

Competition Policy for the IP Marketplace

Keynote Address by Commissioner Edith Ramirez 29th Annual Antitrust, Consumer Protection and Unfair Business Practices Seminar and Annual Meeting Washington State Bar Association

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Good morning. I appreciate the opportunity to be here with you today.¹ The Federal Trade Commission has had a longstanding focus on competition issues in the technology arena. So it is fitting that I am here in Seattle, home to some of the largest high-tech players in the world. In fact, Seattle's place in the tech economy is only growing. Last year, the Wall Street Journal named the city, which has seen a 43% increase in tech employment in the last decade,² as the next Silicon Valley.³ Given the setting, I would like to speak today about the Commission's policy work in the technology sector.

The news has recently been dominated by reports about the patent wars in the smartphone sector.⁴ And while high-stakes patent litigation between rivals is nothing new, the battles we are seeing today have reached striking proportions. An important part of the FTC's mission is to advocate for sound competition policy. We have a long history of applying our competition expertise to the patent system and speaking out for reform.⁵ I would like to focus today on two issues that are at the center of the smartphone wars: patent quality and the proper scope of injunctive relief. While currently front page news, these issues have been on the Commission's policy agenda for many years.

Patents create exclusive rights that encourage investment in innovation. But a system clogged by too many vague and trivial patents can do just the opposite. Injunctions also play a critical role in preserving the investment incentives at the heart of the patent system, ensuring that inventors can recoup their R&D costs. However, injunctions can also create risks in technology markets, where complex products with multiple components are the norm and interoperability standards are everywhere. In this environment, the threat of an injunction has the potential to deter innovation and distort competition. This morning, I want to share some of

¹ The views expressed in these remarks are my own and do not necessarily reflect the views of the Commission or any other Commissioner.

² Joel Kotkin, *The Best Cities For Tech Jobs*, FORBES, May 17, 2012, available at <http://www.forbes.com/sites/joelkotkin/2012/05/17/the-best-cities-for-tech-jobs/>.

³ See Nick Wingfield, *Bay Area Technology Firms Put Down Roots in Seattle*, WALL ST. J., June 2, 2011, available at http://online.wsj.com/article/SB10001424052702303745304576357764272422044.html?mod=googlenews_wsj.

⁴ See Charles Duhigg & Steve Lohr, *The Patent, Used as a Sword*, N.Y. TIMES, Oct. 7, 2012, available at <http://www.nytimes.com/2012/10/08/technology/patent-wars-among-tech-giants-can-stifle-competition.html>.

⁵ See FED. TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003) (hereinafter "2003 Report"), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>; FED. TRADE COMM'N, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION (2011) (hereinafter "2011 Report"), available at <http://www.ftc.gov/os/2011/03/110307patentreport.pdf>.

the suggestions we have made to combat these threats.

I. Competition and Innovation in the Patent Thicket

But before I talk about possible solutions, it is useful to start by looking at some key facts about competition and patents in the tech sector. For over a decade, and as reflected in a report issued in 2003, the Commission has studied a troubling dynamic that has only increased over time.⁶ Firms developing new products face a dense thicket of overlapping patents of vague scope and questionable quality. Take a smartphone. A typical device has hundreds of components and technologies that allow it to communicate over wireless networks, stream video, access the internet, and perform all of the functions that consumers expect. Most of these components and technologies are covered by patents. A conservative estimate of the number of patents in play in a typical smartphone is in the tens of thousands.⁷ And while the smartphone sector provides one of the strongest examples of a patent thicket, it is not an isolated case. We see a similar landscape in many other arenas.

Patent thickets distort incentives to innovate, and raise risks for competition and consumers. Let's focus again on a smartphone. At the early stages in the product roadmap, the manufacturer will make hundreds of design decisions. After making those decisions, it will implement the detailed design of each aspect of the product, write the software, and invest in manufacturing capacity, supply contracts, and all the other resources it needs to make and sell the device. But even if the manufacturer makes a good faith effort to identify relevant patents and negotiate licenses in advance, it can very well face an infringement claim much further down the road. At that point, it may be difficult or costly to design around the infringing technology. It may be very expensive to alter the production process. Changing the design could delay a highly anticipated product launch, hurting profits, market share and goodwill. And a new design might be incompatible with units already shipped. These switching costs give the patent holder the leverage to demand licensing terms that reflect the device maker's own investment, rather than the competitive value of the patented technology. The exercise of that leverage is known as "patent hold-up."

To protect themselves from future claims, firms that expect to be litigation targets will often resort to defensive patent portfolios. This has become an increasingly common strategy. By way of example, earlier this year, Reuters reported that Amazon had created a new department for "IP Acquisitions and Strategy" to manage the development of a defensive portfolio.⁸ This is no surprise in light of Amazon's push into the tablet space. When faced with a lawsuit, a firm holding a large defensive portfolio can credibly threaten a counterclaim against

⁶ 2003 Report at 30-55.

⁷ See Verizon Communications, *Estimated Patent Arsenals* (Graphic), in Sascha Segan, *Infographic: Smartphone Patent Wars Explained*, PCMAG.COM, Jan. 19, 2012, available at http://www.pcmag.com/image_popup/0,1740,iid=325525,00.asp. Others estimate the number of patents to be as high as 250,000. See Steve Lohr, *Apple-Samsung Case Shows Smartphone as Legal Magnet*, N.Y. TIMES, Aug. 25, 2012, available at <http://www.nytimes.com/2012/08/26/technology/apple-samsung-case-shows-smartphone-as-lawsuit-magnet.html>.

⁸ Alistair Barr, *Exclusive: Amazon Seeks Leader for Patent Acquisitions*, REUTERS, Aug. 8, 2012, available at <http://www.reuters.com/article/2012/08/08/us-amazon-patents-idUSBRE8770ZC20120808>.

other suppliers. This strategy of “mutually assured destruction” can deter lawsuits between manufacturers.

But from a competition policy perspective, a costly arms race is a far from ideal solution. It drives companies to shift their resources from productive activities, like research and development, to less productive ones, like filing a multitude of dubious patent applications and acquiring massive patent portfolios.

And in the aggregate, the strategy can be self-defeating. Filing questionable patent applications for minor product improvements or nearly obvious methods adds to the flood of patents in the sector. Then, if patentees go bankrupt or change business models, these defensive portfolios hit the street, creating an active secondary market in patents. This secondary market, which the Commission examined in its most recent IP report issued in 2011, has opened profit opportunities for what the FTC refers to as patent assertion entities, or PAEs—what others pejoratively call “patent trolls.”⁹ PAEs are in the business of buying, selling and asserting patents. We distinguish PAEs from other non-practicing entities like universities because PAEs do not engage in research, development, or technology transfer. Because PAEs do not produce products, they are not vulnerable to countersuit. This renders the mutually-assured destruction strategies that fueled the rise of PAEs a weaker shield against litigation risk for practicing entities.

Some have blamed PAEs for increasing litigation and transaction costs in the IT sector. In fact, there is some evidence suggesting PAEs are responsible for a growing percentage of lawsuits in the IT sector.¹⁰ But others argue that PAEs serve a vital role in promoting innovation, compensating small inventors and facilitating the monetization of IP.¹¹ I won’t be delving too deeply into this debate, but suffice it to say that the competitive implications of the PAE business model are far from clear.

As a side note, let me take this opportunity to mention that the FTC will hold a joint workshop with the Department of Justice on December 10th in Washington, D.C. This workshop will explore some of the key legal and economic issues associated with the PAE business model by seeking input from industry, IP practitioners, economists, and other academics. I hope some of you attend or watch a webcast of the event.

Turning back to the issue of patent quality, courts can improve the landscape by continuing to tighten the standards for patentability. Increasing funding to the overburdened Patent and Trademark Office is, of course, also essential. And I was happy to see Congress incorporate our recommendation for a more streamlined post-grant review process in the America Invents Act.¹² But I have to acknowledge that change to patent quality is likely to come slowly and incrementally. While the Commission will continue to advocate for better patent quality, we can minimize the drag on competition from too many bad patents by also focusing

⁹ 2011 Report at 8.

¹⁰ *Id.* at 58-62.

¹¹ *Id.* at 67-70.

¹² 2003 Report at 7; Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284-341 (2011).

our attention on remedies, particularly the threat of injunctions. So let me now turn to that topic.

II. Injunctions and Patent Hold-Up

Injunctions have recently become a hot button issue in the smart phone wars. But the economics have been clear for some time. The threat of an injunction can give a patent owner unwarranted leverage in licensing negotiations. Let's go back to our smartphone example. Imagine that a device manufacturer makes an early design decision about email notification. The manufacturer designs the phone so the screen will blink when a new email arrives. The device could have been designed instead with a small blinking light on the top of the phone. Or the device could vibrate when an email comes in. But the manufacturer thought consumers might like the blinking screen.

After the first new model hits the shelves, the manufacturer receives a letter from a company that claims to own a patent covering the use of a blinking screen as a notification system. This company demands a one-time payment of \$5 million for a license to its patent. When the manufacturer balks, the patent owner threatens to seek an injunction. The manufacturer believes the blinking screen is only marginally better than other ways to notify users of an incoming email. Moreover, the blinking screen will not generate anything close to an additional \$5 million for the manufacturer over other ways to let consumers know they have a new email. The device maker certainly would not have paid \$5 million for a license a year ago. But faced with the cost of pulling its phones from the shelves for even a few months, it gives in, paying far more for the license than the economic value of the patented technology at the design stage.

This is where the Supreme Court's 2006 decision in *eBay* comes into play.¹³ It can guard against the outsized economic power created by the threat of a district court injunction. In *eBay*, the Court rejected the longstanding presumption in favor of injunctive relief for patent infringement, holding instead that the traditional four-factor equitable standard should apply. Under *eBay*, a district court must consider whether the patentee would suffer irreparable harm absent an injunction, and whether money damages would provide adequate compensation rendering an injunction unnecessary. A court must also balance the equities between the plaintiff and defendant and consider the public interest.

eBay gave the courts what they previously lacked, a framework for balancing the costs and benefits of injunctive relief. In light of the fact that exclusive rights can be critical to promoting innovation, that balance is likely to lean most often in favor of an injunction. And the public interest and balance of equities should typically fall in favor of the patent owner where there is evidence the defendant has willfully infringed. But *eBay* allows a court to deny an injunction where, on balance, exclusivity would harm competition and innovation. That is likely to be the case where, as in our example, the patent covers a minor component in a complex product, particularly where the accused infringer could have selected a different technology before investing in the development of a product.

¹³ *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006).

In our view, when considering whether to grant injunctive relief, courts should also take into account whether the patent owner practices its patent, or licenses broadly to an industry.¹⁴ Firms that use their technology to compete in a product market are more likely to suffer irreparable harm if they are forced to share their technology with competitors. Courts should use *eBay* to deny an injunction where the evidence shows that the patentee's business model is to license broadly, which is typically the case for patent assertion entities. But not all non-practicing entities are alike. Money damages may be a poor remedy for some NPEs, like universities and R&D firms. For entities that compete in technology markets, exclusive or selective licensing strategies may be critical to recouping their R&D costs.

Of course, *eBay*'s real impact rests with the courts. If judges regularly take these economic factors into account, they can play a strong role in improving economic incentives in the tech sector.

III. Standard-Essential Patents

I would like to spend a few minutes on the issue of injunctions for patented technologies that have been incorporated into standards, which raise some unique concerns. Specifically, I want to focus on interoperability standards, which are critical to competition in the IT sector. These standards allow complementary products and technologies to work together. To make phone calls, for example, a smartphone must be compatible with a cellular network. Standards make that possible. They also enable many other functions. Standards are typically set by standard-setting organizations or SSOs, whose members include parties with a commercial stake in how the standard is written, such as patent holders, manufacturers, and large buyers.

Standards in the IT sector typically include a large number of patented technologies, referred to as standard essential patents or SEPs. For example, a study by IEEE, a leading standards organization, found that 8,000 patents were declared essential to the European third-generation wireless standard.¹⁵ Patented technologies may increase the value of the standard. And it may be difficult, if not impossible, to create an IT standard that does not incorporate proprietary technology. But patent rights stand in some tension with the pro-competitive goals of interoperability standards. Patents can make it more difficult and costly to implement a standard because implementers have to acquire licenses.

If, as is most often the case, the license is negotiated after the standard is adopted, we see the familiar hold-up dynamic. The patent holder can gain bargaining power that reflects the irreversible investments that others have made in the standard, rather than the competitive value of the patented technology itself. In the standard-setting context, that leverage follows in large part from the contentious and time-consuming standard-setting process. A wireless communication standard can take a decade or more to complete, and it can run many thousands of pages. The final standard is often the result of heated battles between key industry players and is almost impossible to change piecemeal.

¹⁴ 2011 Report at 228-34.

¹⁵ See DAVID J. GOODMAN & ROBERT A. MYERS, 3G CELLULAR STANDARDS AND PATENTS, IEEE WIRELESSCOM 2005 (2005), available at <http://eeweb.poly.edu/dgoodman/wirelesscom2005.pdf>.

Once a technology is embedded in a standard, it is there to stay until the standard is revised, which generally doesn't happen for many years. Moreover, after a standard is published, an entire industry begins to invest in products and technologies that are tied to the standard. As a result, owners of standard-essential patents that once faced competition may gain newfound leverage solely as a result of the standard-setting process.

To prevent patent owners from capturing the benefits of the standard, many SSOs require members to disclose patents that are likely to read on a standard.¹⁶ Disclosure rules play two important and related roles. First, clear disclosure rules encourage competition among the firms proposing technology for the standard. Disclosure also permits SSO members to negotiate licenses with firms that may own essential technology before selecting the standard. Early negotiation allows members to take both technical merit and costs into account when selecting a standard. But bilateral negotiations before the standard is adopted can slow or stall the standard-setting process. The result is that most licensing negotiations take place after the standard has been set. Recognizing this, most large SSOs also require members to commit to license any standard-essential patents on reasonable and nondiscriminatory, or RAND, terms.

While a RAND commitment is not a substitute for actual licensing terms, it allows members to compare technologies that will be subject to common binding commitments regarding cost and availability. Where SSOs also allow all interested parties to participate in the group, the RAND commitment facilitates competition among alternate technical approaches to the standard. Disclosure of essential patents followed by a RAND commitment also limits a patent holder's bargaining power after the standard is adopted. This encourages all firms, including late comers to the market, to invest in the development of standard-compliant products.

But a threat of an injunction undercuts the pro-competitive goals of the RAND agreement. As I noted earlier, a potential licensee is likely to accept an unreasonable royalty demand if the alternative is an order that blocks its products from the market. Even a relatively small risk of that disruptive outcome can force an implementer to accept licensing terms that far exceed what it would have paid to license the patent before the standard was adopted. More broadly, unexpected high costs undermine the competitive value of the standard-setting process. And the uncertainty associated with the threat of an injunction can discourage firms from investing to implement the standard.

The Commission has urged district courts to rely on the *eBay* case to deny injunctive relief where a patent owner has made a RAND agreement.¹⁷ A prior RAND commitment provides strong evidence that the patentee planned to license its technology broadly. In that circumstance, it stands to reason that money damages can provide adequate relief for infringement. The RAND commitment, and the competitive harm associated with injunctions on standard-essential patents, also suggest the public interest and balance of hardships weigh against granting injunctive relief when SEPs are involved.

¹⁶ U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 42-48 (2007), available at <http://www.ftc.gov/reports/innovation/P040101PromotingInnovationandCompetitionrpt0704.pdf>.

¹⁷ 2011 Report at 234-35.

IV. Exclusion Orders and the ITC

But federal courts alone cannot eliminate the power of an injunction threat. Today, patent owners often seek relief at the International Trade Commission. As many of you know, the ITC is an independent federal agency with a number of trade-related responsibilities, including the duty to investigate and adjudicate patent infringement claims involving imported goods. Under Section 337 of the Tariff Act of 1930, a U.S. patent holder can file a complaint with the ITC.¹⁸ If the agency finds in favor of the complainant, it has the authority to issue an exclusion order, which directs Customs to stop infringing products at the border. The ITC does not have the authority to award damages. Because an ITC exclusion order has the same economic effect as an injunction, and because exclusion orders are issued almost automatically upon a finding of infringement, there is a high risk of patent hold-up. This allows patent holders to use the threat of an exclusion order to obtain higher royalty rates than the competitive value of their patented technologies.

Importantly, we cannot rely on the *eBay* case to help counter the hold-up risk at the ITC. In its 2010 decision in *Spansion v. ITC*,¹⁹ the Federal Circuit held that *eBay* does not apply to ITC remedy determinations because the statutory underpinnings for relief in Section 337 actions are different from those in suits for patent infringement.

We nonetheless believe the ITC has tools it can use to solve hold-up problems. I want to focus on two important situations: exclusion orders in favor of patent assertion entities and exclusion orders for infringement of RAND-encumbered standard-essential patents. To file a complaint with the ITC, a complainant must satisfy what is called the “domestic industry” requirement. The complainant must show it has made a substantial investment in exploiting the relevant patent in the United States. Practicing entities typically meet this requirement by showing substantial investments in manufacturing; others rely on licensing activities.

While a complainant can show, in certain circumstances, that licensing meets the domestic industry requirement, the Commission believes that licensing that does not lead to technology transfer should not be enough to support a claim of a domestic industry.²⁰ We have urged the ITC to find that patent assertion entities that merely assert patents against practicing entities fail to meet the domestic industry test. By denying exclusion orders to entities that neither practice the patent nor engage in technology transfer, the ITC could prevent PAEs from using the ITC to escape the impact of *eBay*. Importantly, PAEs would still have the ability to seek damages in district court.

Before it can issue an exclusion order, the ITC must also consider the impact an exclusion order would have on the “public interest.” The public interest test requires the ITC to evaluate the impact the order would have on, among other things, competitive conditions in the United States and consumers.

¹⁸ 19 U.S.C. § 1337.

¹⁹ 629 F.3d 1331 (Fed. Cir. 2010).

²⁰ 2011 Report at 243.

We have urged the ITC to use its public interest authority to prevent a patent owner from using the threat of an exclusion in order to escape its RAND commitment.²¹ Specifically, we have recommended that the ITC deny an exclusion order if it finds that the patent holder has not complied with its RAND obligation, leaving it the option of seeking monetary relief in district court. Or the ITC could delay the effective date of any order until the parties mediate a monetary settlement in good faith.

Let me add just one final thought on this subject before I close. While federal courts and the ITC have tools to reduce the exercise of bargaining power by firms that own standard-essential patents, standard setting organizations could certainly solve the problem more quickly. I am pleased to see that several major SSOs are currently exploring whether their written policies should expressly bar a patent owner from seeking an injunction on a RAND-encumbered patent against a willing and able licensee. Taking that clear step would help ensure that consumers enjoy the benefits of competition on the merits in the tech sector.

V. Conclusion

Let me close by saying how much I appreciate the opportunity to discuss with you the important role that patent law plays in the competitive dynamics of high-tech markets. I assure you that the FTC will continue to speak up for innovation and consumers by advocating for needed reform to the patent system.

Thank you.

²¹ See Prepared Statement of the FTC, *Oversight of the Impact on Competition of Exclusion Orders to Enforce Standard-Essential Patents: Hearing before the S. Comm. on the Judiciary, 112th Cong.* (July 11, 2012), available at <http://ftc.gov/os/testimony/120711standardpatents.pdf>; see also Third Party United States Federal Trade Commission Statement on the Public Interest, *In re Certain Wireless Communication Devices, Portable Music & Data Processing Devices, Computers and Components Thereof*, Inv. No. 337-TA-745 (2012), available at www.ftc.gov/os/2012/06/1206ftcwirelesscom.pdf, and *In re Certain Gaming and Entertainment Consoles, Related Software, and Components Thereof*, Inv. No. 337-TA-752 (2012), available at <http://www.ftc.gov/os/2012/06/1206ftcgamingconsole.pdf>.