



LITIGATION VS FREE SOFTWARE

A flurry of patent lawsuits has affected the landscape for open source software developers and businesses operating in the United States. Adam Saunders examines the state of play.

The United States is a popular region for patent litigation for a few reasons. There are some courts, such as the Eastern District of Texas, that have earned a reputation for being “plaintiff-friendly” when it comes to patent cases. That is, if someone brings a patent infringement lawsuit there, they’re more likely than not to win it. The payouts are also pretty high in the United States for a victorious plaintiff; awards can be in the hundreds of millions of dollars, with the highest award given weighing in at over \$1.6 billion (US).

As an individual admitted to practice law in my jurisdiction (Ontario, Canada) and an open source enthusiast, I have the background in the English common law system (a basic foundation shared by most English-speaking countries) to analyse and understand these cases.

Rockstar v Google et al

A ruling in this case could chill commercial efforts around the open source Android operating system.

Rockstar Consortium Inc., a non-practising patent holding company (sometimes known as patent trolls) owns a large number of patents. Rockstar was formed by a group of major IT corporations including Apple, Blackberry, Sony, Microsoft, and Ericsson to buy patents collectively as part of an auction of the Nortel Networks bankruptcy sale in 2011. Nortel Networks was a Canadian telecommunications corporation with operations around the world, making routers, computer hardware, and software. Over its lifespan, it filed for thousands of patents relating to its work.

In late 2013, Rockstar sued essentially all the major Android phone and tablet OEMs, including Samsung, Huawei, ASUS and Google for patent infringement

relating to Android. The patents covered a variety of areas, including one that could read on natural address translation, one that could read on notification shades in mobile devices, and one for GUIs to handle VPNs. For example, the drop-down shade that the user pulls down on Android phones and tablets to check your notifications implements ideas that Rockstar claims to own.

Google fought back in December 2013 to try to get the case pulled out of the plaintiff-friendly Eastern District of Texas and switched to the Northern District of California, by requesting a declaratory judgment of non-infringement. That is, asking the California court to declare that Google isn’t infringing. After almost a year, and a formal request made to the US Court of Appeals for the Federal Circuit, Google did manage to get the case switched to California from Texas; a major victory.

Huawei settled confidentially with Rockstar in January 2014. Samsung, HTC, ASUS, LG, ZTE, and Pantech would fight on; they moved to get the suit

dismissed on a jurisdictional technicality.

The Northern District court ruled in April in favour of Google’s motion to move the jurisdiction

there. But the Eastern District of Texas court refused to accept this, so Google asked the Court of Appeals for the Federal Circuit to move the case to the Northern District.

With Rockstar’s business model based solely on extracting money from patent licensing deals or lawsuits, this lawsuit may go on for years to come. We’re still waiting for the technical merits of the case to be assessed! Open source developers should follow this case, as the results may encourage or discourage commercial development of Android-based devices.

“Rockstar’s business model is based solely on extracting money from patent licensing deals.”

Octane v Icon and Highmark v Allcare

The rulings in these cases dealt significant damage to patent trolling in the United States.

The issue in Octane – a battle between two fitness equipment companies over patents on elliptical machines – was the standard by which a “court in exceptional cases may award reasonable attorney fees to the prevailing party.” The Supreme Court of the United States held unanimously in favour of the plaintiff, Octane, to the benefit of those fighting against patent trolls.

Supreme Court Justice Sonia Sotomayor, who wrote the decision for the court, began by tracing the history of the rules for attorney’s fee awards in patent litigation. The most recent change to the rules, Section 285 of the Patent Act, essentially inserted two words – “exceptional cases” – into those rules. Sotomayor noted that the Supreme Court of the United States had previously ruled that those two words merely clarify the rules:

Following the addition of an appellate court for all patent matters in the US – the Court of Appeals for the Federal Circuit (CAFC) – in 1982, the status quo was largely upheld for over 20 years; that is, “the Federal Circuit [...] instructed district courts to consider the totality of the circumstances when making fee determinations under §285” (page 5). But when the CAFC came across a particular case nine years ago – Brooks Furniture vs Dutailier – it decided on its own to implement a new standard: a defendant could only get attorney’s fees if the lawsuit was done “in subjective bad faith and [...] [it was] objectively baseless (page 8).

The Supreme Court has now cast aside that restrictive standard. After looking at dictionary definitions of “exceptional”, SCOTUS decided on this standard:

That an ‘exceptional’ case is simply one that stands out from others with respect to the substantive strength of a party’s litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated. District courts may determine whether a case is ‘exceptional’ in the case-by-case exercise of their discretion, considering the totality of the circumstances. (pages 7–8)

What is the ITC?

The International Trade Commission (ITC) is an American administrative body that handles complaints about unfair competition in international trade as defined by law. One type of unfair competition that it can issue administrative rulings against are products made from competitors, imported from abroad for sale in the USA, that infringe one or more patents. One remedy that the ITC can award to successful complainants is a ban on the importation of those infringing products. While it does not have the authority to award damages (ie money), combining an ITC action with a lawsuit seeking damages can be a powerful legal attack against a competitor.

Copyright litigation to watch:

As well as patent action, there’s been some recent copyright litigation affecting open source, particularly Oracle v Google. Oracle sued Google for patent and copyright infringement relating to Google’s use of Java in Android (Oracle acquired the Java copyrights when it bought Sun Microsystems, which created Java in 1995. This litigation has been going on for a couple years now, with an appeals court ruling that Application Programming Interfaces (APIs) can be subject to copyright.

In early October of this year, Google formally applied to the Supreme Court to ask that they hear an appeal on the copyright

issue in this case. It wants the Supreme Court to answer this question: “Whether copyright protection extends to all elements of an original work of computer software, including a system or method of operation, that an author could have written in more than one way.”

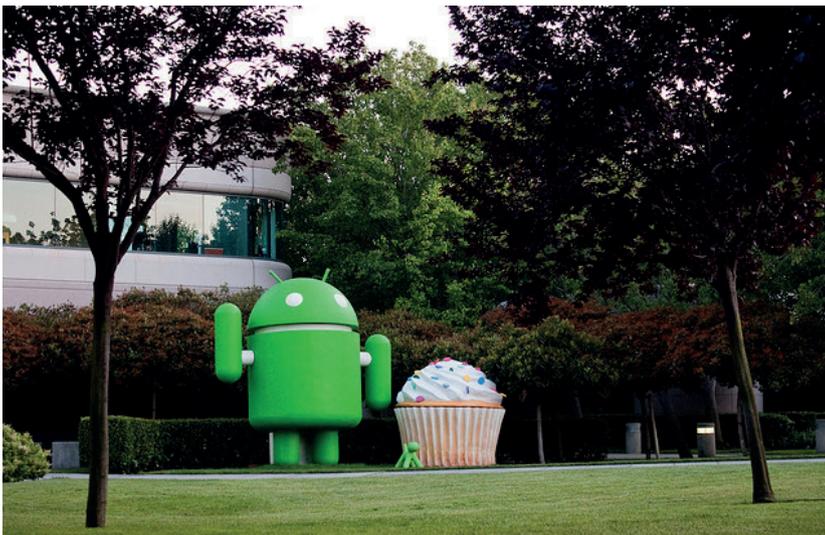
If the Supreme Court hears this case, it’ll affect not only open source software, but the freedom of all software developers working in the United States or for the American market. If the court says that such protection does extend, then we could see sharp limits on third-party developers trying to reimplement APIs of all sorts.

This ruling will weaken patent trolling, as it gives much more leeway to the lower courts to throw out a patent case if they suspect a troll. By making appeals less attractive for trolls, it lowers the chances of them dragging out litigation, making them much less threatening to potential victims.

The Highmark case dealt with how much deference appeals courts should give to district courts that award attorney’s fees in patent infringement cases. Speaking again for a unanimous SCOTUS, Sotomayor ruled, in light of the Octane decision, that there should be considerable deference given to the lower courts: “[Section]285 commits the determination whether a case is ‘exceptional’ to the discretion of the district court [...]” (page 4). This effectively means that a higher court reversing an award of attorney’s fees will become quite uncommon; a significant disincentive to potential patent trolls.



The US Supreme Court may seem remote to non-Americans, but the US is such a huge market that its decisions affect us all. Photo by yeowatzup CC-A 2.0 Generic.



Google also bid on the Nortel Networks patents, but lost out to Rockstar, which bought them for \$4.5 billion (US). Photo: Kenneth Lu, CC-A 2.0 Generic.

Alice v CLS

Alice Corporation, a non-practice patent-holding entity, held patents on a method, system, and process for a particular type of financial risk hedging: namely, that one party to a set of financial transactions won't pay at one or more stages in the set. This risk is known as "settlement risk". Alice's patents describe using a computer to keep track of the transactions between the parties. If the computer determines that a party does not have sufficient funds to pay their obligations to the other side, then the transaction is blocked. Litigation against CLS Bank International for alleged infringement of these patented ideas started in 2007, eventually winding its way up to the Supreme Court of the United States.

Writing for a unanimous court, Supreme Court Justice Clarence Thomas begins with a brief description of what the patents claimed. There are effectively three different types of claims made: "(1) the foregoing method for exchanging obligations (the method claims), (2) a computer system configured to carry out the method for exchanging obligations (the system claims), and (3) a computer-readable medium containing program code for performing the method

of exchanging obligations (the media claims)" (page 3 of the ruling).

Thomas then goes on to cite the court's recent ruling in *Mayo vs Prometheus*, which established a test to determine which inventions incorporating abstract ideas are patent-eligible: "First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts" (page 7). If it is so directed, then the court looks at "the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application" (page 7). This is what Thomas refers to as "a search for an 'inventive concept'" (page 7).

The court then applies this "Mayo test" to Alice's patents. Beginning with the first step of the test, Thomas notes that these patents do incorporate an abstract concept, as "these claims are drawn to the abstract idea of intermediated settlement" (page 7). Thomas cites previous Supreme Court case law, emphasising its ruling in *Bilski v Kappos* (another case, which threw out a patent on financial risk hedging), as illustrating examples of other patent-ineligible "inventions". Intermediated settlement is an old, abstract financial idea: "Like the risk hedging in *Bilski*, the concept of intermediated settlement is 'a fundamental economic practice long prevalent in our system of commerce'" (page 9).

Thomas then applies the second step: looking at what else is in the patent claims to see if there's anything more to Alice's "invention" than this abstract idea. The method claims don't pass the court's test because they "merely require generic computer implementation" (page 10). In what might be the most important part of the ruling, Thomas emphasises that while some inventions involving computers may be patent-eligible, just because a computer is used as part of an "invention" is not, on its own, enough to get a patent out of an abstract idea (pages 13–14):

There is no dispute that a computer is a tangible system [...] or that many computer-implemented claims are formally addressed to patent-eligible subject matter. But if that were the end of the [Section]101 inquiry, an applicant could claim any principle of the physical or social sciences by reciting a computer system configured to implement the relevant concept. Such a result would make the determination of patent eligibility "depend simply on the draftsman's art" [...]

The remainder of the patents, which are the system and media claims, didn't hold up either. Alice argued that the system claims depend on a particular computer hardware configuration. When the court looked at that configuration, it found only a generic general-purpose computer. Since Alice had stated in an earlier brief that if its method claims fail, so do its media claims, the court threw out the media claims as well. Having demonstrated the court's rationale for invalidating Alice's patents, Thomas conclude the

Post-Alice software patent cases

There have been a number of software patents rejected by lower and appeals courts for invalidity in the wake of the *Alice vs CLS* judgement. Here's a look at three of them:

- 1 **Comcast vs Sprint.** (United States District Court for the District of Delaware) Comcast's patent claim it launched against Sprint Communications described asking a telephone caller if they'd like to make another connection. It was thrown out on the grounds that it is "drawn to the abstract, and fundamental, idea of a conditional decision."
- 2 **Eclipse vs McKinley** (United States District Court for the Central District of California). Eclipse IP owned some patents, one of

which described using computers to communicate automatically with individuals to see if they are completing an assigned task. This was challenged in court by McKinley, a warehouse and loading company and a defendant they sued. The patent was rejected as invalid for being a mere abstract idea.

- 3 **Dietgoal Innovations vs Bravo Media.** (United States District Court for the Southern District of New York) Dietgoal's patent, which described meal planning as implemented by a computer, was rejected as invalid for being an abstract "do-it-on-a-computer" patent and thus "drawn to patent-ineligible subject matter".

ruling by upholding the Court of Appeals for the Federal Circuit's decision to throw out the patents.

Justice Sotomayor also gave a one-paragraph opinion concurring with the court, which was joined by Justice Ruth Ginsburg and Justice Stephen Breyer. A concurring opinion means that some judges agreed with another opinion (in this case, the unanimous opinion of the court), but that they wanted to note another view that they had. In that opinion, Sotomayor notes that the three of them would completely throw out business methods as unpatentable.

This ruling has already had an impact, leading judges to throw out several cases.

NVIDIA vs Samsung *et al*

In September 2014, Nvidia launched two patent infringement actions against Samsung and Qualcomm. Claiming infringements of seven patents, which read on basic GPU functionality, this litigation can't make comfortable reading for those considering opening up their graphics device drivers.

According to Nvidia, it was negotiating with Samsung for a patent licensing agreement. These talks failed after Samsung blamed its hardware suppliers (eg Qualcomm) for infringing, claiming no responsibility themselves. Nvidia then decided to take legal action against both Samsung and Qualcomm.

Nvidia wants money, but it also wants to ban the importation and sale of particular processors and devices. In its complaint to the International Trade Commission (ITC), Nvidia has a non-exhaustive list of Qualcomm products: "These processors include Qualcomm's Snapdragon processors using Adreno GPUs" (page 12). Nvidia also alleges that "Samsung's Exynos processors," which "use Mali GPUs or PowerVR GPUs", found in several of its mobile



US Supreme Court Justice Sonia Sotomayor is one of a number of SCOTUS judges fighting back against patent trolls. Photo by Cknight70 CC-A 2.0 Generic.

What's the difference between patents and copyright?

A patent is a legally granted, time-limited monopoly over the use, manufacture, and distribution of an invention. It's not a right to practice the patented idea, it's a right to exclude others from practicing the invention. While patent laws differ across the world, there are some generalities that we can speak of.

A patent has to be on a new, useful, and non-obvious invention. The idea is that patents are supposed to encourage innovation and reduce reliance on secrecy to the overall benefit of the public. In exchange for a thorough description of the invention to the public (through a patent office), the

patentee gets a commercial monopoly. Some particular ideas can't be patented; in general, things like mathematical formulas or mere abstract concepts on their own.

A copyright is a legally-granted, time-limited near-monopoly over a creative expression. This includes software (in both binary and source code forms), paintings, music, sculptures, and novels. It's a near-monopoly because most jurisdictions offer some form of "fair use" or "fair dealing" exceptions, which let the public use these expressions without having to get a licence. These vary by jurisdiction, but often include uses like parody, news reporting, or satire.

devices, are infringing (page 3). The company also lists Samsung products, which "include, but are not limited to, mobile products such as mobile phones (including the Galaxy Note 4, Galaxy Note Edge, Galaxy S5, Galaxy Note 3, and Galaxy S4) and tablet computers (including the Galaxy Tab S, Galaxy Note Pro, and Galaxy Tab 2)".

There are two separate actions here: a complaint at the International Trade Commission (ITC) and a lawsuit in the US District Court for the District of Delaware. While the ITC can't award damages (ie money), it can stop importation of patent-infringing devices and components. The lawsuit in Delaware also seeks a ban on the allegedly infringing products, but seeks damages too. This double whammy is an increasingly common tactic in the mobile device patent wars.

Those interested in timelines for these processes may not be surprised to hear that they are often drawn-out actions. The ITC decided on 6 October 2014 that it will investigate Nvidia's complaints. This type of investigation could take months or years; we will find out by the end of November when the ITC estimates its investigation will finish. The worst outcome for Qualcomm and Samsung here would be a ban on importing and selling the devices that Nvidia complained about in the United States, which is clearly a lucrative market.

The Delaware action may also be lengthy. We can expect time-consuming motions back and forth from both sides. When you add on to that briefs and memoranda, a pretrial conference, discovery, depositions and oral arguments (not to mention any requests for deadline extensions), a trial could easily be a year away (if it comes to that). The worst outcome for Qualcomm and Samsung here is a US ban on selling the devices Nvidia complained about along with a hefty damages payment to Nvidia.

The impact these proceedings could have might be a further chill on graphics hardware innovation. It may also prove to discourage companies from opening up their graphics device drivers, as they may fear that that would open them up to litigation. ■