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# Building A Smartphone Patent Pool

Law360, New York (December 15, 2011, 12:55 PM ET) -- Smartphones are technological wonders. These devices, such as Apple Inc.'s iPhone and the gaggle of handsets running Google Inc.'s Android operating system, have become an integral part of our everyday lives by enabling us to send and receive email, surf the Internet, use countless applications, and of course make phone calls from virtually anywhere in the world at any time. Smartphones are also very complex, and each handset represents the integration of a multitude of individual inventions. And where there are inventions, there are patents.

Industry fears have been growing that the complex web of patents embodied in smartphones will become a classic "patent thicket." A patent thicket exists when many different patent holders own patents to critical parts of a product. The real problems begin when patent holders refuse to license their intellectual property or sue for patent infringement, which frequently leads to counterclaims and more litigation by many, if not all, of the other patent holders. In such a scenario, innovation can come to a screeching halt and existing products may be yanked from the marketplace.

These fears are not theoretical. Earlier this year, the Financial Times reported that one analyst believes that more than 250,000 patents could be involved in each smartphone. Recently, litigation concerning smartphone patents has been on the rise with lawsuits having been filed by and against Google, Microsoft Corp., Apple, Nokia Corp., Motorola Inc., HTC Corp., Samsung Electronics Co. and many others.

Some believe that a smartphone patent pool is the answer. A patent pool is usually defined as an agreement between two or more patent owners to license one or more of their patents to one another or third parties. In theory, patent pools can make everyone a winner: Intellectual property owners will receive royalty payments, manufacturers will be able to build the product without costly litigation, and transaction costs will be minimized. Patent pools, however, are not cure-alls, and depending on how they are structured, patent pools can be vehicles for anti-competitive conduct.

If a smartphone patent pool were created, or possibly multiple patent pools given the complexity of the devices, how would it be analyzed under the antitrust laws?

## DOJ and FTC Analytical Frameworks for Patent Pools

Patent pools share many characteristics with cartels. A patent pool represents a combination of companies, and these companies are sometimes competitors in the same market. The very nature of a patent pool requires that members agree to coordinate patent licensing and the collective patent royalty rate. Moreover, if a patent pool refuses to license its intellectual property to a particular company, that company can be foreclosed from competing in a market. Accordingly, patent pools are rife with opportunities for anti-competitive actions and the possibility of anti-competitive effects.

But antitrust law and federal antitrust enforcers have recognized patent pools' potential pro-

competitive effects. In the 1995 U.S. Department of Justice/Federal Trade Commission Antitrust Guidelines for the Licensing of Intellectual Property, commonly referred to as the "Antitrust-IP Guidelines,"[1] the agencies states that patent pools can be pro-competitive if they integrate complementary technologies, reduce transaction costs, clear blocking positions, avoid costly infringement litigation, and promote the dissemination of technology.[2] In a nutshell, patent pools should provide an efficient "one-stop shop" for patent licenses associated with a specific technology or product.

The Antitrust-IP Guidelines also make clear that patent pools can be anti-competitive. For example, members of a patent pool may violate the antitrust laws if they jointly market the pooled patent rights with collective price setting or coordinated output restrictions, and when this arrangement does not increase the efficient integration of economic activity of the pool members.[3]

Also, a patent pool may be deemed anti-competitive if it negatively affects innovation by discouraging research and development.[4] Finally, if a patent pool excludes some companies, that exclusion may be considered anti-competitive (1) if the excluded companies cannot effectively compete in the relevant market for the product incorporating the licensed technologies, (2) if the members of the patent pool collectively possess market power in the relevant market, and (3) if the exclusion is not reasonably related to the efficient development and exploitation of the pooled technologies.[5]

Since their creation, the DOJ has supplemented the IP Guidelines in a series of business review letters in which it identified additional factors for analyzing patent pools.[6] One important factor is that the patent pool should contain only essential patents, i.e., patents that are necessary for compliance with a standard or technology.

Another factor is that the patent pool should contain complementary patents, i.e., patents that cover separate aspects of a given technology that do not compete with each other, rather than substitute patents, i.e., patents that cover technologies that compete with each other and that licensees could otherwise choose among.

Other factors include the requirement that the patents be valid, that competitive technologies cannot be aggregated and set at a single price, that essential patent analysis must be performed by an independent expert, that competitors in downstream product markets cannot be disadvantaged, and that members cannot collude on prices of products outside the pool. In addition, in 2007 the DOJ and FTC issued their report, "Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition," which addressed patent pools.[7]

In the end, a smartphone patent pool will likely be subject to two fundamental questions. First, will the patent pool integrate complementary patents?[8] Second, if the answer to the first question is positive, will the competitive benefits produced by the patent pool be outweighed by the competitive harm posed by other aspects of the pool?[9]

While these questions can't be answered without a detailed analysis of the facts associated with an actual patent pool, a brief examination of patent pools that have been approved by the DOJ and patent pools that have been the subject of enforcement actions or litigation can illustrate potential pitfalls.

## Building a Patent Pool: The Wrong Way and the Right Way

All patent pools should promote competition in the licensed product market for which the patent pool was created. Not surprisingly, a patent pool that restricts competition in the market will likely run afoul of the antitrust laws. For example, in 1998, the FTC issued a complaint against a patent pool formed by two companies, Summit Technology Inc. and VISX Inc., that developed and manufactured laser equipment for eye surgery.[10] At that time,

Summit and VISX were the only two companies that had received approval from the U.S. Food and Drug Administration for performing a specific form of laser eye surgery.[11]

In forming the pool, each company gave up its right to license its patents unilaterally, but each company retained the ability to veto the pool's licensing of the necessary patents to third parties.[12] No third-party licenses were issued during the life of the pool.[13] In addition, the patent pool was alleged to contain substitute patents, i.e., patents that cover competing technologies.[14]

The FTC charged that the two companies no longer had the incentive (or the ability) to compete in the licensing of laser eye surgery technology because neither firm could license its own technology without the approval of the other.[15] Also, the pool required a $250 per-procedure fee when either of the companies' equipment was used in a surgery, which the FTC alleged effectively fixed and raised prices.[16] The pool was dismantled via consent orders.[17]

A class action filed in the Northern District of California earlier this year, Oliver et al. v. SD-3C LLC et al., 11-cv-01260, provides an example of a patent pool that could impose civil liability on pool members. The defendants are patent pool members that collectively own and license patents essential to the manufacture of secure digital ("SD") memory cards, which are used in many consumer electronic devices like digital cameras (and smartphones).[18]

The plaintiffs allege that the SD patent pool actually makes patent licensing more expensive because licensees must still license patents individually from each pool member, which increases license fees and transaction costs.[19] In addition, the plaintiffs allege that the patent pool does not disclose all of the patents that they claim are essential to practice the SD specification.[20] Plaintiffs' claims remain untested in court, but their allegations, if true, would appear to raise serious questions about the effects on competition of pools with similar agreements.

DOJ business review letters provide several examples of properly constructed patent pools. For example, in October 2008, the DOJ issued a business review letter concerning a patent pool, RFID Consortium LLC, formed to license essential patents associated with Radio Frequency Identification ("RFID") technology standards.[21] The DOJ concluded that the RFID patent pool, as currently constructed, would not be subject to an antitrust enforcement action.[22]

The agency identified several safeguards against potential anti-competitive effects, such as the inclusion of only complementary and essential patents, reduced risk of competitive harm in downstream markets, a narrowly defined grantback clause (i.e., a provision by which a licensee grants the licensor the right to use the licensee's improvements to the licensed technology), and the automatic removal of patents from the pool if they are later found to be invalid.[23]

In June 1999, the DOJ issued a favorable business review letter to 6C DVD, a patent pool that was formed by six companies to license patents related to DVD technology.[24] The DOJ cited as factors countervailing potential anti-competitive effects: (1) the pool's requirement that member companies grant nonexclusive licenses to essential patents to the pool, (2) the fact that the determination of an essential patent is made by an independent expert hired by the pool, (3) the fact that the patent pool is regularly reviewed to determine which patents continue to be essential, and (4) the requirement that licensees grant back any essential patents they may own on reasonable and nondiscriminatory terms.[25]

## Is a Smartphone Patent Pool Viable ... or Even Wise?

Patent pools usually spring up around technology standards, whether those standards are created by a standard-setting organization or become a de facto industry standard by

success in the marketplace. Defining the metes and bounds of a smartphone patent pool, however, would be a considerably more difficult task. Apple's iPhone and devices running Google's Android dominate the smartphone market.

Would a "smartphone" patent pool devote itself solely to patents essential to the manufacture of Android-based devices? Or, because Android-based devices use many of the same technologies as other smartphones, would an important patent appear in more than one patent pool, i.e., in both patent pools devoted to Android devices and patent pools devoted to Windows Phone devices? Or would the patent pool cover both the manufacture of Android and Windows devices?

Smartphone patent pools are already making headlines. For example, Google posted a complaint on its official blog in August that accused Microsoft, Apple and others of using patent pools to impose a $15 licensing fee on each Android device. In addition, Apple sued Samsung in Australia for patent infringement, which resulted in the Android-based Galaxy Tab 10.1 tablet being withdrawn from stores temporarily. Some would argue such examples show that patent pools can be used to stifle innovation rather than encourage it.

Further, a recent Federal Circuit case also highlights the possibility that patent pools can be used to foreclose alternative technologies. In Princo Corp. v. International Trade Commission, the Federal Circuit observed that members of a patent pool could violate the antitrust laws if they suppress alternative technologies by including it in the pool.[26]

To prove such a claim, a plaintiff would have to show a "reasonable probability" that the alternative technology, if available for licensing, would have matured into a competitive force in the relevant market.[27] While the plaintiff in Princo could not carry that burden, the Federal Circuit's decision should caution patent pools against including patents to foreclose nascent competition, especially when the pace of innovation in mobile devices continues to deliver considerable benefits to consumers.

## A Smartphone Patent Pool Checklist

A few basic principles should be considered when creating a smartphone patent pool. First, the pool should be open and transparent to licensees regarding its rules, its members, the patents involved, and the royalty rates and their calculation. This principle could be especially challenging for a comprehensive smartphone patent pool for the simple reason that the devices embody thousands of patents, which could make the administration of one patent pool very difficult.

Second, the pool should only include complementary, essential patents, and the determination of whether a patent is complementary and essential should be made by an independent expert. Third, the patent rights granted to the pool should be nonexclusive so that pool members can independently license their patents to third parties. Fourth, grantback clauses in the pool licenses should be narrowly drafted so as to promote follow-on innovation.

This checklist is not exhaustive. Antitrust analysis of patent pools is a fact-intensive endeavor, and each pool will present a unique set of circumstances and problems. Moreover, the viability of patent pools for smartphones has yet to be shown. Currently, the smartphone market remains very competitive, and technological innovation continues at a rapid pace. If, however, a popular smartphone is suddenly pulled from store shelves due to a patent infringement claim, the calls for smartphone patent pools, or possibly multiple patent pools for specific technologies, will likely grow louder.

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[1] U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property § 5.5 (1995), available at http://www.usdoj.gov/atr/public/guidelines/0558.pdf.

[2] Id. at 28.

[3] Id.

[4] Id. at 29.

[5] Id. at 27-28.

[6] See generally Letter from Joel I. Klein, Acting Assistant Attorney Gen., U.S. Dep't of Justice, to Garrard R. Beeney, Esq. (June 26, 1997), available at http://www.usdoj.gov/atr/public/busreview/215742.pdf; Letter from Joel I. Klein, Assistant Attorney Gen., U.S. Dep't of Justice, to Garrard R. Beeney, Esq. (Dec. 16, 1998), available at http://www.usdoj.gov/atr/public/busreview/2121.pdf; Letter from Charles A. James, Assistant Attorney Gen., U.S. Dep't of Justice, to Ky P. Ewing, Esq. (Nov. 12, 2002), available at http://www.usdoj.gov/atr/public/busreview/200455.pdf.

[7] U.S. Dep't of Justice & Fed. Trade Comm'n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition 65–85 (2007), available at http://www.usdoj.gov/atr/public/hearings/ip/222655.pdf.

[8] Jeanne Clark, Joe Piccolo, Brian Stanton & Karin Tyson, U.S. Patent & Trademark Office, Patent Pools: A Solution to the Problem of Access in Biotechnology Patents? (2000), available at http://www.uspto.gov/web/offices/pac/dapp/opla/patentpool.pdf.

[9] Id.

[10] Complaint, In the Matter of Summit Technology, Inc. and VISX, Inc., Docket No. 9286 ¶¶ 8, 25-30 (March 24, 1998), available at http://www.ftc.gov/os/1998/03/summit.cmp.htm.

[11] Id. ¶ 6.

[12] Id. ¶¶ 9-10.

[13] Id. ¶¶ 11-12.

[14] Id. ¶¶ 14-21, 29-30.

[15] Id. ¶¶ 9-11.

[16] Id. ¶¶ 11-12.

[17] Agreements Containing Consent Orders to Cease and Desist, In the Matter of Summit Technology, Inc. and VISX, Inc., Docket No. 9286 (1999), available at http://www.ftc.gov/os/1998/08/d09286suagr.htm and http://www.ftc.gov/os/1998/08/d09286viagr.htm.

[18] Indirect Purchaser Plaintiffs' First Amended Complaint, Oliver et al. v. SD-3C LLC et al., 11-cv-01260, Dkt. No. 73, ¶¶ 56, 58 (N.D. Cal. Nov. 23, 2011).

[19] Id. ¶¶ 60-61.

[20] Id. ¶ 69.

[21] Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to William F. Dolan and Geoffrey Oliver (Oct. 21, 2008), available at http://www.justice.gov/atr/public/busreview/238429.pdf.

[22] Id. at 12.

[23] Id. at 8-11.

[24] Letter from Joel I. Klein, Assistant Attorney Gen., U.S. Dep't of Justice, to Carey R. Ramos, Esq. (June 10, 1999), available at http://www.usdoj.gov/atr/public/busreview/2485.pdf.

[25] Id. at 10-16.

[26] Princo Corp. v. Int'l Trade Comm'n, 583 F.3d 1380 (Fed. Cir. 2009), reh'g en banc, No. 2007-1386 at 36-37 (Fed. Cir. Aug. 30, 2010), available at http://www.cafc.uscourts.gov/images/stories/opinions-orders/07-1386.pdf.

[27] Id. at 38-39.