infrastructure because of any deficiencies in WhatsApp's reliability or performance, but rather because Meta engineers would have had prohibitive difficulty operating WhatsApp's customized infrastructure after the departure of WhatsApp's own knowledgeable engineers.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452 and for the reasons stated in Meta's responses to the subparagraphs below, and because the statement in this paragraph is not supported by any of the cited evidence.

a. Mr. Acton explained that WhatsApp migrated onto Meta's infrastructure primarily to ensure that Meta could continue to operate WhatsApp after the departure of knowledgeable WhatsApp staff, including Mr. Acton. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 192:21-25 ("I knew it was important for the long-term operations of WhatsApp that it be hosted inside Facebook infrastructure so that Facebook could properly own and operate the service after I was gone."); *id*. at 193:12-16 ("And so I wanted to make sure that before everyone disappeared after they got all of their payouts that Facebook was in a position to own and operate it with their own employees and their own technologies and their own staff.").

Meta Response: Disputed. This subparagraph mischaracterizes Mr. Acton's testimony. Mr. Acton also testified that WhatsApp migrated to Meta's infrastructure "predominantly for cost and operability reasons." PX6086 at 118:13-18 (Acton Dep. Tr.). Further, Mr. Acton left the company before WhatsApp migrated to Meta's data center infrastructure. *See id.* at 117:22-23. The cited evidence thus does not support the statement in paragraph 2467. Further disputed for the reasons stated above in Meta's response to paragraph 2452.

b. Mr. Koum similarly testified that the "number one" reason he chose to migrate WhatsApp onto Meta's infrastructure was "to make sure the system runs after all the people that know how to run it leave." PX6010, Koum (Meta/WhatsApp) IH Tr., at 187:3-21 ("[W]ithin four years of the deal closing most of those engineers -- most of the people who knew how to operate this infrastructure would be gone . . . . So that was number one, for me to make sure the system runs after all the people that know how to run it leave.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that this subparagraph accurately characterizes Mr. Koum's testimony. The cited reason was one of "two reasons" he gave within the same answer, and the second one the FTC omits was: "purely from the financial reason and the cost reason, because Facebook has millions of servers and because Facebook has their own data centers and because Facebook operates on such a global scale, their cost would be different from what we were paying to SoftLayer. And I think from a financial point it makes sense to take our

infrastructure and move it inside of Facebook because it would be a lot cheaper and we don't have to pay the bill to SoftLayer every month, which at some point got to be very expensive." PX6010 at 187:22-188:7 (Koum IH Tr.). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

c. Meta's infrastructure expert, Professor Jason Nieh, opined that [redacted] PX9022, Nieh Report at ¶ 241 (citing [redacted]).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that this subparagraph accurately characterizes Professor Nieh's testimony, which explains that this benefit is just one among many "enormous benefits from Meta and its infrastructure that enabled [it] to scale more quickly, efficiently, and effectively than [it] could have using other alternatives." Ex. 5 at ¶ 219 (Nieh Rep.); *see id.* at ¶¶ 220-269 (setting forth those benefits). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

4. WhatsApp encountered significant challenges and had to expend significant engineering resources in migrating from its customized infrastructure to Meta's own infrastructure, which had performance and reliability issues.

a) The migration presented significant technical and engineering challenges, in part because of performance and reliability issues with Meta's own infrastructure.

2468. Meta's infrastructure was not designed to provide the reliability that WhatsApp required.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452 and for the reasons stated in Meta's responses to the subparagraph below, and because the statement in this paragraph is not supported by any of the cited evidence.

a. Meta's infrastructure was "higher complexity and less fault tolerant" than WhatsApp's. PX6009, Acton (Meta/WhatsApp) IH Tr., at 193:24-25.

Meta Response: Disputed. The quoted testimony is incomplete and does not support the statement for which it is cited in support. Mr. Acton testified that, "[a]rguably, Facebook infrastructure is more scalable and it's more cost-effective, but it also is higher complexity and less fault tolerant." PX6009 at 193:22-25 (Acton IH Tr.). That testimony does not support this paragraph, because the notion that "WhatsApp required" a degree of "reliability" that Meta's infrastructure did not provide is belied by the evidence showing that "WhatsApp received enormous benefits from Meta and its infrastructure that enabled [it] to scale more quickly, efficiently, and effectively than [it] could have using other alternatives." Ex. 5 at ¶ 219 (Nieh Rep.); *see id.* at ¶¶ 220-269 (setting forth those benefits). The evidence also shows that WhatsApp's infrastructure experienced considerable faults that were likely to worsen and that Meta's infrastructure helped eliminate or reduce those instances. *See* Ex. 164 at 41:3-5 (Gupta Dep. Tr.) ("The infrastructure that [WhatsApp] had in Softlayer was highly fragile. And the performance wasn't that great."); *see also* Ex. 5 at ¶¶ 252-256 (Nieh Rep.) (describing WhatsApp's reliance on Meta's infrastructure to manage traffic

on New Year's Eve in successive years). Further, a key element of WhatsApp's infrastructure that reduced its complexity – operating out of a single data center – caused WhatsApp to be far less fault tolerant than Meta's redundant multi-data-center infrastructure. *See* Ex. 5 at ¶¶ 222, 242-244 (Nieh Rep.) (discussing evidence that the desire to adopt a multi-region architecture, with its concomitant reliability benefits, was one key reason WhatsApp migrated to Meta's data center infrastructure). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

2469. Mr. Acton testified that there was a "mismatch between our expectations of reliability and redundancy compared to [Meta's]," and WhatsApp "forced [Meta] to work harder at being more reliable." PX6009, Acton (Meta/WhatsApp) IH Tr., at 193:25-194:4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452.

2470. The WhatsApp migration was "[a] big challenge" because there were "[d]ifferences everywhere" between Meta and WhatsApp's architecture. PX3485 at -009, Meta presentation: "WhatsApp Migration: the journey" (Nov. 30, 2018), FB_FTC_CID_07025256 (noting that the migration would be "[a] big challenge" because of many differences between Meta and WhatsApp, including: a "[d]ifferent operating system (FreeBSD vs. Linux); [d]ifferent language (Erlang vs. C++/Java/Python); Pets vs. Cattle (big machines vs. containers);" a "[n]eed to build automation using new tools;" and other "[d]ifferences everywhere: network, reliability, operation, failure handling, build for availability vs. failure . . . . In many cases valid but opposite approaches.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the cited document makes clear that the "challenge" referred to is not the migration (conducted starting in 2017) but the prior process of "Explor[ing] WhatsApp in Facebook" (conducted in 2016). PX3485 at -009 (FB_FTC_CID_07025255). In addition, the cited document confirms that Meta succeeded in improving WhatsApp: "It's been a miracle . . . . So far doing better than 2017 in terms of WhatsApp availability despite the migration." *Id.* at -045.

2471. During its migration into Meta's infrastructure, WhatsApp "[n]eed[ed] to build automation [in Meta's infrastructure] using new tools." PX3485 at -009, Meta presentation: "WhatsApp Migration: the journey" (Nov. 30, 2018), FB_FTC_CID_07025256.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the cited document makes clear that the "challenge" referred to is not the migration (conducted starting in 2017) but the prior process of "Explor[ing] WhatsApp in Facebook" (conducted in 2016). PX3485 at -009 (FB_FTC_CID_07025255). The post-migration assessment within the same document makes clear that the implementation of "[a]utomation to reduce operational cost" was one respect in which "[w]e are in a better position." *Id.* at -043.

2472. WhatsApp began migrating to Meta's media storage system, Everstore, in 2015, but soon discovered that Everstore was not optimized for WhatsApp's use, with employees also observing that Everstore performed worse than WhatsApp's pre-acquisition infrastructure.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the statement in this paragraph is not supported by the cited evidence.

a. Meta operates a media storage system it calls "Everstore." PX6021, Parikh (Meta) IH Tr., at 67:23-68:2 ("Everstore is the storage system, the distributed storage system, that houses photos and videos, these richer, kind of larger objects, and Everstore is used across many different applications and features in Facebook.").

Meta Response: Undisputed.

2473. WhatsApp started migrating to Everstore "sometime in 2015." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 116:19-24.

Meta Response: Undisputed.

2474. In June 2015, Jan Koum told Jay Parikh that WhatsApp's "experience with everstore [was] not going well." PX11022, Meta email chain: J. Koum to J. Parikh re: "Everstore issues," (June 9, 2015), FB_FTC_CID_02581139, at -139. When Mr. Koum asked an engineer whether Everstore was "at 6 9s [of reliability] or not even close," the engineer replied, "[n]ot even close." PX11022, Meta email chain: [redacted] to J. Koum re: "Everstore issues," (June 24, 2015), FB_FTC_CID_02581139, at -139.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the statements mischaracterize the cited evidence. The second cited email goes on to say: "Most of the errors / outages we've seen have been on the upload side and we can build reliability around that sufficient to ride out short blips. We haven't seen any significant outages for downloads which is where it would impact customers." PX11022 at -139 (FB_FTC_CID_02581139). It also discusses performance during the process of migrating WhatsApp to Everstore and does not bear on whether, once completed, that migration benefited WhatsApp. The evidence shows that it did. *See* Ex. 5 at ¶¶ 235-239 (Nieh Rep.) (citing extensive evidence that WhatsApp benefited from its reliance on Everstore).

2475. On July 6, 2015, a Meta employee noted that WhatsApp had reliability concerns with Everstore, which impacted the timing for migrating videos to it: "WhatsApp – 20% of videos coming to Everstore. They won't fully onboard until Facebook infra meets their 99.999 reliability requirement (their goal is 6 9s!)." PX3204, Meta email: [redacted] to K. Anand re: "Everstore info," (July 6, 2015), FB_FTC_CID_09104022, at -022.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the cited document discusses performance during the process of migrating WhatsApp to Everstore and does not bear on whether, once completed, that migration benefited WhatsApp. The evidence shows that it did. *See* Ex. 5 at ¶¶ 235-239

(Nieh Rep.) (citing extensive evidence that WhatsApp benefited from its reliance on Everstore).

2476. In July 2015, Senior Meta Engineer [redacted] emailed Jay Parikh acknowledging the disparity between the user experience on Facebook and WhatsApp prior to WhatsApp's migration to Meta's infrastructure, saying: "Facebook's users are used to retrying everything because we're not that reliable. WhatsApp's users expect that once a video is uploaded, their servers have accepted it and there won't be any reason to re-upload it." He also stated that WhatsApp's "current reliability is around 99.99% for their own servers and uploading to everstore isn't even 99%. Remember this is 99% over 40Gbps private circuits between SoftLayer and Facebook. They are 99.99% over crappy 3g connections." PX13047, Meta email chain: [redacted] to J. Parikh, et al. re: "[WhatsApp <> FB Infra] Here's the weekly update up on Everstore . . . ." (July 8, 2015), FTC-META-004712798, at -799-00.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2475.

2477. The next month, a Meta engineer wrote: "Everstore seems to have been unprepared to support the added workload that [WhatsApp] presents for it. There's continual errors of various types or outright SEVs happening. The engineers are spending weekends investigating problems." PX3198, Meta email chain: [redacted] to [redacted], et al. re: "What a fucking mess :(" (Aug.17, 2015), FB_FTC_CID_02569719, at -719. SEVs (short for "severity") is Meta's internal nomenclature for outages and other incidents. PX9001, Bray Report at ¶ 146.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2475.

2478. In 2016, WhatsApp continued to have concerns about migrating to Meta's infrastructure because of problems with its reliability.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore fails to create a genuine dispute of material fact.

2479. In May 2016, Mr. Acton wrote:

> Jan and I have been talking about more broadly adopting facebook infra. The part that we struggle with is adding more moving pieces / more personnel into the mix that effectively lowers our SLA. At present, our primary experiences have been through everstore and traffic and in the last week alone, we've seen 3 cases of incidents. I've pasted the data below so you can review. Our concern is that as we adopt more FB infra (tao, zippy, etc), we're going to have more and more of these incidents. The more incidents, the more user impact :(").

PX11036, Meta email chain: B. Acton to J. Parikh, et al. re: "infra reliability," (May 23, 2016), FB_FTC_CID_07715025, at -026.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2475.

a. Meta's Vice President of Engineering, Jay Parikh noted, "[s]eems like our reliability issues are giving the [WhatsApp] team pause about migrating over [to Meta's infrastructure]." PX11036, Meta email chain: J. Parikh to S. Janardhan, et al. re: "infra reliability," (May 23, 2016), FB_FTC_CID_07715025, at -026.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2475.

b) Due to these challenges, the migration did not begin for years after the acquisition, and it took years to complete.

2480. Meta did not begin to migrate WhatsApp from Softlayer onto Meta's computing infrastructure until three years after the acquisition, and it took Meta about two additional years to complete the migration.

Meta Response: Disputed in part. Undisputed that WhatsApp did not fully migrate to Meta's infrastructure until 2018. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the evidence shows that it was WhatsApp that decided whether and when to migrate to Meta's computing infrastructure. *See* PX3485 at -007 (FB_FTC_CID_07025255) ("No pressure to migrate is the best time to migrate."); PX6088 at 121:17-122:3 (Janardhan Dep. Tr.) (in discussing WhatsApp's migration to Meta's infrastructure, agreeing that "the length of time that it took to migrate is worth it" and explaining that that is "because the – the WhatsApp migration or the Instagram – I think the thing to note here is that we were ensuring that we help them and the app do – doing what they needed to do versus cracking down and saying, 'Oh, you need to migrate now.' So we – we were trying to make sure that we balanced it out in terms of balancing their priorities . . . . It was a collaboration. It was not like a dictated thing, if that makes sense."). The evidence further shows that the time it took to migrate WhatsApp was not due to unusual challenges and that [redacted]. *See* PX3485 at -045 (FB_FTC_CID_07025255) ("The success of a migration is that nobody notices any change in the service[.] It's been a miracle . . . . So far doing better than 2017 in terms of WhatsApp availability despite the migration."); *see also*, *e.g.*, Ex.

5 at ¶¶ 309-322 (Nieh Rep.) ([redacted]); *id.* at ¶¶ 323-333 (discussing Twitter's years-long struggle to assemble a sustainable infrastructure).

a. WhatsApp began migrating from Softlayer onto Meta's computing infrastructure in 2017. *See* PX10101, Meta presentation: "WhatsApp Move to FB Infra" (May 22, 2017), FB_FTC_CID_10150358, at -361-63 (showing that WhatsApp was four months into the migration project in May 2017).

Meta Response: Undisputed.

b. WhatsApp was not substantially integrated into Meta's infrastructure and off SoftLayer until the end of 2018. PX6021, Parikh (Meta) IH Tr., at 209:1-9 ("By the end of 2018, the WhatsApp team had transitioned off of SoftLayer and was running in Facebook infrastructure. And in 2018 that's when the core application logic moved off of SoftLayer into Facebook infrastructure."); *see also* PX3486, Meta presentation: "WhatsApp Migration: the journey" (Dec. 3, 2018), FB_FTC_CID_07026004, at -022 (showing, in October and November 2018, WhatsApp set a "new (ambitious) goal" of migrating "everything by end of year!").

Meta Response: Disputed in part. Undisputed that WhatsApp's migration from SoftLayer to Meta's computing infrastructure was completed in 2018. Disputed for the reasons stated above in Meta's response to paragraph 2480, and because the evidence shows that WhatsApp migrated to other parts of Meta's infrastructure prior to 2018, including Meta's content delivery network and media storage service within months after the acquisition, which provided WhatsApp

with numerous benefits. *See* Ex. 5 at ¶¶ 228-234 (Nieh Rep.) (addressing CDN); *see also* Meta SMF ¶¶ 863-864 (discussing Mr. Acton's testimony regarding CDN and Everstore benefits provided "straightaway in 2014, 2015").

2481. Migrating from Softlayer to Everstore required several years of engineering work.

Meta Response: Disputed in part. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the evidence shows that [redacted]. *See* PX3485 at-045 (FB_FTC_CID_07025256) ("The success of a migration is that nobody notices any change in the service[.] It's been a miracle . . . . So far doing better than 2017 in terms of WhatsApp availability despite the migration."); *see also*, *e.g.*, Ex. 5 at ¶¶ 309-322 (Nieh Rep.) ([redacted]); *id.* at ¶¶ 323-333 (discussing Twitter's years-long struggle to assemble a sustainable infrastructure).

a. By January 2016, WhatsApp had completed 99% of video storage migration to Everstore but had only begun the process for photo storage migration. PX3212, Meta Workplace Post: [redacted] post to WhatsApp <> Infra (Jan. 5, 2016), FTC-META-004676264, at -264 (showing "+ 99% of videos served and 14% of images were served from everstore").

Meta Response: Disputed in part. Undisputed that, by January 2016, WhatsApp had completed 99% of video storage migration to Everstore. Disputed that, by January 2016, Meta had only begun the process for photo storage

migration. Although WhatsApp was not relying exclusively on Everstore to store every photograph as of January 2016, the cited document demonstrates that Everstore was already playing a crucial role in WhatsApp's success as of that point. *See* PX3212 at -264 (FTC-META-00467264) (WhatsApp's [redacted] thanking "the folks on over at [Meta] who helped us to deliver WhatsApp videos, audio and images via everstore and the [Meta] CDN. This is my third holiday working on media at WhatsApp and hands down this was the quietest and smoothest of all of them."). Further disputed for the reasons stated above in Meta's response to paragraph 2481.

a. WhatsApp was still migrating text, photo, and audio storage to Meta's infrastructure in 2017. PX3211, Meta Workplace Post: [redacted] post to Infra Leads (Feb. 6, 2017), FTC-META-003107037, at -037 ("WhatsApp's video components/storage are on FB infra already. And the immediate next step is to move the photos/audio components to FB."); PX3491, Meta Workplace Post: [redacted] post to Infrastructure FYI (Mar. 14, 2017), FTC-META-003083149, at -149 ("WhatsApp has been operating in a dedicated WhatsApp infra in the past years with the only exception that WhatsApp videos are stored in Facebook Infra (Everstore)."); PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 105:16-106:9 (noting that text objects were still stored in Softlayer in 2017).

Meta Response: Disputed in part. Undisputed that WhatsApp had not completed moving all WhatsApp texts, photos, and audio to Meta's infrastructure in 2017. Disputed for the reasons stated above in Meta's response to paragraph 2481.

2482. WhatsApp was unable to migrate to Meta's TAO, requiring WhatsApp engineers to develop a new solution that took several years to implement.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. They are misleading and not supported by the cited evidence. The reason WhatsApp did not migrate to TAO was that WhatsApp and Meta found that WhatsApp's workload was better suited for a different Meta service (ZippyDB). *See* Ex. 5 at ¶ 247 (Nieh Rep.).

a. WhatsApp started a migration to TAO by 2015, *see* PX3492, Meta Workplace Post: [redacted] post to WhatsApp <> FB Infra (June 25, 2015), FTC-META-011619958, at -958, but "moved away from TAO as [a] primary solution" in 2018, PX3493, Meta Workplace Post: [redacted] post to WhatsApp Move to FB Infra (Working Group) (Mar. 11, 2018), FTC-META-012303160, at -160.

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2482.

b. According to Nitin Gupta, Vice President of Engineering at WhatsApp, "we chose TAO as a subsystem. And that did not really have the properties that we needed in order for us to work. And so it took us awhile to figure that out." PX6039, Gupta (Meta) Dep. Tr., at 16:5-10, 59:10-13.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2482.

c. WhatsApp engineers reported that they "failed to migrate any meaningful data set to TAO" in 2017. PX10105, Meta presentation: "All Hands" (*Dec. 3, 2018), FB_FTC_CID_09188953, at -971.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2482.

2483. WhatsApp was unable to migrate directly to Meta's ZippyDB, requiring WhatsApp to develop a new solution it called "ForgETS."

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. The statement in this paragraph is misleading and not supported by the cited evidence. It is common to develop new solutions to facilitate migration. *See*, *e.g.*, Ex. 5 at ¶¶ 309-322 (Nieh Rep.) (discussing [redacted]); *id.* at ¶ 326 (discussing evidence that Twitter required "customized white box solutions" to scale its infrastructure); [redacted].

a. In 2018, WhatsApp switched to a combination of a Meta database and a component created in Erlang by WhatsApp engineers called ForgETS. PX10105, Meta presentation: "All Hands" (*Dec. 3, 2018), FB_FTC_CID_09188953, at -972 ("2018: Change of Plan[:] Plan B: use ZippyDB & ForgETS . . . After discussions with TAO team decide that it's too big of a leap for WhatsApp"); *see*

also PX3494, Meta presentation: "WhatsApp Move to FB Infra" (Nov. 15, 2018), FB_FTC_CID_08259991, at -999 ("ForgETS[:] Storage solution developed by WA[;] Erlang native storage[;] Better fit for our use-cases[;] Was our "Plan C" for migration to FB infra").

Meta Response: Disputed in part. Undisputed that the documents contain the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2481 and 2483.

b. WhatsApp engineers built ForgETS after "extensively evaluating" Meta's memcache, ZippyDB, and TAO systems and concluding they "didn't meet [WhatsApp's] use cases." PX3217, Meta email: S. Janardhan to N. Nguyen, et al. re: "summary of meeting with Nitin," (Mar. 7, 2019), FB_FTC_CID_07420149, at -150 ("But we have to do more due diligence if we decide not to use an existing FB technology. As an example, we built ForgETS storage after extensively evaluating memcache, TAO and Zippy as alternatives which didn't meet our use cases. This choice has borne out to be right.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2481 and 2483.

5. Meta's assertions about infrastructure benefits for WhatsApp are unsupported.

a) Meta's acquisition of WhatsApp was not necessary for WhatsApp to attain any proffered benefits from migrating to Meta's infrastructure.

2484. As the aforementioned shows, WhatsApp's migration to Meta's infrastructure was fraught with challenges and took years to effectuate. *See supra* CMF at § V.I.4.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.I.4, Meta incorporates its responses to those statements here. Further disputed because WhatsApp received benefits from migrating to Meta's infrastructure regardless of any challenges involved in that migration, for the reasons stated above in Meta's response to paragraph 2452.

2485. Any potential benefits from the migration would have been limited because WhatsApp's user base had already grown quickly to a very large size before the acquisition. PX9001, Bray Report at ¶ 37.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because Meta both provided benefits to the user base WhatsApp had acquired before the migration and also enabled WhatsApp "to scale more quickly, efficiently, and effectively than [it] could have using other alternatives." *E.g.*, Ex. 5 at ¶ 219 (Nieh Rep.); *see id.* at ¶¶ 220-269 (setting forth those benefits). WhatsApp has added far more users following the acquisition than before. *See id.* at ¶ 218 ("As a threshold matter, Dr. Bray's claims are speculative. Since the acquisition, WhatsApp has [redacted], from approximately 471 million MAU to approximately [redacted].").

2486. WhatsApp did not need Meta's infrastructure to provide a growing user base with a strong user experience, because it demonstrably already had. PX9001, Bray Report at ¶ 38.

Meta Response: Disputed in part. Undisputed that WhatsApp may have been able to provide a strong user experience absent the acquisition. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452.

2487. WhatsApp did not begin migrating to Meta's infrastructure for a significant period of time after the acquisition, during which WhatsApp continued to scale toward a billion users on technologies it had been using prior to the acquisition. PX9001, Bray Report at ¶ 38.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the statement is misleading. WhatsApp began using significant parts of Meta's infrastructure, including Meta's content delivery network and media storage service, within months after the acquisition, and both contemporaneous documents and testimony attribute important benefits to these aspects of Meta's infrastructure, for the reasons stated in Meta's response to paragraph 2459(a).

2488. Mr. Acton testified that migrating to Meta's infrastructure did not change "WhatsApp's growth trajectory . . . in any noticeable way." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 118:7-11.

Meta Response: Disputed in part. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the statement is misleading. Mr. Acton testified that he had no "recollection" of such a change. PX6086 at 118:7-11 (Acton Dep. Tr.).

2489. WhatsApp did not need to be acquired by Meta to continue scaling its infrastructure.

Meta Response: Disputed in part. Undisputed that WhatsApp may have been able to scale its infrastructure, to some extent, absent the acquisition. Disputed that the statements in this paragraph and its subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452 and in Meta's responses to the subparagraph below.

a. Meta was not uniquely able to support WhatsApp's growth and user experience given the many examples of companies providing online products that have followed a similar scaling path without access to Meta's infrastructure, and given that WhatsApp was already doing so successfully before the acquisition. PX9001, Bray Report at ¶ 39.

Meta Response: Disputed. Disputed for the reasons stated in Meta's response to paragraph 2452. The evidence shows that none of the apps discussed by Dr. Bray has achieved the same scale that Meta has achieved for WhatsApp. *See* Ex. 5 at ¶ 306 (Nieh Rep.) (explaining that "Dr. Bray fails to show that any of his ten examples have scaled successfully to the same extent as Instagram and WhatsApp. Although all of these services have achieved considerable scale, most (if not all) have also experienced significant challenges in achieving that scale. . . . Even at face value, Dr. Bray's selective examples do not show that Instagram and WhatsApp could have been better off without Meta; at most they show it could have achieved some unspecified modicum of success, on some unspecified timeline, at some unspecified cost, with some unspecified tradeoffs."). The varied and complicated experience of other apps does not prove that WhatsApp would have been successful; instead, these examples further demonstrate that WhatsApp

received unique benefits through Meta. *See id.* at ¶ 365 (summarizing evidence that "none of Dr. Bray's ten claimed 'success stories' supports his view that Instagram and WhatsApp did not receive any unique benefits from Meta," and that he also "fail[ed] to consider counterexamples of apps that failed at least in part due to their inability to scale effectively"). The statement relies on Dr. Bray's "infinite scale" theory that, once an app adopts a certain architecture, it can scale infinitely. The evidence shows this theory finds no support in the industry and is contrary to the experience of Meta and many other apps. *See id.* at ¶ 34 (refuting Dr. Bray's unsupported principle of "infinite scale" and explaining that "engineering challenges often become more complex at greater scale"). The evidence also shows Meta provided certain benefits to WhatsApp that it could not have obtained elsewhere and that Meta provided other benefits "that enabled [it] to scale more quickly, efficiently, and effectively than [it] could have using other alternatives." *Id.* at ¶ 219; *see id.* at ¶¶ 220-269 (setting forth those benefits).

2490. WhatsApp's co-founder Brian Acton testified he was "a hundred percent confident" that WhatsApp would have been able to meet its continued needs for scaling its infrastructure had it not been acquired by Meta. PX6009, Acton (Meta/WhatsApp) IH Tr., at 200:6-10; *see also* PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 108:10-110:4 (testifying that WhatsApp would not have faced architectural or financial limitations in scaling its infrastructure absent the acquisition).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2452, and because this paragraph mischaracterizes Mr. Acton's testimony. He recognized that,

at the time of the acquisition, the questions of "the value of the network that [WhatsApp] had built," whether WhatsApp was "going to get bigger," and WhatsApp's "value per user" all reduced to "speculation." PX6009 at 162:4-22 (Acton IH Tr.).

a. Mr. Acton testified that WhatsApp would have been able to continue improving reliability without being acquired by Meta. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 113:23-114:3 ("Q. Did you have an expectation that WhatsApp would continue to improve its reliability over time if it had not been acquired by Facebook? A. Absolutely. It was a part of our DNA as -- as an organization to make sure that WhatsApp was the highest grade service."); PX6009, Acton (Meta/WhatsApp) IH- Tr., at 200:11-13 ("Q. And would WhatsApp have been able to continue improving its reliability? A. Yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2490.

b. Mr. Acton testified that WhatsApp would have been able to continue improving its latency without being acquired by Meta. PX6009, Acton (Meta/WhatsApp) IH Tr., at 200:14-18 ("Q. Would WhatsApp also have been able to improve latency had it not been acquired by Facebook? A. Yeah. We had all the technical know-how and ability to do all these things.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2490, and because this subparagraph mischaracterizes Mr. Acton's testimony. Mr. Acton's answer continued: "Facebook, if anything, just gives an

opportunity to substantially cut costs or leapfrog in some way, and so we did." PX6009 at 200:18-20 (Acton IH Tr.). It also omits the immediately subsequent colloquy, where Mr. Acton expanded on that answer and explained that it is an "advantage of getting acquired by a big company" that "you get to leverage the infrastructure they have already prebuilt and optimized." *Id.* at 200:21-201:12.

c. Mr. Acton testified that "it's a given that WhatsApp could have continued to own and operate its service" and "could have continued in 2014, easily, to continue on SoftLayer." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 107:16-108:8.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2490.

d. Mr. Acton testified that Meta's infrastructure was "completely unnecessary" to achieving WhatsApp's "goals of maintaining a billion users." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 117:24-118:5.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2490.

e. WhatsApp co-founder Jan Koum believed WhatsApp could continue to build out and grow the company without Meta's infrastructure. PX6010, Koum (Meta/WhatsApp) IH Tr., at 159:1-3 ("Q. Did you think there was no way you could continue to build out and grow the company? A. We could. We were planning to do that.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2490.

2491. WhatsApp did not need to be acquired by Meta to continue growing, raise funds, monetize, or hire.

Meta Response: Disputed in part. Undisputed that WhatsApp potentially could have continued to grow, raise funds, monetize, and hire, to some extent, absent the acquisition. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2452 and 2490 and in Meta's responses to the subparagraphs below.

a. Mr. Acton testified that WhatsApp would have continued to grow if it had not been acquired by Meta. PX6009, Acton (Meta/WhatsApp) IH Tr., at 173:21-174:23 ("Q. So had WhatsApp not accepted Facebook's acquisition offer, do you think that WhatsApp would have continued to grow? A. Yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2452 and 2490.

b. Mr. Acton testified that WhatsApp would have successfully monetized without being acquired by Meta. PX6009, Acton (Meta/WhatsApp) IH Tr., at 173:25-174:4 ("Q. And do you think WhatsApp would have successfully monetized without being acquired by Facebook? A. You understand that we were already successfully monetizing, so yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2452 and 2490.

c. Mr. Acton testified that WhatsApp could have raised additional funding had it not been acquired by Facebook. PX6009, Acton (Meta/WhatsApp) IH Tr., at 174:16-23 ("Q. [C]ould WhatsApp have raised additional funds as an independent company had it not been acquired by Facebook? A. As indicated by a Series C that happened literally 15 days or 20 days before the acquisition, I think it was clear that we could raise funds quite easily from established investors. Yes.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2452 and 2490.

d. WhatsApp was "not limited in [its] growth financially" before its acquisition by Meta. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 110:3-4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2452 and 2490, and because evidence shows that WhatsApp's pre-acquisition monetization strategy was unclear and unsustainable. *See* Meta SMF ¶¶ 763-771.

e. Professor Rim, a former venture capitalist (VC) and expert in the technology industry, explained that "if you have a great product like WhatsApp that has incredible metric numbers like number of users, growth rate, and engagement, it

is relatively easy to hire great engineers." PX6182, Rim (FTC) Dep. Tr., 9:13-11:7, 190:17-191:1.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraphs 2452 and 2490, and because the cited testimony does not support the statement in this paragraph. Professor Rim's claim is speculative and contrary to the evidence. The evidence shows that hiring talented engineers with relevant expertise is extremely challenging. *See* PX6088 at 38:2-21 (Janardhan Dep. Tr.) (explaining that "What most people don't get" is that "[i]t's hard to get the expertise and the people who can do these things that can run users in the billions [at] scale. There's not a lot of people in the world who know how to do this. So if you were trying to – try to have 4X the amount of people, you just can't find them."); *see also* Ex. 5 at ¶¶ 260-262 (Nieh Rep.) (noting limitations of WhatsApp's pre-acquisition engineering resources). The evidence also shows that Meta helped WhatsApp considerably with hiring. *See id.* At the time of the acquisition, WhatsApp had limited revenues and no strategy to increase revenues significantly, which can be a deterrent to hiring. *See* Meta SMF ¶¶ 763-771.

2492. WhatsApp had viable alternatives to Meta's media storage offering, Everstore.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore fails to create a genuine dispute of material fact.

2493. Mr. Acton testified that "Amazon and Google and potentially Microsoft" offer scalable "viable alternatives to Everstore." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 276:14-277:23.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the characterization of Mr. Acton's testimony is misleading. Mr. Acton's testimony addressed the state of the marketplace at the time of his questioning in this case, years after the acquisition. Mr. Acton elsewhere testified that Everstore "was a unique piece of software that we were able to leverage" and he "wasn't really aware of anything available in the industry or in open source" that was comparable. Ex. 314 at 196:20-24 (Acton IH Tr.). His testimony does not support the assertion that these services were viable alternatives to Everstore at the time of the acquisition or at the time WhatsApp began using Everstore.

2494. Media storage is a widely available service available from AWS, Google, and Microsoft Azure. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 276:14-277:19; [redacted]. For example, AWS offers a popular media storage service called S3. PX9001, Bray Report at ¶ 216.

Meta Response: Disputed in part. Undisputed that, in 2024, media storage is a widely available service available from AWS, Google, and Microsoft Azure. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452.

2495. Meta's acquisition of WhatsApp was not necessary for WhatsApp to achieve a multi-region architecture.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 2452 and the subparagraphs below.

a. It took WhatsApp years to achieve a multi-geographic architecture on Meta's infrastructure. After being acquired by Meta, WhatsApp did not achieve a multi-geographic architecture on Meta's infrastructure until approximately late 2018. *See* PX3485, Meta presentation: "WhatsApp Migration: the journey" (Nov. 30, 2018), FB_FTC_CID_07025256, at -282 ("We are in a better position[:] Multi-region.").

Meta Response: Disputed in part. Undisputed that WhatsApp did not completely migrate to multi-geographic architecture on Meta's data center infrastructure until 2018. Disputed that this subparagraph supports the speculative claim that the acquisition was not necessary for WhatsApp to achieve a multi-region architecture. The evidence shows that Meta left WhatsApp free to decide when to migrate to Meta's data center infrastructure; that, when it decided to do so in 2017, the adoption of Meta's multi-region architecture was a significant anticipated benefit to WhatsApp; and that, since that migration was substantially completed in 2018, WhatsApp has realized significant benefits. *See* Ex. 5 at ¶¶ 240-242, 250-251 (Nieh Rep.). The fact that WhatsApp did not have a multi-geographic architecture at the time of the acquisition demonstrates the challenges of implementing that complex solution. *See id.* at ¶¶ 222, 242-244 (discussing contemporaneous internal documents and sworn testimony demonstrating that the desire to adopt a multi-region architecture was among the

key reasons WhatsApp migrated to Meta's data center infrastructure). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

b. At the time of the acquisition, SoftLayer also provided more than 16 globally distributed data centers that were available to WhatsApp. *See* PX0661 at -001, Salvador Rodriguez, IBM acquires cloud computing company SoftLayer for $2 billion, L.A. Times (June 4, 2013), https://www.latimes.com/business/technology/la-fi-tn-ibm-cloud-computing-softlayer-2-billion-20130604-story.html (showing that, in 2013, "SoftLayer serve[d] about 21,000 customers and ha[d] 13 data centers throughout the U.S., Asia and Europe."); PX0681 at -001-02, *IBM SoftLayer Opening Melbourne*, Australia Data Center, Data Center Knowledge (Aug. 26, 2014), https://www.datacenterknowledge.com/archives/2014/08/26/softlayer-new-bare-metal-servers (showing that SoftLayer had recently opened three global data centers, with links showing they were opened in 2014: "The expansion plan is to open 15 new SoftLayer data centers globally, with IBM recently opening SoftLayer data centers in London, Hong Kong and Toronto."); *see also* PX3502, SoftLayer email: [redacted] (SoftLayer) to J. Koum (Meta/WhatsApp) re: "WhatsApp/SoftLayer Cross Data Center Planning," (Sept. 5, 2014), FTC-META-003408375, at -375 (regarding "[c]all to discuss how WhatsApp uses SoftLayer's private network between data centers to build out geographic redundancy.").

<u>Meta Response</u>: Disputed in part. Undisputed that SoftLayer owned multiple data centers at the time of the acquisition. Disputed because, at the time of the

acquisition, the technical architecture of WhatsApp did not support operations on more than one data center. *See* Ex. 5 at ¶ 222 (Nieh Rep.). The cited evidence also does not show that any of these data centers were available to WhatsApp, or at what cost and with what performance they would have been available. Further disputed for the reasons stated above in Meta's response to paragraph 2452.

2496. WhatsApp also had the option of moving to the public cloud to achieve benefits to reliability and the user experience from a multi-region architecture. PX9001, Bray Report at ¶¶ 385-86.

Meta Response: Disputed in part. Undisputed that, in theory, WhatsApp had the option of moving to the public cloud. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because WhatsApp's founders expressly avoided the public cloud because it did not offer the mix of capabilities and cost that WhatsApp required. Evidence shows that reliability benefits, such as the desire to adopt a multi-region architecture, were among the key reasons WhatsApp migrated to Meta's data center infrastructure. *See* Ex. 5 at ¶ 221 (Nieh Rep.) (discussing Mr. Acton's testimony regarding WhatsApp's selection of SoftLayer instead of AWS). The claim that WhatsApp nonetheless could have moved to the public cloud is speculative. The cited evidence conducts no analysis to assess the costs to WhatsApp of relying on such a multi-region architecture or the performance of such a multi-region architecture for WhatsApp and does not compare any aspect of these public cloud offerings with WhatsApp's experience relying on Meta's integrated infrastructure. *Cf. id.* at ¶¶ 270-303 (comparing apps relying on an integrated hyperscale infrastructure with those relying on a public

cloud service). At the time of the acquisition, the technical architecture of WhatsApp did not support operations on more than one data center. Moving to the public cloud would not have solved that issue. *See id.* at ¶ 222.

2497. Performant third-party content delivery networks ("CDNs") are readily available. *See infra* CMF at § V.I.5(c).

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.I.5(c), Meta incorporates its responses to those statements here. Further disputed because the evidence shows that Meta's CDN provided unique benefits to WhatsApp. *See* Ex. 5 at ¶¶ 228-234 (Nieh Rep.).

b) WhatsApp's New Year's Eve usage spikes were not evidence of Meta's infrastructure benefits.

2498. WhatsApp annually experienced a surge in usage on New Year's Eve. PX6021, Parikh (Meta) Dep. Tr., at 185:12-24 ("New Year's Eve was one of the most popular times for people to use WhatsApp. So there was a huge spike of messages and photos and other things shared in that 24-hour period of New Year's Eve and early New Year's Day. It was probably the biggest day of the year of uploads to WhatsApp . . . .").

Meta Response: Undisputed.

2499. WhatsApp did not need to be owned by Meta to handle the New Year's Eve surge in traffic.

Meta Response: Disputed in part. Undisputed that, in theory, WhatsApp could have handled a New Year's Eve surge in traffic absent the acquisition. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated

above in Meta's response to paragraph 2452, and because the evidence cited in the subparagraphs below does not support the assertion in this paragraph.

a. While on its pre-acquisition SoftLayer infrastructure, WhatsApp broke records for the number of messages it processed on New Year's Eve in 2012 and again for 2016. PX6039, Gupta (Meta) Dep. Tr., at 78:4-79:8; PX2104, Meta email chain: A. Schultz to GEM Circle, et al. re: "Tweet from WhatsApp Inc. (@WhatsApp)," (Jan. 2, 2013), FB_FTC_CID_09410588, at -589(sharing tweet from WhatsApp reporting that WhatsApp successfully processed a record-setting 18 billion total messages on December 31, 2012).

Meta Response: Disputed in part. Undisputed that the evidence indicates that, as WhatsApp grew, its New Year's Eve traffic grew accordingly. Disputed that the first of the two cited exhibits supports the statement in this subparagraph because WhatsApp was already relying on Meta's infrastructure in important respects by 2016. *See* Ex. 5 at ¶¶ 228-234 (Nieh Rep.) (addressing CDN); *see also* Meta SMF ¶ 844 (discussing Mr. Acton's 2015 statement that the "biggest change" to WhatsApp's infrastructure to support voice calling "was the addition of voice relay infrastructure. The nice part of that is that we were able to build and deploy this inside of Facebook's global network and, as such, did not have to make significant changes to our own core infrastructure."); *id.* at ¶¶ 863-864 (discussing Mr. Acton's testimony regarding CDN and EverStore benefits provided "straightaway in 2014, 2015"). Further disputed that evidence WhatsApp had set internal records on the two cited occasions supports the statement in this paragraph, because other evidence shows that WhatsApp

benefited from relying on Meta's infrastructure in handling increases in traffic on New Year's Eve. *See* Ex. 5 at ¶¶ 252-256 (Nieh Rep.). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

b. Meta planned for WhatsApp to rely on a third-party CDN, Akamai, not Meta's CDN, to support expected workload surges on December 31, 2015. *See* PX3219, Meta presentation: "Capacity Plan for Video Products" (Oct. 15, 2015), FTC-META-008683728, at -738, -740, -748.

Meta Response: Disputed. Disputed because WhatsApp relied on Meta's CDN that New Year's Eve. *See* Ex. 5 at ¶ 253 (Nieh Rep.) (discussing evidence). The cited evidence discusses a contingency plan to "Fall back to Akamai if needed" in a particular region – not a plan to choose Akamai and not Meta's CDN as this subparagraph states. *See* PX3219 at -748 (Meta presentation: "Capacity Plan For Video Products" (Oct. 15, 2015) (FTC-META-008683728)). Further, Akamai was not a third-party CDN to which WhatsApp independently turned; Meta had a preexisting relationship with Akamai. *See* Ex. 5 at ¶¶ 121-124 (Nieh Rep.) (discussing benefits that Instagram drew from Meta's preexisting dealings with Akamai). Further disputed for the reasons stated above in Meta's response to paragraph 2452.

2500. WhatsApp suffered an outage during the 2017 to 2018 New Year's holiday, at which point "WhatsApp media service [would] be solely served by [Meta] infra," as Meta's expert Professor Nieh acknowledged. *See* PX3210, Meta email: Google Alerts to M. Imam re: "Google Alert - whatsapp" (Jan. 1, 2018), FTC-META-002914990, at -990 ("New Year's Day 2018: WhatsApp Services Restored After Brief Outage . . . .

WhatsApp suffered a global outage at midnight yesterday"); PX9022, Nieh Report at ¶ 255.

Meta Response: Disputed in part. Undisputed that WhatsApp experienced an outage during the 2017 to 2018 New Year's holiday. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because the statement in this paragraph is misleading. The cited evidence does not show that Meta's media service (as opposed to legacy SoftLayer infrastructure) was the cause of this outage; on the contrary, evidence shows Meta's infrastructure handled "a 'historical high' of media traffic" and "'did **NOT** drop any traffic.'" Ex. 5 at ¶ 255 (Nieh Rep.).

c) Meta's CDN did not provide any advantages to WhatsApp for media serving over readily available third-party CDNs.

2501. A CDN service maintains a large number of distributed outposts called "Points of Presence" (POPs) around the world and helps customers deliver content to users more quickly by serving requests from locations closer to a user. *See* PX9001, Bray Report at ¶¶ 54-57.

Meta Response: Undisputed.

2502. WhatsApp was not using a CDN service prior to being acquired by Meta. PX6039, Gupta (Meta) Dep. Tr., at 44:17-20.

Meta Response: Undisputed.

2503. A CDN's benefits are greatest when there are highly popular pieces of content (e.g., a popular celebrity sharing an image); however, when content will be viewed by only a single other user, a CDN offers limited benefits. PX9001 Bray Report at ¶ 393.

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because this paragraph erroneously conflates the CDN service available from third parties with Meta's proprietary CDN. By using Meta's CDN, "[redacted] Ex. 5 at ¶ 229 (Nieh Rep.). [redacted]. In fact, [redacted]. *Id.* at ¶ 234. Further, this paragraph both ignores the importance of group messaging to WhatsApp and improperly dismisses the benefits a CDN can supply even in the context of one-to-one traffic. *See id.* at ¶ 233.

2504. Since a high proportion of WhatsApp traffic is individual-to-individual, it has less need for the service a CDN provides, i.e., caching popular widely-shared objects (usually images and video) around the world to facilitate their access by millions of users. PX9001, Bray Report at ¶ 393.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2452 and 2503.

2505. Third party CDNs are and have been available outside of Meta, and a company can use multiple CDN providers.

Meta Response: Disputed in part. Undisputed that other CDNs are available. Disputed that the statements in this paragraph and its subparagraphs create a genuine

dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2452 and 2503, and because other CDNs could not offer WhatsApp the same benefits as Meta's CDN.

a. Mr. Acton testified that WhatsApp did not require access to Meta's infrastructure to obtain CDN services: "We either have to build one or license one. So we do an analysis and we look at Cloudflare, Akamai, and Amazon. We pick a partner. We do a contract. We start using it, right." PX6009, Acton (Meta/WhatsApp) IH Tr., at 200:22-201:12.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the quoted language accurately characterizes Mr. Acton's testimony regarding the benefits of Meta's CDN. *See* Meta SMF ¶ 844 (discussing Mr. Acton's 2015 statement that the "biggest change" to WhatsApp's infrastructure to support voice calling "was the addition of voice relay infrastructure. The nice part of that is that we were able to build and deploy this inside of Facebook's global network and, as such, did not have to make significant changes to our own core infrastructure," and his testimony that "[Meta's] network infrastructure that enabled us to roll out our voice and video calling were two areas of improvement for WhatsApp that were the quick wins that I had talked about"). Further disputed for the reasons stated above in Meta's response to paragraph 2505.

b. Mr. Acton testified that "a global content delivery network is something that you can get from Akamai or Cloudflare. You can get it from a number of different

providers just as a service that you purchase." PX6009, Acton (Meta/WhatsApp) IH Tr., at 196:25-197:4.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2505(a).

c. Patrick Bozeman, Director of Engineering at Instagram, testified that "Akamai is the big giant in the [CDN] space. Or at least was at the time [Instagram was using them in 2013]." PX6035, Bozeman (Meta) Dep. Tr., at 18:8-11, 159:20-160:9; *see also id*. at 157:7-19 (stating that Instagram was using Akamai as of 2013).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2505(a).

d. Jason Vallery, Group Product Manager for Azure Storage at Microsoft, testified that "Microsoft has deep partnerships with Akamai, Cloudflare, Fastly, who are also major CDN players in the world." PX6149, Vallery (Microsoft) Dep. Tr., at 21:9-21, 190:11-19.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2505(a).

e. Mr. Vallery testified that "[c]ustomers that desire the maximum number of points of presence, as well as the maximum reliability for delivering video streaming or image delivery, typically leverage multiple CDN providers to their benefit so that

they have resiliency and scale." PX6149, Vallery (Microsoft) Dep. Tr., at 190:11-191:3.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2505(a).

f. Saral Jain, Vice President of Engineering at Snap, testified that Snap uses multiple CDNs "to provide a faster experience to our user base. Not all CDNs perform equally well in certain countries, and so we run a country-by-country experiment to understand which CDNs are performing better in a certain country, and we choose that CDN in that particular country." PX6161, Jain (Snap) Dep. Tr., at 21:1-14, 59:15-21.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2505(a).

g. WhatsApp chose Meta's CDN without evaluating any other, third-party CDNs. PX6039, Gupta (Meta) Dep. Tr., at 50:15-24 ("I don't believe we evaluated other CDNs . . . . given we had easy access for technology and people, it -- it made sense to go use the Meta CDN.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to subparagraph 2505(a).

2506. Meta's CDN has had poorer latency and reliability than WhatsApp's delivery in SoftLayer in some geographic regions, particularly in areas where Meta's CDN was not

fully developed. PX3207, Meta document: "WA Media Message" (Mar. 28, 2017), FB_FTC_CID_11090072, at -072-73 (describing increased latency for performance in Mexico, Russia and Haiti).

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2452 and 2503, and because the sole cited source addresses two topics, both limited to Mexico, Russia, and Haiti, and to the period before WhatsApp had migrated to Meta's data centers. The first topic compares reliability of uploading a photograph to SoftLayer directly with uploading the photograph to SoftLayer using Meta's CDN. *See* PX 3207 at -072 (FB_FTC_CID_11090072). The second topic compares photo download speeds – again, assuming the interaction with SoftLayer. *See id.* at -073. Testing during the interstitial period before WhatsApp migrated from SoftLayer to Meta's data centers cannot supply a basis for this paragraph's assertion about the performance of Meta's CDN as a component of Meta's integrated infrastructure. Moreover, the "performance issues" identified "are extremely slight." Ex. 5 at ¶ 234 n.592 (Nieh Rep.).

d) Meta fails to show that WhatsApp saved costs by switching to Meta's infrastructure.

2507. At the time the acquisition agreement was signed, Meta did not anticipate any cost savings from migrating WhatsApp to Meta's infrastructure. PX2518, Meta document: "WhatsApp Q&A Prep" (Feb. 19, 2014), FB_FTC_CID_08896347, at -350 (stating in Meta's prepared set of answers to "Top Questions" regarding its acquisition on WhatsApp in 2014: "Do you see any cost savings from switching WhatsApp over to Facebook's IT platform? No.").

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452. Mr. Acton testified that, by being acquired by Meta, WhatsApp could "leverage the infrastructure they have already prebuilt and optimized," allowing WhatsApp to "substantially cut costs or leapfrog in some way." Ex. 314 at 200:17-201:8 (Acton IH Tr.). Mr. Koum testified that WhatsApp expected considerable cost savings from adopting Meta's infrastructure because "[Meta] has millions of servers and because [Meta] has their own data centers and because [Meta] operates on such a global scale, their cost would be different from what we were paying to SoftLayer." Ex. 285 at 187:3-188:7 (Koum IH Tr.).

Further disputed because the sole cited source is a facially incomplete draft. *See* PX2518 at -353 (FB_FTC_CID_08896347) ("[WHATSAPP FOUNDER] and [FACEBOOK FOUNDER] have a shared vision for connecting people, a strong relationship and are looking forward to partnering together. [FACEBOOK FOUNDER] is pleased that [WHATSAPP FOUNDER] has agreed to join Facebook's board.") (brackets in original). It is unclear to what "Facebook's IT platform" refers. Further, the same document states elsewhere that the "Key Messages" included that "Facebook will help WhatsApp scale its product to connect the entire world. We can help each other accelerate growth and engagement. Facebook will help WhatsApp grow by using our technical, policy and marketing infrastructure." *Id.* at -347. Other evidence also shows that WhatsApp anticipated cost benefits. *See* Ex. 5 at ¶ 226 & nn.569-570 (Nieh Rep.) (discussing same).

2508. Mr. Acton testified that using SoftLayer allowed WhatsApp to "optimize [its] hosting architecture for performance and cost." PX6009, Acton (Meta/WhatsApp) IH Tr., at 183:12-184:3 ("[W]e could optimize our hosting architecture for performance and cost. So we were able to really leverage, you know, sort of what SoftLayer had to offer and optimize costs. Cost was important to us . . . . We kept optimizing that. And we could do that in SoftLayer's framework.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2452, and because, in the cited testimony, Mr. Acton was addressing why WhatsApp chose in 2009 to rely on SoftLayer opposed to a public cloud offering (such as AWS). *See* PX6009 at 182:17-184:18 (Acton IH Tr.). That comparison does not support any suggestion that SoftLayer offered those benefits vis-à-vis Meta's infrastructure at the time of the acquisition and thereafter. Evidence shows that "WhatsApp received enormous benefits from Meta and its infrastructure that enabled [it] to scale more quickly, efficiently, and effectively than [it] could have using other alternatives." *E.g.*, Ex. 5 at ¶ 219 (Nieh Rep.); *see id.* at ¶¶ 220-269 (setting forth those benefits).

2509. Mr. Acton testified that WhatsApp's growth would not have been restrained by costs had it not been acquired by Meta. PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 109:19-110:4 ("WhatsApp was a profitable company; and so with our profit, we have the buffer or headroom in our -- in our budget to grow our capacities. We were not limited in our growth financially."); *see also* PX6009, Acton (Meta/WhatsApp) IH Tr., at 92:5-9 ("Q. Did you plan on using any of the money to pay for infrastructure costs? A. I mean,

the only infrastructure would be servers. And no, I mean, we had operating capital for that, incremental operating capital.”).

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 2452, and because this paragraph mischaracterizes Mr. Acton’s testimony. He recognized that, at the time of the acquisition, the questions of “the value of the network that [WhatsApp] had built,” whether WhatsApp was “going to get bigger,” and WhatsApp’s “value per user” all reduced to “speculation.” PX6009 at 162:4-22 (Acton IH Tr.); *see also* Ex. 5 at ¶ 218 (Nieh Rep.) (“It is impossible to know whether WhatsApp could have achieved [its] extraordinary [post-acquisition] growth on its own.”).

2510. Meta has not substantiated cost savings related to migrating WhatsApp to Meta’s infrastructure. *See* PX9005, Hearle Report at ¶ 125; *see also* PX9009, Hearle Rebuttal Report at ¶ 16 (“As a result, Prof. Nieh’s claims do not alter my previous conclusion that I am unable to verify any infrastructure-related cost savings related to WhatsApp.”).

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta’s response to paragraph 2452, and because evidence shows that WhatsApp reaped cost benefits from its reliance on Meta’s infrastructure. *See* Meta SMF ¶¶ 857, 864 (discussing Mr. Koum’s and Mr. Acton’s testimony regarding cost benefits); *see also* Ex. 5 at ¶¶ 268-269 (Nieh Rep.) (describing ordinary-course documentation of Meta’s realized and projected cost savings).

J. Meta's Acquisition of WhatsApp Was Not Necessary for WhatsApp to Manage Integrity Issues at Scale.

2511. Meta's acquisition of WhatsApp was not necessary for WhatsApp to manage integrity issues at scale or deliver Meta's claimed integrity-related benefits related to WhatsApp. *Infra* CMF at §§ V.J.1-6.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Sections V.J.1-6, Meta incorporates its responses to those statements here.

Further disputed that any of the statements in Section V.J create a genuine dispute of material fact because none of the statements establish that consumers would have been better off in a but-for world without the WhatsApp acquisition. Further disputed to the extent the statements in Section V.J suggest that, absent the acquisition, WhatsApp would have developed and improved its integrity systems as quickly and efficiently absent the acquisition as it was in fact able to do because of the acquisition. That is purely speculative, unsupported by any competent evidence, and does not create a genuine dispute of material fact. *See*, *e.g.*, PX9013 at ¶ 32 (McCoy Rebuttal Rep.) (explaining that the farther away an acquisition, the "more difficult it is to assess what kind of integrity problems" might exist and "what kind of resources and solutions" might be deployed in a but-for world without the acquisition); PX6176 at 203:3-10 (Subrahmanian Dep. Tr.) (testifying that "anything could have happened had [WhatsApp] not been acquired. It's hard to tell what would have happened and what would have not happened post its acquisition").

Conversely, the evidence establishes that, prior to the acquisition, WhatsApp was experiencing issues with spam; *see* Meta SMF ¶ 805 (describing pre-acquisition WhatsApp's spam-fighting system), ¶ 866 (quoting Mr. Acton's testimony that spam was a "reasonably sized" problem prior to the acquisition), and WhatsApp relied on "rudimentary" spam-fighting systems, Ex. 285 at 188:19-23 (Koum IH Tr.) (testifying that, prior to the acquisition, WhatsApp "had some rudimentary programs in place to deal with spam, but none of it was extremely sophisticated"), that were "fairly immature," "naively built," addressed WhatsApp's spam problems only "to a limited extent," *see* Meta SMF ¶ 805 (quoting Ex. 163 at 119:7-13 (Acton Dep. Tr.)); *see also* Ex. 163 at 119:11-21 (Acton Dep. Tr.) (testifying that WhatsApp's pre-acquisition spam-fighting systems "provided limited capability and – and worked on a limited basis"), and were less advanced than the systems Meta deployed at the time, *see* Meta SMF ¶ 868 ("I think [Meta] had slightly sophisticated systems for fighting spam because they had been doing it longer than we had and on a much larger scale. And I think [WhatsApp's] engineers who were working on spam were able to tap into [Meta's] systems to figure out – to better help us figure out what is spam and what is not spam." (quoting Ex. 285 at 189:24-190:9 (Koum IH Tr.))).

Evidence also establishes that, prior to the acquisition, WhatsApp "did not have the expertise in-house" to build a more-advanced spam-fighting system, and WhatsApp "would have had to help – hire people to help [it] build" an improved system in a but-for world without the acquisition. Ex. 163 at 119:22-120:10 (Acton Dep. Tr.). Whether WhatsApp would have hired additional engineers and developed a second-generation spam-fighting system is purely speculative and does not create a genuine dispute of

material fact. *See*, *e.g.*, *id.* at 79:17-24 ("Q. . . . [P]rior to being acquired by – by Facebook, WhatsApp had experienced a Series B round of funding; is that correct? A. Yes. Q. Did WhatsApp plan to use at least some of that funding to help with resources related to human resources and technical resources? A. No."); PX9013 at ¶ 32 (McCoy Rebuttal Rep.) (explaining that the farther away an acquisition, the "more difficult it is to assess what kind of integrity problems" might exist and "what kind of resources and solutions" might be deployed in a but-for world without the acquisition); PX6176 at 203:3-10 (Subrahmanian Dep. Tr.) (testifying that "anything could have happened had [WhatsApp] not been acquired. It's hard to tell what would have happened and what would have not happened post its acquisition.").

Evidence shows that WhatsApp's integration with Meta's spam-fighting systems benefited WhatsApp and accelerated its ability to address spam on its platform. *See*, *e.g.*, Meta SMF ¶ 867 (Mr. Acton: "Q. And did Facebook's system improve the way that WhatsApp dealt with spam? A. Yes. Q. And how did it improve the issue of dealing with spam? A. There [are] generally two measurable: precision and recall. And we saw the precision improve and we saw the recall improve." (quoting Ex. 314 at 236:7-20 (Acton IH Tr.))); Ex. 314 at 237:4-16 (Acton IH Tr.) ("So I would broadly characterize [WhatsApp's integration with Meta's spam-fighting system] as an acceleration to fight spam, where [WhatsApp] didn't have to go out and hire and build a team or build a system. It had already been built."). Mr. Acton testified that WhatsApp integrated with Meta's spam-fighting systems in "late 2015, early 2016," with the help of a Meta engineer who transferred to WhatsApp to facilitate the integration. Ex. 314 at 237:4-16 (Acton IH Tr.). Mr. Acton testified that WhatsApp integrated with Meta's spam-fighting

systems at that time because spam "wasn't such an urgent . . . problem" that WhatsApp "had to drop everything and adopt [Meta's spam-fighting system] on day one." *Id.* at 237:17-23.

Actual evidence also shows that, after the acquisition closed, WhatsApp launched additional privacy features, such as end-to-end encryption. *See* Meta SMF ¶¶ 851-854 (describing privacy features launched after the acquisition). The evidence establishes that WhatsApp launched end-to-end encryption in 2016 – after the WhatsApp acquisition closed. *See id.* at ¶¶ 822, 852. Mr. Acton testified that Meta supported WhatsApp's implementation of end-to-end encryption. *See* Ex. 163 at 268:24-269:2 (Acton Dep. Tr.) ("Q. [Meta] supported the implementation of encryption, right? . . . [A.] Yes."). The evidence also shows that WhatsApp and its users benefited from the launch of end-to-end encryption. *See* Ex. 314 at 212:5-213:11 (Acton IH Tr.) ("Q. Did WhatsApp benefit from the end-to-end encryption feature? A. Yes. Q. How did it benefit? A. It was a huge marketing win for us to be a population of a billion users having end-to-end encrypted conversations. So we established a leadership position, I believe, in terms of protecting communication privacy, which helped both retention engagement and monthly actives.").

End-to-end encryption prevents the scanning of encrypted content, which is one way Meta enforces its integrity policies against unencrypted content. *See* Counter SMF ¶¶ 2522(a), (d) (undisputed that end-to-end encryption is a technique used for securing messages, and that WhatsApp established a leadership position in terms of protecting communication privacy by launching end-to-end encryption). The evidence shows that Meta has developed and deployed techniques to combat integrity-related issues on WhatsApp, while providing users with privacy protection. *See*, *e.g.*, Ex. 7 at ¶¶ 83, 215-

217 (Subrahmanian Rep.) (citing evidence that Meta scans unencrypted content on WhatsApp, such as profile photos, for apparent child sexual abuse material and, in 2022, made more than one million reports to NCMEC). For example, Meta developed and deployed a machine-learning tool that analyzes behavioral features (e.g., the number of messages sent by an account in period of time), reputational features (e.g., features associated with the phone-number prefix), and probability models to determine whether a particular action (like a message) is allowed without ever analyzing the content of the encrypted messages. *See id.* at ¶¶ 215-219 (citing a presentation by engineer [redacted], and a whitepaper Meta published regarding WhatsApp's efforts to address integrity issues). WhatsApp also collaborated with [redacted]. *Id.* at ¶¶ 218-219 (citation omitted).

1. Integrity expert Professor McCoy has opined that Meta's acquisition of WhatsApp was not necessary for Meta's claimed integrity-related benefits to accrue to WhatsApp.

2512. Professor McCoy is an expert proffered by the FTC in this action to evaluate "Meta's claimed integrity-related benefits related to acquiring Instagram and WhatsApp, and to assess (1) whether Meta's acquisitions of Instagram or WhatsApp were necessary to achieve the claimed benefits, and (2) whether the claimed benefits were actually achieved." PX9002, McCoy Report at ¶ 13; *see also* PX9013, McCoy Rebuttal Report at ¶ 4.

<u>Meta Response</u>: Undisputed.

2513. Professor McCoy's overall conclusion was that "the evidence did not show Meta delivered integrity benefits to WhatsApp or delivered integrity benefits that were not otherwise available to WhatsApp." PX9013, McCoy Rebuttal Report at ¶ 391.

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted opinion. Disputed that the statement in the paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the evidence directly refutes Professor McCoy's opinions, *see* Ex. 7 at ¶¶ 210-212 (Subrahmanian Rep.) (citing evidence describing WhatsApp's pre-acquisition integrity systems); *id.* at ¶¶ 213-219 (describing post-acquisition improvements to WhatsApp's integrity systems).

2514. More specifically, Professor McCoy found that Meta used "commonplace efforts to fight spam and abusive content" on WhatsApp and that Meta has not "identified evidence showing that the acquisition reduced spam or abusive content on WhatsApp more effectively than WhatsApp could otherwise have accomplished absent the acquisition." PX9013, McCoy Rebuttal Report at ¶ 393.

Meta Response: Disputed in part. Undisputed that Professor McCoy offered the quoted opinion. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the cited paragraph in Professor McCoy's rebuttal report does not cite any evidence to support the quoted language. Further disputed because Professor McCoy admitted that he has never worked at Meta or WhatsApp or consulted on Meta's integrity systems, and that he has never analyzed the effectiveness of Meta's spam-fighting tools, including Sigma, Blackhole, Karma, Tally, and Sentry. *See* Ex. 313 at 52:15-53:7, 54:5-

8, 54:20-55:5 (McCoy Dep. Tr.). Further disputed because the evidence shows that Meta's anti-spam systems used "extraordinary" tools, like Sigma. *See* PX6052 at 181:8-10 (Bejar Dep. Tr.) ("As I mentioned earlier, [S]igma at Facebook was extraordinary in its capacities."); *id.* at 13:23-25, 16:6-8, 22:19-20, 25:4-5, 27:18-20, 34:23-35:8 (testifying that Sigma is "quite remarkable" and "at one point in my tenure [2009-June 2015, September 2019-October 2021], the statistic we quoted was, like, [redacted]").

2515. In addition, "WhatsApp had integrity systems in place commensurate with its needs at the time [of the acquisition]" and it "could have improved these systems to match its developing needs without Meta's acquisition." PX9013, McCoy Rebuttal Report at ¶ 395.

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the cited paragraph in Professor McCoy's rebuttal report is unsupported speculation that does not cite any evidence.

2. Meta's assertions about the benefits it brought to WhatsApp's integrity efforts have significant limitations.

2516. Meta's integrity expert, Professor Subrahmanian, did not assess whether Meta's acquisition of WhatsApp was necessary for WhatsApp to scale its integrity systems.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs.

a. Professor Subrahmanian conceded that he was not stating that WhatsApp's spam-fighting systems were insufficient to meet WhatsApp's needs prior to the acquisition. *See* PX6176, Subrahmanian (Meta) Dep. Tr., at 202:7-13 ("Q. Are you offering in this matter the opinion that WhatsApp's systems to fight spam prior to the acquisition were insufficient to meet WhatsApp's needs at that time? A. I don't think I'm saying they were insufficient to meet WhatsApp's needs at the time of the acquisition.").

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed that he "conceded" anything or that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the FTC's characterization of the testimony is incomplete and missing necessary context. Professor Subrahmanian testified: "I don't think I'm saying [WhatsApp's spam-fighting systems] were insufficient to meet WhatsApp's needs at the time of the acquisition. But, again, it's clear, as stated by Mr. Acton, that WhatsApp's anti-spam system was immature and naively built, and it worked on a limited basis and provided limited capability to combat spam on WhatsApp. So going forward, it potentially could have been an issue." PX6176 at 202:11-18 & errata (Subrahmanian Dep. Tr.).

b. Professor Subrahmanian conceded that Meta's acquisition of WhatsApp was not necessary for WhatsApp to improve its anti-spam capabilities. *See* PX6176, Subrahmanian (Meta) Dep. Tr., at 211:15-212:1 ("[Q.] Is it your opinion in this matter that Meta's acquisition of WhatsApp was necessary in order for WhatsApp

to improve its anti-spam capability? A. Again, as I've said in response to similar questions in the past, WhatsApp could in theory have achieved this without the acquisition, but it would likely have taken them longer to do so.").

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed that he "conceded" anything or that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the FTC's characterization of the evidence is incomplete and missing necessary context. Professor Subrahmanian testified that the evidence shows that "WhatsApp did not have the expertise in house to develop, let alone deploy a second-generation system to fight spam. And to build a better system, [Mr. Acton] testified that WhatsApp would have needed to hire additional engineers and [Jan] Koum . . . agreed." PX6176 at 203:12-204:4 (Subrahmanian Dep. Tr.); *see also id.* at 203:7-11 (testifying regarding WhatsApp, "[w]ell, again, anything could have happened had it not been acquired. It's hard to tell what would have happened and what would have not happened post its acquisition").

c. In response to a question about whether the acquisition was necessary for WhatsApp to improve its integrity systems, Professor Subrahmanian conceded that "it's possible that WhatsApp could have experienced the growth without being acquired by [Meta]." PX6176, Subrahmanian (Meta) Dep. Tr., at 203:12-204:4.

Meta Response: Disputed in part. Undisputed that Professor Subrahmanian provided the quoted testimony. Disputed that he "conceded" anything or that the

statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the FTC's characterization of the evidence is incomplete and missing necessary context, for the reasons stated above in Meta's responses to paragraphs 2516 and subparagraphs 2516(a)-(b).

2517. Professor Subrahmanian conceded the limitations of his assessment of whether Meta's acquisition of WhatsApp benefitted WhatsApp.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact or that Professor Subrahmanian "conceded" anything, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs.

a. Professor Subrahmanian conceded that he did not seek or assess any data reflecting the prevalence of spam on WhatsApp prior to the acquisition. PX6176, Subrahmanian (Meta) Dep. Tr, at 201:4-14 ("Q. Do you disclose anywhere in your report metrics regarding the prevalence of spam on WhatsApp prior to the acquisition compared to the prevalence of spam on WhatsApp after the acquisition? A. I do not recall having any data on prevalence of spam on WhatsApp pre-acquisition. Q. Did you seek in this matter data regarding prevalence of spam on WhatsApp prior to the acquisition? A. I did not.").

Meta Response: Disputed. Disputed that the statements in this subparagraph create a genuine dispute of material fact or that Professor Subrahmanian "conceded" anything, including for the reasons stated above in Meta's response to paragraph 2511, and because the FTC's characterization of the evidence is

incomplete and missing necessary context. Professor Subrahmanian testified: "Q. . . . Which data do you have available that has allowed you to compare the amount of spam on WhatsApp prior to the acquisition with the amount of spam on WhatsApp following the acquisition? A. The data I have is all cited in the footnotes that you see in my report. So that is the testimony and any papers that various people may have published. That's what I relied on." PX6176 at 212:12-20 (Subrahmanian Dep. Tr.); *see* PX9020 at § V (Subrahmanian Rep.) (citing deposition testimony, internal documents, a public whitepaper, and a presentation by engineer [redacted]); *id.* at ¶ 83 & fig. 7 (citing data showing WhatsApp's reports of apparent CSAM to NCMEC).

b. Professor Subrahmanian conceded that he did not conduct any interviews with Meta employees regarding any integrity improvements that WhatsApp may have experienced as a result of the acquisition. PX6176, Subrahmanian (Meta) Dep. Tr., at 214:18-215:2 ("Q. You didn't interview anybody at Meta and ask them any questions about integrity improvements that Meta's acquisition of WhatsApp made available to WhatsApp; right? [A.] I did not interview anybody about that, correct.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511. Further disputed because Professor Subrahmanian's interview notes with Guy Rosen show that he and Mr. Rosen discussed Meta's establishment of an integrity team on WhatsApp in mid-2015. *See* PX9020 at

App'x C (Subrahmanian Rep.). Further disputed that Professor Subrahmanian "conceded" that he needed to interview Meta employees to form reliable and relevant opinions in this litigation. The record shows that Professor Subrahmanian's conclusions regarding WhatsApp are based on documents produced in this litigation, publicly available materials, deposition transcripts, and his knowledge in the field. PX6176 at 205:16-206:3, 212:13-20 (Subrahmanian Dep. Tr.); *cf.* Ex. 313 at 18:21-19:7 (McCoy Dep. Tr.) ("Q. I'm asking in the course of preparing your reports did you speak with any Meta employees? A. I did not speak with any Meta employees related to my report.").

c. Professor Subrahmanian made no claims as to when or how Meta began tracking integrity metrics for WhatsApp. *See generally* PX9020, Subrahmanian Report at § V (claiming that "WhatsApp's Ability to Leverage Meta's Integrity Systems and Know-How Provided WhatsApp With Significant and Unique Benefits"); PX9013, McCoy Rebuttal Report at ¶¶ 417-18, 425.

Meta Response: Disputed. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the FTC's characterization of Professor Subrahmanian's report is misleading. Professor Subrahmanian stated in his report that Meta has reported metrics regarding WhatsApp's integrity, including in a February 2019 whitepaper in which Meta announced that, "[o]ver the last three months, WhatsApp banned over two million accounts per month for bulk or automated behavior and over 75% of those accounts did not have any recent user reports," and that roughly 20% of account bans happened at the time

of registration. PX9020 at ¶ 219 & n.623 (Subrahmanian Rep.) (citing PX0348 at -003, -007 (WhatsApp, *Stopping Abuse: How WhatsApp Fights Bulk Messaging & Automated Behavior*)); *see also id.* at ¶¶ 82-83 & fig. 7 (citing evidence that, in 2022, Meta made more than one million reports of apparent child sexual abuse materials on WhatsApp to NCMEC), *id.* at ¶ 215 (citing evidence that Meta employee [redacted] publicly reported that, in 2016, "WhatsApp reduced spam on its service by 75%"); PX0348 at -003, -006-007 (WhatsApp, *Stopping Abuse: How WhatsApp Fights Bulk Messaging & Automated Behavior*).

2518. The few integrity-related metrics that Professor Subrahmanian cites with respect to WhatsApp come from a public white paper and presentation; none come from documents produced by Meta. *See* PX9020, Subrahmanian Report at ¶¶ 215, 218-19 nn.608-11, 620-21, 623.

Meta Response: Disputed in part. Undisputed that the metrics identified in Professor Subrahmanian's reports are from a whitepaper and presentation by engineer [redacted]. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511. Further disputed that Professor Subrahmanian needed to cite integrity-related metrics from documents produced by Meta to form reliable and relevant opinions in this litigation. The record shows that Professor Subrahmanian's conclusions regarding WhatsApp are based on documents produced in this litigation, publicly available materials, deposition transcripts, and his knowledge in the field, for the reasons stated above in Meta's responses to paragraph 2517 and subparagraphs 2517(a)-(b).

3. Meta's acquisition of WhatsApp was not necessary for WhatsApp to manage integrity issues at scale.

a) WhatsApp was successfully addressing its integrity issues prior to the acquisition.

2519. WhatsApp was not facing critical integrity challenges at the time of the acquisition.

Meta Response: Disputed in part. Undisputed that WhatsApp faced only "low-to-medium" sized integrity issues that were not "urgent" issues at the time of the acquisition. Ex. 314 at 237:17-23, 238:1-9 (Acton IH Tr.). Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in Meta's responses to this paragraph's subparagraphs.

a. Spam was only a "low-to-medium" problem for WhatsApp prior to the acquisition. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 235:22-236:2 ("Q. And how big of a problem was spam? A. It was reasonably sized. At what time? Q. Let's -- so in 2014, prior to the acquisition. A. I would say it was a low-to-medium sized problem."); *id.* at 237:17-21 ("Q. So why didn't you start using -- why didn't WhatsApp start using Facebook's spam technology immediately after the acquisition? A. Because, as I mentioned, it was a low-to-medium problem.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511.

b. Spam problems only began once WhatsApp reached 50 million users. PX6009, Acton (Meta/WhatsApp) IH Tr., at 235:19-21 ("[Q.] So turning back to before the

acquisition by Facebook, did WhatsApp ever have issues with spam? A. Yes. Q. And when did those problems begin? A. I think they started when we got to about a population of 50 million users.").

Meta Response: Undisputed that the witness provided the quoted testimony, except it appears at 235:15-21 of the cited transcript. PX6009 (Acton IH Tr.).

c. Abusive messages were not an issue for WhatsApp prior to the acquisition. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 191:1-12 ("Q. Prior to the acquisition, did WhatsApp have ways of dealing with abusive messages or abusive content? . . . [A.] I don't believe abusive messages were an issue on our network because, as I was speaking about earlier, in the early days, people had the ability to block somebody.").

Meta Response: Disputed. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the FTC's characterization of Mr. Koum's testimony is incomplete and misleading. Mr. Koum testified that users did, in fact, receive abusive messages on WhatsApp before the acquisition closed. PX6010 at 191:1-17 (Koum IH Tr.). In addition, WhatsApp's cofounder, Mr. Acton, testified: "Q. Did WhatsApp have issues with abusive content on WhatsApp prior to the acquisition by Facebook? A. Yeah." PX6009 at 238:1-4 (Acton IH Tr.).

2520. Prior to its acquisition by Meta, WhatsApp had developed integrity systems that were sufficient to address the early-stage integrity problems it encountered. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 189:21-23 (testifying that WhatsApp "had a number

of mechanisms in place to catch potential spammers and abusers in [its] system" prior to the acquisition). These integrity features included:

Meta Response: Disputed. Disputed that the statements in this subparagraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because the FTC's characterization of the evidence regarding abusive messages on pre-acquisition WhatsApp is incomplete and misleading. Further disputed because the WhatsApp co-founders testified about the "rudimentary" nature of WhatsApp's pre-acquisition systems, which reduced spam only to "a limited extent," for the reasons stated above in Meta's response to paragraph 2511.

a. User reporting. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 238:12-24 (explaining that "customer support channels" were one way that WhatsApp would determine which users to ban for spreading abusive content); PX6010, Koum (Meta/WhatsApp) IH Tr., at 189:6-10 ("We would have, for example, a feedback mechanism where if I send you a spam message you could report me, and if we got enough of those reports from different users we would block a number for being a spammer.").

Meta Response: Disputed in part. Undisputed that Mr. Acton and Mr. Koum testified that, pre-acquisition, WhatsApp relied on user reports to detect spam and abusive content. Disputed for the reasons stated above in Meta's responses to paragraphs 2511 and 2520.

b. User-side account blocking. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 191:9-17 ("[I]n the early days, people had the ability to block somebody. So I

think the moment you got messages you didn't like or something from a person you didn't like, you could just block them . . . .").

Meta Response: Disputed in part. Undisputed that Mr. Koum testified that, pre-acquisition, WhatsApp allowed users to block other accounts. Disputed for the reasons stated above in Meta's responses to paragraphs 2511 and 2520.

c. Platform-side account blocking. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 189:6-10 ("[W]e would block a number for being a spammer.").

Meta Response: Disputed in part. Undisputed that Mr. Koum testified that pre-acquisition WhatsApp blocked accounts when a threshold amount of users reported the account. *See* PX6010 at 189:6-10 (Koum IH Tr.) ("We would have, for example, a feedback mechanism where if I send you a spam message you could report me, and if we got enough of those reports from different users we would block a number for being a spammer."); *see* PX9002 at App'x C, C7 (McCoy Rep.) (defining "Thresholds"). Disputed for the reasons stated above in Meta's responses to paragraphs 2511 and 2520.

d. Rate limiters. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 83:8-21 ("[WhatsApp used rate limits in part to] prevent abuse and not let people go out and spam an unlimited number of people on a network. We were really -- we were trying to be really protective of the user experience and we were always concerned about spam and we were concerned about abuse and we were concerned about just people annoying each other using the app.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2511 and 2520, and because the cited testimony pertained

to restrictions that WhatsApp imposed on its broadcast messaging feature. PX6010 at 82:7-83:21 (Koum IH Tr.); *see also* Ex. 163 at 35:7-23 (Acton Dep. Tr.) (describing the broadcast messaging feature). Mr. Koum did not specify whether, pre-acquisition, WhatsApp used a rate limiting technique to impose that restriction. *See* PX6010 at 82:7-83:21 (Koum IH Tr.).

e. Rate counters. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 188:24-189:20 ("[Q.] What were you doing to deal with spam? . . . [A.] We had a way to detect a bot, where somebody signed up using a software instead of an actual person typing with their fingers because the speed with which they would send a message out. We would know that that's a computer and not an actual person and so it would trigger and potentially block it.").

Meta Response: Disputed in part. Undisputed that Mr. Koum testified that pre-acquisition WhatsApp blocked accounts when it detected sign-ups that happened faster than humanly possible. Disputed for the reasons stated above in Meta's responses to paragraphs 2511 and 2520.

f. Read Receipts deactivation. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 59:19-60:4 ("[Q.] What privacy features were added prior to the acquisition by Facebook? [A.] There was Read Receipts, and we had privacy on Read Receipts, that you could turn them off."); *id.* at 60:23-61:6, 62:6-14 (further describing the feature and stating that Read Receipts privacy was integrated into the launch of the Read Receipts feature).

Meta Response: Disputed in part. Undisputed that Mr. Acton testified that pre-acquisition WhatsApp launched a "Read Receipts" feature and allowed users to

turn the feature off. Disputed for the reasons stated above in Meta's responses to paragraphs 2511 and 2520, and because there is no indication that the Read Receipts feature helped WhatsApp detect and remove any integrity problems it encountered before the acquisition closed. *See* PX6009 at 235:15-18 (Acton IH Tr.) ("Q. . . . [B]efore the acquisition by Facebook, did WhatsApp ever have issues with spam? A. Yes."); *id.* at 238:1-4 ("Q. Did WhatsApp have issues with abusive content on WhatsApp prior to the acquisition by Facebook? A. Yeah.").

g. Last-seen timestamp privacy. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 60:23-61:23 ("Q. And then the last-seen timestamp and the privacy on the Read Receipts, when were those added as a feature? A. I think those came later. I'd say, you know, 2013, roughly. . . . Q. And just to clarify, what was the last-seen timestamp privacy feature? A. So when you open a conversation with a person, such as yourself, I could see that you were last connected to WhatsApp at, let's say, 8:00 a.m. this morning. And so it's a little bit of a stalker feature, if you think about it. . . . So people started asking for the ability to sort of suppress that and so we created the feature.").

Meta Response: Disputed in part. Undisputed that Mr. Acton testified that pre-acquisition WhatsApp launched a "last-seen timestamp privacy" feature. Disputed for the reasons stated above in Meta's responses to paragraphs 2511 and 2520 and subparagraph 2520(f).

b) WhatsApp had the fundamentals to scale its integrity systems without the acquisition by Meta.

2521. WhatsApp would have been able to scale its integrity tools without the acquisition by Meta.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs.

a. WhatsApp co-founder Jan Koum asserted that WhatsApp could have scaled its ability to combat spam without the acquisition by "hir[ing] people to build a team that specializes in spam abuse and spam detection and giv[ing] them enough resources and server capacity to go build what would be needed to solve that problem." PX6010, Koum (Meta/WhatsApp) IH Tr., at 190:13-22.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony, without alterations. Disputed for the reasons stated above in Meta's response to paragraph 2511.

b. WhatsApp co-founder Brian Acton was confident that WhatsApp "had the knowledge, expertise, and contact network of people to hire to build ["its own second-generation system to fight spam"] . . . . We would have built it." PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 119:22-120:8.

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2511.

c. Mr. Acton testified that WhatsApp could have improved the precision and recall in the spam system it had built prior to the acquisition by Meta. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 236:21-237:3 ("Q. Could WhatsApp have improved its precision in the system that you had built prior to the acquisition to

fight spam? A. Yes. Q. Could WhatsApp have improved its recall in the system that you used to fight spam prior to the acquisition? A. Yeah.").

Meta Response: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's response to paragraph 2511.

2522. WhatsApp was developing end-to-end encryption, an important privacy feature, prior to its acquisition by Meta.

Meta Response: Disputed in part. Undisputed that WhatsApp began developing end-to-end encryption prior to its acquisition by Meta. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511. Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that WhatsApp would have launched end-to-end encryption as quickly, efficiently, or effectively without the acquisition, which is purely speculative, for the reasons stated above in Meta's response to paragraph 2511.

a. End-to-end encryption is a technique used for securing messages, employed by messaging applications [redacted]. *See* PX9011, Bray Rebuttal Report at ¶ 399.

Meta Response: Undisputed.

b. WhatsApp developed end-to-end encryption to promote user privacy. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 69:7-12 ("[Q.] So why was WhatsApp developing end-to-end encryption? A. We felt that [end-to-end encryption] was generally a good privacy feature to build that could further

protect our users from surveillance."); *id.* at 245:18-25 (reflecting that "users suffered more because WhatsApp no longer continues the agenda of privacy the way it used to, and that's unfortunate that -- you know, they sort of end-to-end encrypted messages and then they stopped, and they don't have the desire to encrypt anything else and they don't have the desire to protect privacy in some any [sic] other ways."); PX6010, Koum (Meta/WhatsApp) IH Tr., at 179:23-180:21 (discussing post-acquisition disagreements between WhatsApp and Meta regarding "privacy and encryption and advertising," noting that "[w]e felt that when we were there that Facebook management or some people on the Facebook management were not fans of an end-to-end encryption product").

Meta Response: Undisputed.

c. WhatsApp had "started the end-to-end encryption work before we were acquired, even before we announced to be acquired, but we completed it like two years later." PX6009, Acton (Meta/WhatsApp) IH Tr., at 51:15-18.

Meta Response: Undisputed.

d. Launching end-to-end encryption helped WhatsApp "establish[] a leadership position . . . in terms of protecting communication privacy." PX6009, Acton (Meta/WhatsApp) IH Tr., at 212:5-14.

Meta Response: Undisputed.

2523. Meta's acquisition did not help WhatsApp release its end-to-end encryption feature any sooner than WhatsApp would have absent the acquisition.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated

above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs.

a. Meta did not provide any resources necessary to aid WhatsApp in releasing end-to-end encryption. *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 211:20-212:4 ("Q. I know we talked about end-to-end encryption as well. Do you remember when that was launched post acquisition? A. 2016. Q. Did Facebook provide WhatsApp the resources it needed to add this feature? A. No. Q. Would it have taken WhatsApp longer to add this feature had it not been acquired by Facebook? A. No."); PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 268:12-20 ("Q. On end-to-end encryption, you testified that that didn't get rolled out until I think 2016; is that right? A. Correct. Q. Did Facebook help you get that product rolled out? A. No. Q. You did that all on your own? A. Yes."); *see also* PX9011, Bray Rebuttal Report at ¶ 399 ("In my view, the evidence is clear that WhatsApp did not need Meta's assistance to implement end-to-end encryption. . . . Additionally, none of the evidence I have seen, particularly from WhatsApp's founders, indicates that Meta provided assistance to WhatsApp in developing end-to-end encryption.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2511, and because WhatsApp relied on Meta's infrastructure in launching end-to-end encryption. *See* Ex. 5 at ¶¶ 228-234 (Nieh Rep.) (addressing WhatsApp's reliance on Meta's Content Delivery Network or "CDN"); PX6009 at 211:20-23 (Acton IH Tr.) (testifying WhatsApp launched end-to-end encryption in 2016); *cf.* Meta SMF ¶ 844 (discussing Mr. Acton's

2015 statement that the "biggest change" to WhatsApp's infrastructure to support voice calling "was the addition of voice relay infrastructure. The nice part of that is that we were able to build and deploy this inside of Facebook's global network and, as such, did not have to make significant changes to our own core infrastructure"), ¶¶ 863-864 (discussing Mr. Acton's testimony regarding CDN and EverStore benefits that were provided "straightaway in 2014, 2015"). Further disputed because it is nonsensical to say that, post-acquisition, the resources WhatsApp used to launch end-to-end encryption did not come from Meta.

b. Meta lacked the engineering expertise to implement end-to-end encryption at the time of its acquisition of WhatsApp. *See* PX6052, Bejar (Meta) Dep. Tr., at 56:10-21 ("Q. Did Facebook have any integrity tools calibrated to work with end-to-end encryption? A. I think "calibration" is not quite the right term here. In order to work with end-to-end encryption, you had to do a meaningful amount of engineering work in order to be able to adapt things. Q. But Facebook had the expertise to do [the engineering work required for its integrity tools to work with end-to-end encryption] at the time of the WhatsApp acquisition? A. No, I wouldn't say we had the expertise to do it.").

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's response to paragraph 2511, and because the quoted testimony did not pertain to whether Meta lacked engineering expertise to implement end-to-end encryption on WhatsApp. Rather, Arturo Bejar's testimony related to the integration of Meta's integrity tools on WhatsApp. *See* PX6052 at 55:11-57:8 (Bejar Dep. Tr.). In addition, the FTC's summary of Mr. Bejar's testimony is incomplete and

misleading. Mr. Bejar testified: "Q. Did Facebook have any integrity tools calibrated to work with end-to-end encryption? A. I think 'calibration' is not quite the right term here. In order to work with end-to-end encryption, you had to do a meaningful amount of engineering work in order to be able to adapt things. Q. But Facebook had the expertise to do it at the time of the WhatsApp acquisition? A. No, I wouldn't say we had the expertise to do it. We had people that were very good at figuring those kinds of things out. So we had great engineers who were able to figure out how you would do that kind of spam prevention and – in the context of the WhatsApp service. I think [redacted]" – a Meta engineer at the time of the WhatsApp acquisition, *id.* at 186:6-8 (identifying [redacted] as an engineer at Meta) – "went over to WhatsApp during that period of time, full-time, to figure these things out. And then he would interface with the integrity team as he figured out what was needed." *Id.* at 55:11-57:8. Mr. Bejar also testified that "[redacted] actually dedicated meaningful amount of time to working with [WhatsApp's] engineering team in order to apply [Meta's integrity] tools, as applicable, but also to deal with the implications of things like end-to-end encryption and things like that, which are very different problems when it comes to – when you're building integrity infrastructure." *Id.* at 55:11-21.

2524. WhatsApp had the funding and network to scale independently.

<u>Meta Response</u>: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs. Further disputed because the term "scale" is vague in this

context because the FTC does not identify the aspects of WhatsApp's business that it is referring to. Further disputed the evidence does not establish how much it would have cost WhatsApp to scale its integrity systems if it had not been acquired, or whether WhatsApp had any meaningful plans to do so. Actual evidence shows that WhatsApp was not planning to use the Series B funding it received prior to the acquisition to hire additional engineers. *See* Ex. 163 at 79:17-80:3 (Acton Dep. Tr.) ("Q. . . . [P]rior to being acquired by – by Facebook, WhatsApp had experienced a Series B round of funding; is that correct? A. Yes. Q. Did WhatsApp plan to use at least some of that funding to help with resources related to human resources and technical resources? A. No. Q. What did WhatsApp plan to use that funding for? A. All funding that we got was, for us, an insurance policy against something bad happening.").

a. WhatsApp had closed a round of funding shortly before the acquisition. *See* PX6010, Koum (Meta/WhatsApp) IH Tr., at 94:21-95:3 ("Q. So then was there additional investment from Sequoia at a later date? A. Yes, there was another round that Sequoia did at a higher valuation. Q. Do you remember when that was? A. I don't remember when it was. Q. Was it in 2013? A. Possibly. Very, very likely."); *id.* at 97:19-22 ("Q. How much did Sequoia contribute at this point in time? A. I -- again, I don't remember the details. I think it might have been around $50 million."); *id.* at 99:12-100:21 (discussing WhatsApp's receipt of additional funding from investor Digital Sky Technology (DST) following conversations that took place "in the end of 2013, early '14," for about $125 million).

Meta Response: Disputed in part. Undisputed that Mr. Koum testified that WhatsApp received an investment from Sequoia Capital likely in 2013. Disputed for the reasons stated above in Meta's response to paragraph 2524. Further disputed to the extent this statement suggests that WhatsApp received funding from DST before the acquisition was announced. On the contrary, Mr. Koum testified that DST's investment "actually happened after the Facebook deal was announced but before the deal was completed." *See* PX6010 at 101:10-102:3 (Koum IH Tr.) (describing the timeline of DST's investment).

b. Additional funds from WhatsApp's investors would have aided WhatsApp in scaling its integrity systems absent the Meta acquisition by giving WhatsApp the capital to hire additional integrity engineers. *See* PX6086, Acton (Meta/WhatsApp) Dep. Tr., at 119:22-120:8 ("Q. Would WhatsApp have built its own second-generation system to fight spam? . . . A. We -- we certainly had the knowledge, expertise, and contact network of people to hire to build it. . . . We would have built it."); PX6010, Koum (Meta/WhatsApp) IH Tr., at 190:13-24 ("We would hire people to go build a team that specializes in spam abuse and spam detection and give them enough resources and server capacity to go build what would be needed to solve that problem, just like we solved any problem that came up until 2014, by hiring smart people and giving them resources to solve the problem."); *see also* PX9013, McCoy Rebuttal Report at ¶ 398 ("Professor Subrahmanian provides no reason to believe that WhatsApp would have lacked the resources to [develop its integrity systems as it grew], in light of the fact that

shortly before the acquisition WhatsApp had closed another round of investment.”).

Meta Response: Disputed. Disputed for the reasons stated above in Meta’s response to paragraph 2524, and because chains of speculation regarding whether WhatsApp, in a but-for world without the acquisition, would have received additional funding from investors, and then decided to use that funding to hire engineers to work on integrity-related issues, and then successfully recruited those engineers, and then developed and deployed improved integrity systems, do not create a genuine dispute of material fact.

c. WhatsApp had investments from venture capital firms like Sequoia Capital and DST, whose networks WhatsApp would have leveraged to find and hire employees for its integrity efforts. *See* PX3116, WhatsApp email: [redacted] (Sequoia Capital) to J. Koum, et al. re: “A few names – happy to intro if helpful,” (Jan. 10, 2014), FB_FTC_CID_02594944, at -944-945 (listing candidates and resumes compiled by Sequoia Capital for WhatsApp to consider); PX3117, WhatsApp email: [redacted] (Sequoia Capital) to J. Koum & B. Acton, et al. re: “WhatsApp,” (Feb. 4, 2014), FB_FTC_CID_02596825, at -825-27 (presenting potential engineering candidates to WhatsApp compiled by Sequoia Capital’s technical recruiting team); PX3430, WhatsApp email: [redacted] (Sequoia Capital) to J. Koum & B. Acton re: “whatsapp reference, ed <--> schrep,” (Nov. 13, 2013), FTC-META-003370798, at -798 (advising WhatsApp regarding engineering recruiting).

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 2524 and subparagraph 2524(b).

4. The tools, techniques, and expertise Meta uses to manage integrity issues on WhatsApp are commonly used by other companies and not unique to Meta.

2525. Meta has identified the following technologies among the tools it uses to address integrity issues on WhatsApp: end-to-end encryption, a systems coordinator (Sentry), a rule engine (Sigma), a tool that detects child sexual abuse material (CSAM) by scanning photos and metadata, a tool that allows users to report CSAM, and "machine learning systems [that] detect abusive behavior and ban suspicious accounts." *See* PX9020, Subrahmanian Report at ¶¶ 83, 214-15 (citation omitted).

Meta Response: Disputed in part. Undisputed that Meta deploys the following tools on WhatsApp to address integrity-related issues: Sentry, Sigma (a rule engine that runs anti-abuse rules to proactively block malicious actions), tools that identify apparent CSAM by scanning unencrypted information such as profile photos, user reports, and machine-learning systems to detect abusive behavior and ban suspicious accounts at registration, during messaging, and in response to user reports.

Disputed that Sentry is a "systems coordinator," including for the reasons stated above in Meta's response to paragraph 2215. Further disputed that end-to-end encryption is an integrity tool that Meta uses to detect and remove content on WhatsApp that violates its policies. End-to-end encryption is a privacy feature that protects users from surveillance. *See* Ex. 314 at 69:8-12 (Acton IH Tr.). Further disputed to the extent the statement suggests that Meta scans encrypted content to determine whether it violates Meta's policies. *See* Ex. 7 at ¶ 215 (Subrahmanian Rep.). On the contrary, Meta uses a combination of tools, including a machine-learning tool that uses behavioral features,

reputational features, and probability models, to detect and remove policy-violating content without ever analyzing the content of encrypted messages. *See id.* at ¶¶ 215-217 (describing WhatsApp's post-acquisition integrity systems).

2526. Other companies besides Meta use end-to-end encryption, rule engines, systems coordinators, CSAM detection and reporting tools, and machine learning-based technologies to address integrity issues. *See supra* CMF at §§ V.D.4(b)-(c); PX9011, Bray Rebuttal Report at ¶ 399 (discussing end-to-end encryption offerings).

Meta Response: Disputed in part. Undisputed that other companies use end-to-end encryption. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2511, 2522, and 2523. To the extent this paragraph incorporates the FTC's statements in Sections V.D.4(b)-(c), Meta incorporates its responses to those statements here.

2527. Integrity tools similar to the ones Meta uses are open source or available from third-party providers. *See supra* CMF at § V.D.4(b). Meta has also open-sourced several of its integrity tools. *See supra* CMF at § V.D.4(c)**Error! Reference source not found.**.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.D.4(b)-(c), Meta incorporates its responses to those statements here.

2528. Meta also regularly shares its integrity expertise and developments with other companies through participation in industry-wide conferences, such as the @Scale conference, and articles its employees publish about their integrity-related research. *See supra* CMF at § V.D.4(c); PX9020, Subrahmanian Report at ¶ 32; *see also* PX0348, *WhatsApp, Stopping Abuse: How WhatsApp Fights Bulk Messaging & Automated Behavior*, Meta/WhatsApp (Feb. 6, 2019), https://www.internetlab.org.br/wp-content/uploads/2019/10/WA_StoppingAbuse_Whitepaper_020618-Final-1.pdf (Meta/WhatsApp whitepaper discussing the technology underlying the machine learning systems it used to detect abusive behavior and spam on WhatsApp).

Meta Response: Disputed in part. Undisputed that Meta's engineers have participated in conferences, such as the @Scale conference, and published on integrity-related topics. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511. Further disputed to the extent this statement suggests that WhatsApp, absent the acquisition, would have had access to all the integrity tools and systems, engineering knowledge, and integrity know-how that Meta, in fact, provided WhatsApp after the acquisition closed, including for the reasons stated above in Meta's responses to paragraphs 2226 and 2511.

2529. Other online platforms also share their integrity insights and research. *See supra* SMF at § V.D.4(c).

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511, and because this paragraph cites no specific evidence in support of any fact as required by Federal Rule of Civil Procedure 56(c)(1) and Local

Rule 7(h), and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Section V.D.4(c), Meta incorporates its responses to those statements here. Further disputed to the extent this statement suggests that WhatsApp, absent the acquisition, would have developed and deployed integrity systems using information shared publicly by other online platforms as quickly and efficiently as it was in fact able to do because of the acquisition, including for the reasons stated above in Meta's responses to paragraphs 2227 and 2511.

5. Meta's implementation of integrity tools and techniques on WhatsApp was stunted, incomplete, and delayed.

2530. Meta did not integrate WhatsApp into its integrity system for more than a year after the acquisition.

Meta Response: Disputed in part. Undisputed that WhatsApp started using Meta's spam-fighting system in late 2015 or early 2016. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs.

a. WhatsApp did not begin utilizing Meta's system to fight spam until "late 2015, early 2016." *See* PX6009, Acton (Meta/WhatsApp) IH Tr., at 237:4-7.

Meta Response: Undisputed.

b. Prior to May 2015, Meta had not yet built a Sentry integration for WhatsApp to use for managing fake accounts. *See* PX10747, Meta email chain: [redacted] to [redacted], et al. re: "WhatsApp may be interested in more collaboration..." (May 1, 2015), FB_FTC_CID_06507621 at -623 ("If they [WhatsApp] are mainly hit by fake accounts, the first things to do would be to build the Sentry integration . . .").

Meta Response: Disputed in part. Undisputed that, on May 1, 2015, Meta engineer [redacted] wrote in an email that WhatsApp's "basic Sentry integration is built and working – all new user registrations are coming into Sentry – but we're not taking actions yet." PX10747 at -623 (FB_FTC_CID_06507621). Disputed for the reasons stated above in Meta's response to paragraph 2511.

c. As of May 2015, at least some Meta engineers were spending only "a minimal amount of time on WhatsApp," and one noted that:

> WhatsApp is attacked by skilled and persistent spammers that have already gone through several rounds of iterations. Spam-fighting is a burden to WhatsApp engineers, it's not their speciality [sic] and they want to focus on building their product instead. 5 of them are working part-time on this. They don't have the right systems nor tools.

PX10747, Meta email chain: [redacted] to [redacted], et al. re: "WhatsApp may be interested in more collaboration..." (May 5, 2015), FB_FTC_CID_06507621, at -621.

Meta Response: Disputed in part. Undisputed that [redacted], [redacted] [redacted], and [redacted] (who all worked within Site Integrity and/or Protect and Care at the time) met with WhatsApp engineers on May 4, 2015, and that the document contains the quoted language. *See* PX10747 at -621 (FB_FTC_CID_06507621). Disputed for the reasons stated above in Meta's response to paragraph 2511 and because the FTC's characterization of the evidence is incomplete, misleading, and missing necessary context. The document shows that, before [redacted] met with the WhatsApp engineers, [redacted] [redacted] and [redacted] had "done some work with WhatsApp," and

WhatsApp's "basic Sentry integration [was] built and working." *Id.* at -623. [redacted] wrote that he wanted [redacted] "to spend a minimal amount of time on WhatsApp" because [redacted] needed to "focus[ ] mostly on leading a new effort in [Site Integrity] to hit merchandise spam hard." *Id.* at -621. [redacted] wrote that he would "start hiring with the next round of bootcampers" because "[t]he biggest short-term opportunity [he saw was] to relieve the WA engineers from the pressure so we should recruit ASAP." *Id.*

d. Mr. Stefancik testified that he did not recall any specific individual from Meta working on integrating WhatsApp's integrity systems with Facebook's integrity systems. *See* PX6042, Stefancik (Meta) Dep. Tr., at 41:15-22 ("Q. How about for WhatsApp? Was there anybody that was assigned to integrating integrity from Facebook, the company, to WhatsApp after the WhatsApp acquisition? A. I would have the same answer, which is I don't recall if there was a specific individual . . . .").

<u>Meta Response</u>: Disputed in part. Undisputed that the witness provided the quoted testimony. Disputed for the reasons stated above in Meta's responses to paragraph 2511 and subparagraph 2530(c), and because the evidence shows that Meta engineers and product managers worked with WhatsApp on integrity-related issues, including integration with Meta's spam-fighting systems. *See* PX10747 at -621, -623 (FB_FTC_CID_06507621) ("I know that [redacted] and [redacted] have done some work with WhatsApp"; "More news: basic Sentry integration is built and working – all new user registrations are coming into Sentry – but we're not taking actions yet."; "[redacted], [redacted]

[redacted], and I [[redacted]] met with WhatsApp engineers yesterday"); PX6052 at 60:14-61:9 (Bejar Dep. Tr.); Ex. 7 at ¶ 213 (Subrahmanian Rep.) (evidence establishing that [redacted] contacted WhatsApp within days of the acquisition's close to offer to "help out" with integrity on WhatsApp) (citing FTC-META-007117726 (Oct. 15, 2014)); PX6009 at 237:10-12 (Acton IH Tr.) ("There was a person who transferred from Facebook to WhatsApp that helped facilitate the adoption of Facebook's spam system.").

e. WhatsApp relied on the availability of one specific employee who "helped facilitate the adoption of Facebook's spam system. . . . We [WhatsApp] were able to do it opportunistically as this person came on and opportunistically as he was available." PX6009, Acton (Meta/WhatsApp) IH Tr., at 237:10-25.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraph 2511 and subparagraphs 2530(c)-(d).

i. In June 2015, Meta engineer [redacted] emailed WhatsApp co-founder Brian Acton to ask about "actually execut[ing]" on WhatsApp's integration with Meta's anti-spam systems. PX3082, Meta email: [redacted] to B. Acton re: "Potential anti spam / security work on whatsapp," (June 4, 2015), FB_FTC_CID_03297013, at -013.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraph 2511 and subparagraphs 2530(c)-(d).

f. WhatsApp did not have a team concentrating on fighting spam until mid-2015. PX3069, Meta document: "Integrity 2017-H2/2018-H1 Review" (*Jan. 5, 2018),

FTC-META-003740229, at -279 ("Historically we've concentrated on spam on WhatsApp (team established mid-2015) . . . .").

Meta Response: Disputed in part. Undisputed that WhatsApp established an integrity team in mid-2015 that "[h]istorically . . . concentrated on spam." PX3069 at -279 (FTC-META-003740229). Disputed for the reasons stated above in Meta's response to paragraph 2511. Further disputed to the extent this statement suggests that employees did not work to address spam before mid-2015, for the reasons stated above in Meta's response to subparagraph 2530(d).

2531. Meta delayed launching new integrity tools on WhatsApp.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs.

a. Meta did not "launch[] detection of child exploitation images in profile photos" on WhatsApp until the second half of 2017. *See* PX3069, Meta document: "Integrity 2017-H2/2018-H1 Review" (*Jan. 5, 2018), FTC-META-003740229, at -279.

Meta Response: Disputed in part. Undisputed that Meta launched detection of child exploitation images in profile photos on WhatsApp in the second half of 2017. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests that WhatsApp, absent the acquisition, would have launched a tool to detect child exploitation images in photos earlier than 2017, when Meta, in fact, launched such detection, including for the reasons

stated above in Meta's response to paragraph 2511. Further disputed because the cited evidence does not support the vague assertion that Meta "delayed" in launching that system. *Cf.* Ex. 163 at 121:20-122:12 (Acton Dep. Tr.) ("Q. After Facebook's acquisition of WhatsApp, did Facebook provide any technology to address any integrity problems on WhatsApp other than spam? . . . A. Right. To my knowledge, Facebook presented an internal API for scanning of content that was potentially objectionable. During my time [at WhatsApp], it was never utilized, but it was – it was – by the definition 'provided,' it was made available to use if we wanted to use it. . . . Q. Why was that technology never utilized by WhatsApp while you were there? A. It was a privacy concern that we would be scanning people's private photos and media that we didn't want to do so in our product."); *id.* at 26:22-23 (Mr. Acton testifying that he left WhatsApp in fall of 2017).

b. As of August 2019, Meta still had not developed "a tracking survey to measure perceived reach of integrity issues in WhatsApp." *See* PX3088, Meta email chain: [redacted] to wa review, et al. re: "[pre-read] WhatsApp Review: Integrity Tracking Survey – Status Update," (Aug. 12, 2019), FB_FTC_CID_02316605, at -605.

<u>Meta Response</u>: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests that WhatsApp, absent the acquisition, would have developed a tracking survey to measure the perceived reach of integrity issues on WhatsApp earlier than August 2017, when Meta, in fact, was developing such a survey, including for the reasons stated

above in Meta's response to paragraph 2511. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact as to the vague assertion that Meta "delayed" launching a tracking survey on WhatsApp. Indeed, the FTC's proffered expert, Professor McCoy, did not identify any other so-called "mobile messaging service" that used a tracking survey to measure the reach of integrity issues in 2019, let alone today. PX9002 at ¶ 262 (McCoy Rep.); Ex. 7 at ¶ 225 (Subrahmanian Rep.); PX9013 at ¶ 424 (McCoy Rebuttal Rep.). Further disputed because the cited evidence is an August 2019 email in which a Meta employee writes that "[w]e are developing a tracking survey to measure perceived reach of integrity issues in WhatsApp." PX3088 at -605 (FB_FTC_CID_02316605).

c. WhatsApp eventually built machine learning tools to detect objectionable content by adapting publicly accessible system designs. *See* PX0348, *WhatsApp, Stopping Abuse: How WhatsApp Fights Bulk Messaging & Automated Behavior*, Meta/WhatsApp (Feb. 6, 2019), https://www.internetlab.org.br/wp-content/uploads/2019/10/WA_StoppingAbuse_Whitepaper_020618-Final-1.pdf.

Meta Response: Disputed in part. Undisputed that Meta built machine-learning tools to detect policy-violating content such as spam on WhatsApp. Disputed that the statement in this subparagraph creates a genuine dispute of material fact as to whether Meta "delayed launching new integrity tools on WhatsApp." On the contrary, the evidence shows that within three months of WhatsApp launching end-to-end encryption in 2016, WhatsApp's engineers – including [redacted], a Meta engineer who worked on Instagram's integration

with Meta's integrity systems and later transferred to the WhatsApp team – along with data scientists, analysts, and researchers at Meta built a tool that sends a collection of account features – including behavior features, reputational features, and probability models – to machine-learning based classifiers, which in turn, determine whether the at-issue action (like a message) is allowed. Ex. 7 at ¶¶ 215-219 (Subrahmanian Rep.) (collecting evidence regarding WhatsApp deployment of machine-learning tools). Further disputed for the reasons stated above in Meta's response to paragraph 2511.

6. Meta has not demonstrated that it delivered overall improved integrity performance for WhatsApp users.

2532. Meta maintains limited integrity metrics for spam or abusive content spam on WhatsApp.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs, and because the evidence cited in the subparagraphs below says nothing about the integrity metrics maintained by any other so-called "mobile messaging service" that offers end-to-end encryption.

a. Meta does not report any metrics regarding integrity on WhatsApp in its quarterly Community Standards Enforcement Report. *See* PX0347, *Community Standards Enforcement Report*, Meta: Transparency Center, https://transparency.fb.com/reports/community-standards-enforcement/ (last visited May 9, 2024).

Meta Response: Disputed in part. Undisputed that Meta does not report WhatsApp metrics in its quarterly Community Standards Enforcement Report.

Disputed that the statements in this subparagraph create a genuine dispute of material fact as to whether Meta maintains limited integrity metrics for spam or abusive content on WhatsApp, including for the reasons stated above in Meta's responses to paragraphs 2511 and 2532. In addition, the evidence shows that Meta has publicly reported metrics related to spam on WhatsApp. *See*, *e.g.*, PX0348 at -006-007 (WhatsApp, *Stopping Abuse: How WhatsApp Fights Bulk Messaging & Automated Behavior*) (February 2019 whitepaper, which reports that "[o]ver the last three months, WhatsApp banned over two million accounts per month for bulk or automated behavior and over 75% of those accounts did not have any recent user reports"; and "[i]n the same three month period, roughly 20% of account bans happened at registration time"); *see also* PX9020 at ¶ 83 & n.204 (Subrahmanian Rep.) (citing evidence establishing that Meta reported more than one million CSAM violations on WhatsApp to NCMEC in 2022).

b. Meta only maintains [redacted]. PX15554, Meta's Resp. to FTC's Jan. 27 30(b)(6) Topic 6, at 15. [redacted] *Id.*

<u>Meta Response</u>: Disputed in part. Undisputed that WhatsApp maintains [redacted]. Disputed that the statements in this subparagraph create a genuine dispute of material fact as to whether Meta maintains limited integrity metrics for spam or abusive content on WhatsApp, including for the reasons stated above in Meta's responses to paragraphs 2511 and 2532. As the cited evidence explains: "[redacted]

[redacted]"

PX15554 at 15 (Meta Resps. to FTC's 30(b)(6) Topic No. 6 (Jan. 27, 2023)); *see also* PX9020 at ¶ 19 (Subrahmanian Rep.) ("addressing integrity issues often requires . . . trade-offs, including between protecting user privacy and searching user content for policy-violating information").

c. Professor Subrahmanian only cited content actioned data for WhatsApp in his October 2023 expert report. *See* PX9020, Subrahmanian Report, at ¶ 219.

Meta Response: Disputed. Disputed that the statements in this subparagraph create a genuine dispute of material fact as to whether Meta maintains limited integrity metrics for spam or abusive content on WhatsApp, including for the reasons stated above in Meta's responses to paragraphs 2511 and 2532. Further disputed because Professor Subrahmanian's report cites content actioned data, along with other data including data related to WhatsApp's appeals process, PX9020 at ¶ 218 & nn.620-621 (Subrahmanian Rep.) ("Using data related to the volume of appeals, WhatsApp has been able to develop and launch higher-performing classifiers to more accurately detect spam accounts. Within three months of the launch of end-to-end encryption, WhatsApp cut the number of incorrect classifications by half."); data regarding when WhatsApp detects policy violations, *id.* at ¶ 219 & n.623 ("roughly 20% of account bans happened at the time of registration" (internal quotation marks omitted)); violations reported to NCMEC, *id.* at ¶ 83 & n.204 (observing that "Meta report[ed] more than 1 million

CSAM violations on WhatsApp to NCMEC in 2022"); and qualitative data from documents and deposition transcripts, *id.* at ¶¶ 209-219.

d. Meta has acknowledged the limitations of relying on content actioned metrics to assess the effectiveness of its integrity systems. More specifically, the amount of content actioned or banned accounts does not reflect how long Meta took to ban the accounts, how many users viewed content posted by the banned accounts, or how many other violating accounts Meta missed. *See* PX0334, Transparency Center, *Proactive rate,* https://transparency.meta.com/mg-mg/policies/improving/proactive-rate-metric/ (last visited May 6, 2024) (observing that the proactive rate is based on content actioned and, as such, does not reflect "how long it takes us to detect violating content or how many times it was viewed before detection. It also doesn't reflect how many violations we failed to detect altogether or how many times that content was viewed."). The number of banned accounts may also "go up or down due to external factors" as well as "how [Meta's] processes and tools change." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this subparagraph create a genuine dispute of material fact as to whether Meta maintains limited integrity metrics for spam or abusive content on WhatsApp, including for the reasons stated above in Meta's responses to paragraphs 2511 and 2532 and subparagraphs 2532(a)-(c). Further disputed because the cited evidence pertains to a different metric – proactive rate – which Meta measures on Facebook and Instagram. PX0334 at -002 (Meta, *Proactive Rate*) ("Our proactive rate doesn't reflect how

long it takes us to detect violating content or how many times it was viewed before detection").

e. According to an integrity report written for Meta's management team in late 2017, "[m]ost types of objectionable content on the [WhatsApp] platform lack measurement, which makes it difficult to objectively understand abuse landscape and impact." *See* PX3069, Meta document: "Integrity 2017-H2/2018-H1 Review" (Jan. 5, 2018), FTC-META-003740267, at -279.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this subparagraph create a genuine dispute of material fact as to whether Meta maintains limited integrity metrics for spam or abusive content on WhatsApp, including for the reasons stated above in Meta's responses to paragraphs 2511 and 2532 and subparagraphs 2532(a)-(c). The evidence also shows that Meta publicly reported metrics related to spam on WhatsApp in 2019. *See* PX9020 at ¶ 219 (Subrahmanian Rep.) (citing evidence reporting that WhatsApp removed more than 2 million accounts each month in early 2019 for bulk or automated behavior, and that roughly 20% of bans happened at the time of registration). And [redacted]. *See* Counter SMF ¶ 2532(b).

2533. Meta struggled to understand and address WhatsApp's integrity challenges.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511 and below in the responses to this paragraph's subparagraphs.

a. A January 2018 tracking document showed that WhatsApp was [redacted]. In the document, Meta [redacted]. *See* PX15206, Meta document: "WhatsApp Matrix H1" (Jan. 2, 2018), FB_FTC_CID_10410353, at -353.

<u>Meta Response</u>: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2511. Further disputed because the FTC's characterization of the document is incomplete, misleading, and missing necessary context. The cited evidence contains [redacted]. PX15206 at -355 (FB_FTC_CID_10410352); *see also* PX9002 at ¶ 43 (McCoy Rep.) ("An integrity program must also be continually assessed for effectiveness. . . . Continual evaluations are also critical for identifying risks and making efficient resource allocations, given that threats continually evolve.").

Contrary to the FTC's representation, [redacted]. PX15206 at -353 (FB_FTC_CID_10410352). [redacted] *Id.* at -353, -355. The evidence shows that

[redacted] *Id.* at -370.

Contrary to the FTC's representation, [redacted] *Id.* at -353. [redacted] *Id.* at -353, -355. [redacted] *Id.* at -353.

Regarding [redacted] *Id.* Regarding [redacted] *Id.* Regarding [redacted]

[redacted] *Id.* at -353, -370.

b. Meta leadership was aware that "[m]ost types of objectionable content on the [WhatsApp] platform lack measurement, which makes it difficult to objectively understand abuse landscape and impact." *See* PX3069, Meta document: "Integrity 2017-H2/2018-H1 Review" (Jan. 5, 2018), FTC-META-003740267, at -279.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this subparagraph create a genuine dispute of material fact as to the vague assertion that Meta struggled to understand and address WhatsApp's integrity challenges, including for the reasons stated above in Meta's responses to paragraph 2511 and subparagraph 2532(e), which quotes the same language as this subparagraph.

c. In a May 2018 email chain, Meta engineer [redacted] described WhatsApp as a "scary black box" to Meta's "Site Integrity / Account Integrity" and "Election Integrity teams." PX3080, Meta email: [redacted] to M. Imam, et al. re: "integrity across the family of apps," (May 18, 2018), FTC-META-010276003, at -003.

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact as to the vague assertion that Meta struggled to understand and address WhatsApp's integrity challenges, including for the reasons stated above in Meta's response to paragraph 2511. Further disputed because the FTC's characterization of the evidence is incomplete, misleading, and missing necessary context. The cited evidence is a May 2018

email thread regarding the collaboration model between WhatsApp's integrity work and Meta's Central Integrity team. PX3080 at -007 (FTC-META-010276003). [redacted], who, by 2018, led the anti-spam engineering team at WhatsApp, wrote: "On the eng[ineering] side: Our approach thus far has been to build on top of the same Integrity Infra . . . but handle review, auctioning, and measurement ourselves. This has allowed [WhatsApp] to move quickly with limited cross-organizational encumbrance: the teams we work with have well-defined and stable interfaces and support us well. Given how different our product, technical infrastructure, and philosophy is, I don't think it makes sense to outsource our 'problem' teams (Facebook accounts, account compromise, CEI detection, etc) to F[acebook]." *Id.* at -003. He further observed, "I do think we need to build stronger relationships with corresponding teams at Facebook so we can share ideas and, as appropriate, generalize our infrastructure so we can share more parts. For example, we talk relatively often with Integrity Infrastructure but only occasionally with Site Integrity / Account Integrity teams, and rarely with new Election Integrity teams. That needs to change – both so that we can learn from each other and so that WhatsApp is less of a scary black box to them." *Id.*

d. In a summer 2018 email chain, several Meta executives discussed "the best way to understand WA Integrity problems so that we can start making more progress." *See* PX10902, Meta email: [redacted] to G. Rosen, et al. re: "Cross-Family Integrity Workstreams," (Aug. 30, 2018), FB_FTC_CID_03965666, at -667.

<u>Meta Response</u>: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact as to the vague assertion that Meta

struggled to understand and address WhatsApp's integrity challenges, including for the reasons stated above in Meta's response to paragraph 2511. Further disputed because the FTC's characterization of the evidence is misleading and incomplete. Indeed, the quoted language in the FTC's statement was a "question[ ] that [was] top of mind for [Chris] Cox," Meta's chief product officer, after a "Cross-Family Sync" and not (as the FTC suggests) the views or understanding of "several Meta executives." PX10902 at -667 (FB_FTC_CID_03965666); *see* Meta SMF ¶ 249. The evidence shows that, in late 2015 or early 2016, Meta "improve[d]" and "accelerat[ed]" WhatsApp's spam-fighting abilities by integrating WhatsApp with its spam-fighting systems. Ex. 314 at 236:7-15, 237:4-16 (Acton IH Tr.); *see also* Ex. 285 at 189:24-190:9 (Koum IH Tr.). By 2018, WhatsApp had built on top of Meta's integrity infrastructure to combat integrity issues, including fake accounts and child exploitation imagery detection. *See* PX3080 at -003 (FTC-META-010276003). According to [redacted], who, by 2018, led the anti-spam engineering team at WhatsApp, WhatsApp "move[d] quickly" to address integrity issues, and "the teams [WhatsApp] work[ed] with ha[d] well-defined and stable interfaces and support [WhatsApp] well." *Id.*

e. In a February 2019 update to the board, Meta noted that "[redacted]" *See* PX12360 at -027, Meta presentation: "H1 2019 Board Update" (Feb. 14, 2019), FB_FTC_CID_02888666.

<u>Meta Response</u>: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact as to the vague assertion that Meta

struggled to understand and address WhatsApp's integrity challenges, including for the reasons stated above in Meta's response to paragraph 2511, and because the evidence shows that a February 2019 update to the board states that "[redacted]" Ex. 490 at -.008 (FB_FTC_CID_09376810). The presentation also states: "[redacted]" *Id.*

f. In November of 2020, Guy Rosen stated in a message that his "[redacted]" and that "[redacted]" *See* PX12271, Meta message: J. Osofsky to G. Rosen, (Nov. 18, 2020), FTC-META-004604298, at -298.

<u>Meta Response</u>: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statement in this subparagraph creates a genuine dispute of material fact as to the vague assertion that Meta struggled to understand and address WhatsApp's integrity challenges, including for the reasons stated above in Meta's responses to paragraph 2511 and subparagraphs

2532(b)-(d) and because the FTC's characterization of the evidence is incomplete and misleading. The context of the cited message thread is the collaboration between WhatsApp's integrity team and the Central Integrity team. *See* PX12271 at -298 (FTC-META-004604298) (Justin Osofsky writing, "Chatted with Will and [redacted] (and now need to follow up with Sheryl). [redacted]"; and Guy Rosen responding, "[redacted]" (last alteration in original)); *see also* PX6058 at 20:19-21:4, 229:4-6 (Rosen Dep. Tr.). The evidence cited above in Meta's responses to subparagraphs 2532(c)-(d) establishes WhatsApp's approach to integrity.

K. Meta's Inflated Claims Regarding Investment and Innovation Are Flawed.

2534. Meta's economic expert Professor Carlton asserts, generally, that "Meta has invested enormous sums to maintain and improve its apps." PX9019, Carlton Report at ¶ 308. Citing Meta's SEC Form 10-K securities disclosures, Professor Carlton states in his report that "[f]rom 2012 through 2022, Meta spent roughly $126.1 billion on R&D and roughly $112.1 billion on 'net purchases of property and equipment as [Meta] continued to invest in servers, data centers, and network architecture.'" PX9019, Carlton Report at ¶ 315.

Meta Response: Undisputed that Professor Carlton offered the quoted opinion, except "$126.1 billion" should be "$126.25 billion" and "network architecture" should be "network infrastructure." PX9019 at ¶ 315 (Carlton Rep.).

2535. But Professor Carlton's blanket assertions about Meta's purported investments are flawed in several respects. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 742-49. Most fundamentally, Professor Carlton's assertions do not demonstrate that Meta's spending on PSN services innovation is as high as it would be if Meta had to face significant competition in PSN services. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 742-43 ("These figures do not show that Meta's spending on PSN-related R&D has been as high as it would be if Meta had more PSN competition, or rebut the specific examples of Meta reducing innovation following the acquisition of Instagram. . . . Relatedly, Prof. Carlton points to third-party evaluations of the level of Meta's innovation. These measures suffer from the same flaws.").

Meta Response: Disputed. Disputed that the statement in this paragraph creates a genuine dispute of material fact, including because the FTC provides no evidence that consumers have been subject to the exercise of market power – higher prices, restricted output, quality below an objective competitive benchmark – in any market. *See* Meta SMF ¶¶ 129, 733-734; *see also id.* at ¶¶ 146-147, 154-155, 722, 754, 762. Further disputed because Professor Carlton showed that Meta invested tens of billions of dollars in research, development, and innovation because it faces intense competition for user time and attention and as to feature development, specifically. *See* Ex. 2 at ¶¶ 36-37, 315 (Carlton Rep.). The FTC's use of "PSN services" is further disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

2536. Professor Carlton also fails to consider what, if any, amount of Meta's purported investments went towards innovation in PSN services, the relevant market of concern in this matter. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 742-44.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's response to paragraph 2535 and because the FTC and Professor Hemphill assert that all time spent on Facebook and Instagram (except for Dating) is time spent on "personal social networking," and so Meta cannot have been underinvesting in a particular use case as the statement asserts. *See* Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:2 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking."). The cited paragraphs of Professor Hemphill's rebuttal report do not address this issue of investing in innovating "personal social networking" features relative to other features on Meta's services. Meta invests to meet competition from a variety of apps, including those that the FTC does not characterize as "PSN" apps. *See* Meta SMF [redacted] (discussing competition with TikTok, [redacted] ¶¶ 533-566 (Meta's experts' empirical substitution data). The FTC's use of "PSN services" is further

disputed for the reasons stated in Meta's Introduction to its Response to the FTC's Counterstatement.

a. Professor Carlton's report contains no analysis of Meta's investments specifically to serve users' demands for friends and family sharing. *See* PX9019, Carlton Report at ¶¶ 308-16.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536.

b. Nor does Professor Carlton's report contain any analysis of the effect that additional competition for friends and family sharing would have on Meta's investments. *See* PX9019, Carlton Report at ¶¶ 308-16; *see also* PX9007, Hemphill Rebuttal Report at ¶¶ 806-07 (illustrating how a failure to compare current conditions against those in a competitive PSN market necessarily fails to demonstrate "the competitive effect of the Instagram and WhatsApp acquisitions").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536.

c. Much of Meta's "[r]esearch and development expenses" come from Meta's massive spending on Reality Labs, a separate business segment from Meta's "Family of Apps" (that includes Facebook, Instagram, and WhatsApp), which Meta describes as its "efforts to develop the metaverse." PX0435 at -007 (Meta SEC Form 10-K, dated Dec. 31, 2022); *see also* PX9007, Hemphill Rebuttal Report at ¶ 747.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536.

i. In 2022 alone, Meta's investments in Reality Labs totaled $15.88 billion. PX0435 at -007 (Meta SEC Form 10-K, dated Dec. 31, 2022).

Meta Response: Undisputed.

ii. In its SEC 2022 Form 10-K, Meta noted that "[m]any of our metaverse investments are directed toward long-term, cutting edge research and development for products that are not on the market today and may only be fully realized in the next decade," and that "our augmented reality efforts are primarily directed toward longer-term research and development projects." PX0435 at -007 (Meta SEC Form 10-K, dated Dec. 31, 2022).

Meta Response: Undisputed that the document contains the quoted language.

iii. Public reporting indicates Meta lost nearly $14 billion on Reality Labs in 2022 alone, with much of its Reality Labs expenses recorded as research and development expenses. *See, e.g.*, PX0655, Jonathan Vanian, *Meta lost $13.7 billion on Reality Labs in 2022 as Zuckerberg's metaverse bet gets pricier*, CNBC (Feb. 1, 2012), https://www.cnbc.com/2023/02/01/meta-lost-13point7-billion-on-reality-labs-in-2022-after-metaversepivot.html. Meta expects that Reality Labs will "continue to operate at a loss for the foreseeable future," and

concedes that Meta's "ability to support" Reality Labs "is dependent on generating" (and utilizing) profits from Meta's other apps. PX0435 at -007 (Meta SEC Form 10-K, dated Dec. 31, 2022).

Meta Response: Disputed in part. Undisputed that the paraphrased statement appears in the cited article, and that the quoted language appears in the cited disclosure (although the article is from 2023, not 2012). Disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536.

d. "Net purchases of property and equipment" similarly do not relate to investment in innovation or to investment in friends and family sharing. Rather, those purchases keep Meta's existing businesses running. *See, e.g.*, PX0435 at -076 (Meta SEC Form 10-K, dated Dec. 31, 2022) ("Cash used in investing activities during 2022 mostly consisted of $31.19 billion of net purchases of property and equipment as we continued to invest in servers, data centers, and network infrastructure, partially offset by $3.53 billion proceeds from net sales and maturities of marketable debt securities. The increase in cash used in investing activities during 2022 compared to 2021 was mostly due to an increase in net purchases of property and equipment, and a decrease in proceeds from net sales and maturities of marketable debt securities.").

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536 and because the document does not support – but disproves – the claim. Meta offers all of its services on Facebook, Instagram, and WhatsApp over a proprietary infrastructure that delivers content to

billions of consumers worldwide. *See* Meta SMF ¶¶ 151-153. The cited material refers to some of the investments and spending necessary to invest in and innovate on the delivery of that content. *See* PX0435 at -076 (Meta 2022 Form 10-K) (referring to this accounting category as including "invest[ment]" in "servers, data centers, and network infrastructure").

2537. Professor Carlton also cites to third-party evaluations of the levels of Meta's innovation and "R&D intensity." PX9019, Carlton Report at ¶¶ 311-14. But Meta's reliance on these evaluations is similarly flawed, *see* PX9007, Hemphill Rebuttal Report at ¶ 744-47, because:

Meta Response: Disputed in part. Undisputed that Professor Carlton cites third-party evaluations of Meta's research, development, and innovation. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2535 and 2536. The third-party evaluations are not flawed, for the reasons stated in Meta's responses to the subparagraphs below.

a. Similar to Professor Carlton's report, these third-party evaluations do not include any analysis of the level of Meta's innovation and "R&D intensity" with respect to serving users' demand for friends and family sharing. *See* PX9019, Carlton Report at ¶¶ 311-14.

Meta Response: Disputed. Disputed because Professor Hemphill conceded – consistent with the FTC's theory that all time spent on Meta's services is part of an "integrated" personal social networking services offering – that Meta's app-wide innovations are in the FTC's claimed relevant market for PSN services. *See*

Ex. 283 at 173:18-22 (Hemphill Dep. Tr.) ("Q. And the addition of the Reels feature, that's also an app-wide innovation, correct? . . . A. I mostly agree, at least as far as U.S. users are concerned I believe that's correct."); *see also id.* at 175:15-176:2 (regarding this underinvestment claim: "Q. But you said Reels was a friends and family sharing feature? . . . A. Well, what I said is that Reels is part of personal social networking – part of the personal social networking offering, yes, that's right, and together with that attributes of the app vary in the degree to which they directly serve the distinctive taste for personal social networking."). Further disputed because the absence of any document breaking out investment by "demand for friends-and-family sharing" indicates that there is no contemporaneous industry recognition of this as a separate category or market. Further disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536.

b. Professor Carlton's comparison of "R&D intensity" between firms is instead based on how a third party measures R&D investment spend as a percentage of a firm's revenue. *See* PX9019, Carlton Report at ¶ 314.

Meta Response: Disputed. Disputed that this statement properly characterizes this as "Professor Carlton's comparison"; one study (among others) that Professor Carlton cites is from a third-party firm that compares companies by spending on research and development as a percentage of a firm's revenue. *See* PX9019 at ¶ 313 (explaining this particular third-party study). Further disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536 and subparagraph 2536(a).

c. Meta's reported R&D spending goes towards a myriad of items unconnected to any purported innovation to Facebook, Instagram, or WhatsApp, rendering this "R&D intensity" calculation inapposite. *See* PX9007, Hemphill Rebuttal Report at ¶¶ 744-47.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536 and subparagraph 2536(a).

d. The evaluations do not account for the evidence in this case showing that Meta innovates more when it faces PSN competition. See PX9007, Hemphill Rebuttal Report at ¶ 743 ("Prof. Carlton points to third-party evaluations of the level of Meta's innovation. These measures suffer from the same flaws as does his reliance on Meta's reporting of its expenditures: they describe Meta's innovativeness across the whole company, but say nothing about whether or how much Meta has innovated in serving demand for friends and family sharing. Moreover, they again do nothing to refute the evidence that Meta innovates more when it faces competition from PSN rivals."); *see also supra* CMF at § IV.A.

Meta Response: Disputed in part. Undisputed that no third-party study of any firm's research-and-development spending recognizes or discusses "PSN competition." Disputed for the reasons stated above in Meta's responses to paragraphs 2535 and 2536 and subparagraph 2536(a). Further disputed because Professor Hemphill testified that Meta's innovating to add features to its services (like Stories and Reels; both post-dating the acquisitions at issue) is a "quality improvement." Meta SMF ¶ 127 (quoting Ex. 283 at 231:10-19 (Hemphill Dep. Tr.)). Meta has spent billions investing in its services. *See id.* at ¶ 126.

2538. Professor Carlton omits mention of Meta's ordinary course analyses of Meta's R&D investment levels. These analyses refute Professor Carlton's use of R&D investment as a percentage of Meta's revenue to benchmark the firm's level of innovation. *See infra* CMF at ¶¶ 2539-45.

Meta Response: Disputed. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2535 and 2536. To the extent this paragraph incorporates the FTC's statements in paragraphs 2539 to 2545, Meta incorporates its responses to those statements here.

2539. A Meta April 2021 analysis [redacted]. PX9007, Hemphill Rebuttal Report at ¶ 745-46.

Meta Response: Disputed. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2535 and 2536. Further disputed because the document cited in the subparagraphs below [redacted]

[redacted] PX3177 at -238 (FTC-META-004667234).

a. Specifically, the April 2021 analysis observed that [redacted]. PX3177, Meta document: "R&D Spend Analysis – A Comparison of FB vs. [redacted]" (Apr. 6, 2021), FTC-META-004667237, at -239.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

b. The April 2021 analysis then noted that [redacted] PX3177, Meta document: "R&D Spend Analysis – A Comparison of FB vs. [redacted]" (Apr. 6, 2021), FTC-META-004667237, at -239.

<u>Meta Response</u>: Undisputed that the document contains the quoted language.

c. Three of the four firms chosen by Professor Carlton (Apple, Amazon, and Microsoft) in his cross-firm "R&D intensity" comparison [redacted]. Compare PX3177, Meta document: "R&D Spend Analysis – A Comparison of FB

vs. [redacted]" (Apr. 6, 2021), FTC-META-004667237, at -239, with PX9019, Carlton Report at ¶ 314.

<u>Meta Response</u>: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2535, 2536, and 2539, and because the statement omits context from the cited document. Specifically, the FTC excludes that part of the document explaining how [redacted] PX3177 at -239 (FTC-META-004667234).

d. The April 2021 analysis further recognized that [redacted] PX3177, Meta document: "R&D Spend Analysis – A Comparison of FB vs. AAPL" (Apr. 6, 2021), FTC-META-004667237, at -239.

Meta Response: Undisputed that the document contains the quoted language.

e. The difficulties "lead[] to a strong apples-to-oranges bias in Prof. Carlton's results that favors Meta." PX9007, Hemphill Rebuttal Report at ¶ 745.

Meta Response: Disputed. Disputed for the reasons stated above in Meta's responses to paragraphs 2535, 2536, and 2539. Further disputed because even with the above-discussed adjustments, [redacted]. *See* PX3177 at -239 (FTC-META-004667234).

2540. To address the [redacted] PX3177, Meta document: "R&D Spend Analysis – A Comparison of FB vs. AAPL" (Apr. 6, 2021), FTC-META-004667237, at -239. [redacted] PX3177, Meta document: "R&D Spend Analysis – A Comparison of FB vs. AAPL" (Apr. 6, 2021), FTC-META-004667237, at -239.

Meta Response: Undisputed that the document contains the quoted language.

2541. Properly interpreted, [redacted]. *See* PX9007, Hemphill Rebuttal Report at ¶ 746, Ex. 36

(citing FTC-META-004667237). [redacted] *Id.*

Meta Response: Disputed in part. Undisputed that the report contains the analysis described in this statement. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2535, 2536, and 2539 and because they omit context. [redacted] *See* PX9007 at ¶ 746 (Hemphill Rebuttal Rep.) (citing the study).

a. [redacted] PX9007, Hemphill Rebuttal Report at ¶ 746, Ex. 36.

Meta Response: Disputed in part. Undisputed that the document contains the analysis in this statement. Disputed for the reasons stated above in Meta's response to paragraph 2541.

b. [redacted] PX9007, Hemphill Rebuttal Report at ¶ 746, Ex. 37.

Meta Response: Disputed in part. Undisputed that the document contains the analysis in this statement (but in Exhibit 36). Disputed for the reasons stated above in Meta's response to paragraph 2541.

2542. [redacted] PX9007, Hemphill Rebuttal Report at ¶ 747, Ex. 37 (citing FTC-META-004899004).

Meta Response: Disputed in part. Undisputed that the referenced document cited in the Hemphill rebuttal report (PX3178) contains the language quoted in the subparagraphs below. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2535 and 2536 and because they omit context from the document cited in the subparagraphs below. For example, the document reports that, [redacted] PX3178 at -005 (FTC-META-004899000). Further disputed because there is no suggestion or claim that the below adjustments would not also apply to Meta's research-and-development spending.

a. First, [redacted] PX3178, Meta email chain: [redacted] to D. Wehner, et al. re: "Finance LRP / RL budget discussion (follow up)," (Mar. 23, 2022), FTC-META-004899004, at -007.

Meta Response: Undisputed that the document contains the quoted language.

b. Second, [redacted] PX3178, Meta email chain: [redacted] to D. Wehner, et al. re: "Finance LRP / RL budget discussion (follow up)," (Mar. 23, 2022), FTC-META-004899004, at -005.

<u>Meta Response</u>: Undisputed that the document contains the quoted language (but at -007).

2543. [redacted] *See* PX9007, Hemphill Rebuttal Report at ¶ 747, Ex. 37 (citing FTC-META-004899004). [redacted] *See* PX3178, Meta email chain: [redacted] to D. Wehner, et al. re: "Finance LRP / RL budget discussion (follow up)," (Mar. 23, 2022), FTC-META-004899004, at -007; *see also* PX0556 at -008 (Meta SEC Form 10-K, dated Feb. 1, 2024) (explaining that Meta reports financial results for "two segments: Family of Apps (FoA) and Reality Labs (RL)").

<u>Meta Response</u>: Undisputed that the document cited in the Hemphill rebuttal report (PX3178) contains the above analysis.

2544. Properly interpreted, [redacted]. *See* PX9007, Hemphill Rebuttal

Report at ¶ 747, Ex. 37 (citing FTC-META-004899004). [redacted] *Id.*

Meta Response: Disputed in part. Undisputed that Professor Hemphill's rebuttal report contains the claims described in this statement. Disputed that this statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2535 and 2536, and because it takes Professor Hemphill's findings out of context. He stated: [redacted]

PX9007 at ¶ 747 (Hemphill Rebuttal Rep.).

2545. The results from [redacted] analyses [redacted] other ordinary course Meta analyses. For example, a 2016 Meta slide deck, titled "Innovation research review," reported that "Facebook only ranks #32 in the U.S," "WhatsApp ranks at #65 and Instagram at #172" when benchmarked against other technology brands. PX3150, Meta presentation: "Innovation Research Review" (Jan. 2016), FB_FTC_CID_08027859, at -874; *see also id.* at -873 ("Innovation is an area where Facebook lags relative to tech competitors – as well as our internal aspirations").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed that the statements in this paragraph create a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraphs 2535 and 2536 and because they mischaracterize the referenced study. The document

clarifies that the study shows data from the year 2015 in response to a survey asking which brands are perceived as innovative – the study is not an objective measure of innovation spending or product development. *See* PX3150 at -874 (FB_FTC_CID_08027856).

L. Meta's Claims Regarding Consumer Surplus Are Unreliable, Unsupported, and Immaterial.

2546. Professor Carlton states in his report that the annual consumer surplus generated by Facebook, Instagram, and WhatsApp combined is somewhere between $62 and $650 billion. PX9019, Carlton Report at ¶ 229.

Meta Response: Undisputed.

2547. In presenting this estimated range, Professor Carlton ignores several indications that his results are flawed:

Meta Response: Disputed. Disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. The $588 billion range Professor Carlton presents—which has a higher end nearly 10.5 times greater than its lower end—represents a significant variation.

Meta Response: Disputed in part. Undisputed that $650 billion is approximately 10.5 times more than $62 billion. Disputed that a range of surplus figures – reflecting different values consumers might place on Meta's services, including a conservative figure – undermines the finding that Meta has generated hundreds of billions of dollars' worth of consumer surplus since the acquisitions at issue.

i. The studies cited by Professor Carlton do not themselves measure consumer surplus; rather, Professor Carlton arrived at the consumer

surplus estimates reflected in his report by [redacted]. PX9019, Carlton Report at ¶ 229; *id.* at ¶ 229 n.311.

Meta Response: Disputed in part. Undisputed that the cited report contains the quoted language. Disputed to the extent the FTC asserts this is not a measure of consumer surplus; the statement cites no evidence that an economist cannot use willingness-to-accept and willingness-to-pay figures to estimate consumer welfare.

ii. The disparate consumer surplus estimates within these individual studies "demonstrate[s] the inherent imprecision of such estimates." PX9007, Hemphill Rebuttal Report at ¶ 808.

Meta Response: Disputed in part. Undisputed that Professor Hemphill offered the quoted opinion. Disputed for the reasons stated above in Meta's response to subparagraph 2547(a). Further disputed because the statement cites no support for the claim that economists cannot use willingness-to-pay and willingness-to-accept methodologies to measure consumer surplus.

iii. Professor Carlton "does not explain this wide variance." PX9007, Hemphill Rebuttal Report at ¶ 808. Instead, Professor Carlton states that

"[t]he precise [consumer surplus] numbers are irrelevant" for his purposes. PX9019, Carlton Report at ¶ 229.

Meta Response: Disputed in part. Undisputed that the cited reports contain the quoted language. Disputed for the reasons stated above in response to subparagraph 2547(a).

b. Some of the studies Professor Carlton relied upon use "experimental methods" in which its participants are compensated for not using a certain app. PX9019, Carlton Report at ¶ 229; *see also* PX9007, Hemphill Rebuttal Report at ¶ 807 (explaining certain studies develop consumer surplus estimates by attempting to quantify how much money a participant is "willing to accept" to "deactivate their social media accounts").

Meta Response: Undisputed that the cited reports contain the quoted language.

i. Two of the studies Professor Carlton relied upon concede that this methodology could "overstate consumer surplus." PX9007, Hemphill Rebuttal Report at ¶ 807.

Meta Response: Disputed in part. Undisputed that the cited report contains the quoted language. Disputed for the reasons stated above in response to subparagraph 2547(a). Further disputed because Professor Carlton reports ranges – including conservative or low figures – that the studies measured.

ii. Studies that Professor Carlton elected not to include within his report have reached a similar conclusion. PX9007, Hemphill Rebuttal Report at ¶ 807.

Meta Response: Undisputed that Professor Hemphill offers the paraphrased opinion in his report.

c. "The majority" of the studies Professor Carlton relied upon "fail to account for how network effects affect consumer valuations." PX9007, Hemphill Rebuttal Report at ¶ 807.

Meta Response: Disputed in part. Undisputed that the FTC's proffered expert, Professor Hemphill, offers the quoted opinion. Disputed that this statement creates a genuine dispute of material fact because it does not explain the relationship between "network effects" and "consumer valuations." Professor Hemphill opined that "one study" claims "valuations are lower if a user's friends and family are removed as well." PX9007 at ¶ 807 (Hemphill Rebuttal Rep.). That assumes a hypothetical not at issue – the studies that Professor Carlton cites ask how much users would be willing to pay or accept in exchange for using Meta's free services as those study participants use them in their real lives – and not to assume that they have no friends or family on the service. *See* Ex. 2 at ¶ 229 (Carlton Rep.); *see also id.* at ¶¶ 346-351 (discussing each study). The FTC has presented no evidence or other material casting doubt on whether the participants in these studies are representative of Meta's user population (which spends a vast majority of time on the service not sharing with friends and family). *See* Meta SMF ¶¶ 11-12, 56-60. Further disputed because Professor Hemphill

does not claim that Meta would have generated less than hundreds of billions of dollars' worth of consumer surplus following the acquisitions if a modification were made to the studies that asked users to assume they have no friends or family on Meta's services (as the single paper he cites suggests).

2548. Even if Professor Carlton's stated range of annual consumer surplus was accurate, Professor Hemphill has explained that this range is immaterial: it is "uninformative" and "beside the point," PX9007, Hemphill Rebuttal Report at ¶¶ 801, 804, because:

Meta Response: Disputed in part. Undisputed that Professor Hemphill's rebuttal report contains the quoted language. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact, including because the FTC has not provided any evidence that Meta's investments in Facebook, Instagram, and WhatsApp have not generated enormous consumer surplus; that consumers would be better off if Meta had not acquired Instagram or WhatsApp; or that Meta has exercised market power by raising price, restricting output, or reducing quality below an objective competitive benchmark. *See* Meta SMF ¶¶ 129, 733-734; *see also id.* at ¶¶ 146-147, 154-155, 722, 754, 762.

a. The presence of consumer surplus does not indicate a lack of market power or anticompetitive conduct resulting in significant consumer harm. PX9007, Hemphill Rebuttal Report at ¶ 804.

Meta Response: Disputed. Disputed that this statement – which asserts an improper legal conclusion – creates a genuine dispute of material fact. The extent to which the consumer welfare benefits that Meta generated (relative to the absence of contrary evidence about the but-for world without the acquisitions)

bears on a finding of "anticompetitive conduct" is a question for the Court. Further disputed because Professor Hemphill testified regarding whether conduct is pro- or anti-competitive: "The relevant question is what does usage look like relative to a but-for world." Meta SMF ¶ 131 (quoting Ex. 283 at 236:7-8 (Hemphill Dep. Tr.)). He also testified: "Q. . . . Now, turning to the question of anticompetitive effects, you agree that the proper standard for judging effects here is consumer welfare, correct? . . . A. Yes. I would broadly agree that consumer welfare compared to the but-for world in which the acquisitions did not take place, you know, as – it's an important caveat as experienced by users of personal social networking services is the right way to think about competitive effects." *Id.* at ¶ 715 (quoting Ex. 283 at 267:14-268:2 (Hemphill Dep. Tr.)). Professor Hemphill continued: "Q. . . . If consumer welfare is higher in the actual world than it would have been in the but-for world, then you would agree that the conduct in question is not anticompetitive, correct? . . . A. I would – I would agree that if consumer welfare for personal social networking users is higher in the actual world than in the but-for world, that, you know, that would be adverse to a conclusion about competitive effects." *Id.*

b. "Monopolists confer consumer surplus, even as they suppress output and impose deadweight loss (including foregone consumer surplus) relative to a but-for world with a competitive supply of the product." PX9007, Hemphill Rebuttal Report at ¶ 804. During his deposition, Professor Carlton agreed that monopolists generate consumer surplus. PX6179, Carlton (Meta) Dep. Tr., at 322:14-20.

Meta Response: Disputed. Disputed that the statement creates a genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 2548 and subparagraph 2548(a). Further disputed because the paraphrased deposition testimony omits Professor Carlton's explanation that "society" allows "monopolists" – a group that would include first movers before there is additional entry or IP innovators – because "we encourage innovation, and we encourage people to take risk and develop new products." PX6179 at 322:14-20 (Carlton Dep. Tr.). The FTC's statement does not dispute that Meta generated substantial consumer welfare benefits, nor does the FTC present any evidence that Instagram or WhatsApp would have generated as much, let alone greater, consumer surplus without Meta. *See* Meta SMF ¶¶ 733-734.

c. By limiting his report to only attempting to quantify consumer surplus "in the context of evaluating the Instagram and WhatsApp transactions" instead of also attempting to quantify the amount of consumer surplus in a competitive PSNS market (and then comparing the two), Professor Carlton's estimate fails to demonstrate "the competitive effect of the Instagram and WhatsApp acquisitions." PX9007, Hemphill Rebuttal Report at ¶¶ 805-06; *see also* PX6179, Carlton (Meta) Dep. Tr., at 322:21-323:8 ("Q. And your report does not compare consumer surplus of Meta's apps today relative to a but-for world absent the acquisitions; correct? A. That's fair.").

Meta Response: Disputed in part. Undisputed that the cited materials contain the quoted language. Disputed that the statements in this subparagraph create a

genuine dispute of material fact, including for the reasons stated above in Meta's responses to paragraph 2548 and subparagraph 2548(a).

VI. The HSR Reviews in 2012 and 2014 Were Brief and Lacked Information That Is Available in This Litigation.

A. The FTC's HSR Review of Instagram in 2012 Was Brief and Lacked Information.

2549. On April 16, 2012, Mark Zuckerberg, as "the ultimate parent entity of" Meta, filed a pre-merger notification and report form ("HSR form") for the Instagram transaction (hereinafter, "Meta's HSR form") pursuant to the HSR Act. PX2618, Meta White Paper: "Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -369. Instagram filed its HSR form around that same date. PX3477, Meta email and attachment: P. Zeigler (Counsel for Instagram) to K. Systrom (Instagram) re: "Instagram/ FB HSR Form," (Apr. 12, 2012), FB_FTC_CID_08662046, at -046 (transmitting to Mr. Systrom "an execution copy of the HSR filing"); PX3480, Meta email chain: P. Zeigler (Counsel for Instagram) to K. Systrom (Instagram), et al. re: "Instagram/FB Deal," (Apr. 12, 2012), FB_FTC_CID_11515652, at -652 ("[T]he premerger notification [is] to be filed (either tomorrow or Monday)."); *see also* PX3481, Meta email chain: K. Systrom (Instagram) to P. Zeigler (Counsel for Instagram), et al. re: "Personal Emails to Mark," (Apr. 19, 2012), FB_FTC_CID_08662749, at -749 (Mr. Systrom reporting that "I just received the copy of [Meta's] premerger notification [filing]").

<u>Meta Response</u>: Undisputed.

2550. HSR forms submitted by parties notifying the FTC of a reportable transaction must be completed pursuant to the rules set forth in 16 C.F.R. Parts 801-803. "These instructions specify the information that must be provided in response to the items on the form."

Instructions to the Notification and Report Form for Certain Mergers and Acquisitions, 16 C.F.R. § 803, App'x B, (2023), https://www.ecfr.gov/current/title-16/chapter-I/subchapter-H/part-803/appendix-Appendix%20B%20to%20Part%20803 (hereinafter, "HSR Instructions").

Meta Response: Undisputed that 16 C.F.R. § 803 contains the quoted language. This statement is otherwise a legal argument not requiring a response.

2551. Page VI of the HSR Instructions addresses the information that must be provided in response to Item 4. *See* HSR Instructions at VI. Item 4(c) requires the parties to a transaction to "[p]rovide all studies, surveys, analyses and reports which were prepared by or for any officer(s) or director(s) . . . for the purpose of evaluating or analyzing the acquisition with respect to market shares, competition, competitors, markets, potential for sales growth or expansion into product or geographic markets." HSR Instructions at VI.

Meta Response: Undisputed that the HSR Instructions contain the quoted language. This statement is otherwise a legal argument not requiring a response.

2552. Meta's HSR form for the Instagram transaction included a production of only fifteen 4(c) documents, and its 4(c) schedule noted that "[d]ocuments that are responsive to Item 4(c) have been redacted or withheld under a claim of privilege." PX3482, Meta document: "Acquisition by Mr. Mark Zuckerberg of Instagram, Inc." (Apr. 16, 2012), FB_FTC_CID_01527155, at -168-69 (Letter and attachment of HSR form from Meta's attorneys to the FTC and the Dept. of Justice). Meta included a privilege log with its Instagram HSR submission that listed four documents, two of which were withheld in their entirety and the other two of which were produced in redacted form. *See id.* at -170.

Meta Response: Undisputed that Meta produced fifteen documents with its Instagram HSR form, that the document contains the quoted language, and that the paragraph accurately describes the privilege log Meta included with its Instagram HSR submission.

2553. On May 16, 2012, the FTC issued Additional Requests for Information (hereinafter, the "Second Requests") to Mark Zuckerberg and Instagram. PX3479, FTC document: "Request for Additional information and Documentary Material Issued to Mark Zuckerberg" (May 16, 2012), FB_FTC_CID_12639995 at -996; PX3478, FTC documents: cover letter, and "Request for Additional information and Documentary Material Issued to Instagram, Inc.," (May 16, 2012), FB_FTC_CID_12622413 at -414. The Second Requests required the parties to produce documents and information responsive to twenty separate specifications, dating back to January 1, 2010 (for documents) or January 1, 2009 (for information). PX3479, FTC document: "Request for Additional information and Documentary Material Issued to Mark Zuckerberg," (May 16, 2012), FB_FTC_CID_12639995 at -997-005, -09; PX3478, FTC document: "Request for Additional information and Documentary Material Issued to Instagram, Inc.," (May 16, 2012), FB_FTC_CID_12622413 at -415-23, 27.

Meta Response: Undisputed.

2554. Immediately following the issuance of the FTC's Second Request specifications, Meta's counsel requested a limited "Quick Look" review that did not require Meta to certify substantial compliance with the full scope of the specifications in the FTC's Second Requests. *See* PX5006, FTC Outlook meeting notice: "Call with Tom Barnett to discuss quick look" (May 17, 2012), FTC-PROD-00016008, at -008; PX5010, FTC email chain:

T. Barnett (Counsel for Meta) to M. Moiseyev, et al. re: "Facebook/Instagram," (May 18, 2012), FTC-PROD-00016185, at -185, (Meta counsel Tom Barnett proposing to limit Meta's search for documents responsive to the FTC's Second Request to a limited set of five Meta custodians – Mark Zuckerberg, Sheryl Sandberg, David Ebersman, Bret Taylor, and Mike Nowak – and for a limited time range of only eight months, beginning on October 1, 2011); PX5009, FTC email chain: T. Barnett (Counsel for Meta) to M. Moiseyev, et al. re: "Facebook/Instagram," (May 18, 2012), FTC-PROD-00016183, at -184 ("[H]ere is the proposed set of searches for the 'quick look' of the five custodians."); PX5011, FTC email chain: C. Perez to T. Barnett (Counsel for Meta), et al. re: "Facebook/Instagram," (June 27, 2012), FTC-PROD-00016224, at -224 (referring to the quick look).

Meta Response: Disputed in part. Undisputed that Meta's outside counsel had a meeting set up with the FTC "to discuss quick look," PX5006 at -008 (FTC-PROD-00016008), and that Meta proposed search terms for five custodians for the period beginning on October 1, 2011, *see* PX5010 at -185 (FTC-PROD-00016185); PX5009 at -184 (FTC-PROD-00016183). Disputed that the cited documents support the assertions in this paragraph. The documents do not state who proposed a " 'Quick Look' review" or mention the requirements for certification of substantial compliance.

Further disputed because the FTC encourages parties and the FTC staff to engage in "quick look" review to increase the efficiency of the merger review process:

> Particularly important is that staff and the parties make use of processes that enable "quick look" investigations in appropriate circumstances. The most efficient approach to expedite some investigations is for the parties to produce quickly a limited set of core documents and information (*e.g.*, the chief strategic officer's documents, bid data), in exchange for staff's commitment to analyze the materials in a very short period (*e.g.*, three weeks) and then to advise the parties

> about the status of the investigation. In all situations, staff, the parties, and their counsel should work aggressively to devise mechanisms to collect the information that will allow the FTC to determine in a cost-effective manner whether a transaction violates the antitrust laws.

Ex. 535 at 30 (FTC, *Reforms to the Merger Review Process*); *see also* Ex. 536 at 4 (FTC, *Best Practices for Merger Investigations*) ("If staff's anticompetitive theory rests upon a specific issue, or the Second Request includes multiple relevant product markets, a 'quick look' on that issue or a subset of relevant products may be sufficient to resolve the anticompetitive concerns without the parties' full compliance with the Second Requests. In a quick look, the parties agree to produce a limited set of core documents and information identified by staff. In exchange, staff agrees to analyze the materials in a short period and then advise the parties of the outcome of the quick look.").

Further disputed that Meta's document production was "limited." The evidence the FTC cites does not say anything about whether the searches, number of custodians, time range, or document productions were "limited"; does not show what the FTC requested or whether what Meta agreed to do was different than what the FTC requested; and shows instead that Meta sought the FTC's approval for Meta's various proposals, *see*, *e.g.*, PX5009 at -184 (FTC-PROD-00016183) (Meta asking the FTC for "questions or comments" on proposed search terms); PX5010 at -185 (FTC-PROD-00016185) (Meta asking the FTC if Meta's proposed custodians "will work").

Further disputed to the extent this statement suggests that Meta or its counsel had any ability to control the scope of the FTC's HSR review or that the FTC did not have the ability to obtain additional materials during its HSR review. On the contrary, 15 U.S.C. § 18a(d)(1) grants the FTC the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such documentary material and information relevant to a proposed

acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws." Ex. 537 at § 18a(d)(1) (15 U.S.C. § 18a). And 15 U.S.C. § 18a(e)(1)(A) grants the FTC the authority to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at § 18a(e)(1)(A).

Further disputed on the ground that the FTC is estopped from stating or implying that the material Meta provided to the FTC during the FTC's HSR investigation of the Instagram transaction affected the FTC's decision not to challenge Meta's acquisition of Instagram. In discovery, Meta requested FTC documents recounting, as of 2012, the FTC's analyses and reasons for clearing the Instagram transaction, but the FTC, admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and reasons were influenced by the material Meta provided to the FTC during the FTC's HSR investigation of the Instagram transaction.

2555. The FTC agreed to a very limited production of documents from only five Meta custodians, dating back only to October 1, 2011—nearly a year *after* Instagram launched. *See* PX5010, FTC email chain: T. Barnett (Counsel for Meta) to M. Moiseyev, et al. re: "Facebook/Instagram," (May 18, 2012), FTC-PROD-00016185, at -185 (describing Meta's proposal to circumscribe its search for documents responsive to the FTC's Second Request to a limited set of five Meta custodians and for a limited time range of only eight months, beginning on October 1, 2011); PX5009, FTC email chain: T. Barnett (Counsel

for Meta) to M. Moiseyev, et al. re: "Facebook/Instagram," (May 18, 2012), FTC-PROD-00016183, at -184 (Meta counsel Tom Barnett proposing a very limited set of searches "for the 'quick look' of the five custodians"); PX5011, FTC email chain: C. Perez to T. Barnett (Counsel for Meta), et al. re: "Facebook/Instagram," (June 27, 2012), FTC-PROD-00016224, at -224 (FTC staff attorney asking Meta counsel Tom Barnett how many documents Meta "withheld from the quick look on the grounds of privilege").

Meta Response: Disputed in part. Undisputed that during the FTC's HSR review, Meta ran search terms and produced documents from the files of five Meta custodians for the period beginning on October 1, 2011. Disputed that this document production was "limited." The evidence the FTC cites does not say anything about whether the searches, number of custodians, time range, or document productions were "limited"; does not show what the FTC requested or whether what Meta agreed to do was different than what the FTC requested; and shows instead that Meta sought the FTC's approval for Meta's various proposals, *see*, *e.g.*, PX5009 at -184 (FTC-PROD-00016183) (Meta asking the FTC for "questions or comments" on proposed search terms); PX5010 at -185 (FTC-PROD-00016185) (Meta asking the FTC if Meta's proposed custodians "will work").

Further disputed to the extent this statement suggests that Meta or its counsel had any ability to control the scope of the FTC's HSR review or that the FTC did not have the ability to obtain additional materials during its HSR review. On the contrary, 15 U.S.C. § 18a(d)(1) grants the FTC the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such documentary material and information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws."

Ex. 537 at § 18a(d)(1) (15 U.S.C. § 18a). And 15 U.S.C. § 18a(e)(1)(A) grants the FTC the authority to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at § 18a(e)(1)(A).

Further disputed on the ground that the FTC is estopped from stating or implying that the material Meta provided to the FTC during the FTC's HSR investigation of the Instagram transaction affected the FTC's decision not to challenge Meta's acquisition of Instagram. In discovery, Meta requested FTC documents recounting, as of 2012, the FTC's analyses and reasons for clearing the Instagram transaction, but the FTC, admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and reasons were influenced by the material Meta provided to the FTC during the FTC's HSR investigation of the Instagram transaction.

2556. In total, Meta produced only approximately 10,000 documents, with Instagram producing a similar number. Meta's Mem. In Supp. of Mot. To Compel, at 4 (July 5, 2022), ECF No. 152-1 ("Meta and Instagram each produced approximately 10,000 documents to the FTC.").

Meta Response: Disputed in part. Undisputed that Meta and Instagram each produced approximately 10,000 documents. Disputed to the extent this statement suggests that the FTC did not have the ability to obtain additional materials during its HSR review. On the contrary, 15 U.S.C. § 18a(d)(1) grants the FTC the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such documentary material and

information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws." Ex. 537 at § 18a(d)(1) (15 U.S.C. § 18a). And 15 U.S.C. § 18a(e)(1)(A) grants the FTC the authority to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at § 18a(e)(1)(A).

2557. The FTC did not examine any witnesses under oath, instead conducting unsworn informal interviews of Mark Zuckerberg and Kevin Systrom. *See* PX5007, FTC Outlook meeting notice: "Facebook Interviews," (July 3, 2012), FTC-PROD-00016013, at -013 (showing "Facebook Interviews" scheduled from 1:00pm to 5:00pm on July 3, 2012, Facebook counsel's office); PX5008, FTC email chain: J. O'Connell (Counsel for Meta) to C. Perez re: FB/Instagram – VTC," (June 28, 2012), FTC-PROD-00016175, at -175 (confirming the timeframe from 3:00pm to 5:00pm would be reserved for an interview with Instagram's CEO, Kevin Systrom); *see also* Meta's Mem. in Supp. of Mot. To Compel, at 4 (July 5, 2022), ECF No. 152-1 (confirming informal interviews of Facebook and Instagram executives by FTC staff).

Meta Response: Disputed in part. Undisputed that PX5007 (at -013) shows "Facebook Interviews" scheduled from 1:00 PM to 5:00 PM on July 3, 2012, in Facebook counsel's office and that the other cited documents relay scheduling details for those interviews. Undisputed that there were informal interviews of Facebook and Instagram executives, including Mr. Zuckerberg and Mr. Systrom, by FTC staff. Disputed to the extent this statement suggests that the FTC did not have the ability to examine witnesses under oath. On the contrary, the FTC's public position is that it "may conduct interviews (either

informally or by sworn testimony) of company personnel or others with knowledge about the industry." Ex. 539 (FTC, *Premerger Notification and the Merger Review Process*, https://perma.cc/9PSZ-XU36?type=image).

2558. On August 22, 2012, the FTC sent letters to Meta's and Instagram's counsel informing them that the FTC's investigation into "whether the proposed acquisition of Instagram, Inc. by Facebook, Inc. may violate Section 7 of the Clayton Act or Section 5 of the Federal Trade Commission Act . . . has been closed." PX3483, Meta document: "Proposed Acquisition of Instagram, Inc. by Facebook, Inc. File No. 121-0121" (Aug. 22, 2012), FB_FTC_CID_08663310, at -312-13. The letter explicitly stated: "This action is not to be construed as a determination that a violation may not have occurred, just as the pendency of an investigation should not be construed as a determination that a violation has occurred. The Commission reserves the right to take such further action as the public interest may require." *Id*. at -312-13.

Meta Response: Undisputed.

2559. The entire Quick-Look review—from issuance of the Second Request on May 16, 2012, to the formal closure of the investigation on August 22— was completed in just over three months. *See supra* CMF at ¶¶ 2553, 2558.

Meta Response: Disputed in part. Undisputed that the FTC's HSR investigation was completed in approximately three months and one week. Disputed to the extent this statement suggests that Meta or its counsel had any ability to control the scope of the FTC's HSR review or that the FTC did not have the ability to obtain additional materials during its HSR review. On the contrary, 15 U.S.C. § 18a(d)(1) grants the FTC the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such

documentary material and information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws." Ex. 537 at § 18a(d)(1) (15 U.S.C. § 18a). And 15 U.S.C. § 18a(e)(1)(A) grants the FTC the authority to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at § 18a(e)(1)(A). As the FTC's letter closing its investigation makes clear, the FTC determined that the investigation should be closed and the deal could proceed: "Upon further review of this matter, it now appears that no further action is warranted by the Commission at this time." PX3483 at -312 (FB_FTC_CID_08663310); *see also id.* at -310 ("the Federal Trade Commission has now determined to close its investigation of the proposed acquisition of Instagram, Inc. by Facebook, Inc.").

2560. [Intentionally Left Blank]

B. The FTC'S HSR Review of WhatsApp in 2014 Was Brief and Lacked Information.

2561. The FTC's investigation of Meta's acquisition of WhatsApp was even more truncated: the parties submitted their initial HSR filings on March 13, 2014, and the FTC did not take further action before the waiting period expired 30 days later. *See* PX2580, Meta document: "Acquisition by Mr. Mark Zuckerberg of WhatsApp Inc. & Acquisition by Mr. Jan Koum of Voting Securities of Facebook, Inc." (Mar. 13, 2014), FB_FTC_CID_00002091, at -091 (cited by Meta as Ex. 173); PX5005, FTC document: "Premerger Notification Required under the Hart-Scott-Rodino Antitrust Improvements of 1976" (Mar. 13, 2014), FTC-PROD-00015984, at -894; *see* FTC's Mem. in Opp. To Meta's Mot. to Compel, Exhibit A, Vedova Declaration, at ¶ 15 (June 28, 2022), ECF No. 160-7.

Meta Response: Disputed in part. Undisputed that Meta and WhatsApp submitted their initial HSR filings on March 13, 2014, and that the FTC did not take further action before the statutory waiting period expired thirty days later. Disputed to the extent this statement suggests that Meta or its counsel had any ability to "truncate" or otherwise control the scope or length of the FTC's HSR review. The FTC has the ability to extend its HSR review, including by issuing Second Requests, which the FTC chose not to do. *See* Ex. 537 at § 18a(e)(1)(A) (15 U.S.C. § 18a) (authorizing second requests). The FTC also has the authority to "require[ ] [Meta's pre-merger filing . . . be in such form and contain such documentary material and information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws," and to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at §§ 18a(d)(1), 18a(e)(1)(A). The FTC chose not to take action before the waiting period expired.

Further disputed on the ground that the FTC is estopped from stating or implying that the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction affected the FTC's decision not to challenge Meta's acquisition of WhatsApp. In discovery, Meta requested FTC documents recounting, as of 2014, the FTC's analyses and reasons for clearing the WhatsApp transaction, but the FTC, admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and

reasons were influenced by the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction.

2562. Meta produced only 1,432 pages on a voluntary basis. PX3487, Meta document: "Acquisition by Mr. Mark Zuckerberg of WhatsApp Inc." (Mar. 27, 2014), FB_FTC_CID_00003790 at 790 (Production transmittal letter noting 1,432 pages produced); *see also* PX5012, FTC email: C. Perez to T. Barnett (Counsel for Meta) re: "FTC Document request from Facebook," (Mar. 4, 2014), FTC-PROD-00016226, at -226 ("Below is a list of documents that I believe would be very helpful in this investigation."). WhatsApp produced six (6) documents on a voluntary basis. PX5003, Meta email: H. Kaiser (Counsel for WhatsApp) to C. Perez (FTC), J. Rosner (FTC) re: "WhatsApp documents," (Mar. 28, 2014), FTC-PROD-00015377, at -377 (WhatsApp Production Transmittal Letter.); *see also* PX5013, Meta email: C. Perez (FTC) to H. Kaiser (Counsel for WhatsApp) re: "FTC Document Request," (Mar. 4, 2014), FTC-PROD-00016227, at -227 (Voluntary Document Request to WhatsApp for documents that "would be very helpful in this investigation.").

Meta Response: Disputed in part. Undisputed that Meta produced 1,432 pages of documents on a voluntary basis and that WhatsApp produced 6 documents on a voluntary basis. Disputed to the extent this statement suggests that Meta's voluntary document production was limited in some way or that Meta or its counsel had any ability to control the scope of the FTC's HSR review. The FTC has the ability to extend its HSR review, including by issuing Second Requests, which the FTC chose not to do. *See* Ex. 537 at § 18a(e)(1)(A) (15 U.S.C. § 18a) (authorizing second requests). The FTC also has the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such

documentary material and information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws," and to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at §§ 18a(d)(1), 18a(e)(1)(A). The FTC chose not to take action before the waiting period expired.

Further disputed on the ground that the FTC is estopped from stating or implying that the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction affected the FTC's decision not to challenge Meta's acquisition of WhatsApp. In discovery, Meta requested FTC documents recounting, as of 2012, the FTC's analyses and reasons for clearing the WhatsApp transaction, but the FTC, admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and reasons were influenced by the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction.

C. The Record in This Case Contains Voluminous Evidence That Was Not Available to the FTC in 2012 and 2014.

1. The record in this case contains voluminous information that was not available to the FTC in 2012 and 2014.

2563. "In the FTC's pre-complaint investigation and in this litigation, Meta produced approximately 5.4 million documents comprising nearly 25 million Bates numbers; hundreds of pages of written interrogatory and Rule 30(b)(6) responses and other

narrative submissions; and hundreds of gigabytes of data." Jt. Status Rep., at 15 (Mar. 16, 2023), ECF No. 257.

Meta Response: Undisputed.

2564. The FTC's pre-complaint investigation and this litigation yielded "over 400 hours . . . of testimony from more than 65 depositions and [investigational hearings] of Meta current and former employees." Meta Br. in Opp'n to FTC's Informal Demand for Refresh of Meta's 1st Req. for Prod. and Req. for Prod. 105, at 2 (Apr. 21, 2023), ECF No. 276.

Meta Response: Undisputed.

2565. Over the course of the discovery period in the instant litigation, hundreds of document subpoenas and dozens of deposition subpoenas were served on non-parties. Meta Statement with Respect to the Pending Disc. Issues, at 3 (Sept. 29, 2022), ECF No. 195; Meta Statement Re Nonparty Disputes, at 1-2 (Mar. 3, 2023), ECF No. 245; *see also* FTC Statement Regarding the Status of Non-Party Disc. (Jan. 20, 2023), ECF No. 232 (providing the Court with updates on the status of non-party discovery); Meta Statement Concerning Non-Party Disputes (Jan. 20, 2023), ECF No. 233 (same).

Meta Response: Undisputed.

2566. In the FTC's pre-complaint investigation and in this litigation, Meta produced more than ***250 times*** as many documents as it produced in the 2012 Instagram investigation and the 2014 WhatsApp investigation combined (using 21,432 documents as the comparator). *See supra* CMF at ¶¶ 2556, 2562-63.

Meta Response: Disputed. Disputed that comparing the number of documents Meta produced during HSR review to the number of documents Meta produced in the FTC's pre-complaint investigation and in this litigation is a meaningful or useful exercise.

Discovery for purposes of HSR review and discovery for civil litigation serve different purposes. In addition, the FTC chose, at its discretion, to close its HSR review of the Instagram and WhatsApp transactions in three months and one month, respectively, despite its authority to seek further information and extend its review period. *See* Ex. 537 at §§ 18a(d)(1), 18a(e)(1)(A) (15 U.S.C. § 18a). Conversely, the FTC's pre-complaint investigation spanned 18 months, and fact and expert discovery extended another 24 months – during which the FTC served hundreds of written discovery requests, including Civil Investigative Demand specifications, requests for documents, interrogatories, requests for admission, and Rule 30(b)(6) topics and questions. Ex. 540 at 6 (Meta's Reply Mem. in Supp. of Mot. to Compel Answer to Interrog. No. 10 Regarding the FTC's Market Definition); Ex. 541 at 7 (Joint Meet & Confer Statement); Ex. 542 at 1 (Joint Status Report Regarding Expert Discovery). Meta's production of documents and information in response was necessarily much larger than what it produced during HSR review, particularly given that in this case Meta had to produce documents for the eight-to-ten-year period following the acquisitions.

To the extent the statement incorporates the FTC's statements in Counterstatement paragraphs 2556, 2562, and 2563, Meta incorporates its responses to those statements here.

2. The record in this case includes many documents that Meta could have produced in the 2012 and 2014 investigations but did not.

2567. Of the voluminous documents that are part of the record in this case, many were in Meta's possession at the time of the 2012 and 2014 investigations and were not produced, despite being highly relevant to the issues in those investigations. *See supra* CMF at ¶¶ 2551 (describing information required by Item 4(c) of the HSR form), 2553

(describing issuance of Second Requests to Mr. Zuckerberg and Instagram); *see also infra* CMF at § VI.C.2.

Meta Response: Disputed in part. Undisputed that Meta produced documents in this case that it did not produce during the FTC's 2012 and 2014 investigations. Disputed that this statement creates a genuine dispute of material fact as to whether these documents would have been "highly relevant to the issues in those investigations." The statement does not identify any such documents or explain how they would have been relevant to the issues in those investigations.

Further disputed to the extent this statement suggests that the FTC did not have the ability to obtain additional materials during its HSR review. On the contrary, 15 U.S.C. § 18a(d)(1) grants the FTC the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such documentary material and information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws." Ex. 537 at § 18a(d)(1) (15 U.S.C. § 18a). And 15 U.S.C. § 18a(e)(1)(A), grants the FTC the authority to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at § 18a(e)(1)(A). It was the FTC's choice to close the investigations and clear the deals when it did.

Further disputed on the ground that the FTC is estopped from stating or implying that the material Meta provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction affected the FTC's decision not to challenge Meta's acquisition of WhatsApp. In discovery, Meta requested FTC documents recounting, as of 2012, the FTC's analyses and reasons for clearing the WhatsApp transaction, but the FTC,

admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and reasons were influenced by the material Meta provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction.

To the extent the statement incorporates the FTC's statements in Counterstatement paragraphs 2551 and 2553, and Section VI.C.2, Meta incorporates its responses to those statements here.

2568. At Meta's behest, its production in the Instagram investigation was limited to documents created on or after October 1, 2011. *See supra* CMF at ¶¶ 2554-55. That date limitation excluded from production all of Meta's documents discussing Instagram for the first year of its existence. *See supra* CMF at ¶¶ 2194(a) (Instagram launched on Oct. 6, 2010), 2555. The Second Request also did not focus on some topics that underscore the anticompetitive nature of the acquisition as revealed in this litigation, such as Facebook Camera. *See generally* PX3479, FTC document: "Request for Additional information and Documentary Material Issued to Mark Zuckerberg," (May 16, 2012), FB_FTC_CID_12639995, at -997-005. These limitations and others—such as the limitation to only five Meta document custodians—meant that Meta was not required to produce a large volume of documents that it could have produced and that were highly relevant to the issues in that investigation. To provide just a few examples:

Meta Response: Disputed in part. Undisputed that during the FTC's HSR review Meta produced documents from the files of five Meta custodians for the period beginning

on October 1, 2011. Disputed that this statement creates a genuine dispute of material fact as to whether these documents would have been "highly relevant to the issues in that investigation." The statement does not identify any such documents or explain how they would have been relevant to the issues in that investigation. Disputed that Meta's document production was "limited" or done at Meta's "behest." The materials the FTC cites do not say anything about whether the searches, number of custodians, time range, or document productions were "limited"; do not show what the FTC requested or whether what Meta agreed to do was different than what the FTC requested; and show instead that Meta sought the FTC's approval for Meta's various proposals. *See*, *e.g.*, PX5009 at -184 (FTC-PROD-00016183) (Meta asking the FTC for "questions or comments" on proposed search terms); PX5010 at -185 (FTC-PROD-00016185) (Meta asking the FTC if Meta's proposed custodians "will work").

Further disputed to the extent this statement suggests that Meta or its counsel had any ability to control the scope of the FTC's HSR review or that the FTC did not have the ability to obtain additional materials covering additional subject matter, such as Facebook Camera, during its HSR review. On the contrary, 15 U.S.C. § 18a(d)(1) grants the FTC the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such documentary material and information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws." Ex. 537 at § 18a(d)(1) (15 U.S.C. § 18a). And 15 U.S.C. § 18a(e)(1)(A) grants the FTC the authority to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at § 18a(e)(1)(A).

Further disputed to the extent the statements in this paragraph and its subparagraphs suggest that Meta did not provide any information relating to Facebook Camera. On the contrary, Meta explicitly discussed Facebook Camera in its memorandum to the FTC as to why the FTC should close its HSR review of the Instagram acquisition. *See* PX2618 at -375-376, -379-380 (FB_FTC_CID_02005369). And Meta produced documents to the FTC regarding Facebook Camera. *See*, *e.g.*, Ex. 491 (FB_FTC_CID_01536801) (produced in investigation at FB0008721); Ex. 492 (FB_FTC_CID_01538906) (produced in investigation at FB0010826); Ex. 493 (FB_FTC_CID_01542497) (produced in investigation at FB0014417); Ex. 494 (FB_FTC_CID_01533490) (produced in investigation at FB0005410).

Further disputed on the ground that the FTC is estopped from stating or implying that the material Meta provided to the FTC during the FTC's HSR investigation of the Instagram transaction affected the FTC's decision not to challenge Meta's acquisition of Instagram. In discovery, Meta requested FTC documents recounting, as of 2012, the FTC's analyses and reasons for clearing the Instagram transaction, but the FTC, admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and reasons were influenced by the material Meta provided to the FTC during the FTC's HSR investigation of the Instagram transaction.

a. Meta's observation in June 2011 that photos were a critical and growing part of the news feed, which required close monitoring given the rise of Instagram:

> Photos are 40% of feed impressions and growing as a percentage. This breakdown of feed impressions seems very important to keep track of . . . As a thought experiment, if Instagram grew to account for 50% of photos posted to Facebook (and thus for 20% of feed impressions), and Instagram was then acquired by Google, it could have some pretty negative consequences for newsfeed and for site engagement.

PX1153, Meta email chain: G. Rajaram to pm-leads re: "Good Analysis of Newsfeed," (June 4, 2011), FB_FTC_CID_02409416, at -416.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2568.

b. A July 2011 email from Chief Product Officer Chris Cox expressing alarm at the slow rate of Facebook Camera development, writing: "[W]hy is mobile photos app development moving so slowly? We still are getting our ass kicked by Instagram." PX1013, Meta email chain: C. Cox to [redacted] re: "Mobile 1H Roadmap Review Preso," (July 7, 2011), FB_FTC_CID_02432384, at -385 (responding to a draft review of Meta's mobile roadmap); PX6006, Cox (Meta) IH Tr., at 25:7-10 ("I was eventually promoted to chief product officer at around 2011. I don't remember the exact date or year.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the quoted testimony, except that the quotation from Mr. Cox's investigational hearing transcript appears at 24:7-10, not 25:7-10, and his testimony should read, "Chief Product Officer in around 2011." *See* PX6006 at 24:7-10 & errata (Cox IH Tr.). Disputed for the reasons stated above in Meta's response to paragraph 2568.

c. Mark Zuckerberg expressing concern about Instagram in September 2011:

> If Instagram continues to kick ass on mobile or if Google buys them, then over the next few years they could easily add pieces of their service that copy what we're doing now, and if they have a growing number of people's photos then that's a real issue for us . . . But at the current rate, literally every couple of months that we waste translates to a double in their growth and a harder position for us to work our way out of.

PX1180, Meta email chain: M. Zuckerberg to J. Shaffer, et al. re: "Photos team and snap," (Sept. 8, 2011), FB_FTC_CID_02945837, at -837-38.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language except that Mr. Zuckerberg sent the quoted email on September 11, 2011, not September 8, 2011. Disputed for the reasons stated above in Meta's response to paragraph 2568.

d. An email exchange among Facebook executives from April 2012, discussing potential capital expenditure costs for migrating Instagram's photos to Facebook's infrastructure. In this email exchange, in response to a question about whether Instagram's photos affects Facebook's photo products, another executive responds "[o]n the question of additive versus zero-sum to Snap/Shoebox1.0 – I think this is a key product question. In the short term till close, for anti-trust purposes we cannot be seen to be canceling or changing product plans." PX3370, Meta email chain: [redacted] to J. Parikh et al. re: "Instagram Capex Cost," (Apr. 12, 2012), FTC-META-002493383, at -384.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2568.

e. An email exchange, dated April 23, 2012, among Facebook executives discussing photo apps Camera+ and Hipstamatic. Mr. Armbrust states:

> As some of you know, we heard this week that Camera+ is acquisition target for Twitter and Google. They are #2 photo app in iOS with 8M paid users. Hipstamatic is considered another top iOS app (4M paid users) also went silent last week which could indicate they are in acquisition discussions. Either acquisition is not a huge concern for us: . . . Both are [m]uch smaller and don't have strong interest graph . . . Instagram is clear winner on iOS and would be difficult to compete with at this point.

PX11727, Meta email chain: R. Armbrust to P. Deng, et al. re: "Photo partner update 4/23," (Apr. 23, 2012), FB_FTC_CID_02534601, at -601.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2568.

2569. The discrepancy between Meta's paltry production during the investigation and the robust record in this case is even more stark with respect to the WhatsApp investigation, where Meta produced only 1,432 documents on a voluntary basis. *See supra* CMF at ¶ 2562. Thus, much of the key evidence about WhatsApp in this case consists of documents that Meta could have produced in the 2014 investigation but did not. A few examples:

Meta Response: Disputed in part. Undisputed that Meta produced 1,432 pages of documents on a voluntary basis during the FTC's HSR review of the WhatsApp transaction. Disputed to the extent this statement suggests that Meta's voluntary document production was limited in some way or that Meta or its counsel had any ability to control the scope of the FTC's HSR review. The FTC has the ability to extend its HSR review, including by issuing Second Requests, which the FTC chose not to do. *See*

Ex. 537 at § 18a(e)(1)(A) (15 U.S.C. § 18a) (authorizing second requests). The FTC also has the authority to "require[ ] [Meta's pre-merger filing] . . . be in such form and contain such documentary material and information relevant to a proposed acquisition as is necessary and appropriate to enable the Federal Trade Commission . . . to determine whether such acquisition may, if consummated, violate the antitrust laws," and to "require the submission of additional information or documentary material relevant to the proposed acquisition." *Id.* at §§ 18a(d)(1), 18a(e)(1)(A). The FTC chose not to take action before the waiting period expired.

Further disputed on the ground that the FTC is estopped from stating or implying that the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction affected the FTC's decision not to challenge Meta's acquisition of WhatsApp. In discovery, Meta requested FTC documents recounting, as of 2012, the FTC's analyses and reasons for clearing the WhatsApp transaction, but the FTC, admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and reasons were influenced by the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction.

a. In March 2012, Product Manager for Facebook Messenger Peter Deng, wrote about WhatsApp: "Definitely heard of them. We talk about them all the time. They're a huge competitor." PX10446, Meta email: P. Deng to [redacted], re:

"What's app," (Mar. 3, 2012), FTC-META-004296288, at -288; PX6054, Deng (Meta) Dep. Tr., at 22:3-8 (describing role).

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except the document is dated March 2, 2012. Disputed for the reasons stated above in Meta's response to paragraph 2569.

b. In April 2012, Mr. Zuckerberg wrote to Mr. Zoufonoun: "I'm the most worried about messaging, WhatsApp is already ahead of us in messaging in the same way Instagram was 'ahead' of us in photos." PX1127, Meta messages: M. Zuckerberg to A. Zoufonoun, (Apr. 10, 2012), FB_FTC_CID_06214279, at -279.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language, except it should read, "I'm the most worried about messaging. WhatsApp . . . ." Disputed for the reasons stated above in Meta's response to paragraph 2569.

c. Also in April 2012, Mr. Zuckerberg acknowledged the threat of a mobile messaging service "using messages as a springboard to build more general mobile social networks." PX1116, Meta messages: M. Zuckerberg to M. Schroepfer, (Apr. 22, 2012), FB_FTC_CID_06208072, at -072 (observing that KakaoTalk, LINE, and WeChat were each "using messages as a springboard to build more general mobile social networks. Kakao launched a photos app that got millions of downloads on its first day based off the popularity of its messaging network. Given how important messaging is on mobile, this seems like a reasonable way for a network to grow to me.").

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed as incomplete and misleading. The quoted sentence begins with Mr. Zuckerberg expressly excluding WhatsApp from the apps he is discussing: "*With the exception of WhatsApp*, all of these other messaging apps are using messages as a springboard to build more general mobile social networks." PX1116 at -072 (FB_FTC_CID_06208072) (emphasis added). Further disputed for the reasons stated above in Meta's response to paragraph 2569.

2570. In this litigation, Meta produced a number of documents pre-dating its Instagram and WhatsApp HSR filings after withdrawing its privilege claims over these documents in response to privilege challenges the FTC raised during discovery. *See, e.g.*, PX15564, Ltr. from A. Polavarapu (Meta Counsel) to D. Matheson (FTC) re: "FTC v. Meta Platforms, Inc., Case No. 1:20-cv-03590-JEB," (Sept. 29, 2023) (Producing more than 80 "documents that were originally withheld [that] are not privileged . . . We accordingly have enclosed a production comprising these documents, which bear Bates numbers within the range of FB_FTC_CID_02009880—FB_FTC_CID_13333244," including FB_FTC_CID_09700974 (PX3488)); PX15571, Ltr. from A. Polavarapu (Meta Counsel) to D. Matheson (FTC) re: "FTC v. Meta Platforms, Inc.," (Sept. 29, 2023) (withdrawing Meta's privilege claim over PX3489, FB_FTC_CID_12644309); PX15565, Ltr. from A. Polavarapu (Meta Counsel) to D. Matheson (FTC) re: "FTC v. Meta Platforms, Inc.," Privilege Challenges (June 20, 2023) (withdrawing Meta's privilege claim over "recently downgraded" documents "Bates numbers withing the range FB_FTC_CID_01269656—

FB_FTC_CID_12771154," including FB_FTC_CID_12767921 (PX3490)). These belated productions included highly relevant documents such as the following:

Meta Response: Disputed in part. Undisputed that Meta produced documents pre-dating the Instagram and WhatsApp HSR filings in this litigation after withdrawing privilege claims over those documents. Disputed on the ground that the FTC is estopped from stating or implying that the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction affected the FTC's decision not to challenge Meta's acquisition of WhatsApp. In discovery, Meta requested FTC documents recounting, as of 2012, the FTC's analyses and reasons for clearing the WhatsApp transaction, but the FTC, admitting it possessed such documents, refused to produce them. *See* Ex. 538 at 1-2 (Meta's Mem. in Supp. of Mot. to Compel Prod. of 2012 & 2014 FTC Memoranda). The FTC, having shielded evidence of its analyses and reasons for clearing the transaction from discovery, cannot now argue that those analyses and reasons were influenced by the material Meta and WhatsApp provided to the FTC during the FTC's HSR investigation of the WhatsApp transaction.

Meta also notes that PX15564 and PX15571 are the same September 29, 2023, letter from Mr. Polavarapu to Mr. Matheson.

a. Then Vice President of Engineering Mike Schroepfer's July 2011 reaction to PSN entry from Google+. Mr. Schroepfer provided "thoughts on Google+," with accompanying follow-up notes from his team. Mr. Schroepfer noted Google's "current advantages in infrastructure," "performance and stability," and he urged his team to "Focus, Focus, Focus": "Competition is exhilarating and focusing." PX3490, Meta Workplace Post: M. Schroepfer post to e FYI (July 3, 2011),

FB_FTC_CID_12767921, at 924-26; PX6075, Schroepfer (Meta) Dep. Tr., at 15:11-15:21 ("Q. And you were vice president of engineering from 2008 to March 2013, correct? A. I believe so, until I became CTO, which I think was around that time."). Schroepfer's team related that:

> One of my friends told me over the weekend that competition will be good for facebook, it will make us produce a better product for our users and partners because we'll be more motivated and will have new reference points. It was a good reminder about keeping perspective and yes, focus.

Id. at -923.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language and that the witness provided the quoted testimony. Disputed that Mr. Schroepfer was reacting to "PSN entry," as "PSN" is a term the FTC created for this litigation. Further disputed for the reasons stated above in Meta's response to paragraph 2570.

b. An email exchange from April 11, 2012, in which a Facebook executive asks a member of Amin Zoufonoun's team to "identify those competitors [to Instagram] that could serve as a standalone platform for exchanging photos or sharing on a one-to-many basis," including "identify[ing] which ones are the most credible." PX3489, Meta email chain: [redacted] to [redacted], A. Zoufonoun re: "A/C Privilege: Project Iris," (Apr. 11, 2012), FB_FTC_CID_12644309, at -309. The resultant work product contains a tab for the "[c]losest comps" to Instagram, with some "estimation[s]" on user numbers drawn from "FB Insight data." *Id.*

Meta Response: Disputed in part. Undisputed that the document contains most of the quoted language. Disputed that the document references "FB Insight data."

Further disputed that this document contains information that was not otherwise disclosed or available to the FTC during HSR review. *See*, *e.g.*, PX2618 at -379-380 (FB_FTC_CID_02005369) (Meta's white paper submitted to the FTC during its HSR review of the Instagram transaction, listing competitors to Instagram – many of the same apps listed in the document cited above – and including statistics showing how their user/download numbers compared to Instagram's). Further disputed for the reasons stated above in Meta's response to paragraph 2570.

i. Notably, this document contains a user number estimate for Flickr and Camera+, apps that Meta in 2012 attempted to position as key competitors to Instagram. The document has a usage figure for Camera+ that is *half* of the number that Meta presented to the FTC in its advocacy at the time. *Compare* PX3489, Meta email chain: [redacted] to [redacted], A. Zoufonoun re: "A/C Privilege: Project Iris," (Apr. 11, 2012), FB_FTC_CID_12644309, at - 312 (reporting user figures of 51 million for Flickr and 4 million for Camera+ in unproduced document), *with* PX2618, Meta White Paper: "Facebook's Acquisition of Instagram: Why the FTC Should Close Its Investigation Now," (June 26, 2012), FB_FTC_CID_02005369, at -379-80 (representing user figures of 75 million for Flickr and 8 million for Camera+ in advocacy to the FTC).

Meta Response: Disputed in part. Undisputed that the documents contain the statistics in their respective parentheticals. Disputed that the FTC fairly characterizes the statistics, which do not measure the same

thing. [redacted]'s estimate in PX3489 is of "registered users." *See* PX3489 at -312 (FB_FTC_CID_12644309). The estimate in Meta's White Paper is of "Users/Downloads," which could be a broader category than "registered users." *See* PX2618 at -379-380 (FB_FTC_CID_02005369).

c. The meeting minutes from a Meta board of directors meeting that took place on February 17, 2014 – just two days before Facebook announced its acquisition of WhatsApp. The minutes describe CFO David Ebersman's presentation to the Meta board of directors in support of Meta's plans to acquire WhatsApp:

> Mr. Ebersman provided the Board with an overview of Project Cobalt, the Company's proposed acquisition of WhatsApp Inc. ("WhatsApp"), and discussed the key role of WhatsApp's user base and user growth in the Company's interest in acquiring WhatsApp.
>
> * * *
>
> Mr. Ebersman then provided the Board with an overview of WhatsApp's user data based on internal metrics obtained by the Company in the course of its due diligence review. Mr. Ebersman highlighted WhatsApp's approximately 460 million monthly active users (MAUs), the extremely high level of engagement of WhatsApp's users (overall DAU/MAU = 70%), and the high level of new user registrations each day (approximately 1.5 million new user registrations each day).
>
> * * *
>
> Mr. Ebersman then reviewed the Company's valuation analysis of WhatsApp . . . Mr. Ebersman cited several potential reasons why WhatsApp might be valued at a premium, including WhatsApp's strong user growth and high level of user engagement, and the potential to scale the user base to > 1 billion MAUs.
>
> * * *

> Mr. Ebersman then reviewed the industry landscape in terms of monetization and discussed potential long-term monetization strategies for WhatsApp. For valuation purposes, Mr. Ebersman indicated that if WhatsApp is able to maintain its projected user growth trajectory and if WhatsApp is able to monetize its user base in a manner similar to other companies in the industry over the long-term, then the proposed purchase price appeared to be reasonable.
>
> * * *
>
> The Board then discussed the proposed terms of the transaction, including the purchase price, and the potential benefits and risks associated with the transaction. The Board reviewed other potential acquisition candidates in the field of mobile messaging, and Mr. Zuckerberg noted that WhatsApp stood out as a superior asset, particularly due to its extraordinary level of user engagement.

PX10857, Meta document: "Minutes of a Meeting of the Board of Directors of Facebook Inc." (Feb. 17, 2014), FB_FTC_CID_10958599, at -600-01.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2570.

d. An email exchange among Meta CEO Mark Zuckerberg, CFO David Ebersman, and others discussing Meta's impending announcement of the WhatsApp acquisition. Mr. Ebersman offers commentary about which points were important to convey to investors:

> My substantive comment is that the most important paragraph in the document for investors is the one with Cobalt's user stats. The more positive you are willing to be in your language, and the more you are willing to talk about "value", the better. In fact, if you are willing to say even a few words about monetization here, I think that could materially change investor reaction to the deal.
>
> * * *

> I am terrible at writing for you, but would you consider concepts like the following:
>
> "In fact, we believe WhatsApp is on a path to get to over 1B people in the relatively near-term. You might be surprised to learn that they already have over 450M people using the service each month. And after doubling in size last year they have been growing by over a million new people registering per day so far this year. Just as important, their engagement levels are extraordinary. Their percentage of monthly actives who use the service each day is even higher than Facebook's, which is the first time we have seen this at scale. Nothing else has come close.
>
> Based on our experience with rapidly growing networks that achieve this kind of engagement, we believe they are extremely well-positioned to be one of the few internet services that reach over 1B people. Every one of the other services to achieve that scale is very highly valued, and we believe Whatsapp should be as well. While their near-term focus will remain growing users and engagement, we also recognize that similar services in other parts of the world have been quite effective at monetization. Over the long term we look forward to seeing what Jan and his team can do in that area as well." I am not wed to any of these words, but I think the concepts are all true and sincere and the more you share them, the better the market will react.

PX3488, Meta email chain: M. Zuckerberg to D. Ebersman, et al. re: "Timeline post and script for Cobalt," (Feb. 18, 2014), FB_FTC_CID_09700974, at -974-75.

Meta Response: Disputed in part. Undisputed that the document contains the quoted language. Disputed for the reasons stated above in Meta's response to paragraph 2570.

3. The record in this case contains significant post-acquisition evidence of Meta's anticompetitive conduct, monopoly power, and substantial and enduring consumer harm.

2571. Post-acquisition evidence confirms that Meta's conduct in acquiring Instagram and WhatsApp was anticompetitive. *See supra* CMF at § III.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Part III, Meta incorporates its responses to those statements here.

2572. Post-acquisition evidence confirms that barriers to entry into the market for PSNS services are significant and substantial, with Meta enjoying and maintaining monopoly power in this market for more than a decade. *See supra* CMF at §§ II, III.D.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Part II and Section III.D, Meta incorporates its responses to those statements here.

2573. Following the acquisitions, seven international antitrust enforcers have concluded that Meta has market power over users. PX9007, Hemphill Rebuttal Report at ¶ 521.

Meta Response: Disputed. The cited expert report refers to only five international antitrust enforcers – Bundeskartellamt (Germany), Australian Competition & Consumer Commission, Competition & Markets Authority (United Kingdom), European Commission, and Rekabet Kurumu (Turkey). PX9007 at ¶ 521 (Hemphill Rebuttal Rep.). Further disputed as incomplete and missing necessary context. Notably, the United Kingdom's Office of Fair Trading reviewed the Instagram acquisition in 2012 and cleared the deal, rejecting several claims regarding market definition, potential entry, and competitive harm similar to the claims that the FTC raises here. *See* Ex. 2 at ¶¶ 203-206 (Carlton Rep.). Likewise, the European Commission reviewed the WhatsApp acquisition

in 2014 and cleared the deal, also rejecting claims regarding market definition, potential entry, and competitive harm like those the FTC raises here. *See id.* at ¶¶ 208-213.

2574. Post-acquisition evidence also confirms that, as a result of Meta's monopoly maintenance, consumers have suffered substantial and enduring consumer harm, as evidenced by steep increases in ad load and other reductions in quality, reductions in innovation, growth, and privacy protection, and other worse outcomes. *See supra* CMF at § IV.

Meta Response: Disputed. This paragraph cites no specific evidence in support of any fact, and therefore does not create a genuine dispute of material fact. To the extent the statement incorporates the FTC's statements in Part IV, Meta incorporates its responses to those statements here.

VII. Meta's Justifications for Its Acquisitions of Instagram and WhatsApp.

A. Meta's Instagram Justifications.

2575. Meta's Supplemental Response to the FTC's Interrogatory No. 10 advances six justifications for its acquisition of Instagram:

a. "Migrating Instagram to Meta's infrastructure resulted in a more reliable and enjoyable experience for users and helped Instagram sustain its user growth" (hereinafter, "Computing & Programming Infrastructure claim");

b. "Meta's tools and expertise helped Instagram attack its integrity problems at scale" (hereinafter, "Integrity Tools & Expertise claim");

c. "Meta helped fuel and sustain Instagram's user growth by launching better features and more targeted growth initiatives" (hereinafter, "Features & Growth Initiatives claim");

d. "Meta helped fuel Instagram's growth as a strong, independent product and brand" (hereinafter, "Independent Product & Brand claim");

e. "Meta's technology, expertise, and relationships have been critical to Instagram's successful monetization" (hereinafter, "Monetization Resources claim"); and

f. "The sharing of Meta's technical, distribution, finance, legal, and administrative (including human resource and recruiting) infrastructure created synergies and efficiencies that enabled Instagram to continue to focus on enhancing and developing its customers' experiences using its services" (hereinafter, "Technical & Administrative Resources claim").

PX10092 at -015-22, Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that the statement accurately lists the six categories of procompetitive benefits resulting from Meta's acquisition of Instagram that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -015-022, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the Instagram transaction. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014.

1. Meta's Computing & Programming Infrastructure Claim.

2576. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies twenty categories of resources and capabilities relevant to Meta's Computing & Programming Infrastructure claim ("subclaims 1(a) through 1(t)"):

a. infrastructure "enabling [Instagram] to operate across multiple data centers in different geographic regions";

b. infrastructure "enabling [Instagram] to operate in world-class data centers";

c. "direct access to specialized technical support and engineering resources";

d. "adopting a SEV culture that results in continuous reliability improvements";

e. infrastructure "continually improving the underlying computing services, databases, and storage on which Instagram relies to operate";

f. infrastructure "providing [Instagram] with capacity to sustain its growth and scale its services";

g. "migrating Instagram to Meta's Content Delivery Network";

h. "connecting Instagram to various Meta services . . . (e.g., Everstore, Tao, Zippy DB, Hive, Logging)";

i. "migrating Instagram from Foursquare to Facebook Places";

j. "providing Instagram access to Meta's advertising platform";

k. "providing developer tools";

l. "replacing Instagram's search tools with Meta's search tools";

m. "infrastructure to support Instagram Direct messaging";

n. "infrastructure to support Instagram's video offerings, including Instagram Live, IGTV, and video more generally";

o. "localization (translation) expertise that helped Instagram make its app more accessible in different languages and countries";

p. "access to Meta's data analytics and A/B testing resources";

q. "Meta's Continuous Deployment system, which has enabled Instagram to update its backend code more quickly and efficiently";

r. "engineers and other employees";

s. "a more cost-efficient solution than public cloud services"; and

t. "machine learning and artificial intelligence resources."

PX10092 at -015-17 (1(a) through 1(t)), Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists ways in which migrating Instagram to Meta's infrastructure resulted in a more reliable and enjoyable experience for users and helped Instagram sustain its user growth that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -015-019, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed as incomplete because the FTC omitted 1(u), which sets forth several specific improvements to features and services that improved the user experience. *See id.* at -017-019. Further disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to computing and programming infrastructure. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014.

2577. At least three of Meta's subclaims 1(a) through 1(t) are duplicative of or subsumed within one or more of Meta's other subclaims:

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Meta's responses in 1(a) through 1(t) are all ways in which migrating Instagram to Meta's infrastructure resulted in a more reliable and enjoyable experience for users and helped Instagram sustain its user growth. *See* PX10092 at -015-017, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)); Meta SMF ¶¶ 724-725 (user growth), ¶¶ 755-761 (infrastructure). Further disputed that the statements in this paragraph and its subparagraphs are material to the resolution of either party's motion.

a. Meta's subclaim 1(a) ("enabling [Instagram] to operate across multiple data centers in different geographic regions") is duplicative of or subsumed within Meta's subclaim 1(b) ("enabling [Instagram] to operate in world-class data centers");

Meta Response: Disputed. Disputed that the benefits described in 1(a), enabling Instagram "to operate across multiple data centers in different geographic regions" are duplicative or subsumed within 1(b), enabling Instagram "to operate in world-class data centers." Those benefits are distinct. For example, Instagram received performance and reliability benefits from its initial migration to Meta's data centers, which took place before Instagram was

reconfigured to operate across multiple data centers in different geographic regions. *See* Ex. 5 at ¶¶ 155-158 (Nieh Rep.) (explaining the benefits Instagram received from migrating its compute infrastructure from AWS to Meta's data centers).

b. Meta's subclaims 1(h) ("various Meta services . . . (e.g., Everstore, Tao, Zippy DB, Hive, Logging)" and 1(i) ("migrating Instagram from Foursquare to Facebook Places") are duplicative of or subsumed within Meta's subclaim 1(e) ("improving the underlying computing services, databases, and storage on which Instagram relies to operate").

Meta Response: Disputed. Disputed that 1(h), "connecting Instagram to various Meta services that have been optimized for the features and functionality that Instagram provides at scale (e.g., Everstore, Tao, ZippyDB, Hive, Logging)," and 1(i), "migrating Instagram from Foursquare to Facebook Places," are duplicative or subsumed within 1(e), "improving the underlying computing services, databases, and storage on which Instagram relies to operate." Those benefits are distinct. For example, Instagram began interfacing with Meta's logging and data analytics tools prior to Instagram's migration to Meta's data centers. *See* Ex. 5 at ¶¶ 129-147 (Nieh Rep.) (explaining the benefits Instagram received from interfacing with Meta's logging and data analytics tools, which "Instagram did not believe could be obtained elsewhere at the time of the acquisition").

2578. Each of Meta's subclaims 1(a) through 1(t) identify solely resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition. *See id.* at -015-17 (1(a) through 1(t)).

Meta Response: Undisputed.

2579. Because each of Meta's subclaims 1(a) through 1(t) identify solely resources or capabilities that were available to Meta prior to the Instagram acquisition or were developed by Meta after the Instagram acquisition, each resource or capability either: (a) was available at the time of the Instagram acquisition to Meta's applications (including Facebook and Facebook Camera); or (b) was developed by Meta after the Instagram acquisition and was or could have been made equally available to applications Meta offered at the time of the Instagram acquisition (including Facebook and Facebook Camera):

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's infrastructure "enabling [Instagram] to operate across multiple data centers in different geographic regions" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure that enabled Instagram to operate across multiple data centers in different geographic regions was available to Meta at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits

without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its infrastructure to scale Instagram across multiple geographically distributed data centers, which made Instagram more reliable and improved Instagram's performance and ability to scale efficiently. *See* Ex. 5 at ¶¶ 194-195 (Nieh Rep.).

b. Meta's infrastructure "enabling [Instagram] to operate in world-class data centers" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's world-class data centers were available to Meta at the time of the acquisition and that Meta continued to build out and improve its data centers after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Instagram received performance and reliability benefits from migrating to Meta's world-class data centers. *See* Meta SMF ¶¶ 757-758; Ex. 5 at ¶¶ 155-158 (Nieh Rep.).

c. Meta's "specialized technical support and engineering resources" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or

could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's specialized technical support and engineering resources were available to Meta at the time of the acquisition and that Meta continued to develop its specialized technical support and engineering resources following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Instagram received performance and reliability benefits from Meta's specialized technical support and engineering resources. *See*, *e.g.*, Ex. 5 at ¶¶ 135-136 (Nieh Rep.) (explaining how Instagram benefited from having access to Meta's in-house expertise in Hive, a data warehouse developed by Meta).

d. Meta's "SEV culture that results in continuous reliability improvements" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's SEV culture that results in continuous reliability improvements was available to Meta at the time of the acquisition and that Meta continued to develop its SEV culture following the acquisition. Disputed that the statement in this subparagraph creates a genuine

dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's SEV culture improved Instagram's reliability. *See* Ex. 5 at ¶ 212 (Nieh Rep.) ("Meta . . . put in place best practices like its SEV review (a no-blame post-mortem analysis of all technical issues) that have helped maintain and improve [Instagram's] reliability over time.").

e. Meta's infrastructure "improving the underlying computing services, databases, and storage on which Instagram relies to operate" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta has continued to improve the underlying computing services, databases, and storage on which Instagram relies to operate from the time of the acquisition and following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

f. Meta's infrastructure "providing [Instagram] with capacity to sustain its growth and scale its services" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed

following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure that provided Instagram with capacity to sustain its growth and scale its services was available to Meta at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta has provided capacity to support Instagram's growth to more than [redacted] U.S. monthly active users as of the first half of 2022. *See* Meta SMF ¶ 724.

g. "Meta's Content Delivery Network" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's Content Delivery Network was available to Meta at the time of the acquisition and that Meta continued to develop its Content Delivery Network following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Instagram

received performance benefits from Meta's Content Delivery Network and benefited from having a Content Delivery Network that could be optimized for Instagram's needs. *See* Ex. 5 at ¶¶ 169-172 (Nieh Rep.).

h. "various Meta services . . . (e.g., Everstore, Tao, Zippy DB, Hive, Logging)" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure services, including Everstore, TAO, ZippyDB, Hive, and logging tools, were available to Meta at the time of the acquisition or were developed after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's infrastructure services improved Instagram's reliability and user experience. *See*, *e.g.*, Meta SMF ¶¶ 759-761; Ex. 5 at ¶ 129 (Nieh Rep.), ¶¶ 134-136 (Hive), ¶¶ 141-144 (logging tools), ¶¶ 159-162 (Everstore), ¶¶ 177-182 (TAO), ¶¶ 190-193 (ZippyDB).

i. Meta's "Facebook Places" capability was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's location-tagging infrastructure, known as Places, was available to Meta at the time of the acquisition and that Meta continued to develop Places following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Places enabled Instagram to remove an external dependency and increased the number of location check-ins on Instagram. *See* Ex. 5 at ¶¶ 173-175 (Nieh Rep.).

j. "Meta's advertising platform" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's advertising platform was available to Meta at the time of the acquisition and that Meta continued to develop its advertising platform following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's advertising platform helped Instagram deliver more personalized and relevant ads. *See* PX9015 at ¶ 93 (Tucker Rep.).

k. Meta's "developer tools" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had developer tools available to it at the time of the acquisition and that Meta continued to develop those developer tools after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's developer tools enable Instagram's engineers to efficiently improve existing features and develop new features. *See* Ex. 5 at ¶¶ 59, 196 (Nieh Rep.).

l. "Meta's search tools" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had search tools available to it at the time of the acquisition and that Meta continued to develop those search tools after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is

purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that adopting Meta's search tools improved Instagram's user experience and significantly increased the use of search on Instagram. *See* Ex. 5 at ¶¶ 165-167 (Nieh Rep.).

m. Meta's "infrastructure to support . . . messaging" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure to support messaging was available to Meta at the time of the acquisition and that Meta continued to build out and improve its infrastructure to support messaging after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Instagram benefited from having access to Meta's infrastructure to support its direct messaging feature. *See* Ex. 5 at ¶¶ 205-206 (Nieh Rep.); Meta Resp. to Counter SMF ¶ 2071.

n. Meta's "infrastructure to support . . . video offerings . . . and video more generally" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the

acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure to support video offerings was available to Meta at the time of the acquisition and that Meta continued to build out and improve its infrastructure to support messaging after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Instagram benefited from having access to Meta's infrastructure to support its video features. *See* Meta SMF ¶ 740; Meta Resp. to Counter SMF ¶ 2065.

o. Meta's "localization (translation) expertise" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's localization expertise was available to Meta at the time of the acquisition and that Meta continued to develop its localization expertise after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring

Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

p. "Meta's data analytics and A/B testing resources" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had data analytics and A/B testing resources available to it at the time of the acquisition and continued to develop those analytics and resources after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's data analytics and A/B testing resources helped Instagram scale and improve its user experience. *See*, *e.g.*, Ex. 5 at ¶¶ 129-147 (Nieh Rep.).

q. "Meta's Continuous Deployment system" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's Continuous Deployment system was available to Meta at the time of the acquisition and that

Meta continued to develop its Continuous Deployment system following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's Continuous Deployment system improved Instagram's ability to release code at scale. *See* Ex. 5 at ¶¶ 186-189 (Nieh Rep.).

r. Meta's "engineers and other employees" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had engineers and other employees available to it at the time of the acquisition and continued to hire and employ engineers and other employees after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's engineers and other employees helped Instagram improve its reliability and user experience. *See*, *e.g.*, Ex. 5 at ¶ 208 (Nieh Rep.) ("Meta's infrastructure, engineers, and technical resources helped Instagram reduce the costs associated with its early scaling, and have since provided Instagram greater efficiency and lower costs to operate than

what it would cost to run Instagram on AWS."); Meta Resp. to Counter SMF ¶ 2055.

s. Meta's "more cost-efficient solution than public cloud services" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure was more cost-efficient than public cloud services at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's infrastructure provides Instagram superior cost performance compared to public cloud services. *See* Ex. 5 at ¶¶ 75-87 (Nieh Rep.).

t. Meta's "machine learning and artificial intelligence resources" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera).

See PX10092 -015-17 (1(a) through 1(t)), Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that Meta developed machine learning and artificial intelligence resources after the Instagram acquisition. Disputed that all of Meta's machine learning and artificial intelligence resources were available to Meta at the time of the Instagram acquisition. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

2580. In addition to Meta's subclaims 1(a) through 1(t), Meta has identified "new features and services," or "improvements to features and services" introduced on the Instagram application between May 2013 and March 2021 that Meta asserts are relevant to Meta's Computing & Programming Infrastructure claim. *See id.* at -017-19 (paragraphs 1(u)(i) through 1(u)(xxxi)) ("subclaim 1(u)").

Meta Response: Disputed in part. Undisputed that Meta identified in its Supplemental Response to the FTC's Interrogatory No. 10 new or improved features and services that Meta introduced on Instagram. *See* PX10092 at -017-019, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the Instagram transaction relating to new or improved features and services. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014.

2581. Each of the "new features and services," or "improvements to features and services" identified in subclaim 1(u) is subsumed within or duplicative of Meta's subclaims 1(a) through 1(t), as each represents a specific example of a benefit that Meta asserts was provided by resources and capabilities identified in subclaims 1(a) through 1(t). *Compare id.* at -015-17 (1(a) through 1(t)) with *id.* at -017-19 (1(u)(i) through 1(u)(xxxi)).

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that this statement creates a genuine dispute of material fact. Meta's responses in 1(a) through 1(u) are all ways in which Meta's infrastructure resulted in a more reliable and enjoyable experience for users and helped Instagram sustain its user growth. *See* PX10092 at -015-019, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)); Meta SMF ¶¶ 724-725 (user growth), ¶¶ 755-761 (infrastructure). Further disputed that this statement is material to the resolution of either party's motion.

2582. Each of the "new features and services," or "improvements to features and services" identified in claim 1(u) either was or could have been introduced on applications Meta offered at the time of the Instagram acquisition (including Facebook and Facebook Camera). *See id.* at -017-19 (1(u)(i) through 1(u)(xxxi)).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta's introduction of new features and services and improvements to features and services on Instagram, including those listed in 1(u)(i)

through 1(u)(xxxi) of Meta's Supplemental Response to the FTC's Interrogatory No. 10 (at -017-019), could have been introduced on Meta's other applications. That statement is vague, speculative, and nonsensical. Instagram is a unique and distinct app, as are Meta's other apps such as Facebook. The statement fails to describe which specific features and services, or improvement to features and services, that Meta provided to Instagram could have been provided to Meta's other apps, nor makes clear what that even means. Even if Meta could have introduced certain similar features and services, or improvements to features and services, to its own applications (including Facebook and Facebook Camera) as those it introduced on Instagram, it is purely speculative whether Meta could have achieved the same benefits without acquiring Instagram that Instagram has in fact achieved since the acquisition. *See* Meta SMF ¶¶ 755-762; Ex. 5 at ¶ 94 (Nieh Rep.) ("Instagram received enormous benefits from Meta and its infrastructure, which enabled Instagram to scale more quickly, efficiently, and effectively than it could have using other alternatives."), ¶¶ 95-215 (setting forth those benefits); Meta Resp. to Counter SMF ¶ 2055.

2. Meta's Integrity Tools & Expertise Claim.

2583. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies five categories of resources and capabilities relevant to Meta's Integrity Tools & Expertise claim ("subclaims 2(a) through 2(e)"):

a. "systems and services that enabled Instagram to reduce spam while scaling, including Sentry, Sigma, Blackhole, Orb, Karma, Tally, and TPS (now SRT)" ;

b. "access to expertise in reducing spam";

c. "access to its Checkpoint system to help reduce fake and abusive accounts";

d. "access to its PhotoDNA system to help reduce objectionable content";

e. "access to its moderation and review teams to help reduce objectionable content." PX10092 at -019 (2(a) through 2(e)), Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Each of Meta's subclaims 2(a) through 2(e) identifies solely resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition. *See id.* at -019 (2(a) through 2(e)).

Meta Response: Disputed in part. Undisputed that this statement accurately lists ways in which Meta helped Instagram attack its integrity problems at scale. *See* PX10092 at -019, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Undisputed that Meta had the resources and capabilities cited in this paragraph available to it at the time of the acquisition and continued to develop those capabilities and resources after the acquisition. Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's Supplemental Response to the FTC's Interrogatory No. 10 includes all procompetitive benefits from the transaction relating to Instagram's integrity. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014, -019. Further disputed that the statements in this paragraph create a genuine dispute of material fact to the extent they suggest Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

2584. Because each of Meta's claims 2(a) through 2(e) identifies solely resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta

after the Instagram acquisition, each of Meta's subclaims 2(a) through 2(e) either: (a) was available at the time of the Instagram acquisition to Meta's applications (including Facebook and Facebook Camera); or (b) was developed by Meta after the Instagram acquisition and was or could have been made equally available to applications Meta offered at the time of the Instagram acquisition (including Facebook and Facebook Camera):

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's "systems and services . . . to reduce spam while scaling, including Sentry, Sigma, Blackhole, Orb, Karma, Tally, and TPS (now SRT)" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's systems and services that enabled Instagram to reduce spam while scaling were available to Meta at the time of the acquisition and that Meta continued to develop those systems and services after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that, in early 2018, Meta changed the collaboration model between Central Integrity and the surface integrity teams of

Facebook, Instagram, and Meta's other applications to "improve collaboration across the entire company" by "pool[ing] the systems, the sets of people that work on [integrity], and their knowledge, their understanding of abusive actors," which in turn strengthened the collaboration with Meta's AI teams and improved integrity efforts and outcomes for both Facebook and Instagram. *See* Ex. 7 at ¶¶ 157-160 (Subrahmanian Rep.) (discussing benefits of centralized integrity efforts for both Facebook and Instagram (quoting PX6058 at 174:12-175:5 (Rosen Dep. Tr.))).

b. Meta's "expertise in reducing spam" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta has expertise in reducing spam, that Meta's expertise in reducing spam was available to Meta at the time of the acquisition, and that Meta continued to develop that expertise after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram, including for the reasons stated above in Meta's response to subparagraph 2584(a).

c. Meta's "Checkpoint system to help reduce fake and abusive accounts" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or

could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's Checkpoint system that helped reduce fake and abusive accounts was available to Meta at the time of the acquisition and that Meta continued to develop its Checkpoint system after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram, including for the reasons stated above in Meta's response to subparagraph 2584(a).

d. Meta's "PhotoDNA system to help reduce objectionable content" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that, at the time of the acquisition, Meta had deployed PhotoDNA on Facebook to help reduce objectionable content and that Meta continued to develop that system after the acquisition. *See* Ex. 7 at ¶ 73 (Subrahmanian Rep.) (Meta deployed PhotoDNA on Facebook in 2011). Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram, including for the reasons stated above in Meta's response to subparagraph 2584(a). Evidence shows that both Facebook and Instagram (and their users) benefited by Meta's use of

PhotoDNA on both platforms to detect multiple categories of objectionable content, including spam, apparent child sexual abuse material, gang-related content, hate organizations, and hate symbols. *See id.* at ¶¶ 73-74, 130, 153 & nn.171, 445-446. Once Meta deployed PhotoDNA on Instagram and Facebook, objectionable content discovered by either platform was hashed and added to Meta's various hashbanks, thereby allowing both applications to take advantage of objectionable images identified by *either* platform. *See*, *e.g.*, *id.*

e. Meta's "moderation and review teams to help reduce objectionable content" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera).

See id. at -019 (2(a) through 2(e)).

Meta Response: Disputed in part. Undisputed that Meta's moderation and review teams that helped reduce objectionable content were available to Meta at the time of the acquisition and that Meta continued to develop those teams after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram, including for the reasons stated above in Meta's response to subparagraph 2584(a).

3. Meta's Features & Growth Initiatives Claim.

2585. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies thirteen categories of resources and capabilities that Meta asserts are relevant to Meta's Features & Growth Initiatives claim ("subclaims 3(a) through 3(m)"):

a. "developer tools";

b. "engineers and other employees that helped Instagram develop popular new features and functionality";

c. "data analytics and A/B testing resources";

d. "the ability for Instagram users to cross-post on Facebook";

e. "'Find your Friends' integration";

f. "the ability for Instagram to run App Install ads on Facebook";

g. "Meta placed Instagram on the list of Bookmarks on the Facebook app that provided a shortcut to Instagram";

h. "access to [Meta's] Growth Team";

i. "expertise and other employees that helped Instagram develop new features and functionality";

j. "Meta helped Instagram develop and implement Ranked Feed";

k. "access to [Meta's] Spark augmented reality camera infrastructure";

l. "underlying infrastructure that supported all new Instagram features and functions after 2014, and some of the features added prior to that date";

m. "technology and resources to improve Search on Instagram";

PX10092 at -019-21 (3(a) through 3(m)), Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists ways in which Meta helped fuel and sustain Instagram's user growth that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -019-021, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog.

Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to Instagram's features and growth. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014.

2586. At least five of Meta's subclaims 3(a) through 3(m) are duplicative of or subsumed within one or more of Meta's other subclaims:

a. Meta's subclaim 3(a) ("Meta provided Instagram with developer tools that helped Instagram develop new features and functionality more quickly and efficiently") is duplicative of or subsumed within Meta's subclaim 1(k) ("providing developer tools that helped Instagram develop new features and functionality more quickly and efficiently."). *Compare id.* at -019, *with id*. at -017.

b. Meta's subclaim 3(b) ("Meta provided Instagram with engineers and other employees that helped Instagram develop popular new features and functionality more quickly and efficiently") is duplicative of or subsumed within Meta's subclaim 1(r) ("Meta provided Instagram with engineers and other employees to help it improve the reliability and quality of its services"). *Compare id.* at -020, *with id*. at -017.

c. Meta's subclaim 3(c) ("Meta provided Instagram with data analytics and A/B testing resources that helped Instagram develop popular new features and functionality more quickly and efficiently") is duplicative of or subsumed within Meta's subclaim 1(p) ("Meta's infrastructure improved the user experience of

Instagram by providing access to Meta's data analytics and A/B testing resources"). *Compare id.* at -020, *with id*. at -016.

d. Meta's subclaim 3(l) that "Meta provided the underlying infrastructure that supported all new Instagram features and functions after 2014, and some of the features added prior to that date in whole or in part" is duplicative of or subsumed within Meta's Computing & Programming Infrastructure claim and its subclaims. *Compare id.* at -021, *with id*. at -015-19 (1(a) through 1(u)).

e. Meta's subclaim 3(m) ("Meta provided technology and resources to improve Search on Instagram") is duplicative of or subsumed within Meta's subclaim 1(l) ("replacing Instagram's search tools with Meta's search tools."). *Compare id.* at -021, *with id*. at -016.

f. Meta's general claim that Meta assisted Instagram's growth "by launching better features" is duplicative of or subsumed within Meta's subclaim 1(u) ("the user experience of Instagram has improved through the introduction of numerous new features and services, and improvements to features and services"). *Compare id.* at -019, *with id*. at -017.

g. Each of Meta's subclaims 3(a) through 3(m) identify solely resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition. *See id.* at -019-21 (3(a) through 3(m)).

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that

the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Meta's responses in 3(a) through 3(m) are ways that Meta's technology, expertise, and relationships have been critical to Instagram's development of new features and growth. *See* PX10092 at -019-021, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)); Meta SMF ¶¶ 723-738 (growth), ¶¶ 739-747 (features). Further disputed that the statements in this paragraph and its subparagraphs are material to the resolution of either party's motion. Further disputed for the reasons stated in Meta's response to paragraph 2587.

2587. Because each of Meta's subclaims 3(a) through 3(m) identifies solely resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition, each of Meta's claims 3(a) through 3(m) identifies a resource or capability that either: (a) was available at the time of the Instagram acquisition to Meta's applications (including Facebook and Facebook Camera); or (b) was developed by Meta after the Instagram acquisition and was or could have been made equally available to applications Meta offered at the time of the Instagram acquisition (including Facebook and Facebook Camera):

<u>Meta Response</u>: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's "developer tools" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. This subparagraph is identical to subparagraph 2579(k). Meta incorporates its response to that subparagraph here.

b. Meta's "engineers and other employees that helped Instagram develop popular new features and functionality" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had engineers and other employees available to it at the time of the acquisition and continued to hire and employ engineers and other employees after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's engineers and other employees helped Instagram develop popular new features and functionality. *See*, *e.g.*, Meta Resp. to Counter SMF ¶ 2055.

c. Meta's "data analytics and A/B testing resources" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. This subparagraph is identical to subparagraph 2579(p). Meta incorporates its response to that subparagraph here.

d. "the ability for Instagram users to cross-post on Facebook" was available to Instagram prior to its acquisition by Meta. Moreover, the ability to post on Facebook was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Instagram users could cross-post to Facebook prior to the acquisition. Disputed that this subparagraph creates a genuine dispute of material fact regarding whether the ability to post on Facebook was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera). This subparagraph cites no evidence to support that claim, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h) – nor is it clear what the statement means by Facebook's and Facebook Camera's ability to post on Facebook.

e. "'Find your Friends' integration" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), in the sense that Facebook and Facebook Camera already made complete use of Facebook's social graph and thus did not require a separate effort to achieve "integration";

Meta Response: Disputed in part. Undisputed that Meta's "Find your Friends" API existed at the time of the acquisition and that Facebook and Facebook Camera used Facebook's social graph. PX10092 at -020, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this subparagraph creates a genuine dispute of material fact regarding whether Meta's "Find your Friends" API was "available at the time of the acquisition to Meta's applications." This subparagraph cites no

evidence to support that claim, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Evidence shows that Meta's "Find [your] Friends" API was an API Meta made available to other, non-Meta applications to allow users of those applications to find all their Facebook friends on that application; it was not something Meta could or did use for its own applications. *See* Meta SMF ¶ 662.

f. "the ability for Instagram to run App Install ads on Facebook" was available to Instagram prior to its acquisition by Meta. Meta's applications (including Facebook and Facebook Camera) did not need the ability to run App Install ads because users of those apps were, necessarily, already using those apps;

Meta Response: Disputed. Disputed that this subparagraph creates a genuine dispute of material fact regarding whether Instagram had the ability to run App Install ads on Facebook prior to its acquisition by Meta. This subparagraph cites no evidence to support its claim, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Evidence shows that Instagram did not run App Install ads on Facebook prior to its acquisition by Meta and could not have without paying for such advertising subject to the same rates and restrictions as any external partner. *See* Ex. 302 at 170:18-171:24 (Krieger IH Tr.); Ex. 153 at 341:5-12 (Krieger Dep. Tr.).

g. "Bookmarks on the Facebook app that provided a shortcut" were not necessary when a user was already using Facebook or Facebook Camera because the only purpose served by a bookmark is to allow a user to access an application that the

user had previously utilized without leaving the Facebook or Facebook Camera app to do so;

Meta Response: Disputed. Disputed that this subparagraph creates a genuine dispute of material fact regarding the purpose of bookmarks on Facebook. This subparagraph cites no evidence to support its claim, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Evidence shows that bookmarks on the Facebook app that provided a shortcut were used for other purposes, including navigating to specific surfaces within the Facebook app, like Groups and Events. *See* Ex. 284 at 242:11-18 (Systrom IH Tr.).

h. "access to [Meta's] Growth Team" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's growth team was available to Meta at the time of the acquisition and that Meta continued to develop its growth team after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's growth team helped Instagram scale and increase user engagement on Instagram. *See* Meta SMF ¶¶ 723(c), 726.

i. Meta's "expertise and other employees that helped Instagram develop new features and functionality" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had expertise and other employees available to it at the time of the acquisition and continued to develop expertise and hire and employ employees after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's expertise and other employees helped Instagram develop popular new features and functionality. *See*, *e.g.*, Meta Resp. to Counter SMF ¶ 2055.

j. Meta's resources to "develop and implement Ranked Feed" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's resources to develop and implement Ranked Feed were available to Meta at the time of the Instagram acquisition and that Meta continued to develop those resources following the Instagram acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its resources to help Instagram develop and

implement Ranked Feed, contributing significantly to Instagram's growth in engagement. *See* Meta SMF ¶ 742; Meta Resp. to Counter SMF ¶ 2084.

k. "access to [Meta's] Spark augmented reality camera infrastructure" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta's Spark augmented reality camera infrastructure was developed after the Instagram acquisition. Disputed that this subparagraph creates a genuine dispute of material fact regarding whether Meta's Spark augmented reality camera infrastructure was available to Meta at the time of the Instagram acquisition. This subparagraph cites no evidence to support this claim, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). In fact, Meta released its augmented-reality platform to developers – later named "Spark AR" – no earlier than 2017, five years after the Instagram acquisition. *See* Ex. 543 (Meta, *Introducing Camera Effects Platform*, https://perma.cc/ZJT4-S3QU?type=image). Further disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta incorporated Spark AR technology into Instagram's camera, including into Stories, which made it a more attractive product to users. *See* Meta SMF ¶ 743;

Ex. 438 at 5 (MetaFTC-DX-922); Ex. PX6001 at 151:2-8 (Bosworth IH Tr.) ("And we invested significantly in a technology called Spark AR to make the Camera cool, so that people would use our camera and have a reason to use our camera. . . . [W]e use it in Instagram, we use it in Facebook, and we use it all over the place.").

l. "underlying infrastructure that supported all new Instagram features and functions after 2014, and some of the features added prior to that date" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had infrastructure that could support Instagram's new features and functions at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Instagram received performance and reliability benefits from migrating to Meta's infrastructure. *See* Meta SMF ¶¶ 757-758; Ex. 5 at ¶¶ 155-158 (Nieh Rep.).

m. "technology and resources to improve Search on Instagram" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook

Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera).

Id. at -019-21 (3(a) through 3(m)).

Meta Response: Disputed in part. Undisputed that Meta developed technology and resources to improve Search on Instagram after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's improvements to Instagram's search features enabled users to find photos and other content from users they do not follow on Instagram's "Explore" tab. Ex. 324 at -014 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. No. 2 (Sept. 9, 2022)). Neither Facebook nor Facebook Camera had a surface allowing users to search content from users with whom they are not friends. *See id.* at -010-013; PX12416 at -001 (Meta, *Introducing Facebook Camera*). Evidence further shows that adopting Meta's search tools improved Instagram's user experience and significantly increased the use of search on Instagram. *See* Ex. 5 at ¶¶ 165-167 (Nieh Rep.).

4. Meta's Independent Product & Brand Claim.

2588. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies six categories relevant to Meta's Independent Product & Brand claim ("subclaims 4(a) through 4(f)"):

a. "Meta operated Instagram as a separate product team"

b. "Meta operated Instagram as a separate brand";

c. "Meta gave Instagram flexibility whether and when to migrate to Meta's infrastructure, and which systems and resources to adopt and use";

d. "Meta provided Instagram engineers and other employees to develop and improve its services, as described in 1-3 above [referring to services described in Meta's Computing & Programming Infrastructure, Integrity Tools & Expertise, and Features & Growth Initiatives claims]";

e. "Meta engaged in many growth initiatives to help Instagram, as described in 3 above [referring to services described in Meta's Computing & Programming Infrastructure, Integrity Tools & Expertise, and Features & Growth Initiatives claims]";

f. "Meta has invested significant financial resources in Instagram."

PX10092 at -021 (4(a) through 4(f)), Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists ways in which Meta helped fuel Instagram's growth as a strong, independent product and brand that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -021, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to improving Instagram's product and brand. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014.

2589. Meta's subclaim 4(a) identifies an action that Instagram could have taken absent acquisition by Meta, as Instagram could have operated as a product team separate from Meta if Instagram had not been acquired by Meta. *See id*. at -021 (4(a) stating that "Meta operated Instagram as a separate product team").

Meta Response: Disputed in part. Undisputed that Instagram could have operated as a product team separate from Meta if Instagram had not been acquired by Meta. Disputed that this statement creates a genuine dispute of material fact. The cited materials do not establish that Instagram could have operated as a separate product team as successfully as it did because of the acquisition, or that it was likely to do so. *See* Meta SMF ¶¶ 723-747; Ex. 151 at 261:9-14 (Systrom Dep. Tr.) (testifying that by being part of Meta, Instagram "g[o]t to do the best of both worlds where we g[o]t to try to grow and, at the same time, advance[d] our development by potential years in some areas").

2590. Meta's subclaim 4(b) identifies an action that Instagram could have taken absent acquisition by Meta, as Instagram could have operated as a separate brand if Instagram had not been acquired by Meta. *See id*. at -021 (4(b) stating that "Meta operated Instagram as a separate brand").

Meta Response: Disputed in part. Undisputed that Instagram could have operated as a separate brand from Meta if Instagram had not been acquired by Meta. Disputed that this statement creates a genuine dispute of material fact. The statement does not establish that Instagram could have operated as a separate brand as or more successfully as it did because of the acquisition, or that it was likely to do so. *See* Meta SMF ¶¶ 723-747; Ex. 153 at 288:13-289:5, 289:25-290:4 (Krieger Dep. Tr.) (Mr. Krieger testifying that he

"firmly believe[s] that part of the Instagram brand . . . was being speedy and reliable," and that moving to Meta's infrastructure improved speed and reliability).

2591. Each resource or capability referred to in Meta's subclaim 4(c) is duplicative of or subsumed within one or more of Meta's other claims or subclaims, and also identifies only resources or capabilities that were independently available to either Meta or Instagram prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition:

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's subclaim 4(c) that "Meta gave Instagram flexibility whether and when to migrate to Meta's infrastructure, and which systems and resources to adopt and use" is duplicative of or subsumed within Meta's Computing & Programming Infrastructure claim and its subclaims. *Compare id.* at -021 (4(c)), *with id*. at -015-19 (1(a) through 1(u)).

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that this statement creates a genuine dispute of material fact. Meta's responses in 1(a) through 1(u) and 4(c) are ways in which Meta's infrastructure resulted in a more reliable and enjoyable experience for users, helped Instagram sustain its user growth, and helped fuel Instagram's growth as a strong, independent product and brand. *See* PX10092 at -015-019, -021, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos.

10 & 12 (May 31, 2023)); Meta SMF ¶¶ 724-725 (user growth), ¶¶ 755-761 (infrastructure). Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

b. Each resource or capability referred to in Meta's subclaim 4(c) either: (a) was available at the time of the Instagram acquisition to Meta's applications (including Facebook and Facebook Camera); or (b) was developed by Meta after the Instagram acquisition and was or could have been made equally available to applications Meta offered at the time of the Instagram acquisition (including Facebook and Facebook Camera); or (c) to the extent that Instagram's "flexibility . . . to migrate to Meta's infrastructure" allowed Instagram to take advantage of more efficient, less costly, or otherwise superior infrastructure solutions (including cloud hosting solutions) that Instagram employed prior to the acquisition, Meta's subclaim 4(c) identifies an action that Instagram could have taken absent acquisition by Meta, as Instagram could have continued to use (or improve) its pre-acquisition infrastructure solutions had it not been acquired by Meta.

Meta Response: Disputed in part. Undisputed that the procompetitive benefit Meta identified in 4(c) of Meta's Supplemental Response to the FTC's Interrogatory No. 10 – "flexibility" for Instagram "whether and when to migrate to Meta's infrastructure and which systems and resources to adopt and use" – was available to Meta at the time of the Instagram acquisition for Meta's applications, to the extent they were not on Meta's infrastructure already, and that Meta could have offered flexibility whether and when to migrate to Meta's infrastructure and

which systems and resources to adopt and use to other Meta applications not already on Meta's infrastructure after the acquisition. *See* PX10092 at -021, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. This subparagraph does not provide any evidence in support of that claim, as required by Federal Rule of Civil Procedure 56(c)(1) and Local Rule 7(h). Actual evidence shows the opposite. Ex. 153 at 100:2-24 (Krieger Dep. Tr.) (describing ways in which Meta customized its servers for Instagram's benefit); *see* Meta SMF ¶¶ 755-761 (describing performance benefits from moving to Meta's infrastructure).

2592. Each resource or capability referred to in Meta's subclaim 4(d) is duplicative of or subsumed within one or more of Meta's other claims or subclaims, and also identifies only resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition:

<u>Meta Response</u>: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's subclaim 4(d) that "Meta provided Instagram engineers and other employees to develop and improve its services, as described in 1-3 above" is duplicative of or subsumed within one or more of Meta's other claims or subclaims, as Meta expressly states that the "engineers and other employees" relevant to efforts to "develop and improve [Instagram's] services" are already

identified within Meta's Computing & Programming Infrastructure claim and its subclaims, Meta's Integrity Tools & Expertise claim and its subclaims, or Meta's Features & Growth Initiatives claim and its subclaims. *Compare id.* at -021 (4(d)), *with id*. at -015-21 (1(a) through 3(m)).

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that this statement creates a genuine dispute of material fact. Meta's responses in 1(a) through 3(m) and 4(d) are ways in which Meta's infrastructure resulted in a more reliable and enjoyable experience for users, helped Instagram sustain its user growth, and helped fuel Instagram's growth as a strong, independent product and brand. *See* PX10092 at -015-021, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)); Meta SMF ¶¶ 724-725 (user growth), ¶¶ 755-761 (infrastructure). Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

b. The "engineers and other employees" referred to in Meta's subclaim 4(d) either: (a) were available at the time of the Instagram acquisition to Meta's applications (including Facebook and Facebook Camera); or (b) were developed by Meta after the Instagram acquisition and were or could have been made equally available to applications Meta offered at the time of the Instagram acquisition (including Facebook and Facebook Camera).

Meta Response: Disputed in part. Undisputed that Meta had engineers and other employees available to it at the time of the acquisition and continued to hire and employ engineers and other employees after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's engineers and other employees helped Instagram improve its reliability and user experience. *See*, *e.g.*, Ex. 5 at ¶ 208 (Nieh Rep.) ("Meta's infrastructure, engineers, and technical resources helped Instagram reduce the costs associated with its early scaling, and have since provided Instagram greater efficiency and lower costs to operate than what it would cost to run Instagram on AWS.").

2593. Each resource or capability referred to in Meta's subclaim 4(e) ("Meta engaged in many growth initiatives to help Instagram, as described in 3 above") is duplicative of or subsumed within one or more of Meta's other claims or subclaims, as Meta's subclaim 4(e) expressly states that the relevant "growth initiatives" are already identified within Meta's Features & Growth Initiatives claim and its subclaims. *Compare id.* at -021 (4(e)). *with id*. at -019-21 (3(a) through 3(m)).

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that this statement creates a genuine dispute of material fact. Meta's responses in 3(a) through 3(m) and 4(e) are ways in which Meta helped fuel and sustain Instagram's user

growth by launching better features, and helped fuel Instagram's growth as a strong, independent product and brand. *See* PX10092 at -019-021, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)); Meta SMF ¶¶ 724-725. Further disputed that this statement is material to the resolution of either party's motion.

2594. Meta's subclaim 4(f) fails to identify any improvement to Instagram, or to any of Meta's other applications (including Facebook and Facebook Camera) that resulted from Meta's claim that "Meta has invested significant financial resources in Instagram," and/or is duplicative of or subsumed within one or more of Meta's other claims or subclaims. *See id.* at -021 (4(f)).

Meta Response: Disputed in part. Undisputed that the procompetitive benefit from the Instagram acquisition that Meta provided in 4(f) of its Supplemental Response to the FTC's Interrogatory No. 10 – "Meta has invested significant financial resources in Instagram" – does not identify the specific ways in which Meta's significant financial investment in Instagram improved Instagram. *See* PX10092 at -021, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact regarding Meta's improvements to Instagram. Extensive record evidence shows how Meta's investments in Instagram have benefited Instagram through new features, improved performance, and user growth. *See* Meta SMF ¶¶ 723-738 (growth), ¶¶ 739-747 (features), ¶¶ 756-761 (performance). Further disputed that this statement creates a genuine dispute of material fact regarding whether 4(f) is "duplicative of or subsumed within" the other benefits to Instagram that Meta listed in its supplemental response. The

FTC does not cite any evidence to support that statement or even identify the other benefits it claims that 4(f) is "duplicative of or subsumed within." Further disputed to the extent this paragraph implies that 4(f) of Meta's Supplemental Response to Interrogatory No. 10 contains all the information Meta provided in response to the FTC's interrogatories regarding benefits Meta provided to Instagram. *See* PX10092 at -026-050, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)).

5. Meta's Monetization Resources Claim.

2595. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies five categories relevant to Meta's Monetization Resources claim ("subclaims 5(a) through 5(e)"):

a. "Meta provided Instagram access to Meta's advertising platform that delivers more personalized, relevant ads";

b. "Meta provided Instagram access to Meta's advertising platform that had already attracted a large base of advertisers";

c. "Meta provided Instagram analytical tools to help optimize advertising on Instagram";

d. "Meta provided Instagram with information about matched Facebook users that enabled Instagram to provide personalized and relevant ads more quickly and efficiently";

e. "Meta provided a back-end advertising team that has helped Instagram monetize more quickly and efficiently."

PX10092 at -021-22 (5(a) through 5(e)), Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists ways in which Meta helped Instagram monetize successfully that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -021-022, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the Instagram transaction relating to monetization. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014.

2596. Meta's subclaims 5(a) and 5(b) are duplicative of or subsumed within Meta's subclaim 1(j), and also identify only resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition:

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's subclaims 5(a) and 5(b) both assert that "Meta provided Instagram access to Meta's advertising platform," which is identical to the claim Meta advances as subclaim 1(j) ("providing Instagram access to Meta's advertising platform"), and therefore duplicative of or subsumed within Meta's subclaim 1(j);

Meta Response: Disputed. Disputed that the statement in this subparagraph creates a genuine dispute of material fact. Meta's responses in 5(a) and 5(b) are ways that Meta's technology, expertise, and relationships have been critical to Instagram's successful monetization, and Meta's response in 1(j) describes how

migrating Instagram to Meta's advertising platform improved the user experience. Those are distinct benefits. *See* PX10092 at -016, -021, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Further disputed that this statement is material to the resolution of either party's motion.

b. Meta's subclaims 5(a) and 5(b) both identify solely resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition, as "Meta's advertising platform" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera).

Meta Response: Disputed in part. Undisputed that Meta's advertising platform was available to Meta at the time of the acquisition and that Meta continued to develop it after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its advertising system to help Instagram deliver more personalized and relevant ads and monetize more quickly, efficiently, and successfully. *See* Meta SMF ¶¶ 716-721 (describing Instagram's post-acquisition monetization); *see also supra* Meta Resp. to Counter SMF ¶ 2109.

2597. Meta's subclaims 5(c) and 5(d) identify only resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition:

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's subclaim 5(c) ("Meta provided Instagram analytical tools") identifies only "tools" available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera);

Meta Response: Disputed in part. Undisputed that Meta had analytical tools available to it at the time of the acquisition and continued to develop such tools after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its analytical tools to help Instagram deliver more personalized and relevant ads and monetize more quickly, efficiently, and successfully. *See* Ex. 4 at ¶ 93 (Tucker Rep.); Meta SMF ¶¶ 716-721 (describing Instagram's post-acquisition monetization).

b. Meta's subclaim 5(d) ("Meta provided Instagram with information about matched Facebook users") identifies only "information" available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or

developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera).

Meta Response: Disputed in part. Undisputed that Meta had information about matched Facebook users available at the time of the acquisition and continued to develop such information after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its information about matched Facebook users to help Instagram deliver more personalized and relevant ads and monetize more quickly, efficiently, and successfully. *See* Ex. 4 at ¶ 93 & n.188 (Tucker Rep.); Meta SMF ¶¶ 716-721 (describing Instagram's post-acquisition monetization).

2598. Meta's subclaim 5(e) ("Meta provided a back-end advertising team") is duplicative of or subsumed within Meta's subclaim 1(j) and also identifies only resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition:

Meta Response: Disputed in part. Undisputed that a back-end advertising team was available to Meta at the time of the acquisition and continued to be developed by Meta after the Instagram acquisition. Disputed that the benefit described in 5(e), providing Instagram with "a back-end advertising team," is duplicative or subsumed within 1(j), "providing Instagram access to Meta's advertising platform." Those are distinct benefits. *See* Ex. 4 at ¶ 89 (Tucker Rep.) (explaining that Meta's provision of an advertising team

to Instagram helped assure a high quality of ads on its platform), ¶ 93 (showing that Meta's adverting platform helped Instagram show more personalized and relevant ads to users). Further disputed that the statements in this paragraph and its subparagraphs are material to the resolution of either party's motion.

a. Meta's subclaim 5(e) is duplicative of or subsumed within Meta's subclaim 4(d), which asserts that "Meta provided Instagram engineers or other employees to develop and improve [Instagram's] services," and – just like subclaim 4(d) – is also duplicative of or subsumed within Meta's Computing & Programming Infrastructure claim and its subclaims, Meta's Integrity Tools & Expertise claim and its subclaims, or Meta's Features & Growth Initiatives claim and its subclaims. *Compare id.* at -021 (4(d)), *with id*. at -015-21 (1(a) through 3(m)).

Meta Response: Disputed. Disputed that the benefit described in 5(e), providing Instagram with "a back-end advertising team," is duplicative or subsumed within the benefit described in 4(d), providing Instagram with "engineers and other employees to develop and improve its services." Those are distinct benefits. *See* Ex. 4 at ¶ 89 (Tucker Rep.) (explaining that Meta's provision of an advertising team to Instagram helped assure high-quality ads on its platform); Meta SMF ¶¶ 739-747 (explaining that support from Meta's infrastructure department helped Meta launch new features, such as allowing users to create, post, and edit videos on Instagram, among other things). Disputed that the benefit described in 5(e) is duplicative or subsumed within the infrastructure benefits Meta listed in 1(a) through 3(m), which describe a variety of benefits (spanning over 5 pages), including a SEV culture described in 1(d), a

PhotoDNA system capable of reducing objectionable content described in 2(d), and a growth-related "Find you Friends" integration described in 3(e). PX10092 at -015-021, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

b. The "back-end advertising team" referred to in Meta's subclaim 5(e) was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Camera).

Meta Response: Disputed in part. Undisputed that a back-end advertising team was available to Meta at the time of the acquisition and continued to be developed by Meta after the Instagram acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta provided Instagram with its advertising team to help Instagram monetize. *See* Ex. 4 at ¶ 89 & nn.176-178 (Tucker Rep.) (describing how Meta's sales team, using its credibility and relationships with larger brands and their agencies, encouraged them to advertise on Instagram after the acquisition; gave its own marketing partners, including Kenshoo, Brand Networks, Salesforce Marketing Cloud, Unified, SocialCode, 4C, Nanigans, and

Ampush, which place ads on behalf of large, established brands and highlight the benefits of advertising on Instagram to their clients, first access to the Instagram ads API launched in 2015; and ensured that Instagram users' first experience with Instagram's advertising included larger brands that offered high-quality ads, which was important both to the user experience and to establishing Instagram as a sought-after ad-supported venue); *see also* Ex. 478 at -927 (FB_FTC_CID_06209927) (email from Kevin Systrom to Mark Zuckerberg noting that "[Instagram has] access to advertisers, a sales force, existing backends, etc – it's all pretty amazing. It's not a slam dunk, but [Instagram is] way ahead of where [it'd] be independently."); Ex. 191 at -550 (FB_FTC_CID_03360548) ("In 2016 Instagram looked to begin monetizing by building their own ads infra. However, progress was slow. Eventually, IG pivoted to utilizing Facebook's ads tech, and the team was able to rapidly scale."); Ex. 4 at p. 92, Ex. 5 (Tucker Rep.) (showing enormous growth in Instagram's revenue and impressions after the acquisition); *id.* at p. 94, Ex. 7 (showing Instagram's [redacted]).

6. Meta's Technical & Administrative Resources Claim.

2599. On May 31, 2023, in accordance with this Court's Order (ECF No. 280), Meta provided a Supplemental Response to the FTC's Interrogatory No. 10 identifying three categories relevant to Meta's Technical & Administrative Resources claim ("claims 6(a) through 6(c)"):

a. "Instagram runs on Meta's technical infrastructure, which has saved costs and enabled Instagram to better focus on its services rather than infrastructure issues";

b. "Instagram shares Meta's financial, legal, regulatory, and administrative infrastructure, which has saved costs and enabled Instagram to better focus on its services rather than financial, legal, regulatory, and administrative infrastructure issues";

c. "Meta has recruited and trained many employees that have worked for Instagram, including engineers who have come through Meta's Bootcamp program."

PX10092 at -022 (6(a) through 6(c)), Meta's Supp. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists technical, financial, legal, administrative (including human resource and recruiting), and regulatory infrastructure Meta provided to Instagram that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -022, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to the technical, legal, and other types of infrastructure. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the Instagram . . . transaction[ ]." *Id.* at -014.

2600. Meta's subclaims 6(a) and 6(b) are duplicative of or subsumed within Meta's other claims, and also identify only resources or capabilities that were available to Meta prior to the Instagram acquisition, or were developed by Meta after the Instagram acquisition:

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's subclaims 6(a) and 6(b) both assert a benefit (i.e., that Meta "enabled Instagram to better focus on its services") that is duplicative of or subsumed within the benefits identified in Meta's other claims and their subclaims, including subclaim 1(u) (("the user experience of Instagram has improved through the introduction of numerous new features and services, and improvements to features and services") and Meta's claim 3 that Meta assisted Instagram's growth "by launching better features." *Compare id.* at -021 (6(a), (b)), *with id*. at -017 (1(u)), *and id.* at -019.

Meta Response: Disputed. Disputed that the benefits described in 6(a) and 6(b), providing Instagram with "technical infrastructure" and "financial, legal, regulatory, and administrative infrastructure," respectively, are duplicative or subsumed within the benefits described in 1(u), "the introduction of numerous new features and services, and improvements to features and services," or the benefits identified in 3, "launching better features." Those are distinct benefits. *See*, *e.g.*, Meta SMF ¶¶ 739-747 (explaining the post-acquisition features Meta helped Instagram launch), ¶¶ 755-761 (explaining the infrastructure-related benefits Instagram received because of the acquisition). Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

b. Meta's subclaim 6(a) ("Instagram runs on Meta's technical infrastructure") is duplicative of Meta's other subclaims, including at least subclaims 1(a) through

1(t), 2(a), 2(c), 2(d), and 3(l) ("Meta provided the underlying infrastructure that supported all new Instagram features and functions after 2014, and some of the features added prior to that date in whole or in part").

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that the statement in this subparagraph creates a genuine dispute of material fact. Meta's responses in 6(a), 1(a) through 1(l), 2(a), 2(c), 2(d), and 3(l) all list ways that migrating Instagram to Meta's infrastructure resulted in a more reliable and enjoyable experience for users, helped Instagram sustain its user growth, helped Instagram attack its integrity problems at scale, and helped Instagram develop and launch new features and functionality. *See* PX10092 at -015-016, -019, -021-022, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). *See* Meta SMF ¶¶ 739-761. Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

c. Meta's subclaims 6(a) and 6(b) identify only resources ("technical infrastructure" and "financial, legal, regulatory, and administrative infrastructure") that were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Camera), or were developed following the acquisition that were or could have been made equally available to Meta's applications (including Facebook and Facebook Camera).

Meta Response: Disputed in part. Undisputed that Meta's technical, financial, legal, regulatory, and administrative infrastructure was available to Meta at the time of the acquisition and continued to be developed by Meta after the Instagram acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring Instagram. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its infrastructure to help Instagram scale and improve the quality and reliability of its service. *See* Meta SMF ¶¶ 739-747 (new or improved features), ¶¶ 748-754 (improved integrity), ¶¶ 755-761 (improved reliability and performance).

2601. Meta's subclaim 6(c) ("Meta has recruited and trained many employees that have worked for Instagram") is duplicative of or subsumed within Meta's other subclaims, including at least subclaims 1(r) ("Meta provided Instagram with engineers and other employees to help it improve the reliability and quality of its services"), 3(b) ("Meta provided Instagram with engineers and other employees that helped Instagram develop popular new features and functionality more quickly and efficiently"), and 4(d) ("Meta provided Instagram engineers and other employees to develop and improve its services, as described in 1-3 above").

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the Instagram acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that this statement creates a genuine dispute of material fact. Meta's responses in 6(c), 1(r),

3(b), and 4(d) are ways that migrating Instagram to Meta's infrastructure resulted in synergies and efficiencies that enabled Instagram to continue to focus on enhancing and developing its customers' experiences using its services; better features; Instagram's growth as a strong, independent product and brand; a more reliable and enjoyable experience for users; and Instagram's sustained user growth. *See* Meta SMF ¶ 724 (user growth), ¶¶ 739-747 (features), ¶¶ 756-761 (performance and infrastructure). Further disputed that the statement in this paragraph is material to the resolution of either party's motion.

7. Meta Has Not Claimed that the Acquisition of Instagram Improved any of Meta's Services Other than Instagram.

2602. The FTC's Fifth Interrogatory requested that Meta "Identify and describe each procompetitive justification that the Company contends supports its Fourth and Fifth Affirmative Defenses in Meta's Answer and Defenses to the FTC's Substitute First Amended Complaint." PX15545 at -008, Meta's Supp. Objs. & Resps. To FTC's Interrog. Nos. 4, 5, and 7 (Nov. 30, 2022).

Meta Response: Undisputed.

2603. In response to the FTC's Fifth Interrogatory, Meta claimed that "a complete list of such benefits is impossible to provide at this time," and provided high-level descriptions of improvements related to: (1) migrating Instagram onto Meta's infrastructure; (2) Instagram's integrity; (3) Instagram's user growth; and (4) Instagram's monetization. *Id.* at -008-10.

Meta Response: Disputed in part. Undisputed that the cited interrogatory response contains the quoted language. Disputed that this statement creates a genuine dispute of

material fact because "high-level" is vague and undefined; Meta's response to the FTC's Interrogatory No. 5 speaks for itself.

2604. On November 30, 2022, Meta provided a Supplemental Response to the FTC's Fifth Interrogatory, identifying all procompetitive justifications "*contemplated by Meta at the time of each acquisition*." *See id.* at -012-13.

Meta Response: Disputed in part. Undisputed that the cited interrogatory response contains the quoted language. Disputed that this statement creates a genuine dispute of material fact. Meta's Supplemental Response to the FTC's Interrogatory No. 5 expressly did not identify all procompetitive justifications contemplated by Meta at the time of each acquisition. It listed "example[s]" and incorporated its original response to the FTC's Interrogatory No. 5, in which Meta stated that "a complete list of such benefits is impossible to provide at this time." PX15545 at -009, Meta's Resp. to FTC's Interrog. No. 5 (Meta's Suppl. Objs. & Resps. To FTC's Interrog. Nos. 4, 5, & 7 (Nov. 30, 2022)).

2605. Meta's Supplemental Response to the FTC's Fifth Interrogatory identified as a procompetitive justification "contemplated by Meta at the time of" the Instagram acquisition: "Meta expected to benefit from Instagram's expertise to improve its own mobile and photo-sharing offerings for users . . . Unlike Meta, Instagram had been developed specifically to operate on mobile devices. Its small team had developed a mobile product that was simple, elegant, fast, and engaging. That team's demonstrated ability to execute in a disciplined fashion on a mobile vision was considered extremely valuable to Meta as it worked to optimize its existing services, and to create new ones, for the mobile environment." *Id.* at -012-14.

Meta Response: Undisputed.

2606. Meta did not assert, either in its original response to Interrogatory No. 5 or Interrogatory No. 10, that "Instagram's expertise" actually benefited any of Meta's "own mobile and photo-sharing offerings," or any of Meta's other "existing services . . . for the mobile environment" or assisted Meta to create new services for the mobile environment. *See id.* at -008-10; PX10092 at -015-22, Meta's Supp. Objs. & Resps. to FTC's Interrogs. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that Meta did not specifically assert in its original response to the FTC's Interrogatory No. 5 or Interrogatory No. 10 that "Instagram's expertise" benefited Facebook or Facebook Camera after the acquisition. Disputed that this statement creates a genuine dispute of material fact or is material to the resolution of the FTC's motion. Meta's Fourth Affirmative Defense is based on the growth and quality improvements that Meta achieved for Instagram that Instagram could not have achieved absent the acquisition, thereby benefiting competition and consumers. *See* Meta SMF ¶¶ 710-762. In addition, Interrogatory No. 5, as amended by the FTC, sought "the 'procompetitive justifications' for both the Instagram and WhatsApp acquisitions *as contemplated by Meta at the time of each acquisition.*" PX15545 at -012-013, Meta's Suppl. Resp. to FTC's Interrog. No. 5 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 4, 5, & 7 (Nov. 30, 2022)). The extent to which Instagram's expertise "actually benefit[t]ed" Meta's own apps and services or assisted Meta in creating new services is therefore not responsive to Interrogatory No. 5. Regardless, the evidence shows that Instagram did indeed benefit Meta's own pre-acquisition mobile and photo-sharing offerings. *See*, *e.g.*, Ex. 495 at -411-412 (FB_FTC_CID_06133410)

(discussing how Facebook can "re-use some of [I]nstagram's code" for Facebook's updated consumer video features).

B. Meta's WhatsApp Justifications.

2607. Meta's Response to the FTC's Interrogatory No. 10 advanced four categories of justifications for its acquisition of WhatsApp:

a. "Meta has helped make WhatsApp a more reliable and engaging service" (hereinafter, "Improved Reliability & Engagement claim");

b. "Meta directed and facilitated WhatsApp's incremental monetization strategy" (hereinafter, "Monetization Strategies claim");

c. "The sharing of Meta's technical, distribution, finance, legal, and administrative (including human resource and recruiting) infrastructure created synergies and efficiencies that enabled WhatsApp to continue to focus on enhancing and developing its customers' experiences using its services" (hereinafter, "Technical & Administrative Resources claim");

d. "WhatsApp improved Meta's strategic positioning against Apple and Google by strengthening Meta's offering of differentiated mobile apps" (hereinafter, "Strategic Positioning claim").

See PX10092 at -022-26, Meta's Supp. Objs. & Resps. to FTC's Interrogs. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists the four categories of benefits Meta provided to WhatsApp to make its service more reliable and engaging that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -022-026, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)).

Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to WhatsApp. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the . . . WhatsApp transaction[ ]." *Id.* at -014.

1. Meta's Improved Reliability & Engagement Claim.

2608. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies 15 categories of resources and capabilities relevant to Meta's Improved Reliability & Engagement claim ("subclaims 1(a) through 1(o)"):

a. Infrastructure "enabling [WhatsApp] to operate across multiple data centers in different geographic regions";

b. Infrastructure "enabling [WhatsApp] to operate in world-class data centers";

c. "direct access to specialized technical support and engineering resources";

d. "adopting a SEV culture that results in continuous reliability improvements";

e. Infrastructure "continually improving the underlying computing services, databases, and storage on which WhatsApp relies to operate";

f. Infrastructure "providing [WhatsApp] with capacity to sustain its growth and scale its services more quickly and efficiently";

g. "migrating WhatsApp to Meta's Content Delivery Network";

h. "connecting WhatsApp to various Meta services . . . (e.g., Everstore, Zippy DB, Sentry, ODS)";

i. "providing developer tools";

j. Infrastructure "supporting WhatsApp's voice and video calling services"

k. "access to Meta's data analytics and A/B testing resources";

l. "Meta's Continuous Deployment system, which has enabled WhatsApp to update its backend code more quickly and efficiently";

m. "engineers and other employees";

n. "a more cost-efficient solution than public cloud services";

o. "machine learning and artificial intelligence resources".

See PX10092 at -022-24 (1(a) through 1(o)), Meta's Supp. Objs. & Resps. to FTC's Interrogs. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists ways in which Meta helped WhatsApp make its service more reliable and engaging that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -022-024, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed as incomplete because the FTC omitted 1(p), which stated several specific improvements to features and services that improved the user experience. *Id.* at -024. Further disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to WhatsApp's improved reliability and engagement. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the . . . WhatsApp transaction[ ]." *Id.* at -014.

2609. Each of Meta's subclaims 1(a) through 1(o) identify solely resources or capabilities that were available to Meta prior to the WhatsApp acquisition, or were developed by Meta after the WhatsApp acquisition. *See id.* at -022-24 (1(a) through 1(o)).

Meta Response: Disputed in part. Undisputed that Meta identified resources and capabilities that were available to Meta prior to the WhatsApp acquisition or were developed by Meta after the WhatsApp acquisition. Disputed that this statement creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its resources and capabilities to improve WhatsApp's infrastructure, add new features and improve existing features, and improve integrity and privacy. *See* Meta SMF ¶¶ 839-850 (features), ¶¶ 851-854 (privacy), ¶¶ 855-865 (infrastructure), ¶¶ 866-869 (integrity).

2610. Because each of Meta's subclaims 1(a) through 1(o) identify solely resources or capabilities that were available to Meta prior to the WhatsApp acquisition, or were developed by Meta after the WhatsApp acquisition, each resource or capability either: (a) was available at the time of the WhatsApp acquisition to Meta's applications (including Facebook and Facebook Messenger); or (b) was developed by Meta after the WhatsApp acquisition and was or could have been made equally available to applications Meta offered at the time of the WhatsApp acquisition (including Facebook and Facebook Messenger):

Meta Response: Disputed in part for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's infrastructure "enabling [WhatsApp] to operate across multiple data centers in different geographic regions" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook

Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure that enabled WhatsApp to operate across multiple data centers in different geographic regions was available to Meta at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its data centers to enable WhatsApp to operate across multiple data centers in different geographic regions, which improved WhatsApp's performance, reliability, and ability to scale efficiently. *See* Meta SMF ¶¶ 859-860; Ex. 5 at ¶¶ 222, 242-244, 249-251 (Nieh Rep.).

b. Meta's infrastructure "enabling [WhatsApp] to operate in world-class data centers" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's world-class data centers were available to Meta at the time of the acquisition and that Meta continued to build out and improve its data centers after the acquisition. Disputed

that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its data centers to provide WhatsApp with a sophisticated, cost-efficient infrastructure solution, which also improved the latency, performance, and reliability of the WhatsApp service, thereby improving the user experience. *See* Meta SMF ¶¶ 855-865; Ex. 5 at ¶¶ 240-256 (Nieh Rep.).

c. Meta's "specialized technical support and engineering resources" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's specialized technical support and engineering resources were available to Meta at the time of the acquisition and that Meta continued to develop its specialized technical support and engineering resources following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its specialized technical support and engineering resources to improve WhatsApp's infrastructure, help it launch new features, and improve integrity and privacy. *See*

Meta SMF ¶¶ 839-850 (features), ¶¶ 851-854 (privacy), ¶¶ 855-865 (infrastructure), ¶¶ 866-869 (integrity).

d. Meta's "SEV culture that results in continuous reliability improvements" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's SEV culture that results in continuous reliability improvements was available to Meta at the time of the acquisition and that Meta continued to develop its SEV culture following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

e. Meta's infrastructure "improving the underlying computing services, databases, and storage on which WhatsApp relies to operate" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta has continued to improve the underlying computing services, databases, and storage on which WhatsApp relies to operate from the time of the acquisition and following the

acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its infrastructure to improve WhatsApp's computing services, databases, and storage to help WhatsApp increase performance and reliability and improve the user experience. *See* Meta SMF ¶¶ 855-865.

f. Meta's infrastructure "providing [WhatsApp] with capacity to sustain its growth and scale its services" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure that provided WhatsApp with capacity to sustain its growth and scale its services was available to Meta at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its infrastructure to help WhatsApp grow and scale more efficiently. *See* Meta SMF ¶¶ 855-865, ¶¶ 833-835.

g. "Meta's Content Delivery Network" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's Content Delivery Network was available to Meta at the time of the acquisition and that Meta continued to develop its Content Delivery Network following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its Content Delivery Network to help WhatsApp improve its performance and reliability. *See* Meta SMF ¶¶ 858, 860, 862, 865; Ex. 5 at ¶¶ 228-234 (Nieh Rep.).

h. "various Meta services . . . (e.g., Everstore, Zippy DB, Sentry, ODS)" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure services, including Everstore, ZippyDB, Sentry, and ODS, were available to Meta at the time of the acquisition or were developed after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact

to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows, for example, that Meta used Everstore to help WhatsApp improve its media delivery and outsource the operation of its media storage, and Meta used Sentry to help WhatsApp fight spam. *See* Meta SMF ¶¶ 863-864, 869; Ex. 5 at ¶¶ 235-239 (Nieh Rep.); *see also* Meta SMF ¶ 867 (quoting Ex. 314 at 236:7-20 (Acton IH Tr.) (Mr. Acton testifying that Meta's services improved the spam issue on WhatsApp)).

i. Meta's "developer tools" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta had developer tools available to it at the time of the acquisition and continued to develop those developer tools after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

j. Meta's "infrastructure" "supporting WhatsApp's voice and video calling services" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or were developed following the acquisition

and were or could have been could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure that supported WhatsApp's voice and video calling services was available to Meta at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows, for example, that Meta's infrastructure helped WhatsApp launch its voice and video calling services. *See* Meta SMF ¶¶ 843-846, 861-862, 864; Ex. 5 at ¶¶ 260-266 (Nieh Rep.).

k. "Meta's data analytics and A/B testing resources" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or were developed following the acquisition and were or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta had data analytics and A/B testing resources available to it at the time of the acquisition and continued to develop those analytics and resources after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring

WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

l. "Meta's Continuous Deployment system" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's Continuous Deployment system was available to Meta at the time of the acquisition and that Meta continued to develop its Continuous Deployment system following the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

m. Meta's "engineers and other employees" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or were or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta had engineers and other employees available to it at the time of the acquisition and continued to hire and employ engineers and other employees after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring

WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's engineers and other employees helped WhatsApp improve its reliability and performance. *See*, *e.g.*, Ex. 5 at ¶ 15 (Nieh Rep.) ("Meta's infrastructure and the engineers supporting it provided WhatsApp with numerous performance benefits compared to what it received from SoftLayer before the acquisition.").

n. Meta's "more cost-efficient solution than public cloud services" was available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or was developed following the acquisition and was or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger);

Meta Response: Disputed in part. Undisputed that Meta's infrastructure was more cost-efficient than public cloud services at the time of the acquisition and that Meta continued to build out and improve its infrastructure after the acquisition. Disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta's infrastructure provides WhatsApp superior cost performance compared to public cloud services. *See* Ex. 5 at ¶¶ 75-87 (Nieh Rep.).

o. Meta's "machine learning and artificial intelligence resources" were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger), or were developed following the acquisition and were or

could have been made equally available to Meta's applications (including Facebook and Facebook Messenger).

See id. at -022-24 (1(a) through 1(o)).

Meta Response: Disputed in part. Undisputed that Meta developed machine learning and artificial intelligence resources after the WhatsApp acquisition. Disputed that all of Meta's machine learning and artificial intelligence resources were available to Meta at the time of the WhatsApp acquisition. Further disputed that the statement in this subparagraph creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so.

2611. At least two of Meta's subclaims 1(a) through 1(o) are duplicative of or subsumed within one or more of Meta's other subclaims:

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the WhatsApp acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that the statements in this paragraph and its subparagraphs create a genuine dispute of material fact. Meta's responses in 1(a) through 1(o) are ways that Meta has helped make WhatsApp a more reliable and engaging service. *See* Meta SMF ¶¶ 855-865. Further disputed that the statements in this paragraph and its subparagraphs are material to the resolution of either party's motion.

a. Meta's subclaim 1(a) ("enabling [WhatsApp] to operate across multiple data centers in different geographic regions") is duplicative of or subsumed within

Meta's subclaim 1(b) ("enabling [WhatsApp] to operate in world-class data centers");

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 2611.

b. Meta's subclaim 1(h) ("various Meta services . . . (e.g., Everstore, Zippy DB, Sentry, ODS)" is duplicative of or subsumed within Meta's subclaim 1(e) ("improving the underlying computing services, databases, and storage on which WhatsApp relies to operate").

Meta Response: Disputed in part for the reasons stated above in Meta's response to paragraph 2611.

2612. In addition to Meta's subclaims 1(a) through 1(o), Meta has identified "new features and services," or "improvements to features and services" introduced on the WhatsApp application since it became part of Meta that Meta asserts are relevant to Meta's Improved Reliability & Engagement claim. *See id.* at -024-25 (1(p)(i) through 1(p)(xvi)) ("subclaim 1(p)").

Meta Response: Disputed in part. Undisputed that Meta identified in its Supplemental Response to the FTC's Interrogatory No. 10 new or improved features and services that it introduced on WhatsApp. *See* PX10092 at -024-025, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the WhatsApp transaction relating to new or improved features and services. Meta's supplemental response states that "it is impossible to provide a complete list of

each procompetitive benefit that has resulted from the . . . WhatsApp transaction[ ]." *Id.* at -014.

2613. Each of the "new features and services," or "improvements to features and services" identified in subclaim 1(p) is subsumed within or duplicative of Meta's subclaims 1(a) through 1(o), as each represents a specific example of a benefit that Meta asserts was provided by resources and capabilities identified in claims 1(a) through 1(o). *Compare id.* at -022-24 (1(a) through 1(o)), *with id.* at -024-25 (1(p)(i) through 1(p)(xvi))).

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the WhatsApp acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that this statement creates a genuine dispute of material fact. Meta's responses in 1(a) through 1(p) are ways in which Meta has helped make WhatsApp a more reliable and engaging service. *See* PX10092 at -022-025, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)); Meta SMF ¶¶ 855-865. Further disputed that this statement is material to the resolution of either party's motion.

2614. Each of the "new features and services," or "improvements to features and services" identified in subclaim 1(p) either were or could have been introduced on applications Meta offered at the time of the WhatsApp acquisition (including Facebook and Facebook Messenger). *See id. at* -024-25 (1(p)(i) through 1(p)(xvi)).

Meta Response: Disputed. Disputed that this statement creates a genuine dispute of material fact regarding whether Meta's introduction of new features and services and improvements to features and services on WhatsApp, including those listed in 1(p)(i)

through 1(p)(xvi) of Meta's Supplemental Response to the FTC's Interrogatory No. 10 (at -024-025), could have been introduced on Meta's other applications. That statement is vague, speculative, and nonsensical. WhatsApp is a unique and distinct app, as are Meta's other apps such as Facebook. The statement fails to describe which specific features and services, or improvement to features and services, that Meta provided to WhatsApp could have been provided to Meta's other apps, nor makes clear what that even means. Even if Meta could have introduced certain similar features and services, or improvements to features and services, to its own applications (including Facebook and Facebook Camera) as those it introduced on WhatsApp, it is purely speculative Meta could have achieved the same benefits without acquiring WhatsApp that WhatsApp has in fact achieved since the acquisition. *See* Meta SMF ¶¶ 839-854; Ex. 5 at ¶ 257 (Nieh Rep.) ("Meta's infrastructure enabled WhatsApp to launch . . . new features and functionality more quickly, reliably, and efficiently at massive scale."), ¶¶ 258-267 (setting forth those benefits); Meta Resp. to Counter SMF ¶ 2400.

2. Meta's Monetization Strategies Claim.

2615. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies two categories of resources and capabilities relevant to Meta's WhatsApp Monetization Strategies Claim ("subclaims 2(a) and 2(b)"):

a. "Meta executives decided to eliminate WhatsApp's subscription fee."

b. "Business API and Click-To-WhatsApp advertisements."

See PX10092 at -026 (2(a) through 2(b)), Meta's Supp. Objs. & Resps. to FTC's Interrogs. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists ways in which Meta directed and facilitated WhatsApp's incremental monetization strategy

that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -026, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to WhatsApp's monetization. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the . . . WhatsApp transaction[ ]." *Id.* at -014.

3. Meta's Technical & Administrative Resources Claim.

2616. Meta's Supplemental Response to the FTC's Interrogatory No. 10 identifies three categories relevant to Meta's Technical & Administrative Resources claim ("subclaims 3(a) through 3(c)"):

a. "WhatsApp runs on Meta's technical infrastructure, which has saved costs and enabled WhatsApp to better focus on its services rather than infrastructure issues";

b. "WhatsApp shares Meta's financial, legal, regulatory, and administrative infrastructure, which has saved costs and enabled WhatsApp to better focus on its services rather than financial, legal, regulatory, and administrative infrastructure issues";

c. "Meta has recruited and trained many employees that have worked for WhatsApp, including engineers who have come through Meta's Bootcamp program."

See PX10092 at -026 (3(a) through 3(c)), Meta's Supp. Objs. & Resps. to FTC's Interrogs. Nos. 10 and 12 (May 31, 2023).

Meta Response: Disputed in part. Undisputed that this statement accurately lists technical, financial, legal, administrative (including human resource and recruiting), and regulatory infrastructure Meta provided to WhatsApp that Meta listed in its Supplemental Response to the FTC's Interrogatory No. 10. *See* PX10092 at -026, Meta's Suppl. Resp. to Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023)). Disputed that this statement creates a genuine dispute of material fact to the extent it suggests that Meta's supplemental response includes all procompetitive benefits from the transaction relating to such efficiencies. Meta's supplemental response states that "it is impossible to provide a complete list of each procompetitive benefit that has resulted from the . . . WhatsApp transaction[ ]." *Id.* at -014.

2617. Meta's subclaims 3(a) and 3(b) are duplicative of or subsumed within Meta's other claims, and also identify only resources or capabilities that were available to Meta prior to the WhatsApp acquisition, or were developed by Meta after the WhatsApp acquisition:

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the WhatsApp acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Further undisputed that 3(a) and 3(b) identify resources and capabilities that were available to Meta prior to the WhatsApp acquisition or were developed by Meta after the WhatsApp acquisition. PX10092 at -026, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 & 12 (May 31, 2023)). Disputed for the reasons stated in Meta's responses to the subparagraphs below.

a. Meta's subclaim 3(a) ("WhatsApp runs on Meta's technical infrastructure") is duplicative of or subsumed within Meta's other subclaims relating to technical

infrastructure, including at least claims 1(a) through 1(l), 1(n), and 1(o), all of which claim benefits (including cost reductions) related to Meta's technical infrastructure.

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the WhatsApp acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that the statement in this subparagraph creates a genuine dispute of material fact. Meta's responses in 3(a), 1(a) through 1(l), 1(n), and 1(o), are ways that migrating WhatsApp to Meta's infrastructure resulted in a more reliable and enjoyable experience for users and helped WhatsApp sustain its user growth. *See* Meta SMF ¶¶ 855-865. Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

b. Meta's subclaims 3(a) and 3(b) both assert a benefit (i.e., that Meta "enabled WhatsApp to better focus on its services") that is duplicative of or subsumed within the benefits identified in Meta's other claims, including subclaim 1(p) ((("the user experience of WhatsApp has improved through the introduction of numerous new features and services, and improvements to features and services"). *Compare id.* at -026, *with id.* at -022.

Meta Response: Disputed. Disputed that 3(a), providing WhatsApp with "Meta's technical infrastructure," and 3(b), providing WhatsApp with "Meta's financial, legal, regulatory, and administrative infrastructure," with each "enabl[ing] WhatsApp to better focus on its services," are duplicative or subsumed within 1(p), "the introduction of numerous new features and services,

and improvements of features and services." PX10092 at -024-026, Meta's Suppl. Resp. to FTC's Interrog. No. 10 (Meta's Suppl. Objs. & Resps. to FTC's Interrog. Nos. 10 and 12 (May 31, 2023)). Those are distinct benefits. *See* Meta SMF ¶¶ 839-854 (explaining new or improved features Meta helped WhatsApp launch), ¶¶ 855-865 (explaining post-acquisition improvements to WhatsApp's infrastructure, which improved reliability and performance of the service, among other things). Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

c. Meta's subclaim 3(c) ("Meta has recruited and trained many employees that have worked for WhatsApp") is duplicative of or subsumed within Meta's other claims, including at least subclaim 1(m) ("Meta provided WhatsApp with engineers and other employees to help it improve the reliability and quality of its services").

Meta Response: Disputed in part. Undisputed that some of the procompetitive benefits from the WhatsApp acquisition that Meta provided in its Supplemental Response to the FTC's Interrogatory No. 10 refer to the same or similar activities. Disputed that the statement in this subparagraph creates a genuine dispute of material fact. Meta's responses in 3(c) and 1(m) are ways that migrating WhatsApp to Meta's infrastructure resulted in a more reliable and enjoyable experience for users and helped WhatsApp sustain its user growth. *See* Meta SMF ¶¶ 855-865. Further disputed that the statement in this subparagraph is material to the resolution of either party's motion.

2618. Meta's subclaims 3(a) and 3(b) identify only resources or capabilities ("technical infrastructure' and "financial, legal, regulatory, and administrative infrastructure") that

were available at the time of the acquisition to Meta's applications (including Facebook and Facebook Messenger) or were developed following the acquisition that were or could have been made equally available to Meta's applications (including Facebook and Facebook Messenger).

Meta Response: Disputed in part. Undisputed that Meta had technical, financial, legal, regulatory, and administrative infrastructure available to it at the time of the acquisition and continued to develop such infrastructure after the acquisition. Disputed that this statement creates a genuine dispute of material fact to the extent it suggests Meta could have achieved the same benefits without acquiring WhatsApp. It is purely speculative – and the FTC has cited no evidence to show – that Meta could have done so. Evidence shows that Meta used its infrastructure to help WhatsApp improve the quality and reliability of its service. *See* Meta SMF ¶¶ 839-850 (new or improved features), ¶¶ 851-854 (new privacy features), ¶¶ 855-865 (improved reliability and performance), ¶¶ 866-869 (better integrity).

4. Meta's Strategic Positioning Claim.

2619. Fourth, Meta claims that "WhatsApp improved Meta's strategic positioning against Apple and Google by strengthening Meta's offering of differentiated mobile apps." PX10092 at -026, Meta's Supp. Objs. & Resps. to FTC's Interrogs. Nos. 10 and 12 (May 31, 2023).

Meta Response: Undisputed.

2620. Meta has not claimed that Messenger could not have or has not also improved Meta's strategic positioning against Apple and Google.

Meta Response: Disputed in part. Undisputed that Messenger could have or has also improved Meta's strategic positioning against Apple and Google. Disputed that this

statement creates a genuine dispute of material fact to the extent it suggests that Messenger could have or has also improved Meta's strategic positioning against Apple and Google to the same extent WhatsApp has improved Meta's strategic positioning against Apple and Google. It is purely speculative – and the FTC has cited no evidence to show – that Messenger could have or has done so.

Dated: August 9, 2024

Respectfully submitted,

/s/ Daniel Matheson

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