



Federal Trade Commission Hearings on Competition and Consumer Protection in the 21st Century Project Number P181201

Initial General Comments by Twilio

Introduction of Twilio's Comments

Twilio welcomes the opportunity to respond to the Federal Trade Commission's (FTC) request for comments in advance of the Competition and Consumer Protection in the 21st Century Hearings. A generation ago, former FTC Chairman Robert Pitofsky was prescient in convening hearings on innovation and the future of competition. The technology may have changed but many of the themes raised in the Pitofsky hearings persist, and Twilio commends the Commission for convening another conversation on the verge of another generational shift in the digital economy.

Twilio is a globally available cloud communications platform whose web service application programming interfaces (APIs) provide software developers with the building blocks to embed communications like voice, video, text messaging, chat, fax and authentication into their web and mobile applications. Indeed, the very existence of companies like Twilio speaks to the rapid iteration of innovative technologies that promote competition within traditional industries and the positive impact such innovation has for consumers. Founded in 2008, Twilio enables innovators to reinvent how their companies and organizations communicate and engage with their users. In a testament to the rapid pace with which modern communications technology is developing, it is worth noting that at the time of the Pitofsky hearings and subsequent 1996 report on *Competition Policy in the New High-Tech Global Marketplace*, only voice was in wide use, and online engagement was a nascent trend. This serves in distinct contrast to the many communications channels that Twilio offers today.

Twilio is a leading Communications Provider as a Service (CPaaS), allowing companies and organizations to reach their users across multiple channels, enabling communication through voice, video, text messaging, chat or fax. A recent Gartner Markets Trend Report estimates that by 2020, 30% of enterprises will embed communications into digital processes using CPaaS APIs, up from just 5% in 2017.¹ In this emerging competitive environment, rife with “broad-based changes in the economy, evolving business practices, new technologies, [and] international developments”, the Commission's call for public input and engagement is timely.² In that spirit, Twilio appreciates the opportunity to provide initial input on two of the topics (**Topics 2 and 4**) identified in the hearings announcement.

¹ Gartner SWOT: Twilio, Worldwide, Gyane Dewnarain, Daniel O'Connell, 13 April 2017 accessed via Twilio website: <https://www.twilio.com/learn/contact-center/gartner-report-twilio>

² FTC Hearing Announcement: <https://www.ftc.gov/policy/hearings-competition-consumer-protection>



Topic 2: Competition and consumer protection issues in communication, information and media technology networks

The 1995 Pitofsky hearings and the 2007 policy workshops and subsequent *Broadband Connectivity Competition Policy Staff Report* are both promising precedents for the Commission's ability to convene stakeholders across industry roles to better understand and disseminate information regarding innovation trends and their impact to competition and consumers. Both efforts also demonstrate the role the Commission can play in educating stakeholders and influencing policy in the rapidly evolving communications landscape.³

In the spirit of the Commission's historical efforts to study network effects of competition, Twilio urges the Commission to take a fresh look at the the emerging ways consumers access communications, information and media technology.⁴ Today, that engagement increasingly takes place through mobile devices. According to the December 2017 Center for Disease Control's National Health Interview Survey, 53% of Americans no longer have landlines and live in wireless-only households.⁵ Pew Research Center reports finding that in 2018, 20% of U.S. adults do not use broadband at home, but instead rely on smartphones, up from only 8% of U.S. adults in 2013.⁶

In the face of this widespread adoption of mobile communications by Americans, text messaging has become an essential, trusted, and strongly preferred form of communication among consumers and businesses alike. Indeed, 71% of American consumers send or receive an SMS message at least once a day.⁷

³ The FTC Broadband Connectivity Competition Policy Staff Report, June 2007 specifically sought to “understand and anticipate how “the Internet has profoundly impacted numerous aspects of daily life for many people in the United States and is increasingly vital to the American economy.” <https://www.ftc.gov/sites/default/files/documents/reports/broadband-connectivity-competition-policy/v070000report.pdf>.

⁴ As a disruptive, new entrant to the communications space, Twilio's perspective as a CPaaS provider may be of particular interest to the FTC, as Twilio can help the FTC think through issues of protecting innovation that are core to the FTC's mission. See, e.g., D. Bruce Hoffman, Acting Director, Bureau of Competition, FTC, Competition Policy and the Tech Industry – What's at stake? (Apr. 12, 2018), available at https://www.ftc.gov/system/files/documents/public_statements/1375444/ccia_speech_final_april30.pdf (“Don't let incumbent industry participants ... block innovation and deter the advancement of new technology”); Stephen Weissman, Deputy Director, Bureau of Competition, FTC, Pardon the Interruption: Competition and Disruptive Business Models (Nov. 4, 2015), available at https://www.ftc.gov/system/files/documents/public_statements/863443/151105disruptivebusinessspeech.pdf (“We are especially attentive to collective actions by incumbents aimed at excluding new competitors ... or raising their costs of entry.”).

⁵ <https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201806.pdf>

⁶ <http://www.pewinternet.org/fact-sheet/internet-broadband/>

⁷ <https://api.ctia.org/docs/default-source/default-document-library/ctia-wireless-snapshot.pdf>



Twilio's customers use Twilio's platform to send and receive text messages that are critical to their users. For example, Zillow lets real estate agents know when a home buyer has a question. Millions of parents, teachers and students communicate about homework and school scheduling using Remind. CareMessage provides health care reminders to low-income patients who may not have smartphone access.⁸ NexGen Global Technologies provides public safety updates to campuses.

In each of these examples, the recipient has opted in and expects to receive important communications using text messages. Yet, wireless carriers have blocked millions of text messages from these companies without permission, without notification to their wireless subscribers, and despite the fact that these messages are compliant with the Telephone Consumer Protection Act (TCPA). Twilio reports that carriers blocked 75 million wanted, lawful, TCPA-compliant text messages in 2017 alone. In the wake of the December 2017 FCC Restoring Internet Freedom order, blocking and filtering of wanted communication by wireless carriers is increasing. Twilio estimates that wireless carriers will block more than 175 million text messages in 2018.

Wireless carriers can block or throttle the senders of text messages with impunity because of the characteristics of the communications marketplace. Critically, the competitive feedback loop between subscriber and carrier is broken because subscribers generally do not know that their wireless carrier blocks text messages that they expect to receive. Instead, the wireless carrier blocks without transparency, and does not seek permission from or even notify the subscriber, meaning the subscriber has no reason to switch carriers to avoid the blocking behavior.⁹ Further, the blocking practice is arguably in conflict with so-called "unlimited text" plans offered by wireless carriers insofar as the subscriber does not receive all text communications they expect to receive, and further, this limiting of delivery is done without the subscriber's notification or consent.

Taking advantage of the broken competitive feedback loop, wireless carriers use blocking and throttling to force organizations and companies whose text messages they are blocking to move their traffic to inflexible, less innovative, and costlier channels; and those costlier channels yield higher revenue for the

⁸ Text message blocking further heightens the digital divide, posing a particularly isolating impact to the 20% of U.S. adults who do not have access to smartphones. CTIA Wireless Snapshot, 2017 would further indicate that 36% people making less than less than \$30,000 a year do not own smartphones.

<https://api.ctia.org/docs/default-source/default-document-library/ctia-wireless-snapshot.pdf>

⁹ The FCC has recognized the unique market power that wireless carriers enjoy over their subscribers in the context of calls: "The Commission has previously noted the unique difficulties presented by the case of terminating access, where the called party is the one that chooses the access provider, but it neither pays for terminating access service, nor does it pay for, or choose to place, the call. ... In these circumstances, providers of terminating access may be particularly insulated from the effects of competition in the market for access services." Access Charge Reform, *Seventh Report and Order and Further Notice of Proposed Rulemaking*, 16 FCC Rcd 9923, 9935-6 (2001), para 28.



wireless carriers. For example, short codes, which are administered through the CTIA - Wireless Association, cost hundreds of times more than a standard ten-digit phone number to lease, and include significant additional per message fees to carriers.¹⁰ In addition to their significant cost, short codes are not voice-enabled, are less recognized by consumers and some wireless subscriber plans do not support them. While blocking the traffic of non-traditional communications platforms like Twilio, wireless carriers offer their own competing enterprise messaging services that use standard ten-digit phone numbers.¹¹

American consumers need a “cop on the beat” to ensure that conduct by wireless carriers, or any other industry player, does not block innovation, deter the advancement of new technology, deceive consumers, or otherwise harm competition. This is just as true for text messaging applications that leverage broadband as broadband services themselves.

To that end, Twilio urges the FTC to ensure the policing of competition and consumer protection issues in text messaging does not fall through the cracks between FCC and FTC, and encourages the inclusion of text message blocking in the hearings related to Topic 2, “Competition and consumer protection issues in communication, information, and media technology networks.”

¹⁰ For short code pricing see: <https://usshortcodes.com/pricing>

¹¹ Examples of enterprise messaging services include: <http://www.verizonenterprise.com/products/mobility/workforce-productivity/business-messaging/>, <https://www.business.att.com/solutions/Service/mobility-services/mobile-messaging/global-smart-messaging-suite/>, <https://business.sprint.com/solutions/enterprise-messaging-gateway/>



Topic 4: The intersection between privacy, big data, and competition

Twilio recognizes the Commission's emphasis on exploring not just where and by whom data is managed, but on the intersectionality issues of data protection. While the complexity of data and where it's located, how it's processed, and by whom, is increasingly expansive and nuanced, the underlying need to ensure that consumers are protected through privacy and security principles will persist. As a cloud communications provider, Twilio routinely grapples with the interplay between rapidly innovating, new technologies and global efforts at regulations aimed at data protection.

Twilio CEO Jeff Lawson often notes that "Trust is the #1 thing in the cloud." Building and maintaining that trust demands that a cloud-based company act responsibly with regard to personal information entrusted to it, which includes respecting principles of data protection in the handling of that personal information. The promise of the cloud is that the cloud provider can be trusted to fulfill a particular function for its customers better than a customer could do by building it individually because the cloud provider specializes in performing that function and therefore will invest in performing that function well. It follows, therefore, that cloud providers that process personal information as part of their service offerings are expected to perform the function of data protection well, particularly as awareness of privacy concerns grow. In this way, data protection is a competitive advantage. For example, Twilio is ISO 27001 and EU - U.S. Privacy Shield compliant, invested heavily in the European Union's General Data Protection Regulation (GDPR) preparedness and had Binding Corporate Rules approved in May 2018.¹²

Although Twilio's preparations for GDPR were resource-intensive and marked by some uncertainty in terms of how requirements applied to Twilio's unique business model, the process benefited Twilio and its customers by accelerating the maturation of Twilio's privacy program and adoption of "data protection by design" principles across Twilio's service and product offerings. As Twilio's Associate General Counsel Sheila Jambekar CIPP/US, CIPP/E notes: "GDPR is an opportunity to build a stronger data protection foundation which will benefit all."¹³

¹² See Twilio's security best practices, including a White Paper: <https://www.twilio.com/security>. In addition to ISO-27001 compliance, Twilio's multi-factor authentication service offering, Authy, is certified SOC2 compliant.

¹³ See Twilio's GDPR preparedness, including a White Paper, Data Processing Addendum and information on Binding Corporate Rules: <https://www.twilio.com/gdpr> and Twilio's White Paper: "Be Prepared for the GDPR: Data protection and privacy", 2018. Twilio's White Paper concludes with the observation: "GDPR represents a significant update to the provisions of the Data Protection Directive in an effort to provide appropriate protections for data subjects with respect to how organizations process, transfer, store, and protect the enormous amount of personal data being processed in this new digital world." https://s3.amazonaws.com/ahoy-assets.twilio.com/Whitepapers/Twilio_Whitepaper_GDPR.pdf



In that spirit, the Commission’s hearings could explore a number of worthy GDPR provisions and evaluate applicability in current and future U.S. rulemaking. In particular, Twilio notes that the GDPR takes a holistic versus sectoral approach, recognizes that different kinds of data require different levels of protection, and distinguishes different roles in how companies act as “Controllers” and “Processors” of data, and how such responsibilities carry different obligations, a concept similar to the HIPAA “covered entity” and “business associate roles”.

For the purposes of the Commission’s upcoming hearings and in consideration of the Commission’s role in enforcing a potential future national regulatory framework, Twilio encourages the Commission to use Topic 4 to examine the costs and benefits of compliance efforts, and with regard to competition, the unique challenges of adhering to multiple legal privacy frameworks for small to medium-sized enterprises.

As companies invest in data protection, uncertainty in existing and future regulation, and the potential for conflicts between different regulatory frameworks domestically and globally introduce operational complexity and inefficiency. For example, Twilio observes lingering uncertainty on implementation and enforcement of GDPR, and potentially conflicting new initiatives such as eEvidence and ePrivacy regulations in the EU, the California Consumer Privacy Act, and the Brazil General Data Protection Law. These operational complexities are often resource-intensive to navigate and may require such things as building parallel infrastructure to handle data sets originating from different jurisdictions. As new technology and services are increasingly adopted by users across the country or globally, and not in a single jurisdiction, Twilio urges the Commission to explore how the intersection of multiple regulatory frameworks affects competition.

Offering products or services nationally and globally is no longer just the province of large resource-rich companies. Even small or medium-sized entities can offer products or services to not just a local or national market, but to a global market in today’s digital economy. As a result, these operational complexities of handling personal information from various jurisdictions threaten to stymie the global growth of smaller emerging companies and advantage larger organizations that already have sufficient resources to navigate these complexities. In turn, because resource-rich companies can then develop additional products and services based on data sets they have collected, particularly in the machine learning and artificial intelligence (AI) space, only larger companies will have access to the large global data sets needed to build these products for the future.

At the same time, the perception internationally, particularly, in the EU, that the U.S. has lax privacy standards also threatens the competitiveness of U.S.-based companies. In general, Twilio has experienced hesitancy, reluctance, or refusal by European or multinational customers to use its services because they



are U.S.-based, despite EU-U.S. Privacy Shield Certification.¹⁴ This perception poses a greater threat to smaller or medium-sized cloud-based companies because the only sure solution, today, is to invest in localization of data, which is a significant and resource-intensive undertaking. Accordingly, Twilio proposes that the hearings could further explore how to align any potential future federal U.S. privacy legislation or rulemaking with international frameworks in ways that engender greater confidence in the U.S. data ecosystem and an adequacy determination, without introducing operational complexity.

¹⁴ Twilio has certified with the EU-U.S. Privacy Shield Framework and the Swiss – U.S. Privacy Shield Framework as set forth by the U.S. Department of Commerce regarding the collection, use, and retention of “personal data” (as defined under the Privacy Shield principles) transferred from the European Union and Switzerland to the United States, respectively. <https://www.twilio.com/legal/privacy/shield>



Conclusion

Twilio applauds the Commission’s interest in convening hearings to explore emerging issues in competition and consumer protection, and welcomes the opportunity to participate in the conversations. In particular:

- Twilio urges the FTC to address its role in policing competition and consumer protection issues as it relates to wireless carriers blocking millions of the text messages that consumers have opted in to receive in the hearings related to Topic 2, “Competition and consumer protection issues in communication, information, and media technology networks.”
- Twilio urges the FTC to address unique competitive challenges experienced by small and medium enterprises in adopting privacy regulations in the interest of protecting consumers at the hearings related to Topic 4, “The intersection between privacy, big data, and competition.”