

ELECTRONIC FRONTIER FOUNDATION

## PUBLIC COMMENTS OF THE ELECTRONIC FRONTIER FOUNDATION REGARDING PATENT ASSERTION ENTITY ACTIVITIES

## Submitted on March 10, 2013 to the Federal Trade Commission and the Antitrust Division, United States Department of Justice

The Electronic Frontier Foundation ("EFF") welcomes the FTC and DOJ's interest in patent assertion entities and is grateful for this opportunity to comment. The Electronic Frontier Foundation is a non-profit civil liberties organization that has worked for more than 20 years to protect consumer interests, innovation, and free expression in the digital world. Founded in 1990, EFF represents more than 20,000 contributing members. EFF and its members have a strong interest in promoting balanced intellectual property policy that serves both public and private interests. Through litigation, the legislative process, and administrative advocacy, EFF seeks to promote a patent system that facilitates, and does not impede, "the Progress of Science and useful Arts."

## I. Summary

Patent assertion entities (PAEs) are causing enormous harm to innovators and creators. Companies that actually create products, services, and jobs are under siege by PAEs who purchase vague and overbroad patents to launch lawsuits, or, in some instances, merely threaten lawsuits. In recent years, PAE litigation has grown to the point where it now makes up the majority of patent cases. Moreover, PAEs are targeting smaller companies, such as startups, that lack the resources to defend against a patent suit and thus have no choice but to pay extortionate settlement demands.

The FTC can play an active role in responding to competitive harms caused by PAEs. The potential response to PAEs can be divided into two broad categories:

- The FTC is well-placed to effectively advocate for the public interest with respect to patents and PAE activities. For instance, the FTC has previously published excellent reports (such as its March 2011 report on patent notice). The FTC should research and prepare a detailed report on PAE activity.
- The FTC should consider deploying its investigatory and enforcement powers against PAEs. EFF believes that at least some PAE litigation, especially that brought against end-users, seriously harms consumers and may not be entitled to *Noerr-Pennington* immunity.

### **II.** Problems with patent assertion entities have reached crisis proportions.

### A. The amount of PAE litigation has been drastically increasing.

In recent years, the amount of patent litigation has risen dramatically. *See* Price Waterhouse Coopers, *2012 Patent Litigation Survey* at 6.<sup>1</sup> There were 4,015 patent actions filed in 2011, compared to fewer than 3,000 such actions filed in in 2009. In particular, patent cases brought by patent assertion entities (PAEs), patent monetizers, or colloquially, "patent trolls," have significantly increased. As Judge Posner of the Seventh Circuit Court of Appeals put it, PAEs "are companies that acquire patents not to protect their market for a product they want to produce—patent trolls are not producers—but to lay traps for producers, for a patentee can sue for infringement even if it doesn't make the product that it holds a patent on." Richard A. Posner, *Why There Are Too Many Patents in America*, The Atlantic (July 12, 2012).<sup>2</sup>

PAEs accounted for only about five percent of patent litigation in 2000-2002. James Bessen, Jennifer Ford and Michael Meurer, *The Private and Social Costs of Patent Trolls*, Boston Univ. School of Law, Working Paper No. 11-45, 2011 ("Bessen 2011"), at 6.<sup>3</sup> This figure increased to about 22 percent in 2007, and then to almost 40 percent in 2011. Sara Jeruss, Robin Feldman & Joshua Walker, *The America Invents Act 500: Effects of Patent Monetization Entities on US Litigation*, 11 DUKE L. & TECH. REV. 357, 361, 381 (2012).<sup>4</sup> In 2012, *sixty-one percent* of new patent actions were brought by NPEs. Colleen V. Chien, *Patent Assertion Entities*, presentation to the December 10, 2012 DOJ/FTC Hearing on PAEs, slides 23-24.<sup>5</sup>

#### **B.** The rise of PAEs is linked to the recent flood of software patents.

Prior to the mid-1990s, the PTO was generally reluctant to issue patents that covered software. But a series of Federal Circuit decisions opened the floodgates. *See, e.g., In re Alappat*, 33 F. 3d 1526 (Fed Cir. 1994) (allowing a patent on a "general purpose computer programmed to carry out the claimed invention"). The result has been an avalanche of software patents. *See* Federal Trade Commission, THE EVOLVING IP MARKETPLACE: ALIGNING PATENT NOTICE AND REMEDIES WITH COMPETITION 55 (2011) ("Evolving IP Marketplace") (noting that the "high level of patenting in the IT industry is in part attributable to the incremental nature of innovation in IT products, where small changes can be patentable.").

<sup>4</sup> Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2158455.

<sup>&</sup>lt;sup>1</sup> Available at: http://www.pwc.com/us/en/forensic-services/publications/2012-patent-litigation-study.jhtml.

<sup>&</sup>lt;sup>2</sup> Available at: http://www.theatlantic.com/business/archive/2012/07/why-there-are-too-many-patents-in-america/259725/.

<sup>&</sup>lt;sup>3</sup> Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1930272.

<sup>&</sup>lt;sup>5</sup> Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2187314. As slide 24 points out, because of the September 2011 passage of the America Invents Act, the 2011-2012 figures might be somewhat inflated. There has still been a drastic increase since five years ago.

In recent years, litigation involving software patents has rapidly increased. James Bessen, *A Generation of Software Patents*, Boston Univ. School of Law, Working Paper No. 11-31 (June 21, 2011), at 19, 28:<sup>6</sup>

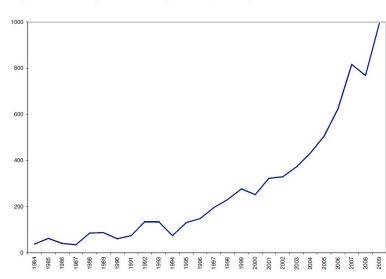


Figure 3. Number of patent lawsuit filings involving software patents

Many of these suits are brought by PAEs. Indeed, when PAE and non-PAE litigation is compared, we see that the "technology distribution of patents in lawsuits filed by NPEs is wildly different from the technology distribution in other patent lawsuits." John L. Turner, *Patent Thickets, Trolls and Unproductive Entrepreneurship* 5 (Sep. 2012).<sup>7</sup> From 1990-2009, more than 25 percent of non-PAE cases involved patents from the technology category Drugs and Medical. *Id.* During the same period, fewer than one percent of PAE cases involved patents from that category. *Id.* Most PAE litigation involves software patents. In fact, "more than 80% of NPE-filed suits assert high-tech patents, and more than 65% have software-related claims." Brian J. Love, *An Empirical Study of Patent Litigation Timing: Could a Patent Term Reduction Decimate Trolls Without Harming Innovators?* (August 30, 2011) ("Love"), at 39.<sup>8</sup>

Software patents are popular tools for PAEs partly because the are so "notoriously difficult to interpret." James Bessen and Michael Meurer, *The Direct Costs from NPE Disputes*, Boston Univ. School of Law, Law and Economics Research Paper No. 12-34 (June 25, 2012) ("Bessen 2012), at 7.<sup>9</sup> As Professor Mark Lemley notes:

A related problem is the uncertainty associated with the meaning and scope of a software patent. Unlike chemistry and biotechnology, where we have a clear

<sup>&</sup>lt;sup>6</sup> Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1868979

<sup>&</sup>lt;sup>7</sup> Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1916798

<sup>&</sup>lt;sup>8</sup> Available at http://ssrn.com/abstract=1917709 (forthcoming in University of Pennsylvania Law Review).

<sup>&</sup>lt;sup>9</sup> Available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2091210

scientific language for delineating what a patent claim does and doesn't cover, there is no standard language for software patents. Accordingly, no one can really know what a software patent covers until the court has construed the language of the patent claims.

Mark A. Lemley, *Software Patents and the Return of Functional Claiming*, Stanford Public Law Working Paper No. 2117302 (July 25, 2012), Wis. L. Rev. (forthcoming) ("Lemley") at 25 (footnote omitted)<sup>10</sup>; *see generally* Evolving IP Marketplace.

In other words, "software patents have 'fuzzy boundaries': they have unpredictable claim interpretation and unclear scope . . . and the huge number of software patents granted makes thorough search to clear rights infeasible, especially when the patent applicants hide claims for many years by filing continuations. This gives rise to many situations where technology firms inadvertently infringe." Bessen 2011 at 24. This lack of clarity directly feeds into the PAE business model and, consequently, the recent increase in both PAE and software patent litigation. Specifically, "there is a business opportunity based on acquiring patents that can be arguably read to cover existing technologies and asserting those patents." *Id*.

# C. PAEs impose a disproportionate burden on technology firms, especially small innovators.

This explosion of litigation has been costly. Research shows that that "NPE lawsuits are associated with half a trillion dollars of lost wealth to defendants from 1990 through 2010. During the last four years the lost wealth has averaged over \$80 billion per year." Bessen 2011 at 2. Even assuming *arguendo* that some of that transferred wealth is not "deadweight," it at least is clear that the funds are being transferred from innovative companies to their non-innovative counterparts. And, in what has become a theme, the high-tech industry bears the large percentage of the costs. As the Congressional study noted:

Experts attribute the proliferation of PAEs over the past 10 to 15 years to the explosion of the information technology (IT) industry and patent law's struggle to adapt to the unique issues presented by this new frontier of innovation. They indicate that the PAE business model is not about licensing patents generally but *high-tech* patents in particular, including those on software and business methods or processes related to software, as well as computers and electronics.

Brian T. Yeh, *An Overview of the "Patent Trolls" Debate*, Congressional Research Service (August 20, 2012) ("Yeh"), at 8 (internal footnotes omitted).<sup>11</sup>

This explosion in litigation is especially harmful to small companies. Litigation-based legal expenses can kill startups entirely, and the mere threat of those expenses can chill

<sup>&</sup>lt;sup>10</sup> Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2117302

<sup>&</sup>lt;sup>11</sup> Available at: https://www.eff.org/sites/default/files/R42668\_0.pdf and http://www.fas.org/sgp/crs/misc/R42668.pdf

innovation. In a small company, key management and engineers must deal with an NPE claim. Colleen Chien, *Startups and Patent Trolls*, Santa Clara Univ. School of Law, Accepted Paper No. 09-12 (September 28, 2012), at 10-13.<sup>12</sup> As Professor Chien notes:

Although large companies tend to dominate patent headlines, most unique defendants to PAE suits are small. Companies with less than \$100M annual revenue represent at least 66% of unique defendants and the majority of them make much less than that: at least 55% of unique defendants in PAE suits make under \$10M per year. Suing small companies appears to distinguish PAEs from operating companies, who sued companies with less than \$10M of annual revenue only 16% of the time, based on unique defendants.

*Id.* at 1-2 (internal footnotes omitted). This results in small cash-poor companies becoming vulnerable targets that lack leverage to deal with an NPE claim, leaving them stuck paying nuisance settlements regardless of the merits of the underlying claim. *Id.* at 3. With small- and medium-sized companies making up 90 percent of the defendants in NPE suits, Bessen 2012 at 11, such nuisance settlements are widespread.

## D. The costs imposed by PAEs are mostly deadweight losses

The FTC should reject any claim that PAEs incentivize innovation by providing income to inventors. Of the \$29 billion in revenues PAEs extracted from productive companies in 2011, less than 25 percent flowed to inventors. *See also* Yeh, at Summary, 2. Bessen, Ford and Meurer calculated that, in 2011, PAEs imposed \$80 billion dollars in costs on defendants while **less than two percent** of that amount represented transfers to independent inventors. Bessen 2011 at 20, 33. The evidence shows that PAEs impose massive costs yet bring tiny benefits to inventors. This is hardly surprising. Litigation has always been an extraordinarily inefficient means of transferring wealth and there is no reason this should not also be true in the patent context.

It is also very important to note that PEAs do not make a significant contribution to technology or innovation. Rather, they assert patents against innocent infringers who independently developed their products. "Virtually every case filed—and even the overwhelming majority of those in which the plaintiffs win and claim that the defendant was a willful infringer—involve not theft or even copying with a legitimate effort to design around but independent development by the defendant." Christopher A. Cotropia & Mark A. Lemley, *Copying in Patent Law*, 87 N.C. L. Rev. 1421, 1459 (2009). Indeed, compared to other patent litigants, PAEs assert patents much later in the patent's term showing that they must wait for others to actually develop and commercialize the technology. *See generally* Love. The PAE business model requires lying in wait for inadvertent infringement and thus operates as a pure tax on innovation. Ultimately, PAEs "do not participate in the growth of knowledge and technology" but are "opportunistic litigation mills" that "cloak themselves in the legitimacy of patents." Robert P. Merges, *The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform*, 24 BERKELEY TECH L.J. 1583, 1599 (2009).

<sup>&</sup>lt;sup>12</sup> Available at: http://ssrn.com/abstract=2146251.

#### **III.** Actions the FTC can take in response to harm caused by PAEs.

### A. The FTC can be a leader on patent policy.

The FTC is well-placed to effectively advocate for the public interest with respect to patents. Patent law debates tend to be dominated by entrenched players so the public interest is often missing from the discussion. The Commission can apply investigative tools and a high-level perspective that is not available to other agencies. In the past, the FTC has issued detailed, high-quality reports on patent policy.<sup>13</sup> Given the crisis in PAE litigation, the FTC should produce a similar report on PAEs.

As the agencies are aware, the FTC has already released two successful reports on the patent system: To Promote Innovation: The Proper Balance of Competition<sup>14</sup> and Patent Law and Policy and The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition,<sup>15</sup> respectfully. Those reports have been widely cited and indeed influential both in the courts and among policy makers. For instance, our research shows that more than 500 secondary sources, such as law review articles and legal treatises, and many courts—including the Supreme Court<sup>16</sup>—have cited the 2003 report. Likewise, more than 40 secondary sources and at least one federal court<sup>17</sup> have thus far cited the 2011 report.

We recommend that the FTC follow its successful 2003 and 2011 reports with another report investigating patent policy; specifically, the impact of PAE litigation on the state of innovation and the economy. Such a report could include input from individual inventors, small start-ups, larger companies, and, indeed, patent licensing outfits—all of who have varying opinions and experiences with PAEs. The FTC, with its investigatory power and report-writing experience, should be able to help understand precise effect of PAE behavior, for which these comments provide an important first step.<sup>18</sup>

<sup>13</sup> These include *The Evolving IP Marketplace: Aligning Patent Notice and Remedies With Competition* (March 2011) and *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (October 2003).

<sup>14</sup> Available at: http://www.ftc.gov/os/2003/10/innovationrpt.pdf

<sup>15</sup> Available at: http://www.ftc.gov/os/2011/03/110307patentreport.pdf

<sup>16</sup> See, e.g., eBay v. MercExchange, LLC, 547 U.S. 388, 396(2006); Laboratory Corp. of America Holdings v. Metabolite Labs., Inc., 548 U.S. 124, 134 (2006); Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238, 2252 n.11 (2011).

<sup>17</sup> Cascades Computer Innovation LLC v. RPX Corp., 2013 WL 316023 at \*1 n.3 (N.D. Cal. Jan. 24, 2013).

<sup>18</sup> We still await the now long overdue final report from the Government Accountability Office studying the consequences of PAE litigation, as mandated by the America Invents Act. 125 Stat. 340 § 34. While the GAO has been tasked with investigating the impact of litigation brought by non-practicing entities, we believe the FTC's inquiry should be wider in scope, to also include pre-litigation activities, including PAE licensing demands and threats of litigation. A detailed report on PAE activity would be especially helpful while there is renewed interest in patent reform, especially as it relates to PAEs. For example, on February 27, 2013, Reps. Peter DeFazio and Jason Chaffetz introduced a bipartisan bill, H.R. 845, the 'Saving High-Tech Innovators from Egregious Legal Disputes Act of 2013' (SHIELD Act). The SHIELD Act would require PAEs to pay the legal fees of defendants if the patent was held invalid or the defendant was found not to infringe. A timely report from the FTC could help shape this and other reform efforts.

## **B.** The FTC should investigate potential enforcement actions against PAE abuse.

Given the enormous harm caused by PAEs, the FTC should look for opportunities to use its enforcement power against the most abusive actors. As others have noted, the "characteristics of the market for patent monetization make it an excellent vehicle for anticompetitive conduct." Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN TECH L. REV 1, 26 (2012).<sup>19</sup> Furthermore, "massive patent portfolios can be used offensively, and can be valuable primarily because of their size rather than the validity of each patent in the portfolio." Michael A. Carrier, *Patent Assertion Entities: Six Actions the Antitrust Agencies Can Take* 2-3 (January 30, 2013), CPI Antitrust Chronicle, Winter 2013, Vol. 1 No. 2.<sup>20</sup> EFF is especially concerned that large patent portfolios held by PAEs might be used to intimidate and coerce small entities into settling.

## 1. PAEs have unique incentives to abuse patents and patent licensing agreements.

The unique nature of PAEs means they are more likely to wield patents in aggressive, anticompetitive fashion, and engage in meritless litigation. Patent litigation is risky for operating companies because it can provoke countersuits and cause reputational harm in the marketplace. But, as professor Colleen Chien explained during the December 10, 2012 workshop, PAEs fundamentally change the economics of patent enforcement. Since PAEs don't make anything, they cannot be countersued or impugned. This means that it can be economical for a PAE to bring suit, and economical for the defendant to settle, *regardless of the merits*.

In addition, a great deal of PAE activity is "hidden beneath a labyrinth of shell companies." Carrier, Patent Assertion Entities at 3; *see also* Ewing & Feldman, *The Giants Among Us*, 2012 STAN TECH L. REV. There are several potential dangers with this lack of transparency. First, "potential targets find it difficult to engage in licensing negotiations with entities that have no 'website, employees, or offices." *See* Carrier, Patent Assertion Entities at 3 (citing Matthew Rappaport & Lily Li, *How Hidden IP Assets Hurt the Entire Patent Community*, LAW 360, at 2 (Nov. 28, 2012)). Therefore, "it is 'difficult or impossible to call someone' and 'have a conversation about licensing fees." *See id.* Moreover, the portfolio seeking to be licensed "could consist of 'weak, overbroad patents" but due to the lack of information makes it "nearly impossible to know what the licensee is getting for its money." *Id.* at 4. The justifications

<sup>&</sup>lt;sup>19</sup> Available at: http://stlr.stanford.edu/pdf/feldman-giants-among-us.pdf

<sup>&</sup>lt;sup>20</sup> Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=2209521

PAEs put forth for obscuring their information have "little direct connection to promoting innovation and much effect in shrouding crucial relationships in secrecy." *Id.* 

The existence of complex webs of PAE shell companies makes litigation abuse more likely. For example, in one notable case, a jury found that a PAE had transferred a patent to a different shell company in violation of a settlement agreement. *See Taurus IP, LLC v. DaimerChrysler Corp.*, Opinion and Order at 17, 3:07-cv-00158-bbc (W.D. Wis., June 3rd, 2008).<sup>21</sup> The new owner of the patent then sued the same defendants. The judge in that case also found that the PAE's agents had engaged in witness tampering. *See id.* at 48-58.<sup>22</sup> As this case demonstrates, "[t]ransparency in patent transactions is crucial to a functioning patent system" and that "[c]ompanies that are sued (or that face threats of litigation) must know who is suing them, what patents they are being sued on, and the portfolio of patents held by the plaintiff." Carrier, Patent Assertion Entities at 3.

A PAE bringing meritless litigation can theoretically be deterred by the courts with Rule 11 or exceptional case attorney's fee awards under 35 U.S.C. § 285. *See, e.g., Eon-Net LP v. Flagstar Bancorp*, 653 F.3d 1314 (Fed. Cir. 2011). Despite these powers, courts have a limited ability to actually deter PAE litigation abuse because many PAEs have no assets other than a patent portfolio so are unlikely to ever actually pay if they are hit with sanctions or fee awards. Thus, litigation abuse by PAEs is more likely than from other litigants.

## 2. The FTC should consider opening an investigation into troubling PAE behavior.

The FTC should consider using its investigatory authority under 15 U.S.C. § 46 to look into the activities of one or more of the PAEs that have caused the most concern and harm in the marketplace. Potential candidates might include:

• A collection of shell companies – including AllLed, LLC and AdzPro, LLC – that are blanketing the nation with demand letters seeking patent royalties for the use of standard office equipment such as scanners. These letters demand \$1000 payments per employee. Identical letters have been sent out on behalf of numerous different shell companies in a pattern that appears designed to make it harder for recipients to figure out that they are just one target in a massive nationwide campaign. *See* Joe Mullin, *Patent trolls want \$1,000—for using* 

<sup>&</sup>lt;sup>21</sup> Available at: http://ia600401.us.archive.org/9/items/gov.uscourts.wiwd.551/gov.uscourts.wiwd.551.552.0.pdf

<sup>&</sup>lt;sup>22</sup> Specifically, Judge Barbara B. Crabb found that Erich Spangenberg had engaged in witness tampering (*see* Order at 48-58). Mr. Spangenberg is the founder of IP Nav, a patent monetizer. Remarkably, IP Nav has also made submissions to the FTC in response to this request for comments (available at http://www.ftc.gov/os/comments/pae/pae-0010.pdf) claiming that its activities are beneficial. We encourage the FTC to read Judge Crabb's *Taurus IP* order in full for a thorough discussion of Mr. Spangenberg and IP Nav's business practices. The FTC can draw its own conclusions regarding whether these activities promote innovation and benefit the public.

scanners: An alphabet soup of patent trolls is threatening end users with lawsuits, Arstechnica (Jan 2, 2013).<sup>23</sup>

• Lodsys Group, LLC has sued numerous application developers, many of whom lack the resources to defend patent litigation. Apple has intervened in some of these actions to argue that Lodsys is suing developers for using Apple-licensed technology despite the fact that an Apple license to the asserted patents bars Lodsys's claims. *See* Intervenor Apple Inc's Case Management Submission, *Lodsys Group, LLC v. Brother Intn'l Corp.*, 11-cv-90 (Sep. 12, 2012) (Doc. 313).<sup>24</sup>

Even if it does not open a formal investigation pursuant to 15 U.S.C. § 46, the FTC should at least consider these as case studies if it prepares a report on PAE activity.

# 3. At least some PAE activity is likely not shielded by *Noerr-Pennington* immunity.

The *Noerr-Pennington* doctrine ordinarily prevents litigation activities from giving rise to antitrust liability. But this immunity does not extend to sham litigation. *See Professional Real Estate Investors, Inc. v. Columbia Pictures Industries, Inc.*, 508 U.S. 49 (1993). Given the complexity of patent litigation, it may be difficult to demonstrate that patent infringement assertions are objectively baseless and a sham. But that does not mean it is impossible to make such a showing. For example, in *Teva Pharmaceuticals USA, Inc. v. Abbott Laboratories*, 580 F. Supp. 2d 345, 361-65 (D. Del. 2008), the court found that Abbott was not shielded by *Noerr-Pennington* immunity because a jury could reasonably conclude that its patent infringement allegations were a sham. Given the unique incentives of PAEs, the FTC should be open to the possibility that some PAE litigation will similarly not be protected.

# 4. The FTC should consider Section 5 enforcement actions against abusive PAE conduct.

PAE activity can constitute an "unfair" method of competition that runs afoul of Section 5 of the FTC Act. *See* Carrier, Patent Assertion Entities at 11 (citing Susan A. Creighton & Thomas G. Krattenmaker, *Appropriate Role(s) for Section 5*, THE ANTITRUST SOURCE 4 (Feb. 2009)). Action under Section 5 of the FTC Act requires overcoming *Noerr-Pennington* immunity and showing substantial injury to consumers. *See* FTC Policy Statement on Unfairness, Appended to In the Matter of Int'l. Harvester Co., 104 F.T.C. 949, 1070 (1984). As noted above, some PAE litigation is likely to fall outside of *Noerr-Pennington* immunity. In addition, because PAE lawsuits are so expensive and destructive, they can have a market effect sufficient to injure consumers. For example, a flurry of PAE lawsuits and demands against application developers

 $<sup>^{23}</sup>$  Available at: http://arstechnica.com/tech-policy/2013/01/patent-trolls-want-1000-for-using-scanners/

<sup>&</sup>lt;sup>24</sup> Available at:

http://ia700405.us.archive.org/16/items/gov.uscourts.txed.128187/gov.uscourts.txed.128187.313. 0.pdf

led some to leave the US market entirely. *See* Julie Samuels, *Patent Trolls Drive App Developers from U.S. Market*, July 19, 2011.<sup>25</sup> It seems clear some of the most egregious actions may rise to this standard and enforcement action will help deter abuse.

Respectfully submitted,

/s/ Electronic Frontier Foundation Julie P. Samuels Staff Attorney and The Mark Cuban Chair to Eliminate Stupid Patents Daniel Nazer Staff Attorney and Policy Analyst Michael Barclay EFF Fellow

April 5, 2013

<sup>&</sup>lt;sup>25</sup> Available at https://www.eff.org/deeplinks/2011/07/patent-trolls-drive-app-developers-u-s-market.