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*Fighting the Smartphone Patent War with RAND-Encumbered Patents*

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# FIGHTING THE SMARTPHONE PATENT WAR WITH RAND-ENCUMBERED PATENTS

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The smartphone patent war refers to the multitude of patent infringement suits currently taking place against competing companies in the increasingly competitive and litigious smartphone industry. Google's Android mobile operating system is at the heart of this patent war. In an effort to strengthen its patent arsenal and protect smartphone manufactures who implement Android, Google invested \$12.5 billion in August 2011 to acquire approximately 17,000 patents from Motorola Mobility.<sup>1</sup> If some patents within this portfolio are essential<sup>2</sup> to practicing a technical standard and belong to a reasonable and nondiscriminatory ("RAND")<sup>3</sup> licensing commitment, these patents could be important strategic weapons in the smartphone patent war. Successfully using its newly acquired RAND-encumbered<sup>4</sup> patents in exchange for cross-licenses to its competitors'

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1. See, e.g., *Google to Acquire Motorola Mobility*, GOOGLE INVESTOR RELATIONS (Aug. 15, 2011), <http://investor.google.com/releases/2011/0815.html>; Evelyn M. Rusli, *Google's Big Bet on the Mobile Future*, N.Y. TIMES (Aug. 15, 2011), <http://dealbook.nytimes.com/2011/08/15/googles-big-bet-on-the-mobile-future>.

2. Patents belonging to a RAND commitment made to a standard-developing organization ("SDO") are also known as "essential patents" because these patents are essential to practicing the standard. However, not all essential patents belong to a RAND commitment. For example, in defining "essential," the Institute of Electrical and Electronics Engineers ("IEEE") describes "essential patents" as necessarily infringed by "either mandatory or optional portions" of the standard. *IEEE-SA Standards Board Bylaws*, IEEE STANDARDS ASS'N § 6.2, <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#loa> (last visited Feb. 6, 2012).

3. The terms "fair, reasonable, and nondiscriminatory" ("FRAND") and "reasonable and nondiscriminatory" ("RAND") are generally interchangeable. Andy Updegrave, *Everything You Always Wanted to Know About FRAND (But didn't know who to ask)*, THE STANDARDS BLOG, <http://www.consortiuminfo.org/standardsblog/article.php?story=20120221074826486> (last visited Mar. 31, 2012).

4. Although encumbrances typically reduce the value of patents, RAND-encumbered patents have several characteristics that may increase their value. For example, RAND-encumbered patents, as with all essential patents, can be valuable because any group interested in practicing the standard must take a license to the patent. Similarly, detecting infringement of RAND-encumbered patents is relatively easy because any group practicing the standard is likely practicing the essential patent. Furthermore, no workarounds are possible since it is unfeasible to have non-infringing standards-compliant products. Finally,

patents could allow Google to obtain the right to practice technologies that would otherwise open up it to more threats of patent infringement. However, the ability to cross-license these RAND-encumbered essential patents against Google's competitors hinges, in part, on whether this tactic is permissible under the original RAND licensing terms and antitrust laws.

Part I of this Note is background on standard-developing organizations ("SDOs") and the smartphone patent war. Part II then begins by examining whether using essential patents to force cross-licensing agreements may be acceptable under a reasonable and nondiscriminatory agreement. The cross-licensing strategy is also analyzed under antitrust law—specifically, this Part considers whether such an approach is appropriate under Section 2 of the Sherman Antitrust Act and Section 5 of the Federal Trade Commission Act ("FTC Act"). Finally, Part III argues that defining "reasonable" and "nondiscriminatory" requires a multifactor analysis and shows how the proposed cross-licensing strategy can be procompetitive, especially in the case of the smartphone industry.

## I. BACKGROUND

This Part of the Note addresses three topics. First, it explains the importance of SDOs in developing technical standards for the high-tech industry. Second, it covers potential problems that patents can create in establishing technical standards and reasons for RAND licensing commitments. Third, it provides a brief history of the smartphone patent war.

### A. STANDARD-DEVELOPING ORGANIZATIONS AND RAND LICENSING

A SDO<sup>5</sup> is primarily concerned with developing, coordinating, and promulgating common standards within a given industry.<sup>6</sup> In the case of high-tech and wireless communications standards, SDOs play a vital role in allowing for the rapid adoption of new technologies, increasing the number

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royalty revenues for infringing products can be estimated relatively well given the accurate forecasts for standards-compliant products. See Joff Wild, *Why Google is much better off with the Motorola patents than the Nortel ones*, INTELLECTUAL ASSET MANAGEMENT BLOG (Sept. 5, 2011), <http://www.iam-magazine.com/blog/Detail.aspx?g=b93dd179-7357-4a4d-b85e-00d0f37937f9>.

5. SDOs are also referred to as "standard-setting organizations" ("SSOs"). *Chapter 6: Forming A Successful Consortium Part II — Legal Considerations*, THE ESSENTIAL GUIDE TO STANDARDS, <http://www.consortiuminfo.org/essentialguide/forming2.php> (last visited Mar. 31, 2012).

6. EDWARD G. HINKELMAN, *DICTIONARY OF INTERNATIONAL TRADE* 572 (8th ed. 2008).

of products that can communicate with each other, and reducing costs for consumers by increasing manufacturing volume.<sup>7</sup>

There are dozens of SDOs within the computer-networking and telecommunications industries alone.<sup>8</sup> Examples of several well-known SDOs include the World Wide Web Consortium (“W3C”), the JEDEC Solid State Technology Association, and the Institute of Electrical and Electronics Engineers Standards Association (“IEEE-SA”), which focus on developing technical standards for the World Wide Web, the semiconductor industry, and the broader electrical engineering industry, respectively.<sup>9</sup>

At the beginning of a technical standard development process, an SDO and its industry members must typically decide whether a new standard will be an “open,” “closed,” or a “hybrid” standard.<sup>10</sup> Developing an open standard requires all members with intellectual property (“IP”) interests in the technical standard to give up their IP rights.<sup>11</sup> As a result, open standards allow for anyone to practice the standard without the need to pay a fee or a royalty to the patent holders whose patents are incorporated into the standard.<sup>12</sup> Alternatively, an SDO forming a closed standard will not require its members with IP interests in the standard to give up their IP rights and those members are free to deny anyone from practicing the standard.<sup>13</sup> Entities that implement a closed standard are “locked in” to the patents that are essential to the standard.<sup>14</sup> As a result, these “essential patent[s]” automatically confer market power onto the patent holder.<sup>15</sup>

SDOs most commonly adopt a hybrid approach that addresses the shortcomings of open and closed standards by allowing members to retain some IP rights, while at the same time taking measures to prevent an essential patent holder from abusing its market power.<sup>16</sup> SDOs with hybrid

7. *Research in Motion Ltd. v. Motorola, Inc.*, 644 F. Supp. 2d 788, 790 (N.D. Tex. 2008).

8. Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CALIF. L. REV. 1889, 1894 (2002).

9. *About JEDEC*, JEDEC, <http://www.jedec.org/about-jedec> (last visited Feb. 16, 2012); *About Us*, IEEE STANDARDS ASSOCIATION, <http://standards.ieee.org/about/ieeesa.html> (last visited Feb. 16, 2012); *About W3C*, W3C, <http://www.w3.org/consortium> (last visited Feb. 16, 2012).

10. Lemley, *supra* note 8, at 1901.

11. *Id.* at 1902.

12. *Id.*

13. *Id.*

14. Mario Mariniello, *Fair, Reasonable, and Non-Discriminatory (FRAND) Terms: A Challenge for Competition Authorities*, 7 J. COMPETITION L. & ECON. 3, 523, 538 (2011).

15. *Id.* at 538 n.24.

16. Lemley, *supra* note 8, at 1906.

policies often require essential patent holders to commit to licensing their patents on reasonable and nondiscriminatory (“RAND”) terms.<sup>17</sup> RAND terms are intended to prevent owners of essential patents from extorting their competitors and from erecting barriers to entry into the marketplace.<sup>18</sup> For example, before a patent is incorporated into a standard created by the IEEE-SA, the patent owner is required to submit a Letter of Assurance (“LOA”) that agrees to the following:

[A] license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination. At its sole option, the Submitter [the “Submitter” is the industry member holding the IP rights to be incorporated into the new standard] may provide with its assurance any of the following: (i) a not-to-exceed license fee or rate commitment, (ii) a sample license agreement, or (iii) one or more material licensing terms.<sup>19</sup>

The LOA essentially requires the patent’s owner to agree to license its essential patents to an unrestricted number of licensees on a reasonable basis and free of any unfair discrimination. Many agreements also require that once a patent owner commits to RAND terms, the assurance is irrevocable.<sup>20</sup> This is to prevent manipulation of the hybrid system whereby a patent holder could make RAND assurances until the SDO incorporates its patent into the standard, then immediately withdraw its commitment and attack entities locked into practicing its essential patents.<sup>21</sup> Despite the intention of RAND licensing agreements, SDO member commitments have not always been a complete bulwark against unlawful monopolies.<sup>22</sup>

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17. Mariniello, *supra* note 14, at 538.

18. *Apple, Inc. v. Motorola Mobility, Inc.*, No. 11-CV-178-BBC, 2011 U.S. Dist. LEXIS 72745, at \*6 (W.D. Wis. June 7, 2011).

19. *IEEE-SA Standards Board Bylaws*, IEEE STANDARDS ASS’N § 6.2, <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#loa> (last visited Feb. 6, 2012); see *License Assurance/Disclosure Form*, JEDEC, [http://www.jedec.org/sites/default/files/License\\_Assurance-Disclosure\\_Form\\_20110119.pdf](http://www.jedec.org/sites/default/files/License_Assurance-Disclosure_Form_20110119.pdf) (last visited Feb. 6, 2012).

20. See, e.g., *IEEE-SA Standards Board Bylaws*, IEEE STANDARDS ASS’N § 6.2, <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#loa> (last visited Feb. 6, 2012) (“The assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard’s approval to the date of the standard’s withdrawal.”).

21. Lemley, *supra* note 8, at 1912.

22. See *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 319–20 (3d Cir. 2007) (ruling that a patent holder’s intentionally false promise to license essential proprietary technology on RAND terms, coupled with a standard-setting organization’s reliance on that promise

## B. THE SMARTPHONE PATENT WAR

In the past few years, the public has witnessed a smartphone patent war among major technology giants such as Microsoft, Google, Apple, Samsung, RIM, and HTC.<sup>23</sup> Dragging competitors into court to face patent infringement claims now appears to be a common strategy for companies seeking to obtain greater market share in the smartphone arena.<sup>24</sup> Due to the escalation in patent infringement suits in the smartphone marketplace, companies are ramping up their mobile technology patent portfolios.<sup>25</sup> In July 2011, Apple, Microsoft, RIM, Sony, Ericsson, and EMC formed an alliance to outbid Google and Intel for more than 6,000 patent assets<sup>26</sup> from Nortel Networks by placing the winning bid at \$4.5 billion.<sup>27</sup> Fearful of the competition's growth in patent strength, Google, in August 2011, acquired Motorola Mobility for \$12.5 billion. The deal, including approximately 17,000 patents, may provide greater stability for Google's Android smartphone operating system as it competes in the smartphone patent war.<sup>28</sup>

Smartphone companies are amassing enormous patent portfolios in order to remain competitive against a rival's patent portfolio.<sup>29</sup> The theory is this: as long as the major smartphone companies own an approximately equal number of patents that can seriously harm their competitors, each company believes that its competitors will not launch a full-scale patent infringement

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and the patent holder's subsequent breach of that promise, is actionable under Section 2 of the Sherman Act).

23. See Jacob Goldstein, *The Smartphone Patent War, In 1 Graph*, NPR: PLANET MONEY (Aug. 17, 2011), <http://www.npr.org/blogs/money/2011/08/17/139723088/the-smartphone-patent-war-in-1-graph> (a graphic illustrating past and current smartphone patent cases); Terry Ludlow, *Trends in Patent Litigation*, INTELLECTUAL ASSET MANAGEMENT, Sept.–Oct. 2011, at 15.

24. See, e.g., *Apple Inc. v. HTC Corp. et al.*, No. 1:2011-cv-00611 (D. Del. filed July 11, 2011); *Samsung Elecs. Co. Ltd. v. Apple Inc.*, 1: No. 2011-cv-00573 (D. Del. filed June 29, 2011); *Apple Inc. v. Samsung Elecs. Co. Ltd. et al.*, 5:2011-cv-01846 (N.D. Cal. filed Apr. 15, 2011).

25. See Colleen Chien, *A Race to the Bottom*, INTELLECTUAL ASSET MANAGEMENT, Jan.–Feb. 2012, at 13–14.

26. "Patent assets" include a combination of issued patents and pending patent applications.

27. See Helen Sloan, *The US \$4.5 Billion Tipping Point*, INTELLECTUAL ASSET MANAGEMENT, Nov.–Dec. 2011, at 8–14.

28. The number of issued patents is based on the number of worldwide issued patents disclosed on Pg. 4 of its Form 10-K filing. MOTOROLA MOBILITY, ANNUAL REPORT 4 (Feb. 18, 2011), available at [http://files.shareholder.com/downloads/ABEA-58XVPR/1221595050x0x442977/DABB979B-F846-4182-A153-87B36E8EBC6F/2010\\_Annual\\_Report\\_Form\\_10-K.pdf](http://files.shareholder.com/downloads/ABEA-58XVPR/1221595050x0x442977/DABB979B-F846-4182-A153-87B36E8EBC6F/2010_Annual_Report_Form_10-K.pdf).

29. See Chien, *supra* note 25, at 10–17.

attack for fear that the retaliation will be equally destructive.<sup>30</sup> This patent strategy is analogous to the military tactic of mutually assured destruction.<sup>31</sup> However, continually amassing patents under a mutually assured destruction strategy may not be financially sustainable or desirable from the perspective of technological innovation. In Part II, *infra*, this Note will propose integrating RAND licensing commitments and the smartphone patent war and will suggest that Google can strategically influence the long-term direction of the patent war by using its RAND-encumbered patents to force cross-licensing agreements with its competitors. If Google can successfully use RAND-encumbered patents to obtain licenses to patents it would otherwise infringe, this strategy may offer hope for neutralizing some of the patents each company is using offensively to threaten its competitors.

Part II of the Note identifies the major issues Google will face when asserting its cross-licensing strategy and discusses how Google will need to demonstrate that this practice is “reasonable” and “nondiscriminatory.” Furthermore, Part II identifies the antitrust issues Google may face if it leverages its RAND-encumbered patents for cross-licenses.

## II. DISCUSSION

Google announced that a primary objective of its acquisition of Motorola Mobility’s patent portfolio is to protect itself and Android OS smartphone manufacturers from future litigation over patent infringement.<sup>32</sup> Yet despite the massive portfolios that Google now possesses, it will not be fully immunized against patent infringement suits in all technology areas. The first Section of this Part is an in-depth examination of what “reasonable” and “nondiscriminatory” mean in the context of a cross-licensing arrangement. The second Section of this Part focuses on antitrust laws, specifically whether forcing cross-licensing agreements with RAND-encumbered patents is an acceptable practice under Section 2 of the Sherman Antitrust Act and under Section 5 of the FTC Act.

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30. *See id.* at 13–14.

31. Mutually assured destruction is a long-standing military policy whereby adversaries on both sides possess weapons capable of complete destruction of their opponent. The theory is that as long as each side is aware of their ability to completely destroy their opponent, as well as their potential to be completely destroyed by the other, neither side will engage in a full-scale attack, resulting in a stalemate. *See*, GETTING MAD: NUCLEAR MUTUAL ASSURED DESTRUCTION, ITS ORIGINS AND PRACTICE 1–13 (Henry D. Sokolski ed., Army War College (U.S.) Strategic Studies Institute, 2004).

32. Larry Page, *Supercharging Android: Google to Acquire Motorola Mobility*, OFFICIAL GOOGLE BLOG (Aug. 15, 2011, 12:52 PM), <http://googleblog.blogspot.com/2011/08/supercharging-android-google-to-acquire.html>.

## A. IS CROSS-LICENSING REASONABLE AND NONDISCRIMINATORY?

This Section explores whether Google's newly acquired RAND-encumbered patents can be used as a strategic tool for gaining cross-licensing rights to protect its vulnerable technology areas while still abiding by the requirements of a reasonable and nondiscriminatory licensing commitment. The terms "reasonable" and "nondiscriminatory" are analyzed in turn.

1. *How a Court Should Define "Reasonable"*

The goals of RAND licensing can easily be subverted if SDOs are unable to provide clear definitions to their members of what constitutes "reasonable" and "nondiscriminatory."<sup>33</sup> Although parties tend to disagree on the definition of "reasonable," a court should not declare Google's strategy to use RAND-encumbered patents for cross-licensing a violation of a "reasonable" term simply because of its non-traditional approach to RAND licensing. The following Sections explore several factors a court should consider when determining whether this cross-licensing agreement is reasonable.

- a) Defining "Reasonable" Requires Considering the Availability and Costs of Alternative Technologies Before the Standard Was Created

A court evaluating reasonable cross-licensing arrangements involving RAND-encumbered patents should consider the incremental value of the technology covered by the standard relative to the next best technology alternative before the creation of the standard.<sup>34</sup> In other words, if the difference in value between the technology covered by the standard and the next best alternative is significant, a hypothetical negotiation for a reasonable royalty would also likely result in significant royalty value for the patent holder.<sup>35</sup> If Google can demonstrate (1) that before their RAND-

33. Lemley, *supra* note 8, at 1964.

34. George S. Cary, Paul S. Hayes & Larry C. Work-Dembowski, *Antitrust Implications of Abuse of Standard-Setting*, 15 GEO. MASON L. REV. 1241, 1260 (2008).

35. The fifteen *Georgia-Pacific* factors are typically used for determining reasonable royalty rate when calculating patent infringement damages. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 258 F.2d 124, 132–34 (2d Cir. 1958). However, a court calculating a reasonable royalty arising out of hypothetical negotiations may not want to apply all fifteen *Georgia-Pacific* factors:

The precise interpretation is more complex because a particular user may be locked in by the network effects surrounding others' adoption even before it has itself made any investments. This interpretation of a "fair and reasonable" royalty differs from the *Georgia-Pacific* interpretation of "reasonable royalties" in a patent infringement case in at least two ways.



encumbered patents were locked into the standard there were no competitive alternatives to its technology, (2) that the competitive alternatives that did exist were cost prohibitive, or (3) that the competitive alternatives also infringed the licensor's patents, then Google may successfully convince a court that the cross-licenses it seeks from its competitors are relatively high in value.<sup>36</sup> However, the patent demanded from one of Google's competitors seeking to practice the standard must not have a value so high as to render the adoption of the standard inefficient, such that the relevant industry would be discouraged from making the investments necessary to implement the standard and license the required technology.<sup>37</sup>

b) Defining "Reasonable" Requires Considering a RAND-encumbered Patent's Contribution to the End-Product

A reasonable cross-licensing agreement may require analyzing the RAND-encumbered patent's contribution to the overall end-product. For example, if a RAND-encumbered patent covers the configuration of a smartphone's physical communication connector port, the value this patent contributes to the overall value of the smartphone is relatively small.<sup>38</sup> Therefore, it is likely unreasonable to demand a value for the RAND-encumbered patent that is incommensurate with the value the communication connector port contributes to the smartphone's overall value. In a recent case involving RAND licensing agreements, Microsoft argued that it was unreasonable for the essential patent holder, Motorola, to demand a royalty rate based on the entire product sale when the rate is

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First, the *Georgia-Pacific* notion presumes that the patent is valid as well as infringed. That assumption may not hold here, so some discounting is appropriate to reflect patent strength. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 258 F.2d 124, 132–34 (2d Cir. 1958). Second, one of the *Georgia-Pacific* factors hypothesizes a negotiation between a patent holder that is willing to license and the infringer at the time that the infringement began. In the standard-setting context, the time when infringement actually begins is too late, because it is typically after a standard is set and investments have been made.

Joseph Farrell et. al, *Standard Setting, Patents, and Hold-up*, 74 ANTITRUST L.J. 603, 637 n.134 (2007).

36. Cary, *supra* note 34, at 1260.

37. *Id.*

38. This statement rests on assumption that a smartphone's physical communication port is a feature that does not typically drive consumer demand. Instead, consumers are traditionally more concerned with smartphone features such as processor speed, screen size, camera capabilities, battery life, operating system, etc. See, e.g., *How to Buy Smartphones*, TECHCRUNCH, <http://smartphones.techcrunch.com/#buyersguide> (last visited Mar. 30, 2012).

“without reference to the proportionate contribution of the technology to the product.”<sup>39</sup> In this case, Motorola demanded a 2.25% royalty on every Microsoft Xbox 360 sold.<sup>40</sup> Microsoft argued this was unreasonable because Motorola could extract a royalty ranging from \$4.48 to \$10.10 depending on which bundled version of the Xbox 360 is sold, even though Motorola’s essential patents contributed the same technical capabilities<sup>41</sup> regardless of which bundled Xbox 360 is sold.<sup>42</sup>

Microsoft argued that Motorola’s “reasonable” demand of 2.25% violated the “Entire Market Value” Rule.<sup>43</sup> The Entire Market Value Rule states that a patentee is permitted to base its request for reasonable royalty on the end value of the product containing the patented technology “only where the patented feature creates the ‘basis for customer demand’ or ‘substantially create[s] the value of the component parts.’”<sup>44</sup> Failing this, the patent holder must separate or apportion the implementer’s profits and the patentee’s alleged damages “between the patented feature and the unpatented features.”<sup>45</sup> Microsoft went on to argue that the rule applies with greater force where the essential patent holder possesses the market leverage of a technical standard.<sup>46</sup>

Therefore, if Google is infringing on a valuable non-essential patent owned by a competitor, it may be unreasonable to allow Google to cross-license that non-essential patent if Google’s essential patent offered in exchange belongs to a relatively insignificant standard. In this situation, Google’s cross-licensing demands could violate the Entire Market Value Rule because the competitor’s profits are only minimally related to Google’s essential patent. It would be unreasonable for Google to demand from its competitor a license to an infringed patent that could be worth a substantial remedy if the competitor prevailed in a patent infringement suit.

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39. Motion for Partial Summary Judgment for Microsoft at 26, *Microsoft Corp. v. Motorola Inc.*, No. C10-1823-JLR, (W.D. Wash. Sept. 9, 2011).

40. *Id.* at 12.

41. *Id.* at 13 (“Each version of the Xbox 360 has the *same* built-in wireless network adapter and the *same* video decoding capabilities.” (emphasis in original)).

42. Motion for Partial Summary Judgment for Microsoft at 13, *Microsoft Corp.*, No. C10-1823-JLR.

43. *Id.* at 24.

44. *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011) (citing *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1336 (Fed. Cir. 2009)).

45. *Id.* at 1318.

46. Motion for Partial Summary Judgment for Microsoft at 24, *Microsoft Corp.*, No. C10-1823-JLR.

c) Defining “Reasonable” Requires Understanding the Unique Relationship Between Parties

Many RAND agreements used by SDOs do not limit essential patent holders to licensing their IP rights only on a fee or royalty basis.<sup>47</sup> Typically there is no language on the face of most published RAND licensing agreements that would explicitly prohibit a cross-licensing arrangement.<sup>48</sup> For example, the International Telecommunication Union, another major SDO in the wireless communications industry, intentionally does not define reasonable because it recognizes that the arrangement between parties can differ from case to case.<sup>49</sup>

A court should decide whether cross-licensing a RAND-encumbered patent is acceptable only after examining the unique relationship between Google and its competitors, especially taking into account business dealings between the parties. If, for example, Google attempted to use RAND-encumbered patents to gain cross-licenses to Apple’s patents, Google could request that a court take into consideration the extensive cross-licensing already in existence between the companies. Google could also request that the court consider the prolific patent litigation between Apple’s iOS and Android as another reason why cross-licensing RAND-encumbered patents should be reasonable. In this situation, a court may conclude that these companies are clearly willing to cross-license patents to each other and that Google’s cross-licensing demands are a reasonable method of reducing the excessive litigation between the parties.

In determining reasonableness, a court should also account for other business dealings between the parties, such as distribution agreements and

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47. See, e.g., JEDEC MANUAL OF ORGANIZATION AND PROCEDURE § 8.2.5 (May 2010), <http://www.jedec.org/sites/default/files/JM21Q.pdf> (“A license will be offered to applicants desiring to utilize the license for the purpose of implementing the JEDEC Standard under reasonable terms and conditions that are demonstrably free of any unfair discrimination.”).

48. See, e.g., *IPR Statement*, TIA, <http://www.tiaonline.org/all-standards/procedures/ipr> (last visited Apr. 21, 2012); *ETSI Intellectual Property Rights Policy*, ETSI (Nov. 30, 2011), <http://www.etsi.org/WebSite/document/Legal/ETSI%20IPR%20Policy%20November%202011.pdf>; *IEEE-SA Standards Board Bylaws*, IEEE STANDARDS ASS’N § 6.2, <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#loa> (last visited Feb. 6, 2012); *License Assurance/Disclosure Form*, JEDEC, [http://www.jedec.org/sites/default/files/License\\_Assurance-Disclosure\\_Form\\_20110119.pdf](http://www.jedec.org/sites/default/files/License_Assurance-Disclosure_Form_20110119.pdf) (last visited Feb. 6, 2012).

49. See GUIDELINES FOR IMPLEMENTATION OF THE COMMON PATENT POLICY FOR ITU-T/ITU-R/ISO/IEC, 8 INTERNATIONAL TELECOMMUNICATION UNION (Mar. 1 2007), [http://www.itu.int/dms\\_pub/itu-t/oth/04/04/T04040000010002PDFE.pdf](http://www.itu.int/dms_pub/itu-t/oth/04/04/T04040000010002PDFE.pdf) (“The detailed arrangements arising from patents (licensing, royalties, etc.) are left to the parties concerned, as these arrangements might differ from case to case.”).

co-branding agreements, as reasons why cross-licensing RAND-encumbered patents may be reasonable.<sup>50</sup> Other unique arrangements that might alter what “reasonable” means for parties transacting with each other include when a licensee is seeking a license for a limited geographic scope or for a limited term. Limitations on the scope or term likely reduce the overall value of a license when compared to an unrestricted license and may help a court assess whether the proposed cross-licensing arrangement is reasonable.

To summarize, a court weighing the relative values of a RAND-encumbered patent against a patent from Google’s competitor should consider the following factors before deciding whether the proposed cross-licensing agreement is reasonable: the availability of alternative technologies before the standard was implemented, the RAND-encumbered patent’s contribution to the overall end-product, and the unique business dealing between the parties.

## 2. *How a Court Should Define “Nondiscriminatory”*

As with the term “reasonable,” the term “nondiscriminatory” is also not well-defined by courts or commentators. To better understand the meaning of nondiscriminatory in the context of RAND agreements, it is helpful to divide the analysis into two paradigmatic situations. The first involves a RAND-encumbered patent with no existing licensees. In other words, Google’s competitors have no frame of reference for finding discrimination, at least with regard to the specific RAND-encumbered patent in question. The second typical situation occurs when a RAND-encumbered patent has at least one existing licensee. In this situation, a competitor might point to an existing licensee’s arrangements, fees, or royalties and demand similar “nondiscriminatory” treatment.

### a) A RAND-encumbered Patent with No Existing Licensees

A competitor faced with Google’s demands to cross-license may have a less compelling discrimination case when the essential patent has not been previously licensed to any other group. In this instance, a competitor cannot point to other RAND-encumbered patent licensees and demand similar nondiscriminatory treatment based on a previously established licensing precedent.

However, a competitor claiming that a cross-licensing demand is discriminatory could identify other patents belonging to the same technical standard that are owned by other industry members and demand a similar fee

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50. Defendants’ Opposition to Microsoft’s Motion for Partial Summary Judgment at 14, *Microsoft Corp. v. Motorola Inc.*, No. C10-1823-JLR, (W.D. Wash. Sept. 23, 2011).

or royalty arrangement. Google could argue that it is not discriminatory to have different licensing terms for different patents, regardless of whether the patent holder is seeking money or a cross-licensing agreement, since every patent has a unique claim set, patent term, priority date, prosecution history, etc., when compared to another patent.

Google may want to identify which of its newly acquired patents from Motorola Mobility are RAND-encumbered and have not been previously licensed to anyone. Once such patents are identified, it may behoove Google to avoid licensing these patents to parties in exchange for a fee or royalty. Instead it may try to license its RAND-encumbered patents only in exchange for cross-licensing rights, even if the cross-licensed patent it obtains is relatively insignificant to Google's practice. Doing so may provide Google with more stable footing when a competitor one day claims Google's practice is unfairly discriminating because Google can then demonstrate a precedent of only cross-licensing its RAND-encumbered patents.

However, a strategy of treating every entity seeking a RAND license the same (i.e. requiring a cross-licensing arrangement) may cause difficulty where the entity seeking a license does not own any patents. In this scenario, Google may be forced to give the license away for free or require the company to purchase a token patent only for cross-licensing purposes. Critics may also claim that this idea discriminates between patent-rich and patent-poor firms.<sup>51</sup> Take for example a case where the company seeking a license to the RAND-encumbered patent is a small start-up with only two or three patents that each cover critical aspects of the start-up's novel technology. In this instance, a court will likely find it unreasonable for Google to demand a cross-license to one of the start-up's fundamental patents.

Ultimately, the factors for determining whether a cross-licensing arrangement is unfairly discriminating in a case where the RAND-encumbered patent has no existing licensees should not depend on whether Google is maintaining a cross-licensing precedent. Instead, regardless of whether Google is seeking pecuniary compensation or compensation in the form of a cross-license, the focus should be on whether Google is accepting similar value in return for its RAND-encumbered patents. Although patent valuation can often be more of an art than a science, some guidance on

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51. Farrell, *supra* note 35, at 640.

valuing patents can be found in the literature<sup>52</sup> as well as in the previous Section covering “reasonable” licensing rates, *supra*, Part II.A.1.

b) A RAND-encumbered Patent with Existing Licensees

Most RAND agreements from SDOs require that essential patent holders provide licenses that are “demonstrably free of any unfair discrimination.”<sup>53</sup> In a situation where a RAND-encumbered patent already has at least one existing licensee, Google may need to emphasize that, although it may be treating different groups differently, it is not practicing “unfair discrimination.” Justifying a difference in licensing treatment may depend on distinguishing the existing licensees’ situation from the situation of the current entity seeking a license to the RAND-encumbered patent. Instead of arguing that nondiscriminatory treatment means treating everyone the same, Google might instead focus on the rationalization of treating every entity seeking a RAND license differently because every entity is in a unique situation.

Google should be able to justify some amount of discrimination by highlighting specific reasons why the party seeking the license should be treated differently. Licensees may be distinguished from one another if licensees are requesting licenses for different fields of use, geographic scope, or duration. Other differentiating factors may include the fact that a competing company is targeting a different demographic or practicing this technical standard in a different way compared to the existing licensees. Take, for example, the case where an existing licensee is making wireless communication transmitters solely for specialized military applications. Google may be able to raise compelling public interest and policy reasons why this company should have more favorable licensing terms than a company like Apple, which sells wireless communication devices primarily for business and personal uses.

Google could also contend that it is discriminatory to require small entities and large entities to pay identical licensing rates. A start-up company, which may not even have a revenue stream, may claim that uniform licensing terms are discriminatory because it must pay the same licensing rates as a company with billions of dollars in annual revenue. A court may decide that the less discriminatory method is to scale the licensing rate depending on the

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52. See, e.g., Charles Eldering and Juan Gisone, *Claims-based Patent Valuation*, INTELLECTUAL ASSET MANAGEMENT, Nov.–Dec. 2011, at 58–63.

53. See *IEEE-SA Standards Board Bylaws*, IEEE STANDARDS ASS’N § 6.3.1, <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#loa> (last visited Feb. 6, 2012); *JEDEC Manual*, *supra* note 47, at § 8.2.5.

company's revenue. In this scenario, it may be nondiscriminatory to require Apple to cross-license a valuable non-essential patent given that Apple is a company with over \$65 billion in annual revenue.<sup>54</sup>

Google may request a court to consider that some of its existing RAND licensees should benefit from lower licensing rates because of an established long-term business relationship. In other words, Google may not be unfairly discriminating if certain companies have previously invested significant resources towards cultivating a business relationship with Google. Therefore Google may assert that some of its existing licensees are simply paying a subsidized reasonable rate because these companies have already made other significant investments in Google.

Even if a RAND-encumbered patent has existing licensees paying royalties or fees, a court should not declare Google's cross-licensing strategy unfairly discriminating simply because it deviates from a uniform licensing rate. Each company seeking a license from Google has its own unique financial, legal, and business situation. A court should focus on recognizing and accounting for important distinguishable differences between licensees when considering whether cross-licensing RAND-encumbered patents is unfairly discriminating.

B. ANTI-TRUST ISSUES IN CROSS-LICENSING RAND-ENCUMBERED PATENTS

Google may encounter antitrust issues if it employs its recently purchased RAND-encumbered patents as a tool to force competitors into cross-licensing non-essential patents. Critics of Google's cross-licensing strategy may claim that its practice is demanding excessively high value for its essential patents and that the company is violating antitrust laws by attempting to monopolize the smartphone market, chill technological innovation, and harm competition.<sup>55</sup> As the court found in *Research in Motion, Ltd. v. Motorola, Inc.*, a case involving Motorola's failure to uphold its RAND commitments, "[i]f Motorola licenses only at exorbitant rates, it will force its competitors [like Microsoft] to increase prices in the downstream market in

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54. *Fortune 500*, CNN MONEY, [http://money.cnn.com/magazines/fortune/fortune500/2011/full\\_list](http://money.cnn.com/magazines/fortune/fortune500/2011/full_list) (last visited Dec. 3, 2011).

55. *See, e.g.*, Thomas Catan & Ian Sherr, *U.S. to Clear Google's Deal*, WALL ST. J., Feb. 9 2012, at B5 (stating that the U.S. Department of Justice is poised to clear the \$12.5 billion dollar patent deal between Google and Motorola Mobility, however, antitrust enforcers in the U.S. and Europe remain concerned about Google's commitment to license Motorola patents to competitors on fair terms and will closely monitor Google's use of the patents).

order to make a profit. This increase in prices for all products except Motorola's will harm competition."<sup>56</sup>

The primary goal of antitrust law is to maximize consumer welfare by promoting competition among firms.<sup>57</sup> Patents incorporated into a technical standard raise antitrust concerns because the essential patent holder faces no competing technologies and may be able to appropriate the monopoly power created by the standard by demanding consideration far in excess of what it could have negotiated if its patent was non-essential.<sup>58</sup> Although abuses due to this standard-setting process can create significant antitrust issues, SDOs also advance antitrust goals by ensuring the interoperability of products, which enhances product utility, increases the overall consumer market, and decreases prices.<sup>59</sup> Industry-wide standards may also lower costs to consumers for switching between competing products and services, thereby enhancing competition among suppliers.<sup>60</sup>

In the context of antitrust cases involving standard-setting, courts will typically focus on whether the existence and enforcement of IP rights poses a potential risk to competition.<sup>61</sup> Google's attempt to use RAND-encumbered patents to obtain cross-licenses from competitors may be deemed anticompetitive and in violation of antitrust laws under Section 2 of the Sherman Antitrust Act (either unlawful monopolization or attempted monopolization).

#### 1. *Unlawful Monopolization—Section 2 of the Sherman Antitrust Act*

Section 2 of the Sherman Antitrust Act makes it illegal to “monopolize or attempt to monopolize” or to “combine or conspire” with others to monopolize any relevant market.<sup>62</sup> The mere possession and maintenance of a large market share, even 100% of the market, is not, in and of itself, illegal.<sup>63</sup> Rather, proving unlawful monopolization requires showing two elements: (1) that a firm has monopoly power within a properly defined relevant market and (2) that a firm was acquired, maintained, or enhanced

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56. *Research in Motion, Ltd. v. Motorola, Inc.*, 644 F. Supp. 2d 788, 794 (N.D. Tex. 2008).

57. PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION* para. 100 (3rd ed. 2006).

58. Cary, *supra* note 34, at 1254.

59. *Broadcom Corp. v. Qualcomm, Inc.*, 501 F.3d 297, 308 (3d Cir. 2007).

60. *Id.* at 309.

61. Lemley, *supra* note 8, at 1938.

62. 15 U.S.C. § 2 (2006).

63. *See United States v. Microsoft Corp.*, 253 F.3d 34, 51 (D.C. Cir. 2001) (stating that “merely possessing monopoly power is not itself an antitrust violation”).



that power by the use of exclusionary or predatory conduct, “as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.”<sup>64</sup> Therefore, in the context of patent cross-licensing, a court would find Google in violation of Sherman Act Section 2 if it could be shown that Google has monopoly power in the relevant market and that cross-licensing RAND-encumbered patents allowed Google to acquire or maintain its monopoly position through anticompetitive tactics.

a) Possession of Monopoly Power Within a Properly Defined Relevant Market

A threshold question under the Sherman Act is whether Google possesses monopoly power in the relevant market. In theory, Google, without monopoly power in the relevant market, should not be able to do any damage if those markets are performing in a healthy, competitive way.<sup>65</sup>

The traditional doctrinal test for market power is the market share proxy test, which first requires defining both the product market and the geographic market in which Google competes.<sup>66</sup> Then, given all other characteristics of the relevant market, the market share proxy test asks whether Google’s market share suggests it could raise its prices without losing business.<sup>67</sup>

Under the first part of the market share proxy test, a court needs to identify the proper product market in which Google competes. Without a proper definition of a market, there is no way to measure an alleged monopolist’s ability to lesson or destroy competition.<sup>68</sup> Google’s competitors will likely attempt to define this market as narrowly as possible in an effort to inflate Google’s market share. For example, in a case where Google’s patent is essential to a technical standard covering smartphone microprocessors, competitors may argue that the relevant market is limited only to the microprocessor arena. Competitors may also argue that Google, by owning an essential patent belonging to a standard, already possesses market power in the technical standard. Google, on the other hand, will try to frame the

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64. *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966).

65. *See* R. Preston McAfee, *Price Discrimination*, 1 ISSUES IN COMPETITION L. & POL. 465–66 (2008); LAWRENCE A. SULLIVAN & WARREN S. GRIMES, *THE LAW OF ANTITRUST: AN INTEGRATED HANDBOOK* 58 (2000).

66. SULLIVAN, *supra* note 65, at 61.

67. *See generally, id.* at 59–67 (providing a detailed discussion on how to measure a firm’s market power).

68. *See Walker Process Equip. v. Food Mach. and Chem. Corp.*, 382 U.S. 172, 177 (1965).

relevant market as broadly as possible to dilute its market share. For example, Google, in the case of the microprocessors, may claim that the relevant market includes all smartphones that contain a microprocessor, which would include *all* smartphones available today.

It is unclear how broadly or narrowly a court would define Google's relevant market. A proper definition of the relevant market will depend on the patent's subject matter and the technical standard involved. However, if the primary goal of antitrust law is to promote consumer welfare, it may be compelling for Google to argue the relevant market from the perspective of the consumer. Given that consumers participating in the marketplace deal with Motorola Droid smartphones and Apple iPhones, not microprocessor hardware and radio transmitter components, the more appropriate relevant market may be defined in terms of the end-products—smartphones.

Products are considered to be in the same relevant market if consumers would consider them potential alternatives to each other.<sup>69</sup> If a consumer using a smartphone device running Google's Android OS can reasonably turn to an alternative product such as Apple's iPhone (running Apple's iOS) or a smartphone device running Windows Phone OS, a court would consider these products to be within the same relevant market. Within the smartphone market, the proper relevant market definition should include the smartphone devices manufactured by major hardware companies (e.g., Apple, HTC, RIM, Samsung) because consumers typically consider these products as potential alternatives to each other.<sup>70</sup>

The second part of the market share proxy test is defining the geographic market in which Google competes.<sup>71</sup> In the case of geographical area, smartphone use is well-distributed throughout the entire country. That is to say, locations where consumers could purchase Android devices are reasonably co-localized with places where consumers could also purchase iPhones, BlackBerrys, and other smartphone devices. Therefore, defining the geographic market may not be informative or pertinent to a court's inquiry into Google's U.S. market share.

Finally, under the third part of the market share proxy test, Google's market share suggests it could raise its prices without losing business. If

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69. *See, e.g.*, *United States v. E. I. du Pont de Nemours and Co.*, 351 U.S. 377, 394 (1956) (reasonably interchangeable products define the relevant product market).

70. *See, e.g.*, *2012 Best Smartphone Comparisons and Reviews*, TOPTENREVIEWS, <http://cell-phones.toptenreviews.com/smartphones> (last visited Feb. 21, 2012) (comparing 21 smartphones available in 2012 with similar features such as processor speed, physical size, memory, battery life, wireless communication protocols, and camera capabilities).

71. *Spectrum Sports, Inc. v. McQuillan*, 506 U.S. 447, 459 (1993).

Google has (1) the power to raise prices in the relevant market above competitive levels or (2) the power to exclude competition in the relevant market, then it possesses a monopoly in the relevant market.<sup>72</sup>

One method for determining monopoly power is to look at a company's market share.<sup>73</sup> If the relevant market is broadly defined to be all smartphones, then Google's share in the smartphone device market may be difficult to calculate since the Android OS is open-source software and Google, by itself, does not make smartphone devices. However, as evidenced by its purchase of 17,000 patents from Motorola Mobility, Google is front and center in leading the patent war on behalf of the Android smartphone device manufacturers.<sup>74</sup> With its new battle chest of patents, Google, and not the Android smartphone device manufacturers acting by themselves, is the largest threat to its competitors and to fair competition.<sup>75</sup> Therefore, it may be fair to use the Android OS market share as a proxy for gauging Google's potential monopoly power in the device market if the relevant market is defined to include all smartphones.

A market share of 70% or more is generally considered a reasonable threshold for monopoly power.<sup>76</sup> A market share of less than 50% will likely be insufficient.<sup>77</sup> According to a recent report by Nielsen, Android currently holds the largest share of the mobile OS market with 43% of the U.S. market share.<sup>78</sup> A market share of 43% is likely too low for a court to find that Google has monopoly power within the smartphone market. However, the Android operating system is showing steady growth from a market share of

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72. See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 27 (1984); *E. I. du Pont de Nemours and Co.*, 351 U.S. at 391.

73. JONATHAN M. JACOBSON, *ANTITRUST LAW DEVELOPMENTS* 230 (6th ed. 2007).

74. See, e.g., Jack Ellis, *Google Treading the Warpath as it Puts Motorola Purchase to the Test*, INTELLECTUAL ASSET MANAGEMENT BLOG (Jan. 27, 2012), <http://www.iam-magazine.com/blog/detail.aspx?g=df971109-cfbf-4c76-9363-1816c9402175&q=google+motorola#search=%22google+motorola%22> (commenting that Motorola Mobility filed a patent infringement suit against Apple in the Southern District of Florida on Jan. 25, 2012 only after obtaining permission from Google to initiate litigation).

75. See, e.g., Florian Mueller, *These Are the Patents Google Gave to HTC to Assert Against Apple*, FOSS PATENTS (Sept. 8, 2011), <http://fosspatents.blogspot.com/2011/09/these-are-patents-google-gave-to-htc-to.html> (noting that several of the patents HTC is asserting against Apple are patents Google assigned to HTC).

76. JACOBSON, *supra* note 73, at 231.

77. *Id.* at 232.

78. Don Kellogg, *In U.S. Market, New Smartphone Buyers Increasingly Embracing Android*, NIELSEN WIRE BLOG (Sept. 26, 2011), [http://blog.nielsen.com/nielsenwire/online\\_mobile/in-u-s-market-new-smartphone-buyers-increasingly-embracing-android](http://blog.nielsen.com/nielsenwire/online_mobile/in-u-s-market-new-smartphone-buyers-increasingly-embracing-android).

36% in May 2011<sup>79</sup> to 39% in July 2011<sup>80</sup> to 43% in September 2011.<sup>81</sup> Of smartphone users who purchased new smartphones from June 2011 to August 2011, 56% of users selected Android devices.<sup>82</sup> This data from Nielsen suggests that Android's total U.S. market share may exceed 50% in the near future and may increase Google's risk of possessing monopoly power in the smartphone market.

A court might alternatively define the product market using the "small but significant and non-transitory increase in price" ("SSNIP") test, which seeks to identify the smallest relevant market within which a hypothetical monopolist could impose a profitable significant increase in price.<sup>83</sup> Under the SSNIP test, the candidate market is iteratively expanded by the product-in-question's closest substitute.<sup>84</sup> A court finds the relevant market properly defined when substitution to products outside the set is sufficiently weak to allow a collectively profitable price increase for all of the included products.<sup>85</sup> However, the appropriateness of the SSNIP test for defining the smartphone device product market may be questionable given the limited number of smartphone substitutes available. If the products-in-question are all Android smartphone devices, then the variety of different Android-based smartphones may far outnumber the different types of substitute smartphones available to consumers (e.g., iPhones, BlackBerrys, Windows Phones).<sup>86</sup> As a result, the SSNIP test may not be informative for defining

79. *Android Leads in U.S. Smartphone Market Share and Data Usage*, NIELSEN WIRE BLOG (Jul. 28, 2011), <http://blog.nielsen.com/nielsenwire/consumer/android-leads-u-s-in-smartphone-market-share-and-data-usage>.

80. Kellogg, *supra* note 78.

81. *Id.*

82. *Id.*

83. See DEPARTMENT OF JUSTICE AND FEDERAL TRADE COMMISSION, HORIZONTAL MERGER GUIDELINES § 4.1 (2010) (stating that the Department of Justice and Federal Trade Commission employ the SSNIP hypothetical monopolist test to evaluate whether groups of products in candidate markets are sufficiently broad to constitute relevant antitrust markets).

84. Øystein Daljord, Lars Sorgard & Øyvind Thomassen, *The SSNIP Test and Market Definition with the Aggregated Diversion Ratio: A Reply to Katz and Shapiro*, 4 J. COMPETITION L. & ECON. 263, 263 (2007).

85. *Id.*

86. For example, the AT&T online store offers 25 different types of Android smartphones for purchase, compared to 3 types of iPhone/iOS smartphones, 5 types of RIM/BlackBerry OS smartphones, and 5 types of Windows Phone OS smartphones, *AT&T PDAs & Smartphones*, AT&T, <http://www.wireless.att.com/cell-phone-service/cell-phones/pda-phones-smartphones.jsp> (last visited Feb. 21, 2012). The Sprint online store sells approximately 20 different types of Android OS smartphones, compared to 2 types of iPhone/iOS smartphones, 7 types of RIM/BlackBerry OS smartphones, and 2 types of Windows Phone OS smartphones. *Sprint Shop*, SPRINT, <http://shop.sprint.com> (last visited Feb. 21, 2012).

the product market given the limited ability to iteratively expand the substitute market.

b) Exclusionary or Predatory Conduct

Exclusionary or predatory conduct is the second required element for proving unlawful monopolization.<sup>87</sup> Exclusionary conduct is conduct other than competition on the merits that reasonably appears capable of making a significant contribution to creating or maintaining monopoly power.<sup>88</sup> Specific categories of potentially exclusionary conduct include: (1) predatory pricing; (2) refusing access to competitors; (3) vertical arrangements that foreclose competitors from suppliers or customers; (4) abuse of product designs or introductions; (5) abuse of governmental process; (6) abuse of standards setting; (7) tortious conduct; and (8) coordination with competitors to gain monopoly.<sup>89</sup> A court will likely be concerned with whether Google's conduct is abusing the standard-setting organizations by capturing the economic power of an industry-wide standard and turning the SDO into a source of exclusionary power.<sup>90</sup>

A court might also apply the “No Economic Sense” test of exclusionary conduct developed by the Supreme Court in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*<sup>91</sup> Under this test, economically irrational behavior in dealings with the competition may be indicative of an exclusionary goal.<sup>92</sup> Google's competitors may argue that by sacrificing the collection of fee or royalty streams from their RAND-encumbered patents and instead seeking only patent cross-licenses, Google's conduct is exclusionary under the No Economic Sense test. In response, Google could assert a procompetitive rationale for its behavior by showing a court that its competitors' non-essential patents have economic value for the company and its products. However, this is a difficult line to tread—Google will want to show that the non-essential patents have economic value, but at the same time the value of the non-essential patents must also have comparable value relative to its

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87. JACOBSON, *supra* note 73, at 240.

88. PHILLIP E. AREEDA & DONALD F. TURNER, ANTITRUST LAW para. 626b, at 78 (1978) (“Thus, ‘exclusionary’ comprehends at the most behavior that not only (1) tends to impair the opportunities of rivals, but also (2) either does not further competition on the merits or does so in an unnecessarily restrictive way.”).

89. *See generally*, JACOBSON, *supra* note 73, at 240–300 (describing various categories of potentially exclusionary conduct).

90. *See* Am. Soc. of Mech. Engineers, Inc. v. Hydrolevel Corp., 456 U.S. 556, 571–72 (1982).

91. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 608 (1985).

92. *Id.*

RAND-encumbered patents in order to avoid violating its RAND commitments.

Finally, conduct that merely harms competitors, while not harming the competitive process itself, is not anticompetitive.<sup>93</sup> As the Supreme Court observed in *Aspen Skiing*, “[t]he question whether [the defendant’s] conduct may properly be characterized as exclusionary cannot be answered by simply considering its effect on the plaintiff but must also consider its effects on competition.”<sup>94</sup> Therefore, any antitrust claims against Google must not center only on the harm done to specific competitors, such as Apple or Microsoft, but on the entire ecosystem of smartphone competition.

## 2. *Attempted Monopolization—Section 2 of the Sherman Act*

In addition to bringing an unlawful monopolization claim, a plaintiff may also bring a cause of action under attempted monopolization.<sup>95</sup> A court may view Google’s attempt to use RAND-encumbered patents to force the competition to grant it cross-licenses as an unlawful attempt to monopolize the relevant market. An attempted monopolization claim has the same elements as unlawful monopolization (exclusionary conduct in a properly defined relevant market), but a Google competitor must additionally demonstrate (1) that Google specifically intended to acquire monopoly power and (2) that Google has a dangerous probability of successful monopolization.<sup>96</sup>

### a) Specific Intent to Monopolize

Attempted monopolization would require a plaintiff to prove that Google, in implementing its strategy of cross-licensing recently obtained RAND-encumbered patents, had the specific intent to acquire a monopoly. While a plaintiff would need to show evidence of specific intent, it is unclear what types of evidence would suffice. In *Aspen Skiing*, the Supreme Court noted that evidence of business conduct “not related to any apparent efficiency” may constitute proof of specific intent to monopolize.<sup>97</sup> The Supreme Court has also stated that specific intent must be “something more than an intent to compete vigorously.”<sup>98</sup>

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93. *United States v. Microsoft*, 253 F.3d 34, 58 (D.C. Cir. 2001).

94. *Aspen Skiing Co.*, 472 U.S. at 605.

95. 15 U.S.C. § 2 (2006).

96. *Spectrum Sports v. McQuillan*, 506 U.S. 447, 456 (1993).

97. *Aspen Skiing Co.*, 472 U.S. at 608.

98. *Spectrum Sports*, 506 U.S. at 459.

Direct evidence of intent would likely satisfy this element of attempted monopolization.<sup>99</sup> However, a court may infer specific intent in cases involving actual exclusion<sup>100</sup> or substantial and grossly anticompetitive predatory or exclusionary conduct.<sup>101</sup> Therefore, a court may ask whether Google's method of gaining cross-licenses to a competitor's non-essential patents is related to any apparent efficiency and intent to compete vigorously. If not, a court may engage in a similar predatory or exclusionary conduct inquiry as outlined above in Section II.B.1, *supra*. Courts generally agree that the mere "intent" to harm one's rivals by producing a better product at a lower, but profitable, price should never violate the antitrust laws.<sup>102</sup>

b) Dangerous Probability of Successful Monopolization

To prove a "dangerous probability of successful monopolization," an antitrust plaintiff must define a market and show that the defendant possesses a certain amount of market power.<sup>103</sup> In the absence of such a showing, even fairly egregious conduct is not an antitrust violation.<sup>104</sup> If a court defines the relevant market as all smartphone operating systems, then the Android OS currently holds approximately 43% of the U.S. market share for mobile operating systems.<sup>105</sup> Market share requirements vary widely in attempted monopolization cases, but the case law suggests that 43% is too

99. *Id.*

100. *See* Confederated Tribes of Siletz Indians v. Weyerhaeuser Co., 411 F.3d 1030, 1042 (9th Cir. 2005) (holding that the jury could reasonably find specific intent based upon anticompetitive conduct alone), *vacated on other grounds sub nom.*, Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., Inc., 549 U.S. 312 (2007); Nobody in Particular Presents, Inc. v. Clear Channel Communs., 311 F. Supp. 2d 1048, 1105–08 (D. Colo. 2004) (holding that "[i]mproper exclusion is always deliberately intended" where exclusion was against defendant's financial interests accompanied by coercive threats).

101. *Spectrum Sports*, 506 U.S. at 459 (holding that a showing of predatory or anticompetitive conduct "may be sufficient to prove the necessary intent to monopolize").

102. *Conoco Inc. v. Inman Oil Co.*, 774 F.2d 895, 905 (8th Cir. 1985) (finding that an executive's statements that he intended to drive competitor "out of business" and that he wanted "100% of the lubricant business in the region" were insufficient to establish intent to monopolize in the absence of anticompetitive conduct); *William Inglis & Sons Baking Co. v. ITT Cont'l Baking Co.*, 668 F.2d 1014, 1028 (9th Cir. 1981) ("[i]ntent alone can be ambiguous . . . intent to vanquish a rival in an honest competitive struggle cannot help to establish an antitrust violation" (citations omitted)).

103. *Spectrum Sports*, 506 U.S. at 455.

104. *See, e.g.*, *United States v. Empire Gas Corp.*, 537 F.2d 296 (8th Cir. 1976), *cert. denied*, 429 U.S. 1122 (1977) (dismissing the complaint despite defendant's clear intent to monopolize using price cuts and threats of price cuts because of the low barriers to entry in the LP gas industry).

105. Kellogg, *supra* note 78 (showing that Apple iOS and RIM BlackBerry OS hold 28% and 18% of the smartphone share, respectively).

low to find a dangerous probability of successful monopolization.<sup>106</sup> However, given that the standard for attempted monopolization is “a dangerous *probability* of successful monopolization,”<sup>107</sup> and that the Android platform is demonstrating steady market share growth, a court may consider other factors for satisfying the “dangerous probability” element. Courts typically look to other factors for determining monopoly power if a company holds a 50% to 70% market share.<sup>108</sup> Some of these other factors for determining monopoly power may include the barriers to entry or expansion,<sup>109</sup> the size and strength of the competitors,<sup>110</sup> the speed of technological change,<sup>111</sup> and pricing trends.<sup>112</sup>

### 3. *Google’s Procompetitive and Legitimate Business Justifications*

Courts also recognize procompetitive justifications as a defense to attempted monopolization.<sup>113</sup> Courts typically ask whether the conduct was “more restrictive than reasonably necessary” to achieve “competition on the merits.”<sup>114</sup> Google should be able to successfully advance several arguments for why its cross-licensing strategy helps increase competition in the smartphone ecosystem.

The smartphone and mobile computing device industry is still nascent and rapidly growing.<sup>115</sup> Although Android possesses the largest mobile OS

106. *See, e.g.*, *Ford v. Stroup*, 113 F.3d 1234 (6th Cir. 1997) (finding a radiologist group’s 50–55% share insufficient where entry barriers were not shown to be high; showing an absence of historical entry insufficient when market appeared to be competitive; although a new entrant required an expensive linear accelerator, at least three local facilities have such equipment would have been available to a new entrant); *Springfield Terminal Rwy. Co. v. Canadian Pacific Limited*, 133 F.3d 103 (1st Cir. 1997) (finding 10% insufficient); *United States v. Empire Gas Corp.*, 537 F.2d 296 (8th Cir. 1976), *cert. denied*, 429 U.S. 1122 (1977) (finding 47–50% insufficient). *But see* *Twin City Sportservice, Inc. v. Charles O. Finley & Co.*, 676 F.2d 1291 (9th Cir. 1982) (finding 24% sufficient).

107. JACOBSON, *supra* note 73, at 311.

108. *Id.* at 313.

109. *Id.* at 232–36.

110. *Id.* at 236–38.

111. *See* Robert Pitofsky, *Challenges of the New Economy: Issues at the Intersection of Antitrust and Intellectual Property*, 68 ANTITRUST L.J. 913, 915–16 (2001) (addressing the relationship between established antitrust principles and the growing high-tech sector of the economy).

112. JACOBSON, *supra* note 73, at 237.

113. *See* *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966) (stating “that such countervailing benefits as are said to flow from that anticompetitive conduct are either pretextual or outweighed by their anticompetitive harms”).

114. *Multistate Legal Studies v. Harcourt Brace Jovanovich*, 63 F.3d 1540, 1550 (10th Cir. 1995).

115. Joseph Palenchar, *Smartphone Users Up 60%: ComScore, as Android Overtakes Apple*, THIS WEEK IN CONSUMER ELECTRONICS (Feb. 8, 2011), <http://www.twice.com/article/463>



market share, its position in the market is still relatively fragile given that its market share is composed of multiple smartphone manufacturers that must compete with the entire smartphone industry.<sup>116</sup> This is in contrast to Apple, which is the largest smartphone device manufacturer and controls the second largest mobile OS.<sup>117</sup> If Google is not given the opportunity to use RAND-encumbered patents for cross-licensing, it may be severely damaged in the ongoing war against its partners such as HTC, Motorola, and Samsung. Damaging these companies through litigation such that they are unable to successfully compete against Apple and RIM may be anticompetitive to the smartphone industry and could harm consumers by increasing prices, decreasing innovation, diminishing quality, and threatening the only open-source mobile platform.<sup>118</sup>

Google may also convince a court that holding dominant smartphone companies to non-traditional or more aggressive RAND licensing terms has procompetitive benefits. Research conducted by independent organizations indicates that Apple's products and patents already dominate the electronics industry. A report by Nielsen in July 2011 shows that Apple is the largest smartphone manufacturer, with a substantial lead that is twice that of the leading Android smartphone manufacturer, HTC.<sup>119</sup> Apple's patent portfolio also reigns over the electronics industry. The 2011 IEEE Patent Power Scorecard ranked Apple's patent portfolio the most powerful in the electronics category.<sup>120</sup> Courts should be aware that Apple might exploit a licensor's RAND commitments in an attempt to gain unfairly favorable licensing rates. Allowing Apple to easily obtain inexpensive licensing rates to critical technical standards may transform Apple from an already powerful opponent to an unstoppable competitor, which will ultimately harm consumer welfare in the smartphone market.

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650-Smartphone\_Users\_Up\_60\_ComScore.php (stating "[t]he number of smartphone users grew 60% from the end of 2009 to the end of 2010").

116. Kellogg, *supra* note 78.

117. *Id.*

118. Submission of Google Inc. in Response to the Commission's September 21, 2011 Request for Written Submissions on the Issues of Remedy, the Public Interest and Bonding in Investigation, *In the Matter of Certain Personal Data and Mobile Communication Devices and Related Software*, Inv. No. 337-TA-710, (USITC Oct. 6, 2011).

119. Kellogg, *supra* note 78 (showing that Apple holds 28% of the smartphone manufacturing market share; HTC holds 14% of the smartphone manufacturing market share).

120. Patrick Thomas & Anthony Breitzman, *Apple Has the Most Powerful Patent Portfolio in Consumer Electronics*, IEEE SPECTRUM (Nov. 2011), <http://spectrum.ieee.org/at-work/innovation/apple-has-the-most-powerful-patent-portfolio-in-consumer-electronics/0>.

Google should be able to make a strong case that it intends to neutralize patent infringement, reduce litigation costs, and conserve resources that could otherwise be used to drive technical innovations when it cross-licenses RAND-encumbered patents. Furthermore, courts should be open to Google's cross-licensing strategy as an appropriate means to balance RAND licensing commitments with healthy competition on the merits.

#### 4. *Section 5 of the Federal Trade Commission Act*

The Federal Trade Commission ("FTC"), created in 1914, is charged with promoting consumer protection and eliminating and preventing what regulators perceive to be harmful and anticompetitive business practices.<sup>121</sup> The FTC enforces antitrust laws through Section 5 of the FTC Act. Section 5 prohibits "unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce."<sup>122</sup> The appropriate reach of the "unfair methods of competition" language in Section 5 is the subject of much debate.<sup>123</sup>

The Supreme Court held in *FTC v. Sperry & Hutchinson Co.* that Section 5 "empower[s] the Commission to define and proscribe an unfair competitive practice, even though the practice does not infringe either the letter or the spirit of the antitrust laws."<sup>124</sup> In 1986, the Court more specifically and directly referenced the "spirit" of Section 5, stating that Section 5 "encompass[es] not only practices that violate the Sherman Antitrust Act and other antitrust laws, . . . but also practices that the Commission determines are against public policy for other reasons."<sup>125</sup> Included among the practices that are against public policy is conduct that is "unjust, inequitable or dishonest," conduct that is "contrary to good morals," and conduct that involves "deception, bad faith, fraud or oppression."<sup>126</sup> Therefore even if courts do not find Google's cross-licensing strategy in violation of Section 2 of the Sherman Antitrust Act, Google may still face antitrust liability under Section 5 of the FTC Act.

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121. *About the Federal Trade Commission*, FED. TRADE COMM'N, <http://www.ftc.gov/ftc/about.shtm> (last visited Dec. 18, 2011).

122. 15 U.S.C. § 45(a)(1) (2006).

123. Thomas B. Leary, *A Suggestion for the Revival of Section 5*, ANTITRUST SOURCE, Feb. 2009, at 1.

124. *FTC v. Sperry & Hutchinson Co.*, 405 U.S. 233, 239 (1972).

125. *FTC v. Ind. Fed'n of Dentists*, 476 U.S. 447, 454 (1986).

126. Statement of the Commission at 2, *In the Matter of Negotiated Data Solutions, LLC*, (F.T.C. 2008) (No. 051-0094) (quoting *FTC v. Ind. Fed'n of Dentists*, 467 U.S. 447, 454 (1986)).

The FTC Act's ability to prevent Google from implementing a RAND-encumbered patent cross-licensing strategy could be justified under what is often referred to as the "gap-filling" rationale. "Gap-filling" refers to situations that satisfy the economic requirements of antitrust, but fail one of the legal elements of Section 1 (e.g. the "agreement" requirement) or Section 2 (e.g., the "monopoly power" element).<sup>127</sup> Both case law and legislative history support the FTC's ability to stop anticompetitive behavior under a "gap-filling" framework.<sup>128</sup> However, some commentators warn that the FTC should proceed with caution when enforcing Section 5 using a "gap-filling" theory.<sup>129</sup>

Since 1995, the Commission has initiated complaints alleging market-wide anticompetitive effects in four standard-setting cases.<sup>130</sup> Of these four, commentators generally agree that the FTC employed a "gap-filling" theory for halting anticompetitive behavior in only one instance.<sup>131</sup> *In the Matter of Negotiated Data Solutions LLC (N-Data)* highlights important issues and

127. Susan A. Creighton, *Appropriate Role(s) of Section 5*, ANTITRUST SOURCE, Feb. 2009, at 3.

128. *See Nat'l Petroleum Refiners Ass'n v. FTC*, 482 F.2d 672, 684–85 (D.C. Cir. 1973) ("The FTC's charter to prevent unfair methods of competition is tantamount to a power to scrutinize and to control, subject of course to judicial review, the variety of contracting devices and other means of business policy that may contradict the letter or the spirit of the antitrust law. . . . And while the boundaries of the Commission's power to proscribe conduct it deems harmful to the consumer or to competition are not clearly defined, they are indeed expansive." (citations omitted)); *see also* *Am. Fin. Servs. Ass'n v. FTC*, 767 F.2d 957, 965 (D.C. Cir. 1985) (citing Federal Trade Commission Act, ch. 311, § 5, 38 Stat. 717, 719 (1914) (codified as amended at 15 U.S.C. § 45(a)(1) (2006))). At the time of this original delegation, Congress expressly declined to enact a statutory definition of the term "unfair methods of competition." *See* S. REP. NO. 63-597, at 13 (1914) ("The committee gave careful consideration to . . . whether it would attempt to define the many and variable unfair practices which prevail in commerce . . . or whether it would . . . leave it to the commission to determine what practices were unfair. It concluded that the latter course would be better."). The House Conference Report outlines Congress's rationale: It is impossible to frame definitions that embrace all unfair practices. There is no limit to human inventiveness in this field. Even if all known unfair practices were specifically defined and prohibited, it would be at once necessary to begin over again. If Congress were to adopt the method of definition, it would undertake an endless task. It is also practically impossible to define unfair practices so that the definition will fit business of every sort in every part of this country. Whether competition is unfair or not generally depends upon the surrounding circumstances of the particular case. What is harmful under certain circumstances may be beneficial under different circumstances. H.R. REP. 63-1142, at 19 (1914) (Conf. Rep.).

129. *See* Creighton, *supra* note 127; Richard Dagen, *Rambus, Innovation Efficiency, and Section 5 of the FTC Act*, 90 B.U. L. Rev. 1479, 1541 (2010).

130. *Rambus Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008); *In the Matter of Dell Computer Corp.*, 121 F.T.C. 616 (1996); *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094); *Union Oil Co. of Cal.* (F.T.C. 2003) (No. 011-0214).

131. Creighton, *supra* note 127.

considerations that may be helpful in determining whether modifying RAND agreements by Google falls within the scope of Section 5.<sup>132</sup>

Fifteen years before the FTC's complaint in *N-Data*, the IEEE authorized an 802.3 Working Group to develop a new, faster Ethernet standard commonly referred to as "Fast Ethernet."<sup>133</sup> In 1994, National Semiconductor Corporation ("National"), a member company actively involved in the 802.3 Working Group, proposed that its "autonegotiation" technology (known as "NWay") be incorporated into the Fast Ethernet standard.<sup>134</sup> National had filed a patent application for the NWay technology in 1992.<sup>135</sup> National promised that if its NWay technology were chosen, National would license NWay to any requesting party for a one-time fee of \$1000 and that licenses would be made available on a nondiscriminatory basis.<sup>136</sup> NWay was subsequently adopted into the Fast Ethernet standard, and National successfully obtained patents on the NWay technology.<sup>137</sup> National assigned the NWay patent rights to Vertical Networks in 1998, and Vertical Networks was informed that the NWay patents may be encumbered by a licensing agreement promising a license for a one-time fee of \$1000 made on a nondiscriminatory basis.<sup>138</sup>

In the spring of 2002, Vertical Networks wrote a letter to the IEEE indicating its commitment to licensing, but amended the language of the licensing agreement to read "on a non-discriminatory basis and on reasonable terms and conditions including its then current royalty rates."<sup>139</sup> The letter concluded by claiming that, "the assurances provided in this letter supersede any assurances provided by National Semiconductor Corporation relevant to the above-identified patents."<sup>140</sup> Around the same time the letter was sent to the IEEE, Vertical Networks sent letters to 64 target companies demanding licensing fees on a per unit basis for 802.3-compliant auto-negotiating products rather than the original \$1000 one-time fee promised in 1994.<sup>141</sup> Vertical Networks rejected offers from targeted companies that attempted to accept the original \$1000 licensing offer.<sup>142</sup> Around November 2003, Vertical

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132. See *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094).

133. Complaint at 2, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094).

134. *Id.*

135. *Id.*

136. *Id.* at 3.

137. *Id.*

138. *Id.*

139. *Id.* at 5.

140. *Id.*

141. *Id.*

142. *Id.* at 6.

Networks assigned the NWay patents to N-Data.<sup>143</sup> From 2003 to 2008, N-Data continued demanding licensing fees for the NWay patents on a per-unit basis.<sup>144</sup> In September of 2008, the FTC issued a complaint against N-Data for engaging in acts and practices that constitute unfair methods of competition in or affecting commerce in violation of Section 5 of the FTC Act.<sup>145</sup>

Following the complaint against N-Data, three out of five FTC commissioners held that N-Data had breached a prior licensing commitment to a standard-setting body.<sup>146</sup> The majority, in recognizing that standards displace competition, stated that bad faith or deceptive behavior may also undermine competition in an entire industry, raise prices to consumers, and reduce choices.<sup>147</sup> The majority considered this breach harmful to SDOs and the standard-developing process and a violation of Section 5 of the FTC Act.<sup>148</sup>

The majority's conclusion is considered "gap-filling" because N-Data lacked the requisite elements needed for liability under Section 2 of the Sherman Act. Specifically, N-Data likely did not have the monopoly power within a properly defined relevant market.<sup>149</sup> Similarly, as discussed in Part II.B, *supra*, Google's Android operating system may have a market share below what is required for either an unlawful monopolization or attempted monopolization claim. However, as in the *N-Data* case, despite Google's relatively low market share, it may still be open to a potential investigation under the broad powers of the FTC Act. The *N-Data* case raises important questions about whether the FTC could intervene against Google for using its RAND-encumbered patents to gain cross-licensing rights to non-essential patents.

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143. *Id.*

144. *Id.*

145. *Id.* at 8.

146. Statement of the Federal Trade Commission at 1, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094).

147. *Id.* at 2.

148. *Id.* at 1 (stating "[b]ut if N-Data's conduct became the accepted way of doing business, even the most diligent standard-setting organizations would not be able to rely on the good faith assurances of respected companies").

149. Dissenting Statement of Chairman Majoras at 2, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094) ("[D]espite ongoing licensing efforts by National's successors, Vertical and N-Data, only one company paid materially more than the originally-quoted \$1,000 for rights to the NWay technology. Most users evidently have preferred to infringe, running the risk of presumably minimal patent damages that they might face at the outcome of litigation.").

There are a few important differences between the *N-Data* case and Google's cross-licensing strategy. First, Google's RAND-encumbered patents purchased from Motorola Mobility are likely not bound by an explicitly defined fee or royalty rate. The essential patents Motorola sold to Google are likely only bound by an agreement that states "reasonable and nondiscriminatory" with no specific definition of what licensing terms are considered reasonable or unreasonable.<sup>150</sup> This is unlike Vertical Networks' and N-Data's situations where the previous patent owner, National, explicitly agreed to a royalty-free license with a one-time fee of \$1,000.<sup>151</sup> Because Google's essential patents are likely only encumbered by a general RAND licensing commitment, Google should have a strong argument that using its patents to force cross-licensing arrangements still falls within the definition of a reasonable and nondiscriminatory licensing practice.

The second difference is that the majority in *N-Data* appeared motivated to rule against N-Data in response to behavior that the court viewed as harmful to consumers.<sup>152</sup> In contrast, in Google's situation, consumer harm does not seem as obvious. Vertical Networks' original change to the licensing agreement in 2002 was motivated primarily by the company's financial struggles resulting from the "dot-com" bust.<sup>153</sup> However, Google would not be implementing its cross-licensing strategy as a means for generating a revenue stream. Instead, Google finds itself in an active field of expensive litigation and is motivated to use its patents, including its RAND-encumbered patents, to bring down the entire smartphone industry's litigation firepower and deter anti-competitive threats from competitors.<sup>154</sup> It is not immediately obvious that allowing Google to use its RAND-encumbered patents for cross-licensing is more harmful to consumer welfare

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150. See, e.g., *supra* note 49 (showing that none of the RAND licensing agreements from the ITU, ETSI, IEEE-SA, and the JEDEC provide a specific definition of what licensing terms are considered reasonable or unreasonable).

151. Complaint at 3, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094).

152. Statement of the Federal Trade Commission at 2–3, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094) ("[W]e also have no doubt that the type of behavior engaged in by N-Data harms consumers. The process of establishing a standard displaces competition; therefore, bad faith or deceptive behavior that undermines the process may also undermine competition in an entire industry, raise prices to consumers, and reduce choices. We have previously noted that '[i]ndustry standards are widely acknowledged to be one of the engines driving the modern economy.' Conduct like N-Data's—which undermines standard-setting—threatens to stall that engine to the detriment of all consumers.").

153. Complaint at 5, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094).

154. See Page, *supra* note 32.

than allowing the smartphone patent litigation to continue at its current rampant pace. Google, if faced with a Section 5 complaint from the FTC, could respond with powerful arguments that their cross-licensing approach is not anticompetitive since reducing the volume of litigation will ultimately improve consumer welfare in the smartphone industry.

In her dissent, former FTC Chairman Deborah Majoras fails to find that the actions of N-Data were an “unfair method of competition” under Section 5.<sup>155</sup> Her dissent takes issue with the majority’s holding, in part, because she finds that N-Data’s renegotiation of its licensing terms could have been motivated by an independent business reason and not “coercive” and “oppressive” conduct.<sup>156</sup> In addition, Majoras states that a motivation to strike better licensing terms alone should not be considered a competition-related offense.<sup>157</sup> Chairman Majoras continues, “[I]f the majority’s theory is that the evasion of contractual price constraints triggers liability under Section 5 without a concurrent determination that the conduct violates the Sherman Act, then we are headed down a slippery slope.”<sup>158</sup> The Chairman’s comments might be a signal that some members of the FTC Commission would be unwilling to intervene under a “gap-filling” Section 5 theory if Google can demonstrate that its cross-licensing strategy has legitimate business goals and is not motivated by anticompetitive conduct.

Chairman Majoras also disagrees with treating large, sophisticated computer manufacturers as “consumers” and has difficulty in using the FTC’s authority to intervene in this type of commercial transaction.<sup>159</sup> Majoras agrees that the FTC has the authority under Section 5 to protect small businesses, but this power is judiciously applied to entities that lack the resources and, in some cases, the experience or understanding to defend themselves.<sup>160</sup> Although the majority fails to find this argument persuasive,<sup>161</sup> it raises the issue of whether the FTC should involve itself in the smartphone patent war when its principal mission is focused on preventing substantial consumer injury. Companies at the front lines of the smartphone patent war,

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155. Dissenting Statement of Chairman Majoras at 1, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094).

156. *Id.* at 4.

157. *Id.*

158. *Id.*

159. *Id.* at 5.

160. *Id.*

161. Statement of the Federal Trade Commission at 3, *In the Matter of Negotiated Data Solutions, LLC* (F.T.C. 2008) (No. 051-0094) (“The dissent would distinguish those cases on the ground that the businesses here are all ‘large, sophisticated computer manufacturers’ who are able to protect themselves. There is no basis for that distinction in Section 5.”).

such as Apple, Google, and Microsoft, are among the largest, most sophisticated, and well-funded entities in America.<sup>162</sup>

In the current smartphone environment, Google may escape antitrust liability due to the fact that its market share is below the necessary critical value. However, monopoly power is apparently not relevant to whether or not intervention is justified based on a “gap-filling” theory under Section 5 of the FTC Act.<sup>163</sup> Google may therefore have a more difficult time avoiding an investigation by the FTC given its broad reach under the “gap-filling” rationale. However, Google can raise arguments capable of striking down the FTC’s justifications for why it should have the right to prevent Google from using its RAND-encumbered patents for cross-licensing rights to its competitor’s non-essential patents.

### III. CONCLUSION

Forcing smartphone competitors to cross-license their non-essential patents in exchange for RAND-encumbered patents may be a potent strategy for attenuating the fierce litigation raging in the smartphone patent war. However, successfully deploying this cross-licensing strategy requires an understanding of the legal issues that might stand in the way of Google, which is seeking new ways to protect smartphone manufacturers implementing the Android operating system. This Note detailed reasons why this cross-licensing tactic may or may not be acceptable under a reasonable and nondiscriminatory licensing commitment. In addition, this Note discussed some major antitrust issues Google may face under Section 2 of the Sherman Act and Section 5 of the FTC Act.

SDOs promote advancements in technology and enhance consumer welfare. Courts should therefore be supportive of SDOs, especially SDOs requiring its members to abide by RAND licensing commitments. However, rigid definitions of “reasonable” and “nondiscriminatory” are unsuitable for licensing essential patents in the smartphone industry. Therefore before a court accepts Google’s strategy of cross-licensing RAND-encumbered patents, the court must consider multiple factors to determine whether the proposed licensing arrangement accords with an SDO’s reasonable and nondiscriminatory requirements.

With the smartphone market demonstrating consistent growth, it is in the interest of many consumers to have a healthy, competitive smartphone

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162. *Fortune 500*, *supra* note 54 (Apple: #35, Microsoft: #38, Google: #92).

163. Dagen, *supra* note 129, at 1536.



ecosystem.<sup>164</sup> Courts should therefore encourage new approaches to avoiding retaliatory litigation so that these companies can focus on research, development, and innovation. Although some of Google's competitors may claim that its behavior is anticompetitive, a court needs to consider whether Google's cross-licensing strategy has procompetitive benefits that outweigh the anticompetitive effects of the current volume of smartphone patent litigation. A cross-licensing strategy involving RAND-encumbered patents may be an appropriate means to promote healthy industry competition while still upholding RAND licensing commitments.

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164. *Generation App: 62% of Mobile Users 25–34 own Smartphones*, NIELSEN WIRE (Nov. 3, 2011), [http://blog.nielsen.com/nielsenwire/online\\_mobile/generation-app-62-of-mobile-users-25-34-own-smartphones](http://blog.nielsen.com/nielsenwire/online_mobile/generation-app-62-of-mobile-users-25-34-own-smartphones).