

After *eBay, Inc. v. MercExchange*: The Changing Landscape for Patent Remedies

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INTRODUCTION

On May 15, 2006, the United States Supreme Court decided *eBay, Inc. v. MercExchange, L.L.C.*, and overruled years of Federal Circuit precedent governing the issuance of permanent injunctions.¹ Under existing Federal Circuit law, once a defendant has been determined to infringe a valid patent, there was a "general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances."² The only recognized exception to this rule was a narrow "public interest" exception,³ in which "a court may decline to enter an injunction when 'a patentee's failure to practice the patented invention frustrates an important public need for the invention,'" such as the need to use an invention to protect public health.⁴ This narrow exception was rarely used.⁵

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¹ . *eBay, Inc. v. MercExchange, L.L.C. (eBay III)*, 547 U.S. 388 (2006).

² . *MercExchange, L.L.C. v. eBay, Inc. (eBay II)*, 401 F.3d 1323, 1338 (Fed. Cir. 2005) (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1246-47 (Fed. Cir. 1989)).

³ . *Id.* (quoting *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1547-48 (Fed. Cir. 1996) (en banc), *cert. denied*, 516 U.S. 867 (1995)).

⁴ . *Id.*

⁵ . See *Hybritech, Inc. v. Abbott Lab.*, 4 U.S.P.Q.2d 1001 (C.D. Cal. 1987) (public interest in the availability of medical test kits justified a denial of a *preliminary* injunction), *aff'd*, 849 F.2d 1446, 1458 (Fed. Cir. 1988); *Vitamin Technologists, Inc. v. Wis. Alumni Research Found.*, 64 U.S.P.Q. 285 (9th Cir. 1945) (public interest warranted refusal of

In *eBay*, the Supreme Court held that permanent injunctions in patent cases should be determined using the same four factor test that courts have historically used in other contexts when deciding whether to issue an injunction.⁶ That test requires courts to analyze: (1) whether the plaintiff will suffer irreparable harm without the injunction; (2) whether there is an adequate remedy at law; (3) the balance of hardships on the respective parties; and (4) whether granting an injunction would disservice the public interest. In view of this new standard, many successful patent plaintiffs will no longer be granted a permanent injunction. This has led courts to face two sets of new issues: (1) identifying what facts are important in determining whether to issue a permanent injunction in a patent case, and (2) determining how to handle future infringement after a permanent injunction is denied.

The lower courts have now had almost two years to interpret *eBay* and identify what facts are important in determining when permanent injunctions will be issued. This Article provides a critical analysis of these cases⁷, and discusses fact patterns that should be considered when deciding whether to issue a permanent injunction. Specifically, this critique utilizing the recent lower court decisions assesses how reliance on specific fact patterns balances (or, perhaps, undermines) the goals of the patent system—promoting innovation without stifling competition.⁸ A permanent injunction has the effect of both denying the public at least some benefit from the patented invention and bestowing an economic reward for developing patented technology to the patent holder. By using economic analysis to characterize the issues, courts should be able to consistently apply the *eBay* factors to grant or deny injunctions in a manner that furthers the goals of the patent

injunction on irradiation of oleomargarine).

⁶ . *eBay III*, 547 U.S. at 394.

⁷ . The review attempted to encompass all Federal Circuit cases through February 2008. However, the author did not review all district court decisions. Instead, cases from the most common patent forums, most notably the Eastern District of Texas, and specific high profile cases were reviewed.

⁸ . See FEDERAL TRADE COMM'N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY 1-14 (2003) (discussing goals of patent policy), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> [hereinafter INNOVATION].

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system.

After *eBay*, successful patents plaintiffs cannot obtain permanent injunctions as a matter of course. Instead, these plaintiffs will have to satisfy the four factor test. Thus, for the first time, courts confront issues of remedies for future infringement where the accused infringer continues to violate the terms of the patent. Without a clear statutory basis for doing so, some courts have granted plaintiffs an ongoing royalty (a compulsory license that is only available to the losing defendant). This Article suggests that the courts do not have the authority to grant ongoing royalties. However, that is not as problematic as it might appear. Due to the availability of other remedies, courts can "do nothing." Even if a court were to refuse to impose an ongoing royalty, defendants still must choose between: (1) avoiding future infringement, (2) negotiating a license, or (3) risking a second lawsuit that should result in a finding of willful infringement and enhanced damages. This solution should adequately guard a patent holder's rights within the current statutory framework.

This Article is structured so that Part I describes the facts and holding of the *eBay* decision. Part II analyzes decisions applying *eBay*'s four factor test and identifies three categories of fact patterns that have played a prominent role in determining whether or not to grant a permanent injunction. These categories are: (1) the existence or lack of direct competition, (2) the institutional status of the plaintiff (e.g. research institution or troll), and (3) the relative contribution the patented invention has to the infringing device. This Article discusses how courts have applied the four factor test to cases that possess these fact patterns and how the application does or does not meet the goals of the patent system.

Part III goes on to discuss what happens when a permanent injunction is not issued. Part III A describes one approach that the Federal Circuit has approved, granting a compulsory license to the losing defendant which the courts now call an "ongoing royalty." This Article explores the purported basis for this remedy and argues that it is not reasoned. Part III B suggests that courts should not award an ongoing royalty in place of a permanent injunction. The doctrine of willful infringement allows a prevailing plaintiff to continue to enforce its patent in the absence of both a

I. THE FACTS OF *eBAY*

In *eBay*, the defendant and its wholly owned subsidiary, Half.com, operated websites that allow private sellers to list goods they wish to sell, either through an auction or at a fixed price. Plaintiff MercExchange L.L.C. held a number of patents, including U.S. Patent No. 5,845,265, a business method patent for an electronic market designed to facilitate the sale of goods between private individuals by establishing a central authority to promote trust among participants. MercExchange filed a patent infringement action against eBay and Half.com. A jury found that the MercExchange patent was valid and infringed, and awarded damages.

After the jury verdict, the district court denied MercExchange's motion for permanent injunctive relief. Although the district court cited to the general rule favoring permanent injunctions in patent cases, the court denied the injunction by analyzing the traditional four factor test used in other types of cases.⁹ The Federal Circuit reversed, applying its general rule that courts will issue permanent injunctions against patent infringement absent exceptional circumstances.¹⁰ That rule was based on the Patent Act which states that "patents shall have the attributes of personal property"¹¹ and grants "the right to exclude others from making, using, offering for sale, or selling the invention."¹² The Federal Circuit explained that because the right to exclude is "the essence of the concept of property," the general rule is that a permanent injunction will issue to a prevailing plaintiff.¹³

In a short opinion authored by Justice Thomas, the Supreme Court reversed the Federal Circuit and its long standing precedent. The opinion began by outlining the traditional factors used to determine whether to issue a

⁹ . *MercExchange, L.L.C. v. eBay, Inc. (eBay I)*, 275 F. Supp. 2d 695, 711 (E.D. Va. 2003).

¹⁰ . *eBay II*, 401 F.3d at 1339.

¹¹ . 35 U.S.C. § 261 (2000).

¹² . 35 U.S.C. § 154(a)(1) (2000).

¹³ . *eBay II*, 401 F.3d at 1338 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1246-47 (Fed. Cir. 1989)).

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permanent injunction:

According to well-established principles of equity, a plaintiff seeking a permanent injunction must satisfy a four-factor test before a court may grant such relief. A plaintiff must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.¹⁴

The opinion stated that "these principles apply with equal force" in patent cases and that nothing in the Patent Act indicates that Congress intended a departure from them.¹⁵ Thus, the Supreme Court's interpretation of the Patent Act was very different than the Federal Circuit's. The Court noted that "creation of a right [under §§ 154, 261] is distinct from the provision of remedies for violations of that right."¹⁶ Since § 261 states that it is "[s]ubject to the provisions of this title" including, presumably, § 283 which states injunctive relief may only issue "in accordance with the principles of equity," the decision did not find a general rule favoring permanent injunctions.¹⁷ As a result, the Supreme Court held that the Federal Circuit erred by incorrectly applying a different set of standards for injunctions in patents cases than for other cases. Specifically, the Court stated:

We hold only that the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards.¹⁸

The Supreme Court also criticized the district court's analysis: "[a]lthough the District Court recited the traditional four-factor test, it appeared to adopt certain expansive principles suggesting that injunctive relief could not issue in a broad swath of cases."¹⁹ The Supreme Court rejected such a categorical rule because it was not consistent with the

¹⁴ . *eBay III*, 547 U.S. at 391 (citing *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 311-13 (1982)); *Amoco Prod. Co. v. Gambell*, 480 U.S. 531, 542 (1987)).

¹⁵ . *eBay III*, 547 U.S. at 391.

¹⁶ . *Id.* at. 392.

¹⁷ . *Id.*

¹⁸ . *Id.* at 395.

¹⁹ . *Id.* (citations omitted).

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arising under the Patent Act."²⁷ The only guidance provided in *eBay* was in Justice Kennedy's concurrence joined by Justices Stevens, Souter and Breyer. This concurrence suggested that courts consider "the nature of the patent being enforced and the economic function of the patent holder."²⁸ This suggestion provides a basis for looking at *eBay*'s four factor test with an economic perspective.

II APPLICATIONS OF THE FOUR FACTOR TEST

A review of the decisions applying the four *eBay* factors reveals a variety of trends, difficult fact patterns, and arguably flawed applications of the *eBay* test. This Article selects three categories of fact patterns that have figured prominently in decisions to grant or deny a request a permanent injunction. These categories are: (1) the existence of direct competition, (2) the institutional status of the patent holder, and (3) the value that the patented technology contributes to the infringing product. The first and third categories have figured prominently in several decisions. The second category has appeared in a single case involving an important standard used by wireless local area networks. All three categories can be better understood by analyzing how the four factor test applies, and assessing whether relying on these fact patterns forwards the goals of the patent system.

A. DIRECT COMPETITION

One category of fact patterns that has figured prominently in cases applying the *eBay* factors—the existence, or lack of direct competition. In many cases, this feature appears to be the primary focus of the court's inquiry. This Article discusses how courts apply the four factor test to the existence of direct competition, lack of direct competition and other variations. It also explains why focusing on the existence of competition correctly applies the four factor test and forwards the goals of the patent system.

The district courts repeatedly focused on the existence of direct competition between the two parties in determining whether to grant a permanent injunction. If the plaintiff

²⁷ . *eBay III*, 547 U.S. at 395.

²⁸ . *Id.* at 396 (Kennedy, J., concurring).

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Subsequent Eastern District of Texas³⁷ decisions have cited to *Tivo* for recognizing the "high value of intellectual property when it is asserted against a direct competitor in the plaintiff's market."³⁸ These cases have not required any showing that the competitive problem was magnified (i.e. nascent market or sticky customers) to justify granting a permanent injunction. Instead, they demonstrate that the Eastern District of Texas granted permanent injunctions several times in the presence of direct competition between the parties.³⁹ Moreover, district courts from other jurisdictions have also relied on the existence of direct competition in support of issuing permanent injunctions.⁴⁰

However, in *Praxair, Inc. v. ATMI, Inc.*, the District of Delaware denied a permanent injunction to a plaintiff in the presence of direct competition, because the plaintiff did not provide any details on either irreparable harm or the failure of monetary damages to adequately compensate it.⁴¹ Thus, the court found that the plaintiff had not demonstrated that it was entitled to an injunction.⁴² *Praxair* stands as a warning to plaintiffs that they may not be able to simply show direct competition and expect that an injunction will follow. Furthermore, one district court denied an injunction despite the plaintiff's claim that it desired to compete with the defendant. Interestingly, that was *MercExchange, L.L.C. v. eBay, Inc.*,⁴³ the case that that led to the *eBay* decision. On remand, the district court denied the request for a

³⁷ . For a variety of reasons, the Eastern District of Texas has become one of the most popular forums for patent plaintiffs to file suit. As a result, there are a disproportionate number of decisions regarding patent law from this district. William C. Rooklidge & Renée L. Stasio, *Venue in Patent Litigation: The Unintended Consequences of Reform*, INTELL. PROP. & TECH. L.J., Mar. 2008, at 2.

³⁸ . *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, No. 2-04-CV-32 (TJW), 2007 U.S. Dist. LEXIS 25948, at *9 (E.D. Tex. Mar. 21, 2007); see also *Visto Corp. v. Seven Network, Inc.*, No. 2:03-CV-333-TJW, 2006 U.S. Dist. LEXIS 91453, at *14 (E.D. Tex. Dec. 19, 2006).

³⁹ . *O2 Micro*, 2007 U.S. Dist. LEXIS at *9; *MGM Well Servs. v. Mega Lift Sys.*, 505 F. Supp. 2d 359, 379 (E.D. Tex 2007); *Brooktrout, Inc. v. Eicon Networks Corp.*, No. 2:03-CV-59, 2007 U.S. Dist. LEXIS 43107, at *5 (E.D. Tex. June 14, 2007); *Visto*, 2006 U.S. Dist. LEXIS at *14.

⁴⁰ . *Muniauction, Inc. v. Thomson Corp.*, 502 F. Supp. 2d 477, 482 (W.D. Pa. 2007); *Sanofi-Synthelabo v. Apotex, Inc.*, 492 F. Supp. 2d 353 (S.D.N.Y. 2007).

⁴¹ . *Praxair, Inc. v. ATMI, Inc.*, 479 F. Supp. 2d 440, 444 (D. Del. 2007).

⁴² . *Id.*

⁴³ . *eBay I*, 275 F. Supp. 2d 695, 722 (E.D. Va. 2003).

permanent injunction.⁴⁴

Several variations on direct competition should also weigh in favor of a permanent injunction. For example, having a licensed subsidiary that competes with the defendant would seem to provide the same justification for a permanent injunction as direct competition itself.⁴⁵ At least one district court decision has relied on the existence of a licensee to a subsidiary, in granting a permanent injunction. In *Novozymes A/S v. Genencor International, Inc.*,⁴⁶ the direct competition between the plaintiff's subsidiary—and licensee—and the defendant was the chief consideration cited in support of a permanent injunction. The court also found the balance of hardships favored a permanent injunction because the defendants had apparently pulled the infringing product from the market.⁴⁷ Finally, the court noted that there was no evidence that an injunction would harm the public.⁴⁸

Having an exclusive licensee should also weigh in favor of a permanent injunction. However, in *Voda v. Cordis Corp.*, the fact that plaintiff had granted an exclusive license was considered "irrelevant" because the licensee had not joined the action and was thus not a party to the lawsuit.⁴⁹ This analysis ignores the problem the plaintiff/licensor faces. If the plaintiff receives money damages instead of an injunction, there will effectively be two parties using the patented technology, the exclusive licensee and the defendant. Thus, the exclusive licensee will no longer be "exclusive" and the licensee can justifiably expect some sort of compensation from the patent holder for the diminished value of the now non-exclusive license. That request may be an action against the plaintiff for breach of contract,

⁴⁴ . *eBay IV*, 500 F. Supp. 2d 556, 591-92 (E.D. Va. 2007).

⁴⁵ . In *Paice II*, the plaintiff argued that the denial of an injunction and the grant of an ongoing royalty inhibited the plaintiff's ability to grant an exclusive license. *Paice LLC v. Toyota Motor Corp. (Paice II)*, 504 F.3d 1293, 1314 n.14 (Fed. Cir. 2007). The Federal Circuit found that there was substantial evidence to support the district court's finding that the form of relief would not discourage other potential licensees. *Id.*

⁴⁶ . *Novozymes A/S v. Genencor Int'l, Inc.*, 474 F. Supp. 2d 592, 613 (D. Del. 2007).

⁴⁷ . *Id.*

⁴⁸ . *Id.*

⁴⁹ . *Voda v. Cordis Corp.*, No. CIV-03-1512-L, 2006 U.S. Dist. LEXIS 63623, at *19 (W.D. Ok. Sept. 5, 2006).

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rescission, reformation or even unjust enrichment. These potential problems should be considered as important consideration in the irreparable harm/no adequate remedy prongs of the *eBay* test. The *Voda* court should have considered these problems and the existence of an exclusive licensee should weigh in favor of granting a permanent injunction regardless of whether the licensee joins in the action.

While the cases discussed above demonstrate that the existence of direct competition generally results in a permanent injunction. The converse is also true. Lack of direct competition generally results in the denial of a permanent injunction.⁵⁰ There is one notable exception. In *Commonwealth Scientific & Industrial Research Organisation v. Buffalo Technology Inc.*, the court granted a permanent injunction even though the plaintiff, Commonwealth Scientific & Industrial Research Organisation (CSIRO) did not compete with the defendant.⁵¹ The court issued a permanent injunction relying chiefly on the fact that CSIRO is a research institution.⁵²

Thus, the existence of direct competition appears to be a good predictor of whether a permanent injunction will issue. This is a sensible consideration for a number of reasons. First, the analysis is consistent with the basic goal of the patent system to maximize the public good by promoting innovation without unduly stifling competition.⁵³ When a defendant does not compete with a plaintiff, an injunction serves to deny the public access to a product that uses the patented technology. By contrast, when competition exists, the public still has access to the products being enjoined.⁵⁴ The injunction merely serves to shift market share and the corresponding monetary rewards of the patented technology to the plaintiff.

Consideration of the existence or absence of direct competition appears to be a proper application of *eBay's*

⁵⁰ . See *Paice II*, 504 F.3d at 1314 n.14; *z4 Techs., Inc. v. Microsoft Corp.*, 434 F. Supp. 2d 437 (E.D. Tex. 2006).

⁵¹ . *Commonwealth Sci. & Indus. Research Org. v. Buffalo Tech. Inc.*, 492 F. Supp. 2d 600, 603 (E.D. Tex. 2007).

⁵² . See *infra* text accompanying notes 60-71.

⁵³ . See *INNOVATION*, *supra* note 8, at 8.

⁵⁴ . Not all patented inventions provide a substantial benefit to the public. Courts can examine what interest the public has in the particular patented invention under the fourth *eBay* factor.

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the Federal Circuit was pointing to Vonage products that use its patented technology or not. Presumably, the lost opportunities to sell other services did not use the patented technology. It is at least possible that Verizon was using its patents to safeguard its traditional telephone service against the development of internet telephony. If internet telephony is actually superior to traditional landline technology, the public may have been disserved by an injunction even in the presence of direct competition. This issue does not appear to have been reviewed by the courts in the *Verizon* decisions.

In the future, courts may wish to examine what kind of competition the plaintiff identifies in support of its request for an injunction. The public has an interest in having access to new patented technology. If the patent holder is not offering products using its own patents, there may be less reason for the court to grant the injunction. To be sure, any kind of competition may tend to show irreparable harm, but in some cases the public interest in access to the most recent technology, and presumably the best technology, may be equally important.

Thus, direct competition should be an important, but not dispositive consideration. The alternative would violate the Supreme Court's prohibition in *eBay* on broad categorical rules. There are still other circumstances where no injunction should issue even when the plaintiff and defendant are direct competitors—for example, when the patent covers a relatively unimportant feature of a product, but the costs of a design-around are high.⁵⁸

⁵⁸ . See discussion *infra* Part III.B.

B. RESEARCH INSTITUTION OR TROLL

A second category of fact patterns is the institutional status of the plaintiff (e.g. research institution or troll). One recent district court case granted an injunction based primarily on the plaintiff's status as a research institution. This case has been watched carefully because of the powerful precedent it may set and because the plaintiff has argued that its patent covers all products that practice the IEEE 802.11a and g standards.⁵⁹ This section criticizes the decision as an incorrect application of the four factor test and argues that focusing on the institutional status of the plaintiff does not forward the goals of the patent system.

In *Commonwealth Scientific & Industrial Research Organisation (CSIRO) v. Buffalo*,⁶⁰ the plaintiff was the principal scientific research organization of the Australian Federal Government.⁶¹ It had developed and patented a wireless local area network (WLAN) technology. CSIRO sued the Buffalo defendants claiming that the defendants' WLAN products infringed CSIRO's WLAN patent. The district court granted CSIRO's summary judgment on both infringement and validity and infringement.

Before damages were determined, the district court granted CSIRO's motion for permanent injunction using the four factor test required by *eBay*. In analyzing these factors, the court heavily relied on the plaintiff's status as a research organization. The court determined that CSIRO would be irreparably harmed in two ways if an injunction did not issue. First, having its patent challenged "impugns CSIRO's reputation as a leading scientific research entity."⁶² Second, patent challenges divert money from research and delays in research are likely to result in "CSIRO being pushed out of valuable fields as other research groups achieve critical intellectual property positions."⁶³ This analysis is suspect because the two cited harms are related to the cost of litigation, and not to the failure to issue an injunction.⁶⁴

⁵⁹ . Practically all wireless local area networks currently use this standard.

⁶⁰ . 492 F. Supp. 2d 600 (E.D. Tex. 2007).

⁶¹ . *Id.* at 601.

⁶² . *Id.* at 604.

⁶³ . *Id.*

⁶⁴ . *Id.* The court also analyzed the adequacy of damages, but this analysis was not based on the fact that CSIRO was a research institution.

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Moreover, the Supreme Court and Federal Circuit have previously discussed the public's strong public interest in "resolving questions of patent invalidity"⁶⁵ and the Federal Circuit held that lost research opportunities do not constitute irreparable harm.⁶⁶ Nonetheless, this discussion shows that CSIRO's status as a research institution was considered throughout the district court's analysis.

The district court also relied on CSIRO's status as a research institution to find that the balance of hardships favored granting an injunction.⁶⁷ The court stated that the Buffalo defendants' hardship was "purely monetary."⁶⁸ In contrast, the court found that the failure to issue an injunction would injure CSIRO and "negatively impact CSIRO's research and development efforts and its ability to bring new technologies into fruition."⁶⁹ As a result, the court found that the balance of hardships favored issuing an injunction.

Finally, the court found that the public had an interest in issuing an injunction. The court started with the premise that the public has an interest in a strong patent system.⁷⁰ The court then discussed at some length the "enormous benefits" that research institutions have produced.⁷¹ More specifically, the court stated that the public interest is "advanced by encouraging investment by research organizations into future technologies and serves to promote the progress of science and the useful arts."⁷² As a result, *Commonwealth Scientific* appears to stand for the proposition that the public has a greater interest in protecting the patent rights of research institutions than other entities, and that permanent injunctions should be awarded to these types of entities.

Id. at 606.

⁶⁵ . *Cardinal Chem. Co. v. Morton Int'l*, 508 U.S. 83, 100 (1993); *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 344-46 (1971); see also *Smithkline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1354 (Fed. Cir. 2005).

⁶⁶ . *Eli Lilly & Co. v. Am. Cynamid Co.*, 82 F.3d 1568, 1578 (Fed. Cir. 1996).

⁶⁷ . *Commonwealth*, 492 F. Supp. 2d at 606-07.

⁶⁸ . *Id.* at 606.

⁶⁹ . *Id.*

⁷⁰ . *Id.* at 607.

⁷¹ . *Id.*

⁷² . *Id.*

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unfair to the defendants and unwise for courts to allow
patent holders to manufacture a situation that results in a
permanent injunction.

C. THE PATENTED INVENTION'S RELATION TO THE INFRINGING DEVICE

A third category of fact patterns that has figured in some decisions applying the four factor test is the relative contribution the patented invention has to the infringing device. This section describes how courts have analyzed the relative contribution a patented invention makes to the infringing device when applying the four factor test. This Article suggests that this should be an important consideration especially when viewed from an economic perspective. Courts should be wary of granting a permanent injunction for a patent that contributes little to the infringing device because that can result in over compensation. However, the converse is not true. Courts should be not be concerned that denying a permanent injunction for a patented invention that contributes substantially to the infringing device will result in under compensation. Finally, this Article explains how the courts can fine tune injunctions to avoid both over and under compensation.

A permanent injunction is a powerful remedy that rewards patent holders. However, when issued without examining the particular facts of the case, an injunction can overcompensate a patent holder for its relative contribution. Justice Kennedy recognized this problem when he warned that an injunction "can be employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent."⁷⁶

Courts must examine the relationship of the patented invention to the infringing product and determine whether an injunction is appropriate. This is precisely the kind of analysis Justice Kennedy suggested in his concurrence when he stated:

When the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest.⁷⁷

"public interest" in support of an injunction?

⁷⁶ . *eBay III*, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring).

⁷⁷ . *Id.* at 396-97.

Recast in economic terms, one important consideration is whether the injunction would properly reward the patent holder for the patent's technical contribution without overcompensating the patent holder.

1. Guarding Against Overcompensation

An example of the overcompensation issue occurred in *z4 Technologies, Inc. v. Microsoft Corp.*⁷⁸ In *z4*, the jury found that Microsoft's Office and Windows products infringed two patents.⁷⁹ The patents disclose methods of limiting the unauthorized use of computer software, referred to as product activation.⁸⁰ This feature was only a small part of the infringing products.⁸¹

The plaintiff asked the court to enjoin current Windows XP and Office products and to deactivate servers that control product activation for the infringing products.⁸² The district court refused to issue a permanent injunction.⁸³ The district court first noted that Microsoft's products do not compete with *z4*'s.⁸⁴ However, relying on Justice Kennedy's concurrence, the court also discussed why money damages were adequate in view of the relationship between the patented invention and the infringing product. Specifically, the court stated:

Here, product activation is a very small component of the Microsoft Windows and Office software products that the jury found to infringe *z4*'s patents. The infringing product activation component of the software is in no way related to the core functionality for which the software is purchased by consumers.⁸⁵

The facts show that the value of the patented invention to the accused Microsoft product was relatively small.⁸⁶ The

⁷⁸ . 434 F. Supp. 2d 437 (E.D. Tex. 2006).

⁷⁹ . *Id.* at 438.

⁸⁰ . *Id.*

⁸¹ . *Id.* at 440.

⁸² . *Id.* at 439.

⁸³ . *Id.* at 444.

⁸⁴ . *Id.* at 440 ("There is no logical reason that a potential consumer or licensee of *z4*'s technology would have dissuaded from purchasing or licensing *z4*'s product activation technology for use in its own software due to Microsoft's infringement.").

⁸⁵ . *Id.* at 441.

⁸⁶ . The concept of "relatively small" should be distinguished from no value. The jury did award the plaintiff \$115 million for past infringement. Presumably, this is a small portion of Microsoft's sales of these two incredibly successful software products. *Id.* at 438.

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invention was clearly not vital to the products' core function because Microsoft was already eliminating the patented invention from future versions of Windows and Office in 2007. However, the cost of eliminating the patented technology from existing products was extremely high. If Microsoft were forced to redesign current versions, it would have had to re-release 450 separate variations of Office in 37 different languages and 600 different variations in 40 languages.⁸⁷ If its product activation servers were turned off, Microsoft argued that the market would be flooded with pirated software.⁸⁸ Based on these findings, the district court denied the injunction.

This result was consistent with the goals underlying the patent system because it based the plaintiff's reward on the relative contribution of the patented invention to the infringing product. Without an injunction, z4 had only one significant bargaining chip to offer Microsoft in settlement negotiations—the value of its patented product activation feature in both current and future generations of Windows and Office. To keep the patented technology in the current product, Microsoft had to continue to pay a reasonable royalty based on the jury's damage reward.⁸⁹ For future products, the parties could negotiate a rate based on the value that the patented invention actually contributes to the products, or Microsoft could simply eliminate the feature.

If an injunction had issued, however, z4 would have an additional lever. It could force Microsoft to incur expenses associated with eliminating the patented technology from its current products. The former consideration seems to be precisely the type of compensation that the patent system should provide z4—allowing parties to negotiate the value of particular technology. However, the cost savings associated with a design around has no relationship to the value that the patented invention contributes to a product. It is simply the unfortunate side effect of resolving patent disputes after products are designed and sold. By denying z4's request for an injunction, the court applied the *eBay* factors in a manner that eliminated the cost of a design around as a lever in settlement negotiations.

The z4 case did not present the most challenging set of

⁸⁷ . *Id.* at 442.

⁸⁸ . *Id.* at 443.

⁸⁹ . *Id.*

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patented invention are significant compared to the value of the patented invention itself.⁹² In those cases, granting a permanent injunction provides the patent holder with a windfall that is unrelated to the value of the patented invention. That windfall is the ability of the patent holder to force the infringer to redesign its products. The injunction allows the patent holder to recover a substantial portion of the costs associated with the redesign in any settlement.

The denial of a permanent injunction, however, does not suffer from a similar gap between what the compensation a patent holder should and does receive. In other words, the infringer has no lever that allows it to pay less than the value the patented invention contributes to the infringing product. Even when an injunction is denied, courts can continue to award an ongoing royalty, a compulsory license only available to the losing party,⁹³ or the patent holder can bring a later suit for that infringement. One way or another, these remedies should compensate the patent holder for the value that the patented invention contributes to the infringing product. The parameters of an ongoing royalty have not yet been determined. To date some courts have based the rate on the jury's award of past damages.⁹⁴ Therefore, the fact that the patented invention is a large or important component of the infringing product should not be given substantial weight when determining whether to grant a permanent injunction.

3. Tailoring the Injunction

The *z4* and *Commonwealth Scientific* decisions show how courts are considering the relationship between the patented invention and the infringing product in determining whether to issue a permanent injunction. However, the granting or

⁹² . The value of the patented invention can be thought of as the value the patented invention adds to the product if it were designed from scratch.

⁹³ . *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1315 (Fed. Cir. 2007).

⁹⁴ . *Voda v. Cordis Corp.*, No. CIV-03-1512-L, 2006 U.S. Dist. LEXIS 63623, at *18 (W.D. Ok. Sept. 5, 2006); *Finisar Corp. v. DirectTV Group, Inc.*, 2006 U.S. Dist. LEXIS 76380, at *2 (E.D. Tex. July 7, 2006); *but see Broadcom Corp. v. Qualcomm Inc.*, SACV 05-467-JVS(RNBx), 2007 U.S. Dist. LEXIS 86627 (C.D. Cal. Nov. 21, 2007) (for infringement that would take place during a sunset period—that is until a permanent injunction went into effect—the court trebled the jury determined royalty rate for past infringement).

denying of a permanent injunction can be a rather blunt instrument. The Federal Circuit has recently suggested that when considering the *eBay* factors, courts can craft the injunction to reflect the individual circumstances of the case. In *Verizon Services Corp. v. Vonage Holding Corp.*, the defendant was found to have infringed valid patents and the district court granted an injunction.⁹⁵ The Federal Circuit affirmed the injunction, but in a footnote, the court suggested that as part of the balance of hardships analysis, the district court should have considered allowing time for Vonage to implement a workaround to avoid infringement:

One factor that is relevant to the balance of the hardships required by the Supreme Court's decision in *eBay* was not considered by the district court, namely whether the district court should have allowed time for [defendant] to implement a workaround that would avoid continued infringement of the '574 and '711 patents before issuing its injunction. [Plaintiff] had a cognizable interest in obtaining an injunction to put an end to infringement of its patents; it did not have a cognizable interest in putting Vonage out of business.⁹⁶

The Federal Circuit made its suggestion in the context of analyzing the balance of hardships, but it did not cite to Justice Kennedy's *eBay* concurrence. However, the proposed remedy fits extremely well within the framework he suggested. For example, the design around cost may be extremely high if the injunction requires immediate implementation. However, it may be quite reasonable given a longer time frame. As a result, as the design around costs decrease, any overcompensation that a patent holder receives for its contribution to the infringing products grows correspondingly smaller.

This type of remedy mirrors the outcome of the *z4* case. Although no injunction was issued, Microsoft was not going to include the patented invention in its next generation products. Thus, the parties' bargaining position probably would have not changed substantially if the district court had granted an injunction that permitted Microsoft sufficient time to redesign its products.⁹⁷

⁹⁵ . *Verizon Servs. Corp v. Vonage Holding Corp.*, 503 F.3d 1295 (Fed. Cir. 2007)

⁹⁶ . *Id.* at 1311 n.12.

⁹⁷ . This may be an oversimplification because Microsoft may have difficulty both complying with an injunction and supporting earlier infringing products.

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Although *Verizon* suggests that the delayed injunction is an appropriate way to account for the balance of hardships, it also serves to mitigate problems associated with overcompensating a patent holder for many of the same reasons related to the balance of hardship analysis. Thus, courts can be expected to delay injunctions when to do so would further satisfy the *eBay* factors. Recently, the court in *Broadcom Corp. v. Qualcomm*,⁹⁸ took this approach by granting the defendant a 20 month sunset provision in which it was allowed to continue to sell some specific infringing devices.⁹⁹

Delaying injunctions may be just one way to tailor an injunction. In some cases, the design around costs for some products may be higher than others. For example, in the *z4* case, the cost associated with eliminating the patented invention from Windows may be quite different from redesigning Office. This suggests that courts should at least consider granting an injunction against some—but not necessarily all—infringing products in the same case. Indeed, the *Broadcom* case involved several different patents and the court's decision applied the *eBay* factors separately for different patents.¹⁰⁰

III AFTER AN INJUNCTION IS DENIED, ARE PLAINTIFFS LEFT WITH AN ONGOING ROYALTY?

Since permanent injunctions were almost always granted to prevailing patents plaintiffs before *eBay*, courts are now confronted with a new set of issues—what to do with infringing defendants in the absence of a permanent injunction? There appears to be two primary options. The courts could impose a compulsory license or “ongoing royalty”¹⁰¹ on the defendant and force it to pay the patent

⁹⁸ . *Broadcom*, 2007 U.S. Dist. LEXIS 86627.

⁹⁹ . The scope of permitted sales was defined by infringing products which were in fact sold on or before May 29, 2007 (the date of the jury verdict) to the prior or existing customers for those products on that date. *Id.* at *13, *18.

¹⁰⁰ . *Id.*

¹⁰¹ . In *Paice II* the Federal Circuit distinguished the term “ongoing royalty” from “compulsory license.” *Paice II*, 504 F.3d 1293, 1313 n.13 (Fed. Cir. 2007) (emphasis in original). The decision states that a compulsory license “implies that *anyone* who meets certain criteria has congressional authority to use that which is licensed.” *Id.* In contrast, an ongoing royalty “is limited to one particular set of defendants.” *Id.*

as the court deems reasonable.¹⁰⁵

The Federal Circuit framed the issue by stating that it must determine "whether an order permitting use of a patented invention in exchange for a royalty is properly characterized as preventing the violation of the rights secured by the patent."¹⁰⁶ However, after setting up a question of statutory construction, the Federal Circuit sidestepped it by merely citing to a patent case¹⁰⁷ and an antitrust case¹⁰⁸ that granted ongoing royalties. Neither case discussed 35 U.S.C. § 283. In *Shatterproof Glass*, the defendant did not object to the principal of an ongoing royalty; instead the appeal challenged the amount. Therefore, the opinion never addressed whether courts have the authority to order an ongoing royalty in a patent case, nor did it discuss or cite to 35 U.S.C. § 283. *U.S. v Glaxo* is even further afield because the case concerned antitrust remedies. It also never mentioned 35 U.S.C. § 283.

Relying on this rather thin support, *Paice* found that courts have the authority to grant on-going royalties in patent cases. However, the Federal Circuit suggested that court should not impose "such relief as a matter of course whenever a permanent injunction is not imposed."¹⁰⁹ Instead, the district court may wish to allow the parties to negotiate a license. If that attempt fails, "the district court could step in to assess a reasonable royalty in light of the ongoing infringement."¹¹⁰

Even before *Paice*, several district courts had chosen the same remedy and granted an ongoing royalty after denying a request for permanent injunction. For example in *Voda*, the district court ordered the defendant to make quarterly reports on post-verdict infringing sales, presumably to pay the royalty rate assessed by the jury.¹¹¹ Similarly, in *Finisar*

¹⁰⁵ . 35 U.S.C. § 283 (2000).

¹⁰⁶ . *Paice II*, 504 F.3d at 1314.

¹⁰⁷ . *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 628 (Fed. Cir. 1985).

¹⁰⁸ . *United States v. Glaxo Group Ltd.*, 410 U.S. 52, 59 (1973).

¹⁰⁹ . *Paice II*, 504 F.3d 1293, 1314-15 (Fed. Cir. 2007).

¹¹⁰ . *Id.*

¹¹¹ . *Voda v. Cordis Corp.*, No. CIV-03-1512-L, 2006 U.S. Dist. LEXIS 63623, at *20 (W.D. Ok. Sept. 5, 2006). Although the plaintiff asked the court to order quarterly reports so that the defendant could pay the royalty rate assessed by the jury, the decision never specifically discusses the royalty rate. Based on the court's statement that post-verdict damages

the court denied the motion for a permanent injunction but ordered the defendants to pay \$1.60 per unit for the life of the plaintiff's patent.¹¹² However, these decisions did not address whether courts have the authority to grant ongoing royalties.

Although the courts have either ignored or failed to satisfactorily explain why they have the authority to grant ongoing royalties, they may believe that they have no alternative after the *eBay* decision. After all, *eBay* envisions successful patent plaintiffs that are not granted a permanent injunction. Given that situation, courts may believe that the only alternative to allowing post verdict infringement is to force the defendant to pay some form of ongoing royalty. With that dilemma in mind, the *Paice* court appears to have implicitly answered the § 283 issue it presented with a yes: an order permitting use of a patented invention in exchange for a royalty is properly characterized as preventing the violation of the rights secured by the patent.

While this analysis may satisfy the second part of § 283, it ignores the first phrase. The first phrase limits the authority the statute grants to injunctions: "The several courts having jurisdiction of cases under this title *may grant injunctions . . . to prevent the violation of any right secured by patent . . .*"¹¹³ Indeed, the statute is titled "Injunctions" and the statute does not discuss any other kind of relief.¹¹⁴ The courts could characterize an ongoing royalty as a conditional injunction that enjoins the defendant from infringing unless it pays the royalty prescribed by the court. However, the courts do not need to stretch § 283 in this manner to prevent post filing infringement.

B. A THIRD WAY: DO NOTHING.

The courts could do nothing. Doing nothing does not necessarily allow a defendant to continue infringing a patent. Once a permanent injunction is denied, doing nothing may actually serve as a greater deterrent to future

consisted of "simple mathematical calculations," it appears that the court intended to use the royalty rate determined by the jury. *Id.*

¹¹² . *Finisar Corp. v. DirectTV Group*, No. 1:05-CV-264, 2006 U.S. Dist. LEXIS 76380, at *5 (E.D. Tex. July 7, 2006).

¹¹³ . 35 U.S.C. § 283 (2000) (emphasis added).

¹¹⁴ . The statute could have allowed the courts to grant "relief" like 35 U.S.C. § 291, which discusses interfering patents.

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infringement than imposing an ongoing royalty. If the defendant continues to infringe after losing a first lawsuit, a subsequent lawsuit carries the very real risk of a finding of willful infringement that would result in enhanced damages and attorneys fees. This may describe the method used in *Saffran v. Boston Scientific Corp.*¹¹⁵ After a jury verdict in favor of the plaintiff, Judge Ward issued an order *sua sponte* "severing plaintiff's continuing causes of action for future royalties."¹¹⁶ The order does not specify whether future royalties will be at the same rate calculated by the jury for past damages or be enhanced for willful infringement.

Section 284 of the Patent Act states that a court "may increase the damages up to three times the amount found or assessed."¹¹⁷ Although the statute does not provide a standard for determining when to enhance damages, the Federal Circuit has long held that enhancing damages requires a showing of willful infringement.¹¹⁸ To establish willful infringement "a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that his actions constituted infringement of a valid patent."¹¹⁹ Once that standard is satisfied, "the patentee must also demonstrate that this objectively-defined risk (determined by the record of the infringement proceedings) was either known or so obvious that it should have been known to the accused infringer."¹²⁰

A plaintiff can easily satisfy this standard if the defendant continues to infringe after losing a first lawsuit. Having already lost the first lawsuit, there is no doubt that the infringer was aware of the patent and aware that he would lose the second lawsuit. Indeed, claim preclusion should prevent the defendant from re-litigating infringement and invalidity¹²¹ and the case should merely revolve around

¹¹⁵ . *Saffran v. Boston Scientific Corp.*, No. 2-05-CV-547, 2007 U.S. Dist. LEXIS 76135 (E.D. Tex Feb. 14, 2008).

¹¹⁶ . *Saffran v. Boston Scientific Corp.*, No. 2-05-CV-547, at 1 (E.D. Tex. Feb. 14, 2008) (order severing plaintiff's causes of action for future royalties).

¹¹⁷ . 35 U.S.C.A. § 284 (2006).

¹¹⁸ . *In re Seagate Technology LLC*, 497 F.3d 1360, 1368 (Fed Cir. 2007) (en banc) (citing *Beatrice Foods Co. v. New England Printing & Lithography Co.*, 923 F.2d 1576, 1578 (Fed. Cir. 1991)).

¹¹⁹ . *Seagate*, 497 F.3d at 1370.

¹²⁰ . *Id.*

¹²¹ . See *Hallco Mfg. Co. v. Foster*, 256 F.3d 1290, 1294 (Fed. Cir. 2001)

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on solid legal footing.¹²⁵ However, as discussed above, 35
U.S.C. § 283 does not apply when an injunction is not issued.

The "do nothing" approach takes into account willful infringement while reconciling *eBay* with the two statutes that would appear to be at odds with ongoing royalties. Section 154(a)(1) of the Patent Act grants a patentee "the right to exclude others from making, using, offering for sale, or selling the invention"¹²⁶ Indeed, forcing a plaintiff to pay an ongoing royalty appears to directly violate this statute. In contrast, doing nothing would allow a patentee to continue to enforce its right to exclude. After losing a first lawsuit, a defendant continues to infringe at its own peril. Moreover, without the "do nothing" approach, *eBay* appears to force courts to stretch 35 U.S.C. § 283 to authorize an ongoing royalty remedy.

IV CONCLUSION

After *eBay*, permanent injunctions in patent cases will be granted based on the same four factor test used in other contexts. The test requires courts to analyze: (1) whether the plaintiff will suffer irreparable harm without the injunction; (2) whether there is an adequate remedy at law; (3) the balance of hardships on the respective parties; and (4) whether granting an injunction would disservice the public interest. Applying the four factor test in patent cases raises two sets of new issues: identifying what facts are important in determining whether to issue a permanent injunction and how to handle future infringement after a permanent injunction is denied.

As a threshold matter, the courts must determine what fact patterns are important in deciding whether to grant permanent injunctions. This Article has analyzed three categories of fact patterns that have figured prominently in deciding whether to grant a permanent injunction: (1) the existence, or lack of direct competition, (2) the institutional status of the plaintiff (e.g. research institution or troll), and (3) the relative contribution the patented invention has to the infringing device. This Article argued that both the existence of competition and the relative contribution the patented invention makes to the infringing device should

¹²⁵ . 35 U.S.C. § 283 (2000).

¹²⁶ . 35 U.S.C.A. § 154(a)(1) (2006).

play an important role in deciding whether to grant a permanent injunction. However, the institutional status of the plaintiff should not.

In arriving at these conclusions, this Article analyzed these fact patterns by critically examining the decisions applying *eBay's* four factor test to these facts and assessing whether the focusing on these fact patterns forwarded the goals of the patent system. Broadly, the patent system is intended to promote innovation without stifling competition. Thus, this Article discusses how focusing on particular fact patterns would: promote the availability of technology, avoid market players from incurring unnecessary costs, and correctly compensate patent holders for the contribution their inventions make to any infringement. The fact patterns addressed in this Article are prominent, but not exhaustive examples of the problems courts are currently addressing. As courts continue to confront new fact patterns in patent cases, they should also keep in mind the goals of the patent system when applying the four factor test.

For the first time, courts are not granting permanent injunctions to many successful patent plaintiffs. Previously, permanent injunctions served to prevent losing defendants from continuing to infringe the plaintiff's patents. Thus, the second new major issue that courts must resolve after *eBay* is examining what do in the absence of a permanent injunction. Some courts have replaced the permanent injunction with an ongoing royalty, a compulsory license that is only available to the losing defendant. This Article reviewed the purported basis for the ongoing royalty and argues that the remedy is not grounded in either case law or statutory authority. However, the lack of an alternative remedy is not as problematic as it would seem. The courts do not need to replace permanent injunctions. They can "do nothing" because the existing doctrine of willful infringement adequately guards a patent holder against future infringement by a losing defendant.