

**INTELLECTUAL PROPERTY, COMPETITION, AND INNOVATION: U.S. DEVELOPMENTS**  
**What is Next in Innovation, Intellectual Property and Standard Essential Patents?**  
**MLex Market Insight Seminar**  
**Brussels, Belgium**  
**December 6, 2016**  
**Remarks of Commissioner Terrell McSweeney<sup>1</sup>**

Good afternoon. Thank you, Robert, for the introduction, and thank you to MLex for inviting me to participate in this panel. It is a pleasure to be with you today.

We live in an age of innovation. Technology is producing changes in our lives and changes in the economy at a rate not seen since the Industrial Revolution. I feel fortunate to be at the Federal Trade Commission during this era of rapid change.

Today I will talk about some of the initiatives the FTC has been involved with related to innovation and intellectual property. I will also share my perspective on SEPs and their role in innovation.

**IP Licensing Guidelines**

I'll begin by mentioning the proposed update to the joint FTC/DOJ IP Licensing Guidelines, which the agencies released for comment this past August.<sup>2</sup> As I'm sure everyone in this room knows, the European Commission adopted new rules for assessing licensing arrangements under European antitrust rules in 2014.<sup>3</sup> By contrast, our IP Licensing Guidelines have not been updated since 1995.

A fair amount has happened over the last twenty years as you can imagine. U.S. intellectual property laws have changed. And a number of important cases over the past two decades have clarified the application of antitrust laws to IP licensing. We thought it was important to modernize the IP Guidelines to reflect these developments.

With that said, the proposed changes are fairly modest. I think that is a reflection of the fact that the principles underlying the 1995 Guidelines are largely unchanged. We continue to recognize that intellectual property licensing is generally procompetitive and can encourage

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<sup>1</sup> The views expressed in this speech are my own and do not necessarily reflect those of the Commission or any other Commissioner.

<sup>2</sup> See FTC Press Release, *FTC and DOJ Seek Views on Proposed Update of the Antitrust Guidelines for Licensing of Intellectual Property*, Aug. 12, 2016, <https://www.ftc.gov/news-events/press-releases/2016/08/ftc-doj-seek-views-proposed-update-antitrust-guidelines-licensing>.

<sup>3</sup> See EC Press Release, *Antitrust: Commission Adopts Revised Competition Regime for Technology Transfer Agreements*, Mar. 21, 2014, [http://europa.eu/rapid/press-release\\_IP-14-299\\_en.htm](http://europa.eu/rapid/press-release_IP-14-299_en.htm).

innovation, but that there are situations in which IP licenses may harm competition. The proposed revisions do not signify a meaningful change in our enforcement approach to intellectual property licensing.

There is much that the proposed IP Guidelines do not address specifically. For example, there is no mention of standard-setting organizations, FRAND obligations, or conduct by patent assertion entities in the proposed update to the IP Guidelines.

Of course these issues are important. The profusion of connected devices means that, more and more, technology standards are a part of the products and services we use every day. And patent assertion entities (PAEs) have become an increasingly-important topic for courts and policymakers. The FTC has been actively engaged with these issues, and I will now turn to some of the significant developments in these areas.

### **Patent Assertion Entities**

This fall, the FTC released a report on PAEs, which are businesses that acquire patents from third parties and then assert those patents against alleged infringers. PAEs do not practice their patents and they do not produce, manufacture, or sell goods. The report was unanimous and bipartisan. It arose from a three-year study of PAE conduct conducted by FTC staff. I would like to commend Suzanne Munck and FTC staff for all their hard work.

We analyzed 22 PAEs, more than three hundred affiliates, and thousands of related entities. Together, these entities covered approximately 75% of PAE patents held during the six year period that we studied (January 2009 – September 2014).<sup>4</sup>

While we did not collect data from every single PAE in the United States – in fact I'm not sure where one would know where to start if that were your goal – we did report on a significant amount of economically important information that shines light on PAE behavior. In particular, we were able to report on data that no one else could collect in the same manner.

The report is timely for our discussion today because our goal was to help inform the policy debate on PAEs by providing empirical evidence of PAE behavior. This empirical evidence can help us better understand the impact of PAE behavior on innovation. It also provides an empirical basis for recommending improvements to the patent system.

A few key observations. First, we observed two distinct types of PAE business models: Portfolio PAEs and Litigation PAEs.

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<sup>4</sup> FED TRADE COMM'N, PATENT ASSERTION ENTITY ACTIVITY, AN FTC STUDY 2 (Oct. 2016), [https://www.ftc.gov/system/files/documents/reports/patent-assertion-entity-activity-ftc-study/p131203\\_patent\\_assertion\\_entity\\_activity\\_an\\_ftc\\_study\\_0.pdf](https://www.ftc.gov/system/files/documents/reports/patent-assertion-entity-activity-ftc-study/p131203_patent_assertion_entity_activity_an_ftc_study_0.pdf).

Portfolio PAEs negotiate licenses covering large portfolios – frequently without suing the alleged infringer. Their licenses often included more than 1,000 patents and generated royalties of greater than a million dollars. Portfolio PAEs accounted for less than 10% of the reported licenses in the study, but those licenses generated 80% of the total PAE licensing revenue we observed, or approximately \$3.2 billion dollars.<sup>5</sup>

Litigation PAEs, on the other hand, generally only negotiated licenses after suing the licensee and tended to settle lawsuits quickly.<sup>6</sup> Litigation PAE license amounts were generally small – usually less than \$300,000. It’s probably not a coincidence that \$300,000 is about the low end of what it would cost for an alleged infringer to defend a patent infringement suit up to the point of summary judgment motions.<sup>7</sup> Litigation PAEs filed 96% of the patent infringement cases we observed in our study, but generated just 20% of reported licensing revenue.<sup>8</sup>

So what is the effect of PAE activity on innovation?

We attempted to look at the effect of PAE activity in promoting patent monetization for inventors. Unfortunately, the data-keeping practices of many of the entities in the study made it impossible to make any meaningful comparisons. So we could not, for example, measure the amount of revenue that PAEs shared with inventors, or offer other evidence consistent with claimed efficiencies of PAE behavior.<sup>9</sup>

There were a number of findings in the report, however, that suggest to me that the value of Litigation PAE conduct to innovation is relatively low. Most significantly, Litigation PAE licenses followed suit against the licensee – and the license amounts were generally less than a rough benchmark of avoided litigation costs, which we can think of as a “nuisance value” threshold. In addition, Litigation PAE cases settled relatively early in litigation – generally within the first six months to a year.<sup>10</sup> This is again consistent with a sue-and-settle model.

The report is an important example of evidence-based policymaking. It does not purport to answer all the questions raised by PAE activity. My hope, however, is that policy makers and courts will find the information in it helpful as they continue to consider the impact of PAE activity on competition and innovation.

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<sup>5</sup> *Id.* at 3.

<sup>6</sup> Ninety-three percent of licenses obtained by Litigation PAEs followed suit and 66 percent of patent infringement actions filed by Litigation PAEs were settled within one year. *Id.* at 56

<sup>7</sup> *See id.* at 120.

<sup>8</sup> *Id.* at 4.

<sup>9</sup> *Id.* at 8.

<sup>10</sup> *Id.* at 9.

## **SEPs and Hold-up**

SEPs and their role in innovation should be thought of as part of the broader context of standard-setting organizations.

There is general consensus that standard-setting organizations can promote innovation and generate substantial procompetitive effects. The world is a better place for having them. If you've ever travelled between the United States and Europe and forgotten to bring the correct power adaptor, it's a not-so-gentle reminder of the benefits of technology standards.

At the same time, standard-setting organizations – by their very nature – often involve competitors getting together and making decisions collectively. There is a real risk of competitive harm. SSOs supplant the market mechanism in choosing between potential technologies. It should be no surprise that competition enforcers take a keen interest in how SSOs operate.

The good news is that the SEP system works well overall. The vast majority of SEP licenses are successfully negotiated by parties without involving the courts. There is little reason to think that that will change.

In the United States, the courts are there to make a determination when private parties are unable to reach agreement on what a negotiated FRAND rate should be. This is not particularly different from the role courts play when parties are unable to agree on any other aspect of contract interpretation.

SEPs do, however, present a risk of hold-up. “Hold-up” refers to the fact that the bargaining position of a patent-holder may increase considerably after a patent is included in the standard.

Once firms begin to make investments to practice the standard, they become locked-in.<sup>11</sup> By taking advantage of this enhanced bargaining position, a standard-essential patent (SEP) holder can demand higher royalty rates, or other more favorable licensing terms, than it could have obtained before lock-in occurred.

As Dennis Carlton has explained, once a patent is included in a standard, “the patent owner definitely has some additional market power conferred on him that he can exploit in the absence of a constraint on him.”<sup>12</sup> That added market power derives from the value of the

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<sup>11</sup> See, e.g., FED. TRADE COMM’N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION 22 (March 2011).

<sup>12</sup> Economists’ Roundtable on Hot Patent-Related Antitrust Issues, 27 ANTITRUST 11 (Sum. 2013).

standard itself, rather than the value of the underlying intellectual property.<sup>13</sup> In the 2014 case of *Ericsson v. D-Link*, the U.S. Federal Circuit held that the principle that “the patent holder should only be compensated for the approximate incremental benefit derived from his invention . . . is particularly true for SEPs.”<sup>14</sup>

Hold-up is a standard, straightforward concept in economics. Oliver Williamson won the Nobel Prize in economics in 2009 due in no small part to his work showing how opportunistic behavior such as hold-up can lead to inefficient economic outcomes.<sup>15</sup>

Patent hold-up can hamper standard-setting efforts, distort incentives for innovation, and potentially lead to higher prices and reduced output for consumers.<sup>16</sup> Hold-up becomes an antitrust issue when parties obtain their leverage as a result of the standard-setting process, which substitutes collective decision making for market forces.

Thankfully, SSOs themselves developed a mechanism to address this inefficient and opportunistic behavior – namely, the commitment by a patent holder to license its intellectual property on fair, reasonable, and nondiscriminatory (FRAND) terms in exchange for inclusion in a standard. I want to emphasize that FRAND commitments arose organically among standard-setting organizations (SSOs), and were not imposed on SSOs by governments or other outside parties.<sup>17</sup>

By making a FRAND commitment, an SEP-holder chooses to monetize its technology through licensing rather than through exclusion. This makes it inappropriate, in most circumstances, for an SEP-holder to seek injunctive or exclusionary relief. As Carl Shapiro has explained, “[t]he economics here clearly teaches us that exclusion orders or injunctions tip the balance of power in negotiations towards royalties that are excessive rather than just reasonable.”

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<sup>13</sup> As a general principle, a FRAND rate should reflect value that the patented technology brings to consumers, relative to the other technologies available when the technology was chosen for the standard. *See, e.g., Ericsson, Inc. v. D-Link Systems, Inc.* 773 F.3d 1201, 1235 (Fed. Cir. 2014) (“We further hold that district courts must make clear to the jury that any royalty award must be based on the incremental value of the invention, not the value of the standard as a whole or any increased value the patented feature gains from its inclusion in the standard”).

<sup>14</sup> *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1223 (Fed. Cir. 2014).

<sup>15</sup> *See* Avanish Dixit, Remarks at the AEA 2011 Nobel Lunch Honoring Elinor Ostrom and Oliver Williamson, January 8, 2011, at 3, <https://www.princeton.edu/~dixitak/home/NobelLunchTalkJan2011.pdf>.

<sup>16</sup> *See, e.g., Innovatio IP Ventures, LLC Patent Litigation*, MDL No. 2303, 2013 U.S. Dist. LEXIS 144061 \*64 (N.D. Ill. Oct. 3, 2013) (“In light of all of the testimony, and particularly the evidence about Broadcom’s real-world concerns about patent hold-up, the court concludes that patent hold-up is a substantial problem that RAND is designed to prevent”); *Microsoft Corp. v. Motorola, Inc.*, 2013 U.S. Dist. LEXIS 60233 \*38 (W.D. Wash. Apr. 25, 2013) (“Hold-up can threaten the diffusion of valuable standards and undermine the standards-setting process”).

<sup>17</sup> U.S. DEP’T OF JUSTICE & FED. TRADE COMM’N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 42 (April 2007) (describing FRAND licensing as an “SSO Method[] to Avoid or Mitigate Hold Up”).

The threat of hold-up risks reducing incentives for downstream innovation.

If companies can expect to face demands from SEP-holders that go well beyond what is fair and reasonable, that affects their decision about whether to invest in developing innovative products that implement the underlying standard.

If companies who are willing to pay a fair and reasonable rate may nonetheless face an injunction that prohibits them from selling their product at all unless they agree to pay whatever an SEP-holder demands, that also affects their investment decision.

And if you look at the recent cases in the United States in which district courts have resolved disputes about FRAND rates, they have found the appropriate rates to be orders of magnitude smaller than what SEP-holders were demanding.

- In the 2013 case of *Microsoft Corp. v. Motorola, Inc.*, Motorola was found to have been seeking a “FRAND” royalty 150 times greater than what a neutral judge considered fair.<sup>18</sup>
- In the 2014 case of *Realtek Semiconductor Corp. v. LSI Corp.*, LSI was found to have been seeking a royalty that was over 500 times greater than what a judge found appropriate in light of that company’s FRAND commitment.<sup>19</sup>

I think these examples demonstrate that SSOs, competition enforcers, and courts are right to take hold-up seriously. It is important to ensure that SEP holders are able to obtain the value of their patents to preserve incentives for upstream innovation. But it is also important to preserve incentives for valuable downstream innovation.

Thank you again for inviting me to be here today. I am happy to take any questions.

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<sup>18</sup> *Microsoft Corp. v. Motorola, Inc.*, 2013 U.S. Dist. LEXIS 60233\*303 (W.D. Wash. Apr. 25, 2013). The cumulative royalty of 4.026 cents was 1/149<sup>th</sup> the FRAND rate sought by Motorola. The court also calculated ranges of RAND rates. The sum of the “upper bound” of these ranges was just under 36 cents. This upper bound was less than 1/16<sup>th</sup> of the FRAND rate sought by Motorola.

<sup>19</sup> *Realtek Semiconductor Corp. v. LSI Corp.*, 2014 U.S. Dist. LEXIS 81673 \*23 (N.D. Cal. June 16, 2014).