

CLARIFICATION OF THE “REASONABLE ROYALTY” STANDARD IS ESSENTIAL TO UNLEASH INNOVATION AND PROMOTE ECONOMIC GROWTH

Providing guidance to courts on how to determine compensatory damages in patent infringement cases is critical to unleashing innovation and stimulating creation of new jobs in our most competitive industries. The current vague and uncertain standard for calculating a reasonable royalty imposes substantial additional costs and risks on innovation by our most competitive industries, preventing the very growth and job creation that our economy desperately needs.

Current law specifies two methods for calculating damages in a patent infringement case: lost profits—what the patent owner would have made from additional sales but for the defendant’s infringement—and reasonable royalty.¹ Traditionally, the lost profits method was utilized in the majority of patent cases, but in recent years reasonable royalty has become the predominant approach.² There is urgent need for legislative clarification of the reasonable royalty standard; no changes have been proposed with respect to the lost profits method.

The last patent reform law, which was adopted in 1952, contains no guidance for calculating a reasonable royalty. In this vacuum, judges have developed a very complex set of over 15 factors that juries may weigh or choose to ignore. Academics and other independent observers have concluded that this vague and uncertain standard is imposing a sizeable and growing burden on companies dedicated to bringing new products to market.

The flaws in the reasonable royalty standard are being exploited by a new category of participant in the patent marketplace, non-practicing entities (“NPEs”), that seek to monetize the value of patents by obtaining license fees from others who develop new products and services, not by developing new products and services themselves. Because NPEs do not make or sell products, they face no risk of countersuits, and the litigation costs they bear are insignificant in comparison to those incurred by the companies named as defendants. Defendants’ much greater litigation costs together with the risk that vague standards will produce a large verdict impose significant pressure on defendants to settle with little regard for the merits of the underlying claim. And any settlement and/or litigation victory provides the NPE with additional leverage in, and funding for, licensing demands targeted on other companies. The dramatic increase in litigation activity by NPEs confirms that they are pursuing this strategy.

The result is more business risk for companies seeking to bring new products and services to market. This is a substantial diversion of resources from innovation towards substantial and increasing expenditures for litigation and licensing, as well as infringement and invalidity analysis in connection with the growing stream of opportunistic infringement claims. In addition, development of specific promising products has been abandoned because of the potential litigation costs and uncertain damages exposure associated with such claims. A recent study found that ***clarifying the reasonable royalty standard would create 100,000 jobs over the next five years due to additional investment in***

¹ Section 284 of the Patent Act states: “Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.”

² Aron Levko, 2009 Patent Damages Study – Preliminary Results at 6, available at <http://www.ftc.gov/bc/workshops/ipmarketplace/>.

R&D and commercialization of new products. Legislative clarification of the reasonable royalty standard is necessary to eliminate these adverse effects, especially when we must do everything we can to encourage economic growth to help jumpstart our weakened economy and to create new jobs that we so urgently need.

The language contained in the Patent Reform Act of 2009, S.515, would reduce the damaging effects of the current vague legal rule by providing guidance and clarity for courts and juries. It does so by focusing the reasonable royalty calculation on a fair and realistic valuation of the contribution to the value of the infringing product made by the invention reflected in the infringed patent, and making clear that the calculation should not be based on the value of those features of the product manufactured by the alleged infringer that are unpatentable or are attributable to other patents.

Current law gives no real guidance for calculation of reasonable royalty. There is general consensus that current law provides juries with insufficient guidance for determining a reasonable royalty. There has been a marked increase in the number of cases decided by juries.³ Thus, the Senate Judiciary Committee recognized that “[j]uries are given little useful guidance in calculating that reasonable royalty,” and often are simply presented with a list of 15 factors “and then left to divine an appropriate award.”⁴

Sometimes, the jury is told to guesstimate what the litigating parties would have agreed to pay for a patent license had they negotiated before they went to court. The resulting confusion for juries is palpable. Struggling to find solutions, juries too often fall back on simplistic rules, such as using a percentage of the total value of the \$1000 computer, the \$30,000 car or the \$100 million airplane. For example, using a 2 percent standard would yield damages of \$20 per computer when the invention at issue is a 25 cent power saver switch embodied in the computer; \$600 per car for an 85 cent radio volume button mounted on the steering wheel; or \$2 million per airplane for a \$3 seat belt buckle. For complex products, where tens or even hundreds of thousands of elements contribute to the value of the overall product, it cannot seriously be argued that the particular element alleged to be infringing is the primary reason for sales of the overall product. These high royalties are irrational and create a serious imbalance in the patent system.

The \$1.5 billion verdict in the Alcatel/Lucent-Microsoft litigation illustrates the problem perfectly. That case involves a claim of infringement of two patents related to MP3 audio technology. The *Los Angeles Times* reported that Microsoft’s licenses of more than 20 patents from Fraunhofer/Thomson, broadly recognized inventors of the critical elements of MP3, cost \$16 million. The jury concluded, based on the current reasonable royalty approach, that the two Alcatel/Lucent patents were worth more than *one hundred times* as much. Although that verdict ultimately was set aside, it spawned a new wave of litigation as plaintiffs sought to exploit the increased settlement leverage provided by the threat of such a huge award. Indeed, Microsoft is now appealing a \$512 million judgment relating to a similarly unjustified claim.

The House Judiciary Committee identified the flaws in the reasonable royalty standard as one of the key reasons for reform of the reasonable royalty standard:

³ Approximately 20% in 1995-200 and more than 40% in the years since then. *Id.* at 8.

⁴ S. Rep. 110-259, at 11-12 (2008).

Infringement suits typically focus on one or a few patents in isolation, rather than their relative contribution to an overall product. In economic theory, each patentee seeks to capture a share of the licensee's (or infringer's) surplus. When the user has to pay monopoly rents for each of many patents (called 'royalty stacking'), the sum of the parts can become greater than the whole. In other words, the net total damage award can be disproportionate to the patent's market utility.⁵

Indeed, the serious flaws in current reasonable royalty standards are confirmed by the Federal Circuit's repeated endorsement of the principle that reasonable royalty awards have **exceeded** the infringer's entire profit on the infringing product or service.⁶ It is also evidenced by the growing disparity between damages awarded by judges compared to juries. Since 2001, the median award for jury trials has been more than ten times the median award by judges as compared to 1.5 times judges' median award in the prior two decades.⁷ Indeed, the median jury award has increased by 124% in just the last three years.⁸

Participants in a February 11, 2009 Federal Trade Commission roundtable discussion of damages calculation in patent infringement cases reached the same conclusion. Paul M. Janicke, HIPLA Professor of Law, University of Houston Law Center, stated, "[F]or some reason we're still using the Georgia-Pacific grab bag, where the judge throws the grab bag to the jury and says do what you think is right. I think this is where we need to tighten up damages law and I will talk about that further later. The grab bag approach of throwing 15 factors to the jury and saying 'do what you think' could be why we are getting erratic results. It certainly does not lend itself to predictable results. I think that should be abandoned." Tom Cotter, Briggs and Morgan Professor of Law, University of Minnesota Law School, observed that the "Georgia-Pacific factors . . . can be so easily manipulated by the trier of fact to reach virtually any outcome."⁹ He further stated that the Federal Circuit's refusal to set aside a jury's damages determination "unless the amount is grossly excessive or monstrous" means that there is effectively no check on the juries' unguided determinations under this vague standard.¹⁰

Explosion of NPE activity dramatically increases the significance and adverse effects of the unclear reasonable royalty standard. As Justice Kennedy explained in the Supreme Court's *eBay* decision, "In cases now arising . . . the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases. **An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees.**"¹¹ One recent study of these NPEs observed that "[s]ome of the largest of these NPEs raise large funds with which to purchase the patents they seek to enforce—without any plans to turn those patents into marketable products or services. Instead, they then use these funds to enable—through direct or

⁵ *Id.* at 26 (footnotes omitted).

⁶ *State Indus., Inc. v. Mor-Flo Indus., Inc.*, 883 F.2d 1573, 1580 (Fed. Cir. 1989) ("[t]here is no rule that a reasonable royalty be no higher than the infringer's net profit margin"); see also *Monsanto Co. v. Ralph*, 382 F.3d 1374, 1384 (Fed. Cir. 2004) ("although an infringer's anticipated profit from use of the patented invention is '[a]mong the factors to be considered in determining' a reasonable royalty, . . . the law does not require that an infringer be permitted to make a profit").

⁷ PricewaterhouseCoopers, "2008 Patent Litigation Study" at 6.

⁸ Aron Levko, 2009 Patent Damages Study – Preliminary Results at 6, available at <http://www.ftc.gov/bc/workshops/ipmarketplace/>.

⁹ FTC Hearing on The Evolving IP Marketplace - Remedies (Feb. 11, 2009), Panel 1: Standards for Assessing Patent Damages and Their Implementation by Courts (Webcast available at <http://www.ftc.gov/bc/workshops/ipmarketplace/>).

¹⁰ *Biotec Biologische Naturverpackungen GmbH & Co. v. Biocorp, Inc.*, 249 F.3d 1341, 1355 (Fed. Cir. 2001).

¹¹ *eBay Inc. v. MercExchange LLC*, 126 S.Ct. 1837, 1842 (2006) (Kennedy, J., concurring) (emphasis added).

veiled threats of infringement—their pursuit of royalties from successful businesses.”¹² Press reports indicate that NPEs have raised billions of dollars to purchase patents in the technology area alone.

There is nothing inherently wrong with the patent licensing business model, and not every lawsuit or licensing demand by an NPE is abusive.¹³ But our fifty year old patent litigation statute was designed for an era of more conventional patent litigation in which a patent owner engaged in manufacturing a product (or a patent owner that had granted an exclusive license to a manufacturer) sued a competitor that allegedly was infringing a patent by manufacturing a competing product. They also were designed for an era of less-complex products, not for today’s world of products made up of thousands of elements, many of which could be claimed to implicate a dozen or more patents.

NPEs have been able to exploit these outdated rules to engage in opportunistic litigation seeking huge damages awards on the basis of the vague standards for calculating a reasonable royalty. The evidence of this exploitation is clear—there are more NPEs, more investment dollars funding the NPEs’ efforts, more lawsuits, and those lawsuits are more costly, than ever before.

In the past seven years, the number of defendants sued annually has nearly doubled (from 5,000 in 2000 to 9,000 in 2007), even though the number of lawsuits has not changed dramatically (remaining in the 3,000-3,500 range). Indeed, it is not unusual for a single suit to name a dozen or more companies. A plaintiff recently sued twenty separate financial institutions in a single action, claiming that its patent on a point of sale debiting system was infringed by the institutions’ various payment services. Another case named 22 companies as defendants, asserting that each was infringing the plaintiff’s very general patents relating to security scanning.¹⁴ Another NPE just filed a lawsuit accusing 40 companies of violating two patents relating to computer-assisted sales.¹⁵

Defendants are forced to spend millions of dollars on patent litigation because of the cases’ technical complexity and, even worse, the unclear legal standards that heighten the risk of very large damages awards.¹⁶ Recent data indicates significant patent cases cost an average of \$5 million per company to

¹² McCurdy, “Patent Trolls Erode the Foundation of the U.S. Patent System,” available at www.scienceprogress.org/2009/01/patent-trolls-erode-patent-system. The recent Center for American Progress report on the patent system recognized that the problems of the system have been “exacerbated by the emergence of so-called non-practicing entities, or NPEs, sometimes called patent ‘trolls.’ Unlike operating companies that produce products and services, and universities that generate most of their revenue from tuition and grants and generate intellectual property through academic investigations, patent-holding entities typically do not produce any products or offer any service beyond patent licensing and enforcement. Their primary revenue sources are royalties obtained from asserting patents against successful product and service companies.”

¹³ At the same time, there is little evidence to support the NPEs’ claims that they promote innovation: most NPEs “offer . . . trivial rewards to the inventor. . . . NPEs with hundreds of millions or billions of dollars in capital seek out patents held by others and pay the actual inventors a small portion of the money they seek to obtain in subsequent enforcement activities. It is hard to imagine that the prospect of netting so small an amount will, on its own, stimulate further innovation.” McCurdy, “Patent Trolls Erode the Foundation of the U.S. Patent System,” available at www.scienceprogress.org/2009/01/patent-trolls-erode-patent-system.

¹⁴ <http://www.thetechherald.com/article.php/200902/2748/Patent-troll-sues-entire-security-industry-over-behavior-based-tech>.

¹⁵ “Boeing, Ebay, QVC Hit With Sales Patent Suit,” IPLaw360 (March 2, 2009).

¹⁶ Significantly, these litigation costs are sharply asymmetric. The NPE/plaintiff’s costs are minimal—information relating to the patent. *Each defendant*, on the other hand, must produce a huge volume of information relating to the development of the products at issue, the basis for customer demand for the product, etc. Given the high cost of electronic discovery, the burden on a defendant is very substantial.

defend.¹⁷ Prior to 1990, there had been only one patent damages award in history larger than \$100 million; in the past seven years, there have been at least fifteen judgments and settlements in that category, and at least five that topped \$500 million.

Recent data shows that this litigation growth is largely a product of NPE activity. A survey of royalty requests and patent litigation against technology companies found a 650% increase in requests and a 70% increase in litigation, **with 88% of the total coming from NPEs**.¹⁸ That is consistent with other data demonstrating that litigation involving NPEs exceeded 10 percent of all patent lawsuits in 2006 and 2007, quadrupling the level between 1994 and 2002.¹⁹ As the head of one NPE stated, “We are focused on obtaining jury verdicts.” He added, “That’s why we put our own money at risk, all the way from acquisition through appeal.”²⁰

NPEs cannot seek damages under the lost profits standard, They manufacture no products and accordingly, cannot argue that the alleged infringement diverted potential sales to the defendant. The flood of NPE litigation activity therefore is based entirely on exploiting the flaws in the reasonable royalty standard, a standard that before the emergence of the NPEs played a relatively minor role in patent litigation.

The vague reasonable royalty standard produces excessive damages awards. The Senate and House Judiciary Committees have concluded that “current litigation practices often produce a royalty award substantially in excess of a reasonable royalty.”²¹ The Senate Judiciary Committee explained:

The infringed patent may well be one smaller part of a much larger whole. Once infringement is proven, the patent holder is entitled to compensation for the use of the invention. But if juries award damages based on the value of the entire product, and not simply on the infringement—a danger exacerbated in some cases by overly expansive claim drafting—then damages awards will be disproportionate to the harm.²²

Distinguished scholars agree:

- Professor John Thomas, Georgetown University Law Center: “[T]he case law and empirical evidence alike suggest that courts are inclined to award damages that far exceed an individual patent’s contribution to that particular product. . . . Damage awards that dramatically exceed the commercial value of the patented invention lead to a number of deleterious practical consequences.”²³
- Professor Mark Lemley, Stanford Law School: “Because courts have interpreted the reasonable royalty provision to require the award of royalties based on the ‘entire market

¹⁷ AIPLA Report of the Economic Survey 2007, at 25-26. Moreover, this cost is increasing at the rate of ten percent per year.

¹⁸ Testimony of Steven R. Appleton before the Senate Judiciary Committee at 4-5 (March 10, 2009).

¹⁹ McCurdy, “Patent Trolls Erode the Foundation of the U.S. Patent System,” available at www.scienceprogress.org/2009/01/patent-trolls-erode-patent-system.

²⁰ “Patent Pirates,” http://www.forbes.com/free_forbes/2007/0507/044.html.

²¹ H.R. Rep. 110-314, at 26; see also S. Rep. 110-259, at 12 (2008).

²² S. Rep. 110-259, at 12 (2008).

²³ *Patent Reform Act of 2007*: Hearing Before the Subcomm. on Courts, the Internet and Intellectual Property of the House Comm. on the Judiciary, 110th Cong., 1st Sess. 63 (2007).

value,' juries tend to award royalty rates that don't take into account all of the other, unpatented components of the defendant's product. This in turn encourages patent owners in those component industries to seek and obtain damages or settlements that far exceed the actual contribution of the patent. There are numerous cases of just this problem occurring. . . . There seems to be consensus that reasonable royalty damages should be limited to the share of a product's value that comes from the invention and that patentees should not be able to capture value they did not in fact contribute."²⁴

The Federal Circuit's reasonable royalty standard is thus inconsistent with the general damages principle long-recognized in other areas of the law: that compensatory damages should be based upon the harm incurred by the plaintiff, or the extent to which the invention reflected in the plaintiff's patent contributed to the value of the defendant's product. Reform is needed to bring patent law into line with this general principle.

Adverse effects of the vague standard extend far beyond the disputes brought to court. The economic burden imposed on innovation and economic growth due to these changes in the litigation system cannot be measured simply by looking to the disputes that result in litigation. NPEs often file suits only after offers for licensing are refused. Too often, the targeted companies pay off these demands, even when the merits of the claims are marginal. The reason is simple. Companies know that a patent suit will cost more than \$5 million to defend, not including the time of employees and the distraction from the business. In addition, companies selling a product in the marketplace cannot tolerate the continued uncertainty resulting from pendency of an allegation of patent infringement with respect to that product, especially when the claim is based on a patent with an unclear and vaguely-defined scope. The company therefore pays the fee to obtain a license and to eliminate the uncertainty rather than incur the defense costs, which typically will exceed the settlement demand, and the risk of an even higher damages award.

In fact, NPEs often first target small and financially weak companies and offer low licensing fees, knowing those companies will be forced to agree. They then use these settlements to leverage larger payments from other companies, as well as to finance continuation of the litigation. One defense lawyer explained, "The strategy is to go after the small guys first. They just ask a small enough sum that it doesn't pay to fight. Not that it's always nickel and dime. Some of our clients have paid six-figure settlements. But it still beats litigating."²⁵

The consequences of these opportunistic lawsuits—the costs and other burdens (especially the time of engineers and others at the targeted companies) associated with the litigation plus costs and burdens from the many more licensing demands that never reach litigation—are severe. Hundreds of millions of dollars that otherwise would be devoted to creating new jobs in connection with the research, development, and commercialization of new products and services are drained away into legal and expert fees as well as unjustified license and settlement payments. Rather than spending their time developing new products, hundreds of engineers must analyze this influx of opportunistic licensing requests and lawsuits. This huge diversion of resources means less innovation, fewer jobs, fewer new products and services, and lower economic growth.

²⁴ *Patent Quality Enhancement in the Information-Based Economy*: Hearing Before the Subcomm. on Courts, the Internet and Intellectual Property of the House Comm. on the Judiciary, 109th Cong., 2d Sess. 38 (2006).

²⁵ Steve Andersen, *IP Law Comes Of Age*, Corporate Legal Times, at 48 (Sept. 2004).

A recent analysis by distinguished economist Everett Ehrlich, found that clarifying the reasonable royalty standard would create 100,000 jobs over the next five years due to additional investment in R&D and commercialization of new products. If we do nothing to address this problem, our economy could lose as many as 150,000 jobs over the same period from the continued adverse effects of the existing legal standard.²⁶

Reform is needed to eliminate the burden on innovation. By exploiting the uncertainty of the reasonable royalty standard, an NPE has a chance to obtain a hugely disproportionate jury verdict or at least a settlement that will have a domino effect on the NPE's future licensing demands with respect to that patent and perhaps others as well. Under today's damages rules, therefore, an NPE has no incentive to focus its efforts on legitimate licensing demands, but rather has every incentive not to do so. Indeed, NPEs are not subject to the counter-threat of infringement claims asserted by defendants (because they do not practice any patents) and the "safety valve" of cross licensing is not applicable to NPEs because they neither manufacture a product nor provide a service and therefore do not need licenses in order to operate their businesses.

A narrow, focused change in the litigation damages standard is necessary to give NPEs appropriate incentives to focus their litigation efforts on legitimate claims, by clarifying the reasonable royalty test in order to reduce the chances of unjustified disproportionate verdicts. President Obama's technology agenda specifically recognizes the important role of the patent system in promoting innovation, and specifies as one of the President's key goals reducing "uncertainty and wasteful litigation that is currently a significant drag on innovation."²⁷

Opponents of reform rely on invective, not facts. Those who oppose clarification of the reasonable royalty standard argue that it will lead to inadequate damages awards, which will in turn devalue intellectual property and deter innovation. But that argument, and especially the opponents' somewhat shrill predictions of cataclysmic consequences, is reminiscent of the public debate regarding the appropriate standard for injunctive relief in patent cases prior to the Supreme Court's unanimous decision in *eBay*.

But the Court correctly rejected that position, reaffirming the traditional multi-factor test, and its decision has not brought about any of the predicted dire consequences. In the wake of *eBay*, courts are applying the general rule governing the availability of injunctive relief, sometimes granting injunctions and sometimes not depending upon the application of the traditional four-factor test for injunctive relief. For that reason, it simply is not possible to credit the renewed cries of impending disaster, this time tied to a modest clarification of the reasonable royalty standard that is essential to eliminating the current law's substantial adverse effects on innovation and job creation.

The Leahy/Hatch bill contains an appropriate, and narrow, clarification of the reasonable royalty standard. The language that Senators Leahy and Hatch would add to the patent law would provide the needed additional guidance and clarity for courts and juries. It focuses the reasonable royalty calculation on a realistic valuation of the contribution to the value of the infringing product made by the invention reflected in the infringed patent. The objective is to compensate the patent owner for the relevant harm, the harm that is the unauthorized use of the invention. That valuation should focus on the invention's particular contribution to value, not the value of the entire product commercialized and manufactured by the alleged infringer.

²⁶ Everett Ehrlich, "Economic Effects of Clarifying the Standard for Assessing 'Reasonable Royalty' Damages Under Patent Law" (March 2009 Preliminary Analysis).

²⁷ <http://www.whitehouse.gov/agenda/technology/>.