

Smartphone patent fight: 'World War III'

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After more than 40 lawsuits, there's no sign of a letup in smartphone litigiousness, leaving patent experts divided over whether the epic phone fights are a sign of a healthy free market or a serious deterrent to future innovators.

Several patent experts said in interviews that when the dust finally settles, they believe that Apple -- with arguably the biggest smartphone legal stake -- would prefer to reach settlement agreements with various Android manufacturers such as Samsung. That means that Apple would seek damages and future license agreements from lawsuit opponents, rather than fighting to prevent the sale of Android phones in the U.S.

"These companies are all trying to get more space in the valuable smartphone market, and [they all] hold huge portfolios of patents, so they will use every tool at their disposal," said Tim Delaney, an intellectual property litigator at Brinks Hofer in Chicago. Delaney added that he has no role in any of the current suits.

"The players are competing in every way imaginable: on price, patents and in advertising," Delaney said. "I'm sure they all have their big stables of expert patent witnesses and lawyers ready to go. It will be World War III."

Delaney, like seven other patent attorneys interviewed for this story but not involved in the lawsuits, said it is "possible, but unlikely, that some company could get knocked out of selling handsets" as a result of the current suits. Economic considerations come into play as to how patent lawsuit strategies proceed, he said.

Delaney argued, for example, that since Apple was first to market with its iconic iPhone in 2007, it is more invested in seeing other smartphones stopped cold than, say, Microsoft. Still, Apple might seek a settlement and a licensing agreement with Android smartphone makers, just to benefit financially from Android's growing revenues, several attorneys speculated.

Microsoft, meanwhile, was late to the game with Windows Phone 7, whose Windows Phone OS currently lags behind Google's Android, Apple's iOS, Research In Motion's BlackBerry and Nokia's Symbian.

Therefore, Microsoft might seek licensing agreements or royalties from other companies -- instead of seeking injunctions in any suit it brings. Proceeds from the settlements would be used to cover Microsoft's smartphone research investment costs, Delaney asserted. (In fact, in April 2010, HTC signed a settlement agreement calling for it to pay Microsoft royalties for its Android phones.)

How did we get here?

Before making further predictions on the outcome of the phone patent battles, it's useful to look at some background.

Since early 2010, there have been so many smartphone- and wireless-related lawsuits filed around the globe that nobody seems to have an accurate count.

Florian Mueller, a self-described intellectual property "activist," runs the respected FOSS Patents blog, which recently listed a slew of Android-related device lawsuits in graphic form. The list begins with suits filed in 2010 and ends prior to the recent Apple and Samsung lawsuits. Including the Apple and Samsung filings, Mueller said there have been 41 active Android-related lawsuits since the start of last year.

Google, creator of the Android platform, is often named as a defendant in such lawsuits. Apple is a plaintiff in three cases, starting with its March 2010 [suit against HTC](#), currently the biggest Android smartphone maker. [Apple sued Motorola](#) in October 2010.

Apple's approach thus far is to take on Android manufacturers rather than Google per se, since Google provides its open-source Android software basically for free while undoubtedly expecting to eventually reap tremendous revenue from advertising on Android phones, several patent attorneys noted. That Google advertising revenue stream isn't so far readily available to companies that would sue it, they noted.

The patent attorneys speculated that many more lawsuits could result from a raft of expected intellectual property disputes over wireless technologies such as LTE.

Mueller, who said he has no stake in any of the cases, expects "many more smartphone patent suits this year."

What is being disputed?

The recent Apple suit against Samsung characterizes the somewhat widespread nature of Apple's patent attacks and typifies many of the other cases filed by other parties. Apple's complaint includes 10 charges of patent infringement and two for alleged trademark violations against several Samsung smartphones and its Galaxy Tab tablet.

"Samsung has chosen to slavishly copy Apple's innovative technology, distinctive user interfaces, and elegant and distinctive product and packaging design, in violation of Apple's valuable intellectual property rights," [Apple said](#) in its April 15 complaint.

A week later, [Samsung filed](#) lawsuits in three countries, claiming that Apple infringed on Samsung smartphone patents. The company filed suit in a fourth country shortly thereafter. Most of the patent attorneys interviewed wouldn't speculate on the validity of the claims in the lawsuits, pointing to the precise nature of how patents are written and granted, and the need to avoid adding potential bias to any given case.

In one example of how wide-ranging the smartphone patent suits are, digital security tool-maker Gemalto sued Google, HTC, Motorola and Samsung last October for using its patented software in Android and other products. Gemalto's software was originally intended for designing Java-based programs that would run on full-size PCs.

Some of the patent claims in the smartphone cases have been derided, even by insiders, as somewhat specious.

"These claims are all about competing companies wanting to get a piece of the [smartphone revenue] pie, although I do see some of the claims that are eye-opening, to say the least," remarked Mitchell Stein, an intellectual property litigator at Silver Freedman in Los Angeles.

"One claim that killed me was that Apple sued Amazon over Amazon's Android store, which is called the Amazon Appstore," he added, noting that Apple's is called the App Store. "So, Apple thinks Amazon can't call its store an 'appstore'? That shows how creative and aggressive some of these companies are in this field, with all the money being made."

Enter the patent trolls

Several of the smartphone cases were filed by a number of so-called nonpracticing entities, such as NTP, which have purchased or gained rights to enormous numbers of patents.

While it may sound derisive, these companies are widely referred to by patent insiders as "patent trolls," a term that goes back nearly 20 years. The term has lost much of its pejorative value in recent years as such trolls have become useful to just about any company trying to defend itself in a patent suit.

NTP became famous for winning \$612.5 million from RIM in March 2006 in a settlement of a patent dispute that lasted four years. In July 2010, [NTP also filed](#) smartphone patent infringement claims against Apple, Google, LG, Motorola, Microsoft and HTC.

NTP co-founder Donald Stoute claimed that use of its intellectual property without a license is "just plain unfair to NTP and its licensees," a group that now includes Nokia and, ironically, RIM. "You will see smartphone competitors sue for the next couple of years, but the suits by the nonpracticing entities, the trolls, will drag on for a while as they go after Apple and all the handset makers," noted patent attorney Greg Bishop of Goodwin Procter in Menlo Park, Calif. "That's where the biggest money is."

In a sense, the patent troll tradition has given birth to newer, more respectable gambits where companies like Intellectual Ventures collect patents and give a variety of vendors the right to license those patents, thereby creating a kind of patent licensee collective, Bishop said.

"That big portfolio of patents adds to the inability of one player to dominate the patent arena," Bishop said.

Michael Specht and Glenn Perry, patent attorneys at Sterne Kessler Goldstein, noted in a recent article that HTC and Samsung recently licensed the 30,000-patent portfolio of Intellectual Ventures to protect themselves against smartphone suits filed by Apple and others. The moves are apparently intended to generate a legal debate over who owns what smartphone intellectual property rights.

Specht and Perry noted that to date there is no patent pool for smartphones specifically but added that a group called the Open Patent Alliance has created patent pools for WiMax, LTE and 4G patents. At the same time, private entities such as Sisvel, Via Licensing and MPEG LA are creating LTE patent pools.

Clearly, there is likely to be plenty of ongoing legal positioning by mobile device makers beyond disputes over Android.

The financial burdens

Patent attorneys claim that the costs of patent litigation are relatively low compared to the cost of developing and marketing a smartphone.

"No [major company] in these disputes will be stymied by the litigation expense," said Delaney, who noted that the cost for a single patent case typically ranges from \$5 million to \$10 million.

"That's an order of magnitude less than the sales for a product. And while it's a burden, it's a burden companies are willing to bear."

Blogger-activist Mueller, however, predicted that patent licensing costs will "soon become the single largest cost factor for those building smartphones."

Why the glut of Android suits?

Android patent lawsuits are currently at the centerpiece of the smartphone wars, partly because the open-source software has quickly become dominant. Android late in 2010 became the largest smartphone platform -- and is expected to hold that position for several years, according to Gartner and IDC.

The very nature of Android, as an open-source operating system, has led to its global expansion. But the open-source nature of the software also leaves it somewhat defenseless, Mueller has argued.

Google apparently believes that an Android program written with a General Public License "can just cut out the copyrightable parts," Mueller recently noted in a blog. Oracle, in a Java-related lawsuit against Google, has argued that any company that treats a copyright this way "may be similarly arrogant and reckless when patents are concerned."

Mueller concluded that Google's approach "exposes its entire ecosystem to legal risks."

Mueller also called Google's patent portfolio "far too weak for what's undertaken in connection with Android" and argued that Google needs more cross-licensing agreements with other IT-related software and hardware makers. "This is a serious strategic weakness, and it's in no small part responsible for the Android patent mess," Mueller concluded.

Early jury rules against Google

Google recently lost a case that could have major implications in the smartphone wars, and on open-source technology in general. In that case, Bedrock Computer Technologies filed suit in 2009 contending that Google had infringed on one of its Linux-related patents.

A federal court jury in the Eastern District of Texas on April 15 ruled that Google must pay Bedrock \$5 million for past infringement on its patent on the Linux kernel Google uses in software that runs in its server farm.

Since so many companies use Linux, Mueller predicted that the jury verdict will convince more companies to pay royalties related to the use of the open-source operating systems. He also predicted that Google might need to modify the Linux kernel that it distributes with Android in order to remove any patent-infringing code.

In general, patent attorneys said they don't expect many jury verdicts in the smartphone battles. Instead, most will be settled.

"In reality, most of these lawsuits go away, and the statistical reality in the [intellectual property] and business world is that these cases are settled 95% to 98% of the time," Stein said. "A lot of these suits are threats, and threats grab headlines."

In addition to smartphone suits filed in federal courts, some entities are turning to the U.S. International Trade Commission, which takes precedence over the federal courts and can grant injunctions allowing U.S. customs agents to seize property before it enters the U.S. "The ITC is very powerful, and if a patent case wins there, the ITC is definitely going to stop companies" from bringing specific products into the U.S., Delaney noted.

History of smartphone patent wars

James Madison, the fourth president of the United States, probably never envisioned anything like today's smartphone patent wars when he proposed language in 1787 to the Constitutional Convention protecting copyrights to literary authors. That recommendation led to Article I, Section 8 of the U.S. Constitution, which is commonly called the Copyright and Patent Clause: "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to respective writings and discoveries."

The Copyright and Patent Clause led to the creation of the U.S. Patent and Trademark Office and is the basis for many judgments in federal courts.

Specht cited many spectacular patent battles in U.S. history, including disputes over sewing machine patents in the 1800s and years of lawsuits over the telecommunications and telephone patents that began with Alexander Graham Bell's U.S. Patent No. 174,465 for the telephone more than 100 years ago. There were also desktop computer patent battles between Apple and Microsoft in the 1990s.

The smartphone battles are helping to bring new dimensions to patent disputes.

For instance, intellectual property laws and traditions are different from country to country, Specht noted. "In the U.S., we protect intellectual property rights, which is historically not the same as in Asian countries, where copying was often a form of flattery and not a violation of law," he said.

Also, Specht noted that while the value of the worldwide smartphone market exceeds \$100 billion annually, the profit margins are shrinking and thus competition is intensifying. Those factors mean that "gaining an advantage through patent licensing royalties or making it more costly for a competitor are critical," Specht and Perry recently wrote.

Mueller said that the convergence of telecommunications and computing technology inside a smartphone just adds to the number of patents that can come into play, increasing the complexity of the smartphone battles.

"The patent wars in the smartphone space are distinct and of a scale that is without precedent," Mueller said in an email.

Impact on customers and innovation

Some academics and activists believe that such pitched patent battles will eventually push up the cost of smartphones for consumers. The prospect of litigation could also keep smaller innovators from wanting to compete in the smartphone market, they added.

Some patent attorneys disagreed, however, and said they believe the amount of smartphone patent litigation is a sign of a healthy and creative market.

Prof. Jonathan Asking of Brooklyn Law School worries that the lawsuits could stifle innovation. "Unfortunately, for consumers and innovators, every new technology is beset with companies fighting battles in the courtroom at the expense of battles in the marketplace," he said.

"The phone [and related] companies historically and presently spend more money on lobbyists and litigators than almost any other industry," he added. "This is all money and energy that would have been better served on research and development, or at least marketing and competing for consumers in the marketplace."

Eric Von Hippel, a professor of technological innovation at MIT's Sloan School of Management, said via email that several academic researchers are looking into questions about the negative effects of software intellectual property on innovation generally. "It's a bad scene right now," he recently told The New York Times. "The social value of patents was supposed to be to encourage innovation -- that's what society gets out of it. The net effect is that they decrease innovation, and in the end, the public loses out."

Patent attorneys like Maurice Ross, a partner at Barton, Barton and Plotkin in New York, however, argued that "these cases do not, in my view, reflect a litigation system that it is out of control. Rather, they reflect a rational response among competitors to competition in the marketplace. These suits also reflect reasonable litigation strategies. Sometimes the best defense against charges of patent infringement is to go on the offensive against your competitors."

Ross said that patents are granted to companies as a "reward for innovation. There is absolutely nothing wrong or nefarious about a system that allows a patent owner to reap the value of its patent rights by either licensing the patent and/or enforcing it against infringing competitors." Specht said vigorous smartphone litigation is a "good sign with respect to innovation." Apple, Google and Oracle, are involved in litigation and are leaders in innovation in wireless communications, he noted.

The smartphone lawsuits "are a really good thing," Specht added. "With so much opportunity and innovation, things are sort of coming to a head. I don't think [the litigation] changes smartphone costs for consumers. Instead, the innovators are grabbing land."