Hearing on The Patent Reform Act of 2009

Senate Committee on the Judiciary

March 10, 2009

Testimony of

Steven R. Appleton, Chairman and Chief Executive Officer,

Micron Technology, Inc.

Chairman Leahy, Ranking Member Specter, Members of the Committee:

I am honored to appear before the Committee today to testify in strong support of S.515, the Patent Reform Act of 2009.

This is the Committee's seventh hearing on patent reform. The extensive record created by the dozens of witnesses who testified in the prior hearings—which the Committee summarized in the report filed in the last Congress—demonstrates why we must update our fifty-year old patent law to reflect the realities of today's innovation-driven economy.

I thought it might be most helpful to the Committee to focus my testimony on developments during the nearly two years since the Committee's last hearing, and how they demonstrate the urgent need for enactment of this legislation.

Since this Committee last considered patent reform, when it reported out the legislation in the summer of 2007, much has changed. We have lost millions of jobs; our economy has slowed dramatically, with GDP declining by an annual rate of 3.8 percent in the last quarter of 2008; our banking system is in crisis; and our citizens' life savings are in peril.

Congress and the Administration are understandably focused on doing everything possible to restore economic growth. In addition to the steps already taken, the government must create an environment that will foster greater and faster innovation. Some argue that our patent system is fine and that we should stay the course with the status quo. We know this is the wrong answer for the economy overall and it that is the wrong answer for promoting American innovation. Our economy urgently needs the boost a modernized, sound, and fair patent system will give.

Put simply, at a time when our country must do everything it possibly can to stimulate economic growth and job creation, the flaws in our outdated patent law are shackling our most innovative companies—slowing development of new products and services and the new jobs they would create, and diverting substantial resources that otherwise would be devoted to research and development into litigation costs. The longer we wait to address these widely-acknowledged

problems, the more we will deplete the innovation potential of the technology industry and deprive our economy of the resulting job creation and growth.

Let me begin by explaining Micron's business and why a strong, effective patent system is critical to our continued success. From a three person start-up in 1978, Micron has become one of the world's largest and most innovative providers of advanced semiconductor memory solutions. Micron is a global company with R&D headquarters in Boise, Idaho. In the U.S., Micron has manufacturing facilities in Utah, Virginia, and Idaho and design centers and sales offices throughout the country.

Micron produces leading-edge memory products, including DRAM and NAND Flash memory, as well as imaging chips that are used in products ranging from servers, computers, and mobile phones to cars and telecommunications equipment. Almost every digital device in the world uses the products that Micron makes and sells. As one of the most innovative companies in the world, Micron is a significant stakeholder in the patent system with a passionate interest in its improvement. Micron's significant investment in research and development has led to a portfolio of over 18,000 U.S. patents. Micron is annually ranked among the top companies in the world in the number of patents issued, and the Patent Board, a leading intellectual property and patent portfolio analysis firm, ranks Micron's patent portfolio as the second strongest semiconductor portfolio in world next to Intel. One other thing that distinguishes Micron is that three of the world's top ten living inventors work at Micron.

The memory industry is extremely challenging and capital intensive and market cycles have changed the landscape of the industry drastically over time. Still headquartered in Boise, Idaho, Micron has gone from seeing its principal competitors as other US-based companies—in 1985, there were 11 major US-based memory manufacturing companies—to most competitors being based in Asia. And as the competitors shifted overseas, Micron has not only had to compete against these companies, but also compete against broad government support provided to these companies through market downturns.

Micron's survival has been driven, in large part, by constant innovation in developing leading-edge technology and cost-effective manufacturing processes for new products. Unfortunately, the current patent system has now become a hindrance to innovation rather than the growth engine originally intended. Micron and other technology companies, regardless of size, are the victims of a growing wave of patent claims and litigation. Last year alone, Micron spent over $30 million on patent litigation—dollars that could have been used for research and development or for hundreds of new jobs but instead went to lawyers and litigation costs.

The patent system must be modernized and reformed through targeted legislation. Micron is working with the Patent Fairness Coalition, trade groups, and many others to support the passage of the Patent Reform Act. The Patent Reform Act will strengthen the patent system in at least three basic ways:

- By harmonizing U.S. law with that of our major trading partners, and therefore eliminating burdens on patent applicants;

- By improving patent quality through improvements to processes at the Patent and Trademark Office, and therefore reducing the number of poor quality patents; and

- By clarifying vague and uncertain litigation standards to ensure that patent plaintiffs are neither overcompensated nor undercompensated and that governing rules discourage, rather than encourage, the filing of abusive lawsuits.

There is widespread consensus on the harmonization provisions of the bill. With respect to the patent quality provisions, there also is a broad consensus, although I would like to focus the Committee's attention on a few points. First, we preferred the stronger post-grant review provisions contained in the bill reported by this Committee in the last Congress. It is an oddity of the patent system that the PTO—unlike most other expert administrative agencies—has traditionally played such a minor role in resolving disputes about the correctness of its administrative decisions, especially given the technical nature of the issues that must be resolved. But, we recognize that the Committee's prior provision generated some controversy and we accept the current approach as a reasonable compromise.

Second, an essential element of the narrower reexamination and post-grant review approach of the current bill is the provision permitting a reexamination request to be based upon "evidence that the claimed invention was in public use or sale in the United States more than 1 year prior to the date of the application for patent in the United States" (new Section 301(a)(1)). For relatively young and innovative industries like the technology industry, there may be little or no documented prior art. The ability to base a reexamination request on evidence of prior public use or sale is therefore essential in order to make the new procedure relevant to the technology sector—which, after all, is one of the key areas in which questionable patents have been granted.

Finally, we urge the Committee to include in the Patent Reform Act a provision barring diversion of PTO fees. The PTO must be able to utilize all of its available resources to address the backlog in patent applications as well as to put in place the mechanisms needed for the post-grant review process.

The third aspect of the Act—clarification of vague and uncertain litigation standards—is where I would like to focus my testimony. This is an area where effective reform is essential if we are to eliminate the current undesirable burden on innovation and job creation.

Technology companies have been victimized by a growing wave of patent litigation, and licensing fee requests that often precede the filing of a patent lawsuit. Here is a compilation of the number of licensing requests received by and patent suits pending against a group of nine leading technology companies, by year:[1]

[1] One company did not supply data for licensing demands.

	Licensing Requests	Lawsuits Pending
2004	185	97
2005	498	116
2006	679	118
2007	871	129
2008	1217	166

The nine companies that provided this data had 2008 revenues of approximately $197 billion; according to Census Bureau data they represent just one-sixth of the parts of the economy that make up the technology sector.[2] It therefore would be appropriate to multiple these numbers by six to determine the impact on the technology sector as a whole.

The data reveals a 650% increase in licensing requests and a 70% increase in lawsuits in just four years. This increase is consistent with the overall trend, which has seen a near-doubling of the number of companies sued in the last seven years (from 5,000 in 2000 to 9,000 in 2007).

What is the reason for this dramatic change? There simply is no reason to believe that infringing activity has suddenly surged in the last five years.

The change is largely attributable to a new source of patent claims. Today, nearly all of the patent claims against Micron and other technology companies are asserted by plaintiffs who do not make or sell any real product or service — often called "non-practicing entities" or "NPEs." Oftentimes, they mask their true character by saying they are technology companies, using language that conveys the impression of offering technology to assist manufacturers—when in fact, their only purpose is to obtain patent royalties.

One recent study of these non-practicing entities ("NPEs") observed that "[s]ome of the largest of these NPEs raise large funds with which to purchase the patents they seek to enforce—without any plans to turn those patents into marketable products or services. Instead, they then use these funds to enable—through direct or veiled threats of infringement—their pursuit of royalties from successful businesses."[3] Press reports from the last several years indicate that NPEs have raised

[2] North American Industry Classification codes 334 (computer and electronic product manufacturing), 5112 (software publishers), 517 (telecommunications), and 518 (Internet service providers, Web search portals, and data processing services).

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

billions of dollars to purchase patents in the technology area alone, and that thousands of patents have been acquired.

The technology firms' data confirm that the litigation surge is attributable to NPEs' activity:

	Licensing Requests	Lawsuits Pending	Requests/Demands[4]	
			NPEs	PEs
2004	185	97	81%	19%
2005	498	116	80%	20%
2006	679	118	85%	15%
2007	871	129	88%	12%
2008	1217	166	88%	12%

That is consistent with other data showing that litigation involving NPEs exceeded 10 percent of all patent lawsuits in 2006 and 2007, *quadrupling* the level between 1994 and 2002.[5]

The stream of lawsuits is a product of the NPE business model, which necessitates the use of lawsuits to pressure companies to pay royalties—the threat of significant litigation costs together with the risk of a huge jury verdict creates very substantial pressure to settle; for claims that do not settle, the NPE may reap a large damages award. And the filing of lawsuits against some companies can be used to back up royalty demands addressed to other companies. NPEs accordingly have every incentive to file lawsuits frequently, with little regard to the merits of the underlying claim.

It seems to me that far from deterring the filing of such claims, the current rules actually *encourage* NPEs to pursue these opportunistic lawsuits. That is because legal rules developed for the litigation environment of the 1950s—when NPEs did not exist and virtually all patent claims were asserted by companies manufacturing products that competed with the products produced by the alleged infringer—do not fit today's very different world.

First, the most widely-used standard for assessing damages is vague and unclear and creates a substantial risk that a jury will return an excessive verdict. NPEs invoke this risk to demand substantial settlements, even in unjustified cases.

The patent law sets forth two measures of damages—lost profits and a "reasonable royalty. When infringement lawsuits were filed by companies manufacturing competing products, lost profits was the dominant standard used, because the typical plaintiff claimed that the defendant's infringement was diverting sales from the plaintiff to the defendant. Because they don't

[4] Percentage of NPE/PE determined based on requests/suits for which nature of claimant could be determined.
[5] McCurdy, "Patent Trolls Erode the Foundation of the U.S. Patent System," available at www.scienceprogress.org/2009/01/patent-trolls-erode-patent system.

manufacture anything, NPEs can only seek damages under the statute's reasonable royalty test, and—as a result of the influx of their suits—that standard is now the dominant damages measure in patent cases.

The problem is that the law gives juries, and even judges, no real guidance for calculating a reasonable royalty. This isn't just my opinion, it is the view of a variety of academic experts:

- Paul M. Janicke, HIPLA Professor of Law, University of Houston Law Center, stated: "[F]or some reason we're still using the Georgia-Pacific grab bag, where the judge throws the grab bag to the jury and says do what you think is right. I think this is where we need to tighten up damages law and I will talk about that further later. The grab bag approach of throwing 15 factors to the jury and saying 'do what you think' could be why we are getting erratic results. It certainly does not lend itself to being predictable results. I think that should be abandoned."

- Tom Cotter, Briggs and Morgan Professor of Law, University of Minnesota Law School, observed that the "Georgia-Pacific factors . . . can be so easily manipulated by the trier of fact to reach virtually any outcome."

- Professor John Thomas, Georgetown University Law Center: "[T]he case law and empirical evidence alike suggest that courts are inclined to award damages that far exceed an individual patent's contribution to that particular product. . . . Damage awards that dramatically exceed the commercial value of the patented invention lead to a number of deleterious practical consequences."[6]

- Professor Mark Lemley, Stanford Law School: "Because courts have interpreted the reasonable royalty provision to require the award of royalties based on the 'entire market value,' juries tend to award royalty rates that don't take into account all of the other, unpatented components of the defendant's product. This in turn encourages patent owners in those component industries to seek and obtain damages or settlements that far exceed the actual contribution of the patent. There are numerous cases of just this problem occurring. . . . There seems to be consensus that reasonable royalty damages should be limited to the share of a product's value that comes from the invention and that patentees should not be able to capture value they did not in fact contribute."[7]

It is remarkable to me that the law today permits reasonable royalty awards that ***exceed*** the infringer's entire profit on the infringing product or service—making clear that the entire standard has no basis whatever in economic reality: such a royalty is by definition unreasonable, because a product manufacturer would stop making the product rather than pay it. But this legal rule authorizes NPEs to pursue irrational damages demands with impunity.

Unfortunately, the threat of a "jackpot" award in patent cases is real. Prior to 1990, there had been only one patent damages award in history larger than $100 million, but in the past seven

[6] *Patent Reform Act of 2007*: Hearing Before the Subcomm. on Courts, the Internet and Intellectual Property of the House Comm. on the Judiciary, 110th Cong., 1st Sess. 63 (2007).
[7] *Patent Quality Enhancement in the Information-Based Economy*: Hearing Before the Subcomm. on Courts, the Internet and Intellectual Property of the House Comm. on the Judiciary, 109th Cong., 2d Sess. 38 (2006).

years, there have been at least fifteen judgments and settlements in that category, with at least five topping $500 million.

Second, unlike companies that make or sell products, NPEs cannot be deterred from asserting opportunistic and unjustified patent claims by the counter-threat of infringement claims asserted by defendants back against them—their lack of any products or services prevents the assertion of such claims. Because the patent system was designed with product manufacturers in mind, not NPEs, the NPEs are able to exploit the lack of clarity of the reasonable royalty standard in a way that manufacturing companies cannot.

Third, because litigation costs are significantly higher for manufacturers, NPEs can assert infringement claims regardless of the underlying merits to exert pressure on the manufacturers. As a plaintiff, the NPE's costs are minimal—basically some limited information relating to the patent. Each defendant, on the other hand, must produce a huge volume of information relating to the development of the products at issue, the basis for customer demand for the product, etc. Given the high cost of electronic discovery, the burden on a defendant is very substantial. Recent data indicates significant cases cost $5 million or more per company to defend.[8]

Moreover, the NPE has an incentive to spread its costs by suing as many defendants as possible. In that way, it need only exact settlements from a relatively small proportion of defendants in order to earn a profit on the litigation.

It is increasingly routine to read of a single lawsuit in which an NPE/plaintiff has sued a dozen or more companies. For example, a plaintiff recently sued twenty separate financial institutions in a single action, claiming that its patent on a point of sale debiting system was infringed by the institutions' various payment services. Another case named 22 companies as defendants, asserting that each was infringing the plaintiff's broadly-worded patents relating to security scanning.[9] Another NPE just filed a lawsuit accusing 40 companies of violating two patents relating to computer-assisted sales.[10]

Under the current rules, therefore, an NPE has no incentive to focus its efforts on legitimate licensing demands. The greater the number of patents with respect to which the NPE makes licensing demands, and the greater number of companies targeted with respect to each patent, the more "chances" the NPE has to obtain a licensing payment. And the incremental cost of each licensing demand is extremely low.

The same is true with respect to litigation. The NPE has an incentive to file a lawsuit even with respect to the most marginal of claims. Its costs will be very low, but the costs it inflicts on defendants will be substantial and the risk to each defendant of a huge jury verdict because of the vague reasonable royalty standard cannot be discounted. As a result, the possibility of settlement payments from at least a few defendants is quite reasonable.

[8] AIPLA Report of the Economic Survey 2007, at 25-26.
[9] http://www.thetechherald.com/article.php/200902/2748/Patent-troll-sues-entire-security-industry-over-behavior-based-tech.
[10] "Boeing, Ebay, QVC Hit With Sales Patent Suit," IPLaw360 (March 2, 2009).

Fourth, the risk of an excessive jury verdict is heightened by the forum shopping that has become rampant in patent litigation. The number of cases filed annually in Marshall, Texas, grew from 24 in 2000 to 369 in 2007—a fifteen-fold increase. More patent lawsuits were filed in Marshall in 2007 than in New York City, San Francisco and Boston combined. More patent lawsuits were filed in Marshall than were filed in Los Angeles—indeed, more than one of every eight cases filed in the entire country.

Current law provides that a case may be filed in any district in which the defendant has committed an act of infringement. Therefore, companies whose products are distributed nationwide may be sued in any judicial district in the country. That loose standard leaves plaintiffs with an essentially unlimited choice of forum.

Of course, this imposes substantial costs principally on defendants, who must transport lawyers, documents, and numerous witnesses to the site of the trial—an expense that is multiplied when the trial is located far from the defendant's place of business.

Plaintiffs generally focus on jurisdictions that are perceived to be "plaintiff-friendly." Indeed, data indicates that plaintiffs prevail more frequently in some jurisdictions than in others—and those are the jurisdictions that are attracting patent lawsuits. For example:

- The median damages award in cases decided in Marshall between 1995 and 2008 was $20.4 million, the second-highest of any federal district court in the country.

- Plaintiffs' win rate in cases decided between 1995 and 2007 in Marshall was 72%, the second-highest of any district in the country.

Combined with the other deficiencies in legal rules, forum-shopping enables plaintiffs to increase the pressure to settle.

* * * * *

It is important for the Committee to recognize that this concern about vague and unfair litigation standards is not an abstract debate about legal rules. Reform is urgently needed because of the very real costs that unjustified patent claims and lawsuits are imposing on companies like Micron, costs that are hurting our entire economy. Companies with a successful history of creating large numbers of jobs here in America through innovative products and services are being forced to divert resources away from innovation and into unjustified litigation and unwarranted settlements. Each diverted dollar means less innovation and less job creation. And the fact that Micron, and the others like us, must factor the costs of unjustified litigation into our product development decisions means that some products will not be brought to market.

The Committee has heard from other companies that there is no problem with patent litigation But that is because they are not experiencing the onslaught of patent claims that are flooding Micron and other technology companies—either because of differences in the nature of their products, or simply because NPEs have not yet targeted their industry. But the fact that others are not being attacked does not in any way change the fact that our problem is real, that it is harming the economy and job creation, and that it can and should be addressed.

I recognize that there may be some debate about the particular language in Senate Bill 515. However, Congress must recognize that the problems I have described must be addressed quickly and effectively. At this time of economic crisis, we simply do not have the luxury of more years of delay.