LITIGATION CONSULTING

Valuation of Patents

Legislative and Judicial Developments on Damages in Infringement Cases

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Throughout the history of the United States, innovation has resulted in the creation of a wide range of new businesses and industries. Protecting the returns from such innovation is the role of intellectual property rights (IPRs), a subset of intangible assets representing the legal protection (patents, copyrights, trademarks, and trade secrets) granted by statute in nearly every developed nation. In each case, the statutes and the related case law provide for the owner whose rights have been infringed to recoup damages from a proven infringer. Over the past two decades, patents have received heightened attention. All valuation analysts should be aware that the degree of protection granted by a patent in the U.S. has been changing, and change is likely to continue.

President Barack Obama took his oath of office in January 2009. Perhaps his greatest challenge will be to lead the United States out of one of its deepest recessions ever. While this has received a great deal of press, one area overlooked by the media is arguably no less important to the U.S. over the long run: our nation's policies for the promotion of long-term innovation. At the heart of this is the issue of patent reform.

In early March, patent reform bills were introduced in both the House and the Senate. In anticipation of these bills, the Manufacturers Alliance on Patent Policy (MAPP)—a coalition of more than 130 non-pharmaceutical manufacturers that includes Dow Corning, DuPont, PepsiCo, and Texas Instruments—wrote a letter to President Obama urging that these House and Senate bills would likely weaken patent protections and harm U.S. manufacturers, because they effectively reduce potential damage awards.

Patent reform bills had been introduced in each of the last three sessions of Congress. While none survived, the last version, the Patent Reform Act of 2007, passed the House before stalling in the Senate. Notably, each iteration included provisions that could limit patent infringement damages awards.

The 2009 patent reform bills include language regarding damages as well. The Senate version of the 2009 bill includes a mandate to look to a patented invention's "specific contribution over the prior art" to determine damages. Additional language states that a reasonable royalty may be calculated as the price of licensing a "similar non-infringing substitute." Conceptually, this could limit damages in some cases, presuming the non-infringing substitute is in the public domain. Other proposed language limits the availability of treble damages to when a judge finds that an adjudged infringer recklessly continued to infringe even after receiving particularly specified written notice, sufficient to create declaratory judgment jurisdiction, and without relying on reasonable advice of counsel.

In early April 2009, the Senate Judiciary Committee gave its nod to an amended version of the 2009 bill. Among the modifications were changes to damages and post-grant review provisions. These actions cleared the way for the full Senate to consider the legislation. Among other things, the amendment proposes deleting the aforementioned reasonable royalty damages provision with an enhancement to the trial court judge's role to identify the appropriate legal standards on damages.

Despite the Senate Judiciary Committee's approval of an amended version of the 2009 bill, the co-sponsors of the

House of Representatives recently voiced concerns about changes to the damages provisions, and indicated that they would not automatically accept the revisions to the 2009 bill made by the Senate Judiciary Committee.

In previous years, attempts at patent reform have stalled out. Generally, major software and technology firms have supported patent reform efforts, while pharmaceutical firms and small companies have been strong critics. The MAPP noted in its letter to the President that while the legislative process chugs along, a series of landmark court decisions have already addressed many of the concerns of patent reform proponents. These decisions are important to valuation professionals—perhaps more important than many realize. A handful of valuators quantify patent infringement damages on a regular basis; changes to patent law directly affect our daily work. Many more will feel an indirect effect, however, as the value of patents is affected by the remedies available under the law. Thus, changes in the law affect work in the areas of purchase price allocations (SFAS 141R) and goodwill impairment testing (SFAS 142). Considering that in the past as much as three-quarters of the market capitalization of U.S. companies consisted of intangible assets, accurate estimation of the value created by IPRs is essential even to most bread-and-butter business valuations with which the bulk of our readers are most familiar.

This article—geared towards valuation practitioners who are not regularly involved with patent infringement damages—reviews some recent cases and their bearing on patent infringement damages. It also provides some thoughts on where change might occur in the future.

Patent Damages Basics

A patent grants an inventor a legal monopoly over an invention for a specified number of years. In exchange, he or she publishes information about the invention for public use. This tradeoff, brought forward from the British legal system, has fostered innovation around the world for hundreds of years.

However, the mere holding of a patent does not prevent others from illegally attempting to copy and exploit the patented invention. If a patent owner cannot secure voluntary termination of an infringing activity—or settle the dispute by entering into a license agreement—it may initiate litigation in order to enforce its rights. In a lawsuit, if a patent is demonstrated to be valid and infringed, the owner may be granted injunctive relief and entitled to collect damages. Thus, patents are often the subject of high-stakes litigation. The outcome of such litigation, and the negotiating leverage afforded a patentee by potential litigation, can affect the value of patents and companies that depend on their patented technologies.

Injunctions

In the U.S., there are generally two avenues for obtaining injunctive relief: in a U.S. district court or at the International Trade Commission (ITC).

Court injunctions are no longer automatic in district courts if liability and infringement is found. This is because the 2006 Supreme Court decision in *eBay v. MercExchange*[1] changed the long-standing general presumption that permanent injunctions in patent cases would issue following a finding of validity and infringement.

Exclusion Orders

An alternative to the court system for dealing with patent infringement is the ITC, where injunctive relief through an exclusion order against importers of infringing goods is available. The considerations that guided the *eBay* decision do not apply in the same way at the ITC as in a district court. Its authority to issue exclusion orders, which have a similar impact as injunctive relief, has not been diminished by *eBay* because the FTC is an administrative agency and not a court of equity. Accordingly, patent owners have increasingly sought ITC relief prohibiting importation of products infringing a U.S. patent, rather than looking to the courts. While monetary damages are generally not directly available as a remedy at the ITC, the decision to issue an exclusion order has broad commercial and economic ramifications. While this article focuses primarily on damages in U.S. courts, financial and economic experts are also frequently called upon in ITC matters to provide expert analysis and testimony, often framed by the following nine EPROM factors:[2]

1. The value of the infringing part as compared to the value of the whole downstream product in which the infringing part is incorporated
2. The identity of the manufacturer of the downstream product (i.e., whether the manufacturer is a third party or a direct infringer)
3. The incremental value to the complainant of the exclusion of downstream products
4. The incremental detriment to the respondents of the exclusion of downstream products
5. The burdens imposed on third parties resulting from the exclusion of downstream products
6. The availability of alternative downstream products that do not contain the infringing articles

[1] *eBay, et al. v. MercExchange, et al*, 126 S. Ct. 1837; 164 L. Ed. 2d 641 (2006).
[2] *Certain Erasable Programmable Read-Only Memories (EPROM), Components Thereof, Products Containing Such Memories, and Processes for Making Such Memories, Inv.* No. 337-TA-276, USITC Pub. 2196, (May 1989), aff'd sub nom. *Hyundai Electronics Industrie. v. U.S. International Trade Commission*, 899 F.2d 1204, 1209 (Fed. Cir. 1990).

7. The likelihood that the downstream products actually contain the infringing article and are thus subject to exclusion
8. The opportunity for evasion of an exclusion order that does not include downstream products
9. The enforceability of an order by U.S. Customs.

Infringement Damages

Valuation analysts are often called upon to provide expert testimony in U.S. courts regarding the appropriate monetary damages required to compensate for an infringement. By statute, if successful in the litigation, the patent holder may be entitled to recover at least "… a reasonable royalty for the use made of the invention by the infringer," and possibly as much as their lost profits. In addition, the court may award interest, and under certain conditions has the authority to increase damages up to three times the amount found. However, there generally can be no recovery of damages for infringement committed more than six years before the filing of the complaint.[3]

Following is an overview of each of these two damages categories: lost profits and reasonable royalties.

Lost Profits Damages

A patentee may be entitled to an award of lost profits if it can demonstrate that, had the infringement not occurred, it likely would have made the sales that were made by the infringer.[4] Lost profits are generally thought to result in greater compensation for the patentee than a reasonable royalty. Patentees often desire to seek and prove lost profits under the rationale that only a lost profits measure will capture the value of excluding a competitor from the market.

Panduit v. Stahlin Bros. Fibre Works (1978) defined a four-pronged evaluation to determine if an award of lost profits applies: (1) demand for the patented product, (2) absence of acceptable non-infringing substitutes,[5] (3) manufacturing and marketing capability to exploit the demand, and (4) whether damages may be quantified.[6]

When boiled down, the four prongs of *Panduit* are meant to ensure that the patent owner's economic arguments are based on sound principles. The patentee must provide a reasonable computation of the amount of profits it would have made, assuming that the actions of the infringer had not occurred, commonly known as a "but-for" analysis.

Lost profits may be awarded for part of the infringer's sales and a reasonable royalty may be awarded for the remainder.[7] If the patentee and infringer compete only in certain, distinguishable market segments, lost profits may apply only for the segment in which competition occurred, while a reasonable royalty would apply to other infringing sales.[8] As another example, if the patentee and the infringer compete in a "premium" market segment, but not in a "discount" market segment, the patentee may be entitled to lost profits based on the profits it would have made in the premium market segment. Reasonable royalty damages may apply to the remainder of infringing sales (i.e., those in the "discount" market segment).

Reasonable Royalty Damages

A patentee that does not use its patent can still collect damages. A reasonable royalty is the amount that a willing licensor (a patent holder) would accept and the willing licensee (an infringer) would pay at a hypothetical negotiation assumed to take place on the date of the first infringement. This notion roughly parallels the determination of fair market value in the field of valuation, which also evaluates a hypothetical transaction between willing parties. Hypothetical transactions between licensors and licensees are assumed to include non-exclusive, bare licenses (i.e., nothing beyond U.S. patent rights).

Georgia-Pacific v. United States Plywood[9] is a seminal case which provides guidance in the form of 15 factors to be considered in determining a reasonable royalty in patent cases. Generally speaking, these factors may be broadly grouped into three categories: licensing, commercial, and functional considerations, as follows:

Licensing

- The royalties received by the IPR holder for the licensing of the IPR in suit
- The rates paid by the licensee for the use of other technology comparable to the technology at issue
- The nature and scope of the license, as exclusive or non-exclusive (or as otherwise restricted)
- The licensor's established policy and marketing program to maintain its IPR monopoly
- The commercial relationship between the licensor and the licensee

[3] See 35 U.S.C. § 284.
[4] *Del Mar Avionics v. Quinton Instrument*, 836 F.2d 1320, 1326 (Fed. Cir. 1987).
[5] Non-infringing substitutes are potentially an infringer's next-best alternative to an invention covered by a patent.
[6] *Panduit Corp. v. Stahlin Bros. Fibre Works*, 575 F.2d 1152, 1156 (6th Cir.), cert. denied, 439 U.S. 856 (1978) (Markey, C.J., sitting by designation); accord, *Radio Steel & Mfg. v. MTD Products*, 788 F.2d 1554, 1555, 1556 (Fed. Cir. 1986), *Tate Access Floors.v. Maxcess Technologies*, 222 F.3d 958, 971 (Fed. Cir. 2000).
[7] *State Industries*, 883 F.2d at 1573, *Rite-Hite*, 56F.3d at 1538; *Crystal Semiconductor v. Tritech Microelectronics International, et al.*, 246F. 3d 1336 (Fed. Cir. 2001).
[8] *BIC Leisure Products v. Windsurfing International*, 1 F. 3d 1214 (Fed. Cir. 1993).
[9] *Georgia-Pacific v. U.S. Plywood*, 318 F. Supp. 1116 (S.D.N.Y. 1970), *aff'd*, 446 F.2d 295 (2d Cir.), *cert. denied*, 404 U.S. 870, 92 S. Ct. 105, 30 L. Ed. 2d 114 (1971).

Commercial

- The effect of convoyed or "tag-along" sales
- The duration of the IPR and the term of the license
- The established profitability of the patented product, its commercial success, and its current popularity
- Any customary portion of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions
- The portion of the realizable profit that should be credited to the invention as distinguished from other elements

Functional

- The utility and advantages of the protected product over old modes or devices, if any
- The nature of the IPR and its benefits
- The extent to which the infringer has made use of the invention

Two comprehensive factors then pull together the prior thirteen: (1) the opinion of qualified experts, and (2) the outcome of a hypothetical negotiation between willing and reasonable licensee and licensor at the time of the first infringement.

While those 15 factors are not all-inclusive, some parallels (beyond the scope of this article) may be drawn between those factors, the notion of a hypothetical negotiation, and the guidance set forth in the seminal valuation ruling, IRS 59-60.

In practice, royalties may take many forms, including: lump-sum aggregate dollar amounts, "flat" dollar amounts over time (i.e., $1 per quarter), a dollar amount per unitary measure of volume, a percentage rate applied to a dollar base, another agreed-upon framework, or a combination thereof. The licensing practices of the parties, the practices in the industry, and the balance of economic and financial attributes of the patented technology, among other things, all contribute to the form of the royalty.

For running royalties, the reasonable royalty often comprises two parts: (1) the royalty rate (i.e., a percentage of the infringer's profits from use of the patented invention), and (2) the royalty base (i.e., the portion of the infringer's sales to which the royalty rate should be applied). These are known as running royalties. Lump-sum payments are another possibility.

The specific application of the *Georgia-Pacific* factors depends on the facts of each case. While not explicitly spelled out under *Georgia-Pacific*, a widely accepted consideration in determining a reasonable royalty rate is consideration of any "next best" alternative(s) to the patented technology. And in some situations, a relevant consideration might include whether damages may be reasonably based upon an entire apparatus, in contrast to being limited to the portion covered explicitly by the patent claims.[10]

Current Developments

As the circumstances surrounding proposed patent reform demonstrate, the landscape regarding patent infringement damages is complex and dynamic. Generally speaking, adherence to well reasoned economic principles, together with in-depth analysis of the applicable facts specific to a case, will provide reasonable high-level guidance. However, because much of the framework is embodied in case law rather than statute, considerations change over time. To provide a flavor for the types of considerations that arise, we briefly describe several important court decisions in the past few years.

***Injunctions and ongoing royalties after* eBay**. We mentioned above how in its 2006 *eBay* ruling (see footnote 1, page 8), the Supreme Court made it plain that permanent injunctions were no longer nearly automatic upon a finding of validity and infringement. Prior to *eBay*, damages analyses in patent cases were restricted to past infringement. Future infringement was not an issue because permanent injunctions were nearly always granted on a finding of liability. Recently courts have increasingly solicited expert opinions regarding the amount of "ongoing" reasonable royalties that might apply in lieu of an injunction being granted.[11] Some courts have directly instructed the parties to consider an ongoing royalty as part of a damages consideration.

Reasonable royalties and their relation to an infringer's profits. One of the generally accepted methodologies in business valuation is the income approach. Under this approach, an estimate of business value is based on a projection of future economic benefits discounted to present value. A related concept applies under patent law. *Georgia-Pacific* explicitly considers the profitability of the patented invention, and associated products as well.

In exceptional circumstances, however, considerations regarding profitability can be tempered. The Court of Appeals for the Federal Circuit indicated in *Golight v. Wal-Mart*[12] that a reasonable royalty is not necessarily capped by an infringer's expected profits (or lack thereof). And in *Monsanto v. Ralph*, the Federal Circuit indicated that "the law does not require that an infringer be permitted to make a profit."[13]

Both *Wal-Mart* and *Ralph* suggest that an analysis of damages should often extend beyond simply splitting profits between the two parties in the case. But again, there are no hard

[10] The case law on this subject is extensive and complex. For further research in this regard, a starting point is *Rite-Hite v. Kelley,* 56 F. 3d 1538, 1549-50 (Fed. Cir. 1995).

[11] See, for example, *Paice v. Toyota Motor, et al.*, Case No. 07-1610, -1631 (Federal Circuit, October 18, 2007).

[12] *Golight v. Wal-Mart*, 355 F. 3d 1327.

[13] *Monsanto v. Ralph*, 382 F.3d 1374 (Fed. Cir. 2004).

and fast rules; and as with most valuation exercises, each royalty determination is unique and highly fact-intensive.

Design-arounds and royalties. In the past, many have felt that damages should be capped by the availability of an acceptable, technically feasible, non-infringing technology.[14] To this end, *Georgia-Pacific* addressed the contribution of the patented technology at issue over prior technology. However, in the 2008 opinion *Mars v. Coin Acceptors*,[15] the Federal Circuit concluded that "an infringer may be liable for damages, including reasonable royalty damages that exceed the amount that the infringer could have paid to avoid infringement."[16] In other words, reasonable royalty damages are not necessarily capped by the amount an infringer might have paid to avoid infringement in the first place. Notably, proposed patent reform seemingly goes against the grain of this case. In our view, *Mars* provides another example of how a damages analysis (or the valuation of patented IPRs) is a highly fact-intensive exercise.

Foreign sales. *Eolas v. Microsoft*[17] (2005) and *AT&T v. Microsoft*[18] (2007) addressed liability for offshore infringement clarified in certain circumstances. Software manufacturers often export "golden master" disks to foreign original equipment manufacturers. Even though the golden master disk itself might not end up as a physical part of the infringing product, the software code can constitute part of an infringing product for combination outside of the U.S. In February 2007, the Supreme Court reversed the Federal Circuit's decision in *AT&T v. Microsoft*,[19] reasoning that a copy of Microsoft's software, not the "golden master" itself, was combined with other elements to create infringing computer systems. Under this rationale, a majority held that Microsoft was not liable for infringement for the sales that were tied to the golden master disks.

In the end, the Supreme Court held that certain foreign sales were not included in the royalty base. Yet in other subsequent cases with similar circumstances, foreign sales were allowed to remain in the royalty base even after appeal to the Federal Circuit.[20]

For a damages expert, this pattern of decisions has expanded the analysis of what may or may not qualify as a sale that counts in the royalty base. For a valuation professional, this can affect the value of a U.S. patent.

Applicable revenues. In *Lucent Technologies v. Gateway* (2007), a District Court judge vacated a $1.53 billion jury verdict for damages related to the infringement of two patents, finding that the jury lacked sufficient evidence to award damages based upon the "entire market value" of the infringing product. In other words, the judge found that there was not enough evidence to base damages upon a reasonable royalty applied to an entire device, but only rather to the more limited portion covered by the patents-in-suit.

Other. The following cases can also affect a damages analysis and the value of patented technologies, although damages experts are not often asked to opine on these issues:

- *The Seagate*[21] (2007) decision, which limited treble damages related to willfulness
- *KSR v. Teleflex*[22] (2007), which strengthened a non-obviousness standard which makes it more difficult to prove a patent valid in certain circumstances
- The *Bilski*[23] decision (2008), which clarified the criteria for patenting business methods

This pattern of decisions shows how over the past several years, case decisions and appeals that affect the value of patent rights have been issued regularly. And with this as a backdrop, yet another version of patent reform journeys through Congress.

Conclusion

While various iterations of patent reform have been introduced over at least three sessions of Congress, *eBay* and other court decisions have changed the landscape regarding patent infringement remedies and damages. It is not trivial that, in some cases, a valid and infringed patent no longer confers a nearly automatic right to exclude infringing products from the markets. In cases where an injunction is not available, ongoing damages are now an important consideration.

Watch for more change. Although recent efforts to legislate change have not taken flight, many of the proposed changes have indirectly made their way into practice through court decisions. For example, one consideration in proposed legislation is venue reform. At the time of publication of this article, court opinions bearing upon the rules for the appropriate venue for patent infringement cases are being issued more frequently.

Another area covered by the 2007 Act was a "hard and fast" rule regarding the appropriate "base" for damages. This sought to limit the royalty base to the portion of the product that is covered by the patent (as opposed to the entire device). Similarly, the patent reform bill currently under debate in Congress

[14] *Grain Processing Corp. v. American Maize Products*, 185 F.3d 1341, 51 U.S.P.Q.2D 1556 (Fed. Cir. 1999).
[15] *Mars v. Coin Acceptors*, 527 F.3d 1359 (Fed. Cir. 2008).
[16] *Mars*, 527 F. 3d at 1373 (*citing to Monsanto* 382 F.3d at 1385).
[17] *Eolas Technologies and Regents of the University of California v. Microsoft*, 399 F. 3d 1325 (Fed. Cir. 2005).
[18] *AT&T v. Microsoft*, Docket No. 04-1285 (Fed. Cir 2005).
[19] *Microsoft v. AT&T*, 127 S. Ct. 1746 (2007).
[20] Although the CAFC might not have addressed the issue directly. See *z4Technologies v. Microsoft*, 507 F.3d 1340 (Fed. Cir. 2007); *z4 v. Microsoft*, 434 F. Supp. 2d 437 (E.D. Texas 2006).
[21] *In re Seagate Tech.*, 497 F.3d 1360, 1371 (Fed. Cir. 2007).
[22] *KSR International v. Teleflex et al.*, 550 U.S. 398; 127 S. Ct. 1727 (2007).
[23] *In re Bilski*, 545 F.3d 943 (Fed. Cir. 2008).

limits the base to the specific invention, except when it can be shown that the "claimed invention's specific contribution over the prior art is the predominant basis for market demand for an infringing product or process…."

In its February 2009 letter to President Obama, MAPP referred to such a potential provision with strong words, calling it an attempt at "reducing penalties for intellectual property theft." The position of MAPP and others is that sufficient guidance is already provided in case law, including *Georgia-Pacific.* History shows that if this issue is addressed through legislation, it will require substantial debate. To this end, such language has already been amended in the Senate version of the bill to place more responsibility in the hands of judges regarding the appropriate measure of damages.

Given the dollars at stake and the importance of innovation to the fabric of our society, legislators and courts will continue to take a close look at how best to provide an equitable framework for protecting IPRs.

When valuing a "patent-rich" business (i.e., one that owns patents or depends on a license of someone else's patent rights), one of the first things to do is to place a call to a practitioner in the field. He or she can bring you up to date as to what changes may affect your assignment. VE

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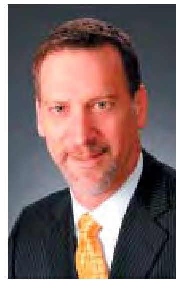

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