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Subcommittee on Courts, the Internet and Intellectual Property
Chairman Berman, Ranking Member Coble, and Members of the Subcommittee: Thank you for this opportunity to appear before you to discuss the Patent Reform Act of 2007. I testify here on my own behalf, and my views are not necessarily those of any institution with which I am associated. My testimony will focus on two of the proposed reforms: (1) renewed emphasis upon market-based damages in the patent law, an issue commonly known as "apportionment"; and (2) post-grant opposition proceedings, and in particular the desirability of a "second window" period of review.

Both the reform of patent damages law and the introduction of post-grant opposition proceedings could ameliorate two factors that contribute to the current troubles of the U.S. patent system: Uncertainty concerning the extent and value of patent rights; and the high licensing, litigation, and transaction costs that innovative industry must pay in order to obtain clear answers. It is easy to understand why predictable patent rights and valuations benefit rights holders, their competitors, and the public alike. Certainty within the patent system allows private industry to understand the proprietary uses of individual patented inventions, and therefore their value. Certainty also allows the patentee's competitors to understand the degree to which they may approach the protected invention without infringing, as well as what liability they will face when they do infringe. These traits in turn strengthen the incentives of private actors to engage in value-maximizing activities such as innovation or commercial transactions.

In contrast, uncertainty surrounding patent rights is said to hold deleterious consequences. The lack of predictability creates duplicative, deal-killing transaction costs, as potential contracting parties must revisit the work of the USPTO in order to assess the validity of issued patents. Uncertain patent rights may also encourage activity that is not socially productive. Attracted by large damages awards, rent-seeking entrepreneurs may be attracted to form speculative patent acquisition and enforcement ventures. Routine expansion of the damages base to include components that the patent proprietor did not invent may leave the patent proprietor and accused infringer sharply at
odds regarding the value of that infringement, thereby discouraging private settlement of 
disputes. Industry participants may also be forced to expend considerable sums on patent 
licensing and defensive litigation. The net results appear to be reduced rates of 
innovation, decreased voluntary patent-based transactions, and higher prices for goods 
and services. The Patent Reform Act of 2007 proposes numerous reforms that both 
increase certainty within the patent system and lower patent-based transactions costs. It 
would do so in part by increasing the predictability of the individual value of an infringed 
patent and decreasing the costs of obtaining an expert determination of a patent's validity. 
This testimony explores both of these issues next.

Renewed Emphasis Upon Market-Based Damages A fundamental premise of the patent 
system is that the market most effectively assesses the worth of inventions.1 Reliance 
upon market mechanisms allows the government to promote innovation with relatively 
modest effort and expense, particularly in comparison with the reward-based systems that 
are the chief alternatives to patents.2 As Judge Giles S. Rich explained: [I]t is one of the 
legal beauties of the system that what is given by the people through their government-
the patent right-is valued automatically by what is given by the patentee. His patent has 
value directly related to the value of his invention, as determined in the marketplace.

Consistent with this orientation, the patent law aspires to fix damages for infringement at 
market based rates that are intended to compensate the patent proprietor for the 
infringement.4 As suggested by the $1.52 billion damages award Alcatel-Lucent recently 
obtained against Microsoft, evidence is mounting that judicial determinations of damages 
for patent infringement have begun to exceed market rates. This problem appears to be 
due in part to the combination of the increasing popularity of the patent system and the 
growing sophistication of technology. In the twenty-first century, the number of issued 
patents has reached a level virtually unimaginable to an earlier generation. By an order of 
magnitude, the number of extant patents has never been higher than it is today.5 
Contemporaneously, technologies have grown more complex. Even everyday consumer 
products, ranging from cellular telephones to automobiles, commonly incorporate 
hundreds or thousands of individual components. These trends have resulted in an
environment where high technology products increasingly embody not merely a single or handful of patented inventions, but hundreds or even thousands of them.

Within this milieu, the prospect that high technology firms must obtain licenses from multiple patent holders in order to market their products has become a virtual certainty. Yet case law and empirical evidence alike reveal that the courts are inclined towards awarding damages that may far exceed an individual patent's contribution to an infringing product. To name ten such recent cases:

In Bose Corp. v. JBL, Inc., the claimed invention consisted of a particular type of "loudspeaker enclosure"-essentially a cabinet in which a stereo loudspeaker sits. In particular, the patented loudspeaker enclosure featured a "port tube" that allowed some of the acoustic energy inside the cabinet to be released with proper attention to phase relationships, in order to eliminate port noise and increase bass response. When assessing damages against an adjudicated infringer, however, the trial court allowed the royalty base to consist of the entire loudspeaker system, rather than just the infringing port tube.

The court of appeals in Code-Alarm, Inc. v. Electromotive Technologies Corp. allowed the value of the entire vehicle alarm system to serve as the royalty base, rather than the single component (a motion sensor) that was patented. In Fonar Corp. v. General Elec. Co., the patented invention was limited to a specific imaging feature incorporated into an Magnetic Resonance Imaging (MRI) machine. The court nonetheless upheld a jury's damages award consisting of a royalty based upon the value of an entire accused MRI machine. The infringed patent in Hem, Inc. v. Behringer Saws, Inc. claimed a "feed table," a mechanical device for moving workpieces, such as sections of wood, towards a saw, drill, or other machine tool. The jury awarded infringement damages based not just upon sales of feed tables, however, but upon the adjudicated infringer's sales of unpatented saws as well.

In Interactive Pictures Corp. v. Infinite Pictures, Inc., the court of appeals affirmed the inclusion of all of the patent proprietor's products in the royalty base, rather than merely
the infringing image viewing system. Lucent Techs., Inc. v. Newbridge Networks, Inc.
involved the infringement of a patented data networking device. With respect to damages,
the court allowed two unpatented software programs designated as 4602 and 46020 to be
included in the royalty base, even though they were not physically part of the patented
device, and were not even necessary for the patented device to operate. The Federal
Circuit overturned the damages award in Micro Chemical, Inc. v. Lextron, Inc., relating
to a microingredient weighing machine that included the patented invention. Overturning
the district court, the court of appeals authorized a royalty award based on sales of the
unpatented microingredients because it was reasonably foreseeable that the patentee
would have profited from sales of the microingredients had the infringement not
occurred.

The patentee in State Contracting & Engineering Corp. v. Condotte14 was awarded
reasonable royalties based upon the amount of an entire construction contract, rather than
merely upon the cost of the patented soundwall. In Symbol Technologies v. Proxim,15
the court awarded damages based upon a 6% royalty based upon the infringement of two
patents relating to the IEEE 802.11 wireless local area networking standard (commonly
known as WiFi). Because hundreds of issued patents and pending applications cover the
802.11 cluster of standards, the royalty obligations of any firm selling WiFi products
could be many multiples of the product's sales price. In Tec Air, Inc. v. Denso
Manufacturing Michigan Inc.,16 a suit involved a patented method and device for
balancing a fan inside an assembly, the court of appeals upheld a damages award based
upon sales of entire radiator and condenser assemblies.

Damages awards that dramatically exceed the commercial value of a patented invention
conflict with the fundamental patent law norm that the marketplace is the best evaluator
of an invention's worth. This theoretical imbalance manifests itself through a number of
deleteurious practical consequences. First, excessive damages awards may promote patent
litigation. A rational patent proprietor may be unwilling to make fair royalty demands in
the boardroom when they are able to obtain significantly higher damages awards in the
courtroom. Second, the gap between the damages awarded for patent infringement and
the marketplace value of a patented invention may also encourage speculation in patents. So-called trolls-entrepreneurial speculators who prefer to acquire and enforce patents rather than engage in research, development, manufacturing, or other socially productive activity-may be animated in part by the reality that patent damages awards may exceed profits that can be obtained in the marketplace. Put differently, overly generous damages awards may encourage firms to play the patent game, rather than engage in manufacturing, marketing, or other more socially productive activity. Third, the failure to apportion patent damages may cause the scope of patent protection routinely to extend beyond the scope of its claims. At times, of course, the scope of the claim does not adequately reflect the marketplace value of the inventor's contribution, due either to claim drafting or commercial marketing decisions. In such circumstances courts appropriately apply the Id. at 362-63; Eric E. Bensen, Apportionment of Lost Profits 18 in Contemporary Patent Damages Cases, 10 VIRGINIA JOURNAL OF LAW & TECHNOLOGY 8, at *14 (2005). See also Rite-Hite, 56 F.3d at 1556 (Nies. J., dissenting) ("To constitute legal injury for which lost profits may be awarded, the infringer must interfere with the patentee's property right to an exclusive market in goods embodying the invention of the patent in suit. The patentee's property rights do not extend to its market in other goods unprotected by the litigated patent.").

Entire Market Value Rule. Yet when the Entire Market Value Rule effectively becomes the default damages principle, rather than one that applies under only particular circumstances, the actual scope of patent protection may greatly exceed the claim scope that has been sought and obtained. Failure to apportion damages may cause a patent effectively to cover contributions that lie within the public domain, as well as technology that has been patented by third parties or even by the infringer. Current patents remedies practice too quickly disregards a host of patentability and infringement doctrines-including, among others, novelty, nonobviousness, enablement, claim construction, and the doctrine of equivalents-that attempt to achieve a just balance between promoting innovation and preserving competition.

These three factors contribute to an additional point of concern: The imposition of
unreasonable royalty burdens upon high technology manufacturers. Modern products and processes commonly embody numerous patented inventions, with some incorporating on the order of one thousand or more. Overly generous damages awards with respect to just a fraction of these patents may impose infringement liability upon manufacturers that dramatically exceeds the profits the infringer made. Such an outcome fails to recognize that the patent system serves not just to promote innovation, but also to encourage the dissemination of new products and processes to the marketplace.

The decline of apportionment principles may also be due to an affirmative judicial desire to award a prevailing patent proprietor supracompetitive rates as damages. Under this rationale, although courts state that damages award are intended only to compensate patent proprietors for the infringement, they are nonetheless sympathetic to patent proprietors who prevail in litigation but leave the courtroom with market-oriented rates. For example, in the influential decision in Panduit Corp. v. Stahlin Brothers Fibre Works, Inc., Chief Judge Markey explained that:

Except for the limited risk that the patent owner, over years of litigation, might meet the heavy burden of proving the four elements required for recovery of lost profits, the infringer would have nothing to lose, and everything to gain if he could count on paying only the normal, routine royalty non-infringers might have paid. As said by this court in another context, the infringer would be in a "heads-I-win, tails-you-lose" position.

Under this view, failure to augment damages insufficiently compensates patent proprietors who are forced to litigate. It may also encourage infringers to refuse to license voluntarily. The reasoning in Panduit suffers from several flaws. First, Congress has also stipulated that prevailing patent proprietors may be entitled to the award of a permanent injunction prohibiting future infringement. Unless the adjudicated infringer can readily shift its manufacturing and distribution facilities to an alternative technology, the imposition of an injunction is likely to be a costly and even fatal event for that enterprise. The availability of an injunction provides an additional incentive for private bargaining, regardless of the award of damages for past infringement. Second, this line of reasoning
ignores the reality that the patent system relies upon stubborn defendants in patent cases to weed out invalid patents. The punishment of adjudicated infringers through high damages awards would not only discourage private efforts to maintain patent quality, it is also inconsistent with congressional directives expressed within the Patent Act. Notably, Congress has provided for the award of enhanced damages, as well as the award of attorney fees in "exceptional cases." Congress is of course free to expand upon the circumstances in which courts may award punitive damages. Notably, earlier patent statutes called for the automatic award of punitive damages, and one bill introduced in the 109th Congress called for the award of attorney fees to prevailing patent holders. Absent statutory amendments, however, judicial award of punitive damages or attorney fees through the guise of compensatory damages flies in the face of congressional intent.

As currently drafted, the damages reforms of the Patent Reform Act of 2007 appear to apply to both measures of damages in the patent law: reasonable royalties and lost profits. More specifically, proposed 284(a)(2) speaks specifically to reasonable royalties, while 284(a)(3) and (4) apply to all damages awards. Congress may wish to align the focus of these provisions, either by eliminating specifically reference to reasonable royalties in paragraph (2), or adding such a reference in paragraphs (3) and (4).

Because the identical concerns over apportionment appear to arise for both sorts of damages calculations, application of apportionment to each methodology seems appropriate. Congress should appreciate, however, that this reform would alter current damages practices. Under contemporary practice, once a court has determined that the sale made by the adjudicated infringer would have been made by the patentee, then the patentee's entire lost profits serve as the damages base. This standard prevails even where the patented invention serves merely as one component of a complex, multi-component infringing product. As a leading opinion, W.L. Gore & Associates, Inc. v. Carlisle Corp., stated: "Once the fact that sales have been lost has been proven, there is no occasion for the application of apportionment."

In support of its conclusion, Carlisle v. Gore explained that apportionment was
inapplicable in lost profits cases because such awards are compensatory, rather than equitable in nature. Under prevailing law, lost profits are to be awarded based upon sales that the patentee would have made "but for" the infringement. Following this chain of reasoning, once a patentee demonstrates that it would have achieved a sale absent the infringement, then it should be entitled to the entire amount of the profit associated with that sale. Whether the patent concerns merely a component of the infringing product is irrelevant under this logic.

This line of reasoning holds a certain superficial appeal. After all, the adjudicated infringer has caused an injury to the patent proprietor that the infringer could have foreseen. Use of apportionment principles would seemingly limit the compensation of the patent proprietor to only a portion of the injury that was suffered. It is for this reason that some commentators have announced the "death of apportionment," at least as applied to lost profits damages. Yet failure to apply apportionment in lost profits cases potentially leads to the same harms that apply to damages awards based upon reasonable royalties. It may well be the case that "but for" the infringement, the patent proprietor may have achieved a sale. Yet the award of the entirety of lost profits for infringement of a particular patent may effectively expand its scope of protection to incorporate inventions claimed by other, unrelated patents. This proposition is best illustrated through an example. Consider an industry with three participating firms, Alpha, Beta, and Gamma. Each firm sells a product that incorporates two discrete inventions (call them X and Y). Because the combination of X and Y implements an industry standard, products must incorporate both inventions in order to be saleable. Further assume that Alpha owns the '001 patent, which claims invention X, while Beta owns the '002 patent concerning invention Y.

Under this hypothetical, if Alpha sues Gamma for infringement of the '001 patent, Alpha should be able to recover lost profits in view of Gore v. Carlisle. Logically, "but for" the infringement of the '001 patent, Gamma would not have been able to sell the combination of X and Y. However, awarding the entirety of lost profits neglects the fact that Alpha's hypothetical lost sales would also take advantage of invention Y and the proprietary
interest established by the '002 patent. This problem is compounded from the perspective of Gamma. Due to its infringement of the '002 patent, Gamma would be also be liable to the full extent of Beta's lost profits. Not only does the rejection of apportionment principles within the context of lost profits expose Gamma to doubled liability, it effectively allows the scope of each patent to expand to include the other. This example should not be viewed as strained or unusual. Given the numerous patents that cover a particular products in many industries, the fact that only two patents are involved may make this hypothetical rather understated. Apportioning lost profits damages would ensure that the inventor's remedy is tied to his technological and economic contribution, and not extended towards technologies that he did not invent.

The notion that patent damages should be based upon the value of the inventor's contribution stands among the more venerable damages doctrines in all of patent jurisprudence. In an era where apportionment concerns are more cogent than ever, courts have treated this doctrine with surprising neglect. The resulting trend towards overly generous damages awards may allow patentees to obtain proprietary interests in products they have not invented, encourage litigation, promote patent speculation, place unreasonable royalty burdens upon producers of high technology products, and ultimately impede the process of technological innovation and dissemination that the patent system is meant to foster. By better aligning the patent system's aspirations with its practical workings, reinvigoration of apportionment principles may stand among the more significant contributions by current patent reformers.

Post-Grant Opposition Proceedings

The Patent Reform Act also calls for post-grant administrative revocation proceedings, commonly known as "oppositions." A standard feature of foreign patent systems to which the United States usually invites comparison, oppositions provide both a less expensive alternative to litigation and access to the legal and technical expertise of the USPTO following the issuance of a patent. By decreasing the costs and improving the accuracy of patent validity determinations, oppositions would appear to provide considerable benefits
to all stakeholders within the patent system. Concerns have nonetheless been expressed that oppositions would inject uncertainty into the proprietary rights established by patents, without corresponding benefits to public welfare. As Congress considers this concern, it might do well to remember that the patent system presently incorporates several post-grant proceedings that may be triggered at any time during the life of the patent.

One of these proceedings is termed "reissue." Under that procedure, a patent proprietor may, at any time during the life of the patent, return to the USPTO to cancel or amend existing patent claims; or to obtain new claims. This effort often serves as a "tune up" prior to licensing or litigation. The reissue proceeding dates back to the early nineteenth century, having been part of our patent system for nearly its entire existence.

Another sort post-granting proceeding is termed a reexamination. Reexaminations allow anyone—the patent owner, the USPTO Director, an interested onlooker—to contest a patent grant at any time during the life of the patent. The original reexamination statute dates back to 1980, with a new, more robust version enacted in 1999. In view of these established post-grant procedures, savvy patent-based decision making has long accounted for the prospect of USPTO intervention during the term of a particular patent. Furthermore, such intervention can occur at any time during the life of the patent. Congress therefore may wish to evaluate claims that opposition proposals will mark a sea change in patent practice with some care.

Congress may also wish to consider closely whether restrictive time limits upon oppositions are appropriate. A short time limit to provoke an opposition, based upon the date a patent issues and absent the possibility to bring this proceeding later in time, will essentially place the entire gallery of extant patents without the opposition system. Congress may also wish to recognize that many patents claim technologies that are ahead of their time, and that their commercial value is not realized until many years after the
USPTO approve the application. This situation is commonplace for FDA-regulated products, including pharmaceuticals and medical devices, that commonly do not obtain marketing approval until many years after a patent granted. Should Congress wish to establish a date certain by which to bring an opposition against patents on regulated products, perhaps a window based upon the date of FDA marketing approval may be the more appropriate starting point.