

Smartphones Case Study January 2011

The stories of Research in Motion and Apple provide examples of the benefits of a smart intellectual property strategy, as well as the litigious nature of the smartphone industry. An increasingly crowded smartphone market is also raising the attractiveness of the patent-licensing business model employed by firms like Qualcomm and InterDigital.

Apple and Research in Motion Enter the Smartphone Market

In 2007, Apple, Inc. [entered the competitive mobile phone](#) market with the launch of its iPhone.¹ Apple's CEO Steve Jobs [predicted](#) that the iPhone would “change[] everything” in the same way that the iPod did after its release in 2001. Jobs was, once again, more right than wrong.² The iPhone was wildly successful. Apple sold [1 million units](#) within the first 74 days.³

Like any company interested in entering the mobile phone market, Apple first had to navigate a complex “patent thicket.” Before the release of the original iPhone, and its subsequent, more advanced, versions, Apple pursued an intellectual property strategy that allowed it to release its smartphones relatively free of the complex and costly litigation that often characterizes the smartphone industry.

Research in Motion (“RIM”) is the company responsible for introducing the Blackberry, a landmark device combining a personal organizer, phone, web browser, email client, and pager. The [Blackberry](#) was released in 1999,⁴ and became so popular that by 2007 it had acquired more than [8 million users](#).⁵ As with Apple, RIM's entry into the smartphone market required it to develop an intellectual property strategy, and like Apple, RIM has been relatively successful.

Both Apple and RIM negotiated patent-licensing agreements with a company called [InterDigital](#)⁶ before releasing their smartphones. InterDigital develops technology that allows mobile phones to connect with cellular networks, with a current focus on the technology

¹ *Where would Jesus Queue?*, THE ECONOMIST, July 5, 2007, http://www.economist.com/node/9443542?story_id=9443542.

² *Apple's “Magical” iPhone Unveiled*, BBC NEWS, January 9, 2007. <http://news.bbc.co.uk/2/hi/technology/6246063.stm>.

³ Press Release, Apple, Inc., Apple Sells One Millionth iPhone (Sept. 10, 2007), *available at* <http://www.apple.com/pr/library/2007/09/10iphone.html>.

⁴ About Research in Motion, <http://na.blackberry.com/eng/company.jsp> (last visited Aug. 30, 2010).

⁵ INTELLECTUAL PROPERTY RESEARCH INSTITUTE OF AUSTRALIA, BLACKBERRY: A TEACHING CASE STUDY FOR WIPO 3 (2008), http://www.wipo.int/export/sites/www/academy/en/ipacademies/educational_materials/cs2_blackberry.pdf.

⁶ About InterDigital, http://www.interdigital.com/about_interdigital (last visited Aug. 30, 2010).

[standards that apply to the faster 3rd generation networks.](#)⁷ Apple's [agreement](#),⁸ completed in 2007, was worth [\\$20 million and covered the current iPhone and its 3G successor.](#)⁹ The patent-licensing agreement was only a small part of Apple's patent portfolio, which, [according to Steve Jobs](#), contains 200 patents related to the iPhone.¹⁰ RIM also negotiated a patent-license [agreement](#) with InterDigital that covered the original release of the Blackberry, and recently extended the license agreement through 2012 and broadened its scope to cover 3G products.¹¹

Apple and RIM's stories contrast sharply with that of [Samsung](#),¹² another high tech company that attempted to launch a smartphone to compete with those offered by Apple and RIM. Unlike Apple and RIM, however, Samsung either neglected, or decided not, to negotiate a patent-license agreement with InterDigital. Instead, Samsung found itself on the defensive when InterDigital [filed a patent lawsuit against Samsung as well as a complaint](#) before the U.S. International Trade Commission.¹³ Samsung and InterDigital eventually [settled](#) their dispute, but the costs to Samsung were estimated at \$400-\$500 million for a five-year agreement.¹⁴

Despite Apple and RIM's successful patent-license agreements with InterDigital, the two companies have still faced litigation over the intellectual property behind the iPhone and Blackberry. In 2000, NTP, a patent-holding company whose business plan involves seeking royalties through licensing rather than through the development of its patents, sent a letter to RIM [alleging patent infringement](#) and requesting that the two companies negotiate an agreement to license NTP's technology.¹⁵ After RIM ignored the letter, NTP filed a lawsuit, eventually winning a [\\$53 million jury verdict.](#)¹⁶ RIM fought the decision for several years and in several different courts before reaching a \$612.5 million settlement with NTP, although at one time, shutdown of all Blackberry devices appeared so imminent that the Department of Justice [begged](#) the presiding judge to halt the shutdown because it would interfere with the ability of federal employees to do their jobs.¹⁷ Apple has faced similar legal disputes regarding the patents involved in its iPhones. In 2009, Nokia filed a lawsuit [alleging](#) that Apple had infringed upon 10

⁷ Tom Krazit, Apple signs iPhone patent deal with Interdigital, Sept. 7, 2007, CNET NEWS, http://news.cnet.com/8301-13579_3-9773982-37.html.

⁸ Form 8-K, <http://www.sec.gov/Archives/edgar/data/1405495/000115752307009039/a5487526.txt> (last visited Aug. 30, 2010).

⁹ Krazit, *supra* note 7.

¹⁰ *Id.*

¹¹ Press Release, InterDigital, Inc., InterDigital Signs RIM to Worldwide 3G Patent License (Oct. 11, 2007), available at <http://ir.interdigital.com/releasedetail.cfm?ReleaseID=321949>

¹² Samsung, <http://www.samsung.com/us/> (last visited Aug. 30, 2010).

¹³ Dave Mock, *InterDigital to Samsung: Pay Up*, THE MOTLEY FOOL, Apr. 10, 2007, <http://www.fool.com/investing/general/2007/04/10/interdigital-to-samsung-pay-up.aspx>.

¹⁴ Dave Kawamoto, *Samsung and InterDigital reach 3G and 2G settlement*, Nov. 25, 2008, CNET NEWS, http://news.cnet.com/8301-1035_3-10107647-94.html.

¹⁵ INTELLECTUAL PROPERTY RESEARCH INSTITUTE OF AUSTRALIA, *supra* note 5, at 3.

¹⁶ *Id.* at 6.

¹⁷ Posting of Marc Perton to Engadget blog, <http://www.engadget.com/2006/02/02/doj-begs-judge-to-halt-blackberry-shutdown/> (Feb. 2, 2006 9:41).

patents in areas such as wireless data transfer.¹⁸ Indeed, Apple reported that [27 patent infringement suits](#) had been filed against it in 2009.¹⁹

Apple and RIM are not unique in having to litigate patent disputes related to their smartphones. The entire smart phone industry is becoming increasingly characterized by costly litigation. This turn toward litigation is in part a function of the size of the industry—smartphone revenue grew to [\\$61 billion in 2009](#)—and the increasing complexity of the devices themselves.²⁰ The wireless communications capabilities of a 3G phone, for example, may touch on as many as [8,000 patents and the interests of 41 patent-holding companies](#).²¹ Some litigation is aimed at extracting payments for the use of the patent-holder’s technology. Other firms, however, wish to keep competitors out of the market altogether. For example, in response to Nokia’s lawsuit, Apple [filed a complaint](#) with the U.S. International Trade Commission to block the importation of Nokia phones.²² According to Stanford law professor Mark Lemley, “[Apple would like to prevent competitors from making phones that are iPhone-like](#).”²³

The crowded and competitive smartphone market has resulted in the proliferation of mobile phone operating systems. Currently, RIM, Apple, and Microsoft each have developed operating systems, and there are several open-source systems such as Android, Symbian, and Maemo.²⁴ Analysts predict that open-source operating systems will dominate the market by 2012, with 62 percent of new smartphones using an open-source operating system.²⁵ Thus, handset manufacturers will be able to participate directly in the development process, leading to more rapid innovation.²⁶ Open-source platforms will also be free of licensing fees and royalties, thereby diminishing the commercial value of mobile operating systems²⁷

iPad and Competitors

The competition between RIM and Apple is not limited to smartphones. Recently, RIM announced plans to enter the tablet market by [launching a device called the “blackpad,”](#) in November of 2010, which was designed to compete with the iPad during the holiday season.²⁸

¹⁸ Tarmo Virki, *Nokia-Apple row may last more than 1 year*, REUTERS, Oct. 28, 2009, <http://in.reuters.com/article/idINIndia-43480120091028?sp=true>.

¹⁹ *Id.*

²⁰ Olga Kharif, *Complex Smartphones Are the Latest Patent Battleground*, BUSINESSWEEK, May 12, 2010, http://www.businessweek.com/technology/content/may2010/tc20100512_956709.htm.

²¹ *Id.*

²² Leslie Katz, *Apple seeks U.S. ban on Nokia imports*, CNET NEWS, Jan. 19, 2010, http://news.cnet.com/8301-13579_3-10436415-37.html.

²³ Kharif, *supra* note 20.

²⁴ ROBERTA COZZA AND MONICA BASSO, GARTNER, ANDROID AND OTHER OPEN SOURCE PLATFORMS WILL DRIVE INNOVATION IN THE SMARTPHONE MARKET (2009).

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Research in Motion Attacks the iPhone*, MARKETWATCH, Aug. 3, 2010, <http://www.marketwatch.com/story/research-in-motion-goes-after-apples-iphone-2010-08-03>.

Soon after RIM's announcement, Samsung followed suit by stating that it too would be [releasing an iPad competitor](#) called the Galaxy Tab.²⁹ With analysts [predicting](#) that nearly 60 million tablet computers will be sold by 2015, and that they will outnumber e-readers and notebooks by 2012,³⁰ the above forays into the tablet market are understandable.

InterDigital, Qualcomm, and Patent-Licensing

The rise in patent litigation related to smartphones, combined with increased licensing payments and a crowded marketplace, has made the position of patent-licensing firms more attractive. Rather than attempting to manufacture their own phones, patent-licensing firms either develop and patent their own technology, or purchase patents from others.³¹ This strategy allows firms to avoid both the manufacturing and inventory costs associated with producing smartphones as well as the competition of the smartphone marketplace.³²

InterDigital, a relatively small publicly-traded company, has had success pursuing a business plan centered on patent licensing. In 2009, the company [reported](#) revenues of almost \$300 million, a 30 percent increase over 2008.³³

Qualcomm is an even larger success story. A major part of the company's business model consists of supplying technology to other companies by either providing semiconductor chips or licensing its technology.³⁴ Indeed, Qualcomm possesses an enormous patent portfolio: approximately 11,600 U.S. and 54,100 international patents and patent applications.³⁵ This wealth of intellectual property allows the company to collect nearly [\\$1 billion](#) in royalty revenues per quarter.³⁶ In fact, over one third of the company's revenues come from technology licensing fees.³⁷ As smartphone technology results in the proliferation patents, even small firms are noticing opportunities. Earlier this year, MobileMedia Ideas, a newly formed company,

²⁹ David Kolle, *Samsung to Release iPad Competitor*, THE INFORMATIVE REPORT, Aug. 5, 2010, <http://theinformativereport.com/2010/08/05/samsung-to-release-ipad-competitor/>.

³⁰ Calvin Reid, *iPads rule at untethered 2010*, PUBLISHERS WEEKLY, Jun. 21, 2010, <http://www.publishersweekly.com/pw/by-topic/digital/conferences/article/43575-ipads-rule-at-untethered-2010.html>.

³¹ David Landis, *A dozen ways to play the TECH revival*, KIPLINGER'S PERSONAL FINANCE, Mar. 2007.

³² *Id.*

³³ Press Release, InterDigital, Inc., InterDigital Announces Fourth Quarter and Full Year 2009 Financial Results (Feb. 24, 2010), available at <http://ir.interdigital.com/releasedetail.cfm?ReleaseID=447047>.

³⁴ Posting of Steven Halpern to BloggingStocks, <http://www.bloggingstocks.com/2010/02/15/qualcomm-qcom-enabling-smartphones/> (Feb. 15, 2010, 9:30).

³⁵ *Id.*

³⁶ Kharif, *supra* note 20.

³⁷ Halpern, *supra* note 34.

purchased 122 patents from Nokia and Sony, and then proceeded to [file lawsuits](#) against Apple, RIM and HTC.³⁸

Firms that take advantage of patent-licensing risk being branded as “patent trolls”: entities that do not practice their patents and that obtain revenue primarily from licensing their portfolio of patents.³⁹ Indeed, in 2007, the Korean Intellectual Property Office [stated](#) that InterDigital was a patent troll for the way it “seemed to target the Korean hi tech players.”⁴⁰ InterDigital touts its “technology leadership” and [notes on its corporate website](#) that today, “[b]uilding on the company’s legacy of innovation, we continue to make contributions to the leading standards bodies that define tomorrow’s wireless networks.” Qualcomm has also shown sensitivity to the pejorative term, insisting, after being sued by Nokia, that it was not a “[grubby little patent troll](#),” stressing instead the innovations for which the company has become known in the industry that gave rise to its formidable patent portfolio.⁴¹

³⁸ Kharif, *supra* note 20.

³⁹ See J. Jason Williams et al, *Strategies for Combating Patent Trolls*, 17 J. INTELL. PROP. L. 367, 368 n.1 (2010).

⁴⁰ Posting of TKorea to Telecoms Korea, <http://www.telecomskorea.com/policy-4406.html> (Aug. 20, 2007, 18:52).

⁴¹ Anne Morris, *Editor’s View*, TOTAL TELECOM, May 1, 2007, <http://www.totaltele.com/view.aspx?ID=352263>.