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A Roadmap to the Smartphone Patent Wars and FRAND Licensing

Michael A. Carrier

Rutgers University School of Law-Camden

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I. INTRODUCTION

The smartphone industry today is characterized by a thicket of patents and wars based on those patents. Every day brings a new lawsuit or development between Apple, HTC, Microsoft, Motorola Mobility (“MMI”), Nokia, and Samsung. The lawsuits span numerous courts and several continents. And they often pit Apple or Microsoft on one side and manufacturers of Google’s Android operating system—HTC, MMI, and Samsung—on the other.

II. THE TYPICAL SETTING: STANDARDS AND FRAND LICENSING

Many of the smartphone and tablet (hereafter “smartphone”) patent wars are waged on the battlefield of standards. Standards (common platforms allowing products to work together) are important in fostering interoperability, and are frequently set by standard-setting organizations (“SSOs”) made up of participants in an industry.

One of the main concerns with SSOs is the risk of holdup. Before a standard is selected, an SSO can choose from an array of alternative technologies. But after the SSO selects a standard, particularly if it incorporates a patented technology, the owner can block others from using the standard by obtaining injunctive relief or imposing royalties high enough that members are effectively prevented from using the standard.²

A popular way to address the holdup problem is to require patentees to agree before the standard is selected to license their technologies on reasonable terms. This set of licensing promises is known as FRAND (fair, reasonable, and nondiscriminatory) in Europe and RAND (reasonable and nondiscriminatory) in the United States. Given that most of these issues have arisen in Europe, I focus here on FRAND licensing (with the conclusions also applying to RAND).

FRAND licensing is particularly helpful for patented technologies that are essential to the implementation of a standard. These technologies are known as SEPs (standard essential patents). In the smartphone setting, the technologies could include wireless broadband technologies (such as WiFi), video compression technologies (H.264), or telecommunications standards (4G LTE).³ In contrast, non-essential patents (non-SEPs)—such as “slide-to-unlock”

¹ Professor of Law, Rutgers University School of Law – Camden. Copyright © 2012 Michael A. Carrier. I would like to thank William Conlow for excellent research assistance.

² For a background on standard-setting, see MICHAEL A. CARRIER, *INNOVATION FOR THE 21ST CENTURY: HARNESSING THE POWER OF INTELLECTUAL PROPERTY AND ANTITRUST LAW* 325-44 (2009).

³ Dept. of Justice, *Statement of the Department of Justice’s Antitrust Division on Its Decision to Close Its Investigations of Google Inc.’s Acquisition of Motorola Mobility Holdings Inc. and the Acquisitions of Certain Patents by Apple Inc., Microsoft Corp., and Research in Motion Ltd.*, at 3 (Feb. 13, 2012), <http://www.justice.gov/opa/pr/2012/February/12-at-210.html> [DOJ letter].

patents and methods of e-mail notification service—do not typically allow an industry to be held up since they are not needed to use the standard.

III. COURTS AND PATENT LICENSING

In the past year, it has become increasingly difficult to keep track of the numerous lawsuits and court decisions regarding smartphone patents. Looking across the landscape of decisions in various jurisdictions, one primary distinction involves that between essential patents and nonessential patents. Speaking most generally, courts have tended to deny injunctions when patentees have sought to block competitors from using SEPs while being more likely to grant them when seeking injunctive relief on non-SEPs.⁴

Any discussion of smartphone patent litigation also must include the unique role played by German courts. A disproportionate number of lawsuits have been filed in Germany for several reasons: (1) a large market, (2) judges with patent expertise, (3) fast rulings, in part because of the submission of facts in writing and lack of pretrial evidence exchange, (4) the greater use of injunctions (given the lack of a damages remedy), and (5) the separation of infringement and validity suits, and grant of injunctions as long as there is at least a 20 percent chance the patent is valid.⁵

In the first example of a court denying an injunction on an SEP, in October 2011 the Hague District Court in the Netherlands denied Samsung's request for an injunction blocking Apple from utilizing four patents essential to the 3G/UMTS standard in its iPhones and iPads. The court found that Samsung was "obliged to give a license to Apple" on FRAND terms before seeking injunctive relief. The court also found that Samsung had exhausted its rights by previously licensing its technology to Qualcomm, which then licensed the rights to Apple.⁶

Similarly, in February 2012, the Karlsruhe Higher Regional Court in Mannheim, Germany refused to grant an injunction that MMI had requested against Apple's iPhones and iPads on patents essential to wireless standards.⁷ The court upheld Apple's compulsory license objection, which German courts have accepted against allegations of infringement of SEPs. These

⁴ In April 2012, as this article was going to press, Administrative Law Judges at the U.S. International Trade Commission issued initial determinations that MMI's SEPs on 3G and H.264 were infringed by, respectively, Apple and Microsoft.

⁵ Jason Mick, *German Court Overturns Android Victory Due to FRAND Concerns*, (Feb. 27, 2012), DAILYTECH.COM, <http://www.dailytech.com/German+Court+Overturns+Android+Victory+Due+to+FRAND+Concerns/article24099.htm>; *Apple, Microsoft Patent Lawyers Spend Fridays in Mannheim*, BLOOMBERG BUSINESSWEEK, (Jan. 20, 2012), <http://news.businessweek.com/article.asp?documentKey=1376-LY279W0D9L3801-2VVCAFMJ1FLELSMHH6NQHUDU38>.

⁶ Andreas Udo de Haes, *Hague Court: iPhone 4S Free Samsung Claims*, WEBWERELD, (Mar. 14, 2012), <http://translate.google.com/translate?hl=en&sl=auto&tl=en&u=http%3A%2F%2Fwebwereld.nl%2Fnieuws%2F109847%2Fhaagse-rechter--iphone-4s-vrij-van-samsung-claims.html>; *Andreas Udo de Haes, Judge Refuses Samsung Cases Against Apple*, WEBWERELD, (Oct. 14, 2011), <http://translate.google.com/translate?hl=en&sl=auto&tl=en&u=http%3A%2F%2Fwebwereld.nl%2Fnieuws%2F109847%2Fhaagse-rechter--iphone-4s-vrij-van-samsung-claims.html>.

⁷ *Translation of German Appeals Court's Press Release on Decision Protecting Apple Against Motorola Injunction*, FOSS PATENTS (Feb. 27, 2012), <http://www.fosspatents.com/2012/02/translation-of-german-appeals-courts.html>.

courts have reasoned that use of a patent cannot be prohibited since market participants “desiring to comply with the established technical standard” are “forced to use th[e] patent.” Since Apple offered MMI the required proposal for a license agreement on FRAND terms, the court denied MMI’s request for an injunction.

In contrast, when parties seek to block competitors on technologies that are protected by patents but not essential to the implementation of a standard, courts are more likely to grant the relief they seek. In these cases, since the technology is not essential to the implementation of a standard, it is more likely that the thwarted licensee can work around the patent and continue to sell its product.

For example, rivals can work around a “slide-to-unlock” patent (which allows users to swipe their finger across the screen to unlock a phone) by using a different method, such as a “slide-to-unlock” circle or “sliding arc.” In February 2012, the Munich court in Germany granted an injunction to Apple against MMI’s slide-to-unlock feature.⁸ And in March, the Munich court granted a second injunction to Apple blocking MMI’s use of products that infringed a patent on the feature of the Android photo gallery that protects the turning of pages in zoomed-in mode.⁹

Finally, in February 2012, the Mannheim court granted MMI injunctive relief that required the deactivation of Apple’s “push” e-mail notification service, which (like the BlackBerry device) automatically alerted users to new e-mails. Apple was able to avoid MMI’s patent with a “pull” technology that allowed users to check for e-mails on demand.¹⁰

These workarounds are not as convenient and, if central enough to the user’s experience, could depress demand for particular smartphones. But they differ from patents on SEPs since they can be worked around. In contrast, a patent on a wireless connectivity standard or video streaming technology cannot be circumvented.

Cases in the United States have followed a slower track. A few notable cases include:

- Apple’s lawsuit in the Northern District of Illinois against MMI claiming infringement of a realtime API patent (processing system for data) and a touchscreen heuristics patent (recognizing non-straight-line swipes);
- MMI’s lawsuit against Apple in the Southern District of Florida on a push notification patent covering e-mail; and
- The dispute between Microsoft and MMI in the Western District of Washington, with Microsoft claiming that MMI’s request for royalties was so excessive that it breached a FRAND obligation relating to the H.264 video codec standard, and MMI alleging that Microsoft committed patent infringement.

⁸ *Apple Wins German Injunction Against Most of Motorola’s Slide-to-Unlock Implementations*, FOSS PATENTS, (Feb. 16, 2012), <http://www.fo SSPatents.com/2012/02/apple-wins-german-injunction-against.html>.

⁹ *Apple Wins German Injunction Against Motorola Over Photo Gallery Patent*, FOSS PATENTS, (Mar. 1, 2012), <http://www.fo SSPatents.com/2012/03/apple-wins-german-injunction-against.html>.

¹⁰ *Motorola Wins German Injunction Against Apple’s iCloud (and MobileMe) Push Email Service and Client Devices*, FOSS PATENTS, (Feb. 3, 2012), <http://www.fo SSPatents.com/2012/02/motorola-wins-german-injunction-against.html>.

The Washington case is particularly noteworthy given the court's grant of a preliminary injunction and temporary restraining order preventing Motorola from blocking the sales of Microsoft products if it obtained an injunction in a related case in Germany. And in response to this related case, to avoid the potential removal of Windows 7 and Xbox from the market, Microsoft relocated a distribution center from Germany to the Netherlands.¹¹ (As this article went to press, the court in Germany had just granted MMI's request for an injunction.)

IV. ANTITRUST ENFORCEMENT: EUROPE

FRAND licensing implicates not only patent infringement but also antitrust liability. At the time of this writing (April 2012), the European Commission ("EC") is conducting investigations of Samsung and MMI for attempts to obtain injunctions and unreasonable royalties on SEPs, which could constitute an abuse of dominance under Article 102 of the Treaty of the European Union (TFEU).

On January 31, 2012, the EC began an investigation of Samsung, examining whether it breached its obligation to the European Telecommunications Standards Institute ("ETSI") to license its patents related to third generation ("3G") mobile and wireless telecommunications systems on FRAND terms. In particular, it is determining whether Samsung's attempts to obtain injunctions against competitors constitute an abuse of a dominant position prohibited by Article 102.¹²

On April 3, 2012, in response to complaints by Apple and Microsoft, the EC began an investigation of MMI. It is exploring whether MMI failed to engage in FRAND licensing by attempting to obtain injunctions against Apple's iPhone and iPad and Microsoft's Windows and Xbox based on patents it had declared essential in the standard-setting process. Motorola had given FRAND commitments on second and third generation ("2G" and "3G") mobile and wireless telecommunications system standards, the H.264 video compression standard, and wireless local area network ("WLAN") technologies.

The Commission is examining whether Motorola's conduct is an abuse of a dominant market position prohibited by Article 102, and whether Motorola "offered unfair licensing conditions" for its SEPs.¹³

The framework for analyzing FRAND issues appears in the EC's 2011 guidelines on horizontal cooperation agreements. The guidelines explain that FRAND licensing prevents patentholders from "making the implementation of a standard difficult" by refusing to license,

¹¹ Loek Essers, *Dusseldorf Eyes Major Role in Future EU Unified Patent Court*, PCWORLD, (Apr. 13, 2012), http://www.pcworld.com/businesscenter/article/253716/dusseldorf_eyes_major_role_in_future_eu_unified_patent_court.html.

¹² European Commission, *Antitrust: Commission opens proceedings against Samsung*, EUROPA, (Jan. 31, 2012), <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/89&format=HTML&aged=0&language=EN&guiLanguage=en>.

¹³ European Commission, *Antitrust: Commission opens proceedings against Motorola*, EUROPA, (Apr. 3, 2012), <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/12/345&format=HTML&aged=0&language=EN>.

requesting “excessive” fees, or imposing “discriminatory” royalties.¹⁴ In particular, the obligation requires participants “to provide an irrevocable commitment in writing” to offer to license patents on FRAND terms.¹⁵ Where there are disputes (which are not atypical in determining the reasonableness of royalties), analysis of whether fees are “unfair or unreasonable” is to be based on whether the fees “bear a reasonable relationship” to the patent’s economic value.¹⁶

The Guidelines provide a safe harbor from Article 101(1) of the TFEU (which targets anticompetitive agreements) for standard-setting conduct that is transparent, does not impose an obligation to comply with the standard, and provides access on FRAND terms.¹⁷

V. ANTITRUST ENFORCEMENT: UNITED STATES

To date, U.S. antitrust enforcement related to smartphone patent licensing has arisen most prominently in the approval by the U.S. Department of Justice (“DOJ”) of three transactions. In February 2012, the DOJ found that competition was “unlikely to [be] substantially lessen[ed]” by:

- Google’s acquisition of MMI’s portfolio of 17,000 patents and 6,800 patent applications;
- Apple’s acquisition of the nearly 900 patents originally held by Novell and purchased in 2010 by CPTM (a coalition including Apple, EMC, Microsoft, and Oracle); and
- Acquisition by the “Rockstar” group (made up of Apple, Microsoft, and RIM) of the 6,000 patents and applications available in the Nortel bankruptcy auction.

Central to the DOJ’s approval were the promises made by the acquiring parties to license SEPs. Apple stated that “[s]eeking an injunction would be a violation of the party’s commitment to FRAND licensing,” and Microsoft promised to “not seek an injunction or exclusion order against any firm on the basis of . . . essential patents.” The DOJ concluded that “Apple and Microsoft made clear that they will not seek to prevent or exclude rivals’ products from the market in exercising their SEP rights.”¹⁸

The agency also found that Google’s acquisition did not substantially lessen competition, but it pointed to a “significant concern” in “how Google may exercise its patents in the future.” In particular, Google agreed to not seek injunctions for the infringement of SEPs, but only for disputes involving future licensing revenues and only if the other party did not challenge patent validity, paid the full disputed amount into escrow, and agreed to a reciprocal process for injunctions.¹⁹

VI. CONCLUSION

¹⁴ European Commission, *Guidelines on the Applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreements*, 2011 O.J. (C 11) 1, ¶ 287, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2011:011:0001:0072:EN:PDF>.

¹⁵ *Id.* ¶ 285.

¹⁶ *Id.* ¶ 289.

¹⁷ *Id.* ¶ 280.

¹⁸ DOJ letter, *supra* note 3 at 2-3.

¹⁹ *Id.* at 3.

The smartphone patent wars present a labyrinth of lawsuits and countersuits across the globe. The assurance of FRAND licensing for some of the most important patents—the SEPs—plays a crucial role in reducing the likelihood of injunctions that would remove products from the market.

But in some cases, companies have sought injunctions even though they had promised to license their SEPs on reasonable terms. In other cases, patentees have challenged competitors' uses of non-SEPs that do not threaten to block the product from the market but could lead to less desirable workarounds. And in all cases, the deluge of lawsuits and potential antitrust violations demands careful attention in a patent war that shows no sign of abating anytime soon.