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**Testimony of**  
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**on behalf of the**  
**Business Software Alliance (BSA)**

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**"Patent Quality and Improvement"**

**before the**

**Subcommittee on Courts, the Internet and Intellectual Property**

**House Judiciary Committee**

**April 20, 2005**

Mr. Chairman and members of the Subcommittee, my name is Richard Lutton and I am the chief patent counsel for Apple. I appear today representing the Business Software Alliance (BSA). BSA welcomes the opportunity to appear before you today on this important topic. We commend you for holding these hearings and for your commitment to improving our patent system.

The Committee print made available last week correctly addresses the two major areas where BSA thinks patent reform is now timely: improving the quality of patents issued by the Patent and Trademark Office and alleviating the disruptive effects that excessive patent litigation now poses. Overall, BSA supports the approach and the issues identified in the Committee print and we look forward to working with as you proceed with your efforts. As I will describe in greater detail in a moment, there are areas where further clarification or changes to the language would be positive, and there are some issues that are not in the print which we believe merit consideration.

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The software and computer industry is a creative engine that powers innovation and growth. The industry's products and services give individuals and organizations the tools they need to operate intelligently, efficiently and productively. Indeed, over the past thirty years, software and computers have become critical to economic success, business competitiveness and personal quality of life. People worldwide rely on the software and computer industry's tools to communicate, to connect to the world, to get things done more efficiently in the workplace, and to more fully enjoy the arts,

hobbies and leisure activities.

The members of the Business Software Alliance<sup>[i]</sup> have a significant stake in this Subcommittee's work regarding patent quality and improvement. BSA represents more than twenty-five software and computer companies with annual revenues well in excess of \$300 billion. Together, we hold about 100,000 United States patents. Our members are both plaintiffs and defendants in patent suits. Many of our members have established licensing programs to encourage the licensed use of technology covered by our own patents and to respect the patent rights of others. Simply put, patents play an essential role in how information technology companies do research and how they develop and commercialize products and services.

BSA members believe that the patent system is fundamentally sound and works well for most innovators, whether they toil in their garage, experiment in a university laboratory, or work for a large corporation that provides goods and services to consumers. That said, we believe that a periodic review and recalibration of the patent law is not only a good idea, but also essential to ensuring that patents remain a vital part of technological process. The current patent system has given rise to too many low quality patents being issued, and a growing pattern of assertions of weak patents that threaten to damage productive companies and stifle innovation.

BSA members approach patent reform from a pragmatic, problem-solving perspective. Our attention is focused on those areas of the law and practice that present specific challenges for our companies' day-to-day businesses. Thus, we believe that reform must address both the administrative system responsible for the issuance of patents and the litigation system responsible for enforcing patents. \_

## **1. PATENTS IN THE SOFTWARE AND COMPUTER INDUSTRY**

As we enter the 21st Century, intellectual property is an ever more critical source of economic value to society, individuals, companies and governments. While copyrights have been and will remain a principal way that technology companies protect their intellectual property, I will limit my comments today to patents.

The increased importance of patents to technology companies has resulted from a mix of legal and marketplace developments.

The 1981 Supreme Court decision, *Diamond v. Diehr*, marked a turning point in the patentability of computer-implemented inventions. In that case, the Supreme Court held that a machine that transforms materials physically under the control of a computer program was patentable. The Court's decision clarified earlier rulings that had been interpreted to suggest that software programs would rarely qualify for patentability. Subsequent decisions from lower courts have further clarified the law in this area. As a result, U.S. patent applications from inventors in the software sector have steadily increased.

Equally important are marketplace trends. For example, in today's diverse technology marketplace, heterogeneity has become an important element of technology and network effectiveness. Unlike the early days of computing when consumers tended to purchase all their hardware and software from only a single firm, consumers now often build systems to meet their specific needs based on products sourced from different suppliers. The ability of these different systems to work together is essential. In this context, patents enable technology companies to integrate systems and meet consumer's needs while ensuring a return for their inventions.

Finally, changes made by Congress, especially the creation of the Court of Appeals for the Federal Circuit in the early 1980's, have brought generally greater importance to patents and more consistent respect for the property right granted by a patent.

Today, patents are a key part of virtually every technology company's intellectual property portfolio. The reasons are simple:

- Patents provide critical protection for distinctive technologies that may have been difficult to innovate but could easily be replicated without the protections of a patent.
- Patents ensure that technology companies have the opportunity to be compensated for their contributions to advances in their field of technology.
- At the same time, and reflecting the way in which our industry often operates, patent protection enables technology developers to license or otherwise share key technologies with customers, partners and even competitors, while still preventing third parties from "free-riding" on their innovation.
- Patents can encourage cross-fertilization of technology through cross-licensing.
- Collectively, patents provide a repository of accumulated knowledge that allows new generations of innovators to learn from the state of the art and, in some cases, design new solutions that further advance that body of knowledge.

## **2. REFORM IS TIMELY**

While patents are critical tools for the technology industry, there are aspects of the patent system that present on-going challenges for our industry.

First, prior art (which is the totality of previously known technologies against which a new invention is measured to ensure that it merits a patent) is not as well documented for the computing field as it is in some other areas. In part this is because, for many years, patents were not readily available for software. It is also attributable to the nature of large-scale commercial software and computing -- millions of lines of software code or billions of transistors or other components that may require significant effort to identify or understand. This makes the task of the patent examiner difficult: she must determine the patentability of software inventions without always having a complete understanding of what is already known in the art. The result can be poor quality patents.

Second, the software and computer industry, like many high technology industries, is a field with an extremely high concentration of patents. For example, there may be as many as 200 patents that are relevant to a single multifunction computer program; for example, the Federal Trade Commission recently received testimony stating that there are more than 90,000 patents that relate generally to microprocessors.<sup>[ii]</sup> This concentration of patents within a technologic field presents specific challenges not only for the software industry, but also for biotechnology and other sectors.

Finally, software and computers are examples of "system" products -- they comprise thousands, even hundreds of thousands, of individually functioning components and features all assembled in a package for a customer. Because many of these features could be the subjects of a patent, it is often the case that thousands of patents may be relevant to a particular computer or software product. This phenomenon -- sometimes referred to as "co-location of patents" -- means that any single patent covering a computer or piece of software accounts for only a small fraction of the intellectual property value of the entire system. Yet, too often, patent holders seek to recover large percentages of the revenue generated by these complex systems in exchange for only a single or small group of patents.

In combination, these issues make our industry susceptible to the problems of poor quality patents and the uncertainties of litigation. We approach reform from this perspective.

## **3. QUALITY PATENTS**

BSA strongly supports the Committee for making improving patent quality one of its key focal points. The Committee print clearly shows that you understand this problem, and the legislative changes set out in the print would go a long way towards making this situation better. Poor quality patents, as detailed in recent studies by the National Academy of Sciences and the Federal Trade Commission, hamper competition and harm innovation. A questionable patent may lead competitors to forego research and development in a particular area, fearful of the risks that may be involved. Poor quality patents may also require innovators to license unnecessarily thousands of patents.

BSA believes Congress should focus on four key areas that will facilitate the issuance of higher quality patents:

- (1) enhanced post-issuance processes to provide a second chance to intercept bad patents;
- (2) curtailment of abusive continuation practices that lead to endless chains of patents with ever-broader claims;
- (3) better support for receiving prior art, and better processes for building a contemporaneous record that reflects the extent of the examination by the patent examiner; and
- (4) adequate PTO training and funding. \_

### **Post-Issuance Processes**

BSA commends the Subcommittee for including within its Committee print specific and meaningful ways to improve the post issuance process.

Currently, the primary way to challenge the validity of an issued patent is through litigation, a costly and difficult approach. BSA supports the proposal in the Committee print to create a meaningful and balanced opposition procedure enabling third parties to challenge issued patents. Such a process would permit the Patent and Trademark Office to take a careful look at any challenged patent in the context of an adversarial proceeding likely to bring out the strongest arguments in favor of, and against, continued existence of the patent. This process augments a patent's initial examination and provides a second, more granular filter through which a patent may pass if it is to be used against an alleged infringer.

BSA recommends a number of areas where the language in the Committee print can be improved. Most importantly, the timeframe for initiating an opposition should be sufficiently long to permit the relevant public to identify and assess the patent at issue. The single, nine month window proposed in the Committee print is too short. In many industries, a single window will not permit accurate assessment of the validity and impact of a newly issued patent on products. We recommend instead two windows. The first window should be two years from issuance. The second window should be open for a period of one year after a patent owner sends notice of infringement. This second window is essential to allow companies to challenge a patent when, and if, it is asserted even if a prior search would never have revealed a threat from that patent.

In addition, under current law, the *inter partes* reexamination process is so restricted as to severely limit its usefulness. In fact, since the inception of this process, the Patent and Trademark Office has received fewer than one hundred requests for *inter partes* reexamination. BSA supports the Committee print provision relaxing the current law's estoppel provisions and expanding its scope to include patents filed before 1999, as well as those filed later.

### **Abuses of Continuation Practice**

BSA supports the changes in the Committee print aimed at ending abuses of continuation practices. Currently, a patent applicant may file follow-on patent applications with broader and broader claims long after the publication or issuance of its original patent application. Through these mechanisms, some applicants keep their applications pending for extended periods while monitoring the developments in the relevant market. By modifying their claims to cover other companies' products, often after those other companies have invested significant funds in their products, such applicants can abuse the system. [iii] In some cases, the patentees seek to obtain patent protection for ideas that never occurred to the applicant before seeing them in the marketplace. While this practice is currently permitted and even sanctioned by the courts, a reform curtailing the ability to broaden claims beyond the scope of the broadest claim previously published or issued would roll back significantly the invitation to abuse created by the current system.

### **Availability and Consideration of Prior Art**

An important step toward better patent quality would be to improve the availability of prior art in the examination process. This issue is not now addressed in the Committee print, and we urge you to consider its addition as you proceed with your work.

Under current law, members of the public with relevant prior art information have limited options to submit that information to the examiner. The prior art may be submitted, but without comment on the relevance of what may be hundreds of pages of carefully developed disclosure. The result is that patents are often granted on the basis of incomplete prior art information as an examiner has only 17 hours, on average, to examine a patent. To address this issue, BSA believes Congress should establish a mechanism for the public to submit prior art and other information relevant to patentability, together with commentary on that art and information.

### **Adequate Training and Funding.**

Underlying any attempt to improve the quality of patent examination must be a commitment to adequate funding for the Patent and Trademark Office. The Committee print does not address directly this persistent issue, but we are aware of and appreciate the Subcommittee's commitment on this matter. Adequate funding is inextricably tied in with permanently ending the practice of diverting patent fees to programs outside the scope of the core PTO mission. Allowing the Patent and Trademark Office to retain the fees that it generates would help ensure that the PTO is able to provide high-quality examinations and to fund further improvements.

## **4. REDUCE THE DISRUPTIONS CAUSED BY LITIGATION**

BSA is extremely grateful to see that the Committee print recognizes the disruptive effects that bad litigation practices can have on the patent system as a whole. BSA supports the approach you have taken in the print with respect to monetary and injunctive remedies. This is an area of utmost concern to all technology companies.

The reform provisions identified in the Committee print focus on abuses of the current patent system that cannot be fixed by only quality-enhancing changes. Congress must act directly to address the most onerous sources of uncertainty in the civil litigation system.

Today, hundreds of patent infringement cases are pending against hardware and software companies, and these companies spend *hundreds of millions of dollars* each year defending themselves in these cases. This is not to say that all of these cases are without merit, but that is too often the case.

BSA commends you and strongly supports the Committee print for its approach to these issues. BSA believes there are five key areas where changes are needed:

1. making clear that a patentee is entitled to claim damages only on the proportion of the allegedly infringing product attributable to the patent, and not including all the other features and elements that may be also contained within a multi-faceted product or system;
2. recalibrating the standard for an award of punitive damages for willful infringement to focus on truly reprehensible conduct;
3. clarifying and reiterating the current black letter statutory requirement that the issuance of an injunction is permissive and should be based on "principles of equity;"
4. reducing the burden of proving a patent invalid to a "preponderance of the evidence" in cases where the Patent and Trademark Office did not consider the allegedly invalidating prior art; and
5. clarifying section 271(f) of the existing patent statute to avoid discouraging research and development work done inside the United States.

### **Apportionment of Patent Value in a Complex System or Product**

BSA strongly supports the Committee print's proposals to ensure damages reflect the actual harm. Today, when a small component of a multi-faceted system or product is alleged to infringe a patent, the damage claim often seeks some portion of the value of the product as a whole rather than being limited to only the value of the infringing feature or functionality. This often leads to unduly inflated verdicts or settlement demands.

BSA supports the Committee print's approach to provide courts with a statutory basis for requiring that patentees (and their expert witnesses) present damages calculations based on the proportional value of a patented invention alone, rather than on the cumulative value of all features included with a larger product. The provision included in the Committee print accomplishes this goal.

### **Punitive Damages for Willful Infringement**

BSA supports the approach taken in the Committee print to address the issue of willful infringement, and suggest that further changes be made in the language to avoid perpetuating the need to have dueling opinions from counsel.

The current law allows the courts to impose punitive increased damages (up to three times actual damages) in cases involving willful infringement. However, the standard on which they may be awarded under current jurisprudence is far less than what is required for punitive damages in other areas of law.<sup>[iv]</sup> In fact, merely knowing that the patent exists is often the basis for an allegation of "willfulness" and a claim for triple damages, shifting to the defendant the burden of showing the exercise of due care.

Trying to satisfy this duty of care, patent defendants will often seek the opinion of counsel. But reliance on that opinion in defense of a charge of willfulness requires pre-trial disclosure of that opinion to the other side, waiver of the attorney-client privilege and often waiver of privileged materials relating to the subject matter of the opinion generally. In some cases, this threatens even the integrity of trial preparations. Thus, the existence of an opinion presents defendants with a dilemma of whether to waive privilege in order to defend against the charge of willfulness or, alternatively, preserve the privilege.<sup>[v]</sup> This choice can be especially unfair when plaintiffs are allowed to use discovery obtained pursuant to the waiver to help establish or color underlying liability for patent infringement.

The uncertainty about willfulness has also led to the undermining of one of the fundamental points of the patent system: that is, disclosing to the public the invention. To avoid "knowledge" and charges of willfulness, too many companies now instruct their employees to avoid reading patents. This too can lead to reduced patent quality.

BSA believes that Congress should change the statute to make clear that punitive increased damages should be imposed only when there is evidence of reprehensible conduct, such as copying the patent or violating a prior court order. The provision included in the Committee print includes these concepts, and we support these changes. But it also includes countervailing provisions that we fear would perpetuate the current inefficient and costly practice. We fear the draft provision would perpetuate the current gamesmanship by permitting a well-drafted notice letter from the patentee to give rise to a charge of willfulness. It would also continue the practice of having to obtain counsel's opinions by making an "informed good faith belief" the touchstone of liability. We fear, based on experience, that this standard may be manipulated and does not reflect the sort of reprehensible conduct by the infringer that should warrant punitive damages.

### **Principles of Equity in Granting Injunctive Relief**

BSA strongly supports the approach taken by the Committee print directing courts to do what the law says: balance equities before issuing an injunction. Section 283 of the current patent statute provides that the courts "*may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent.*"

The Federal Circuit has in recent times interpreted very narrowly the ability of a district court to consider equitable factors (largely limited to health emergencies) when deciding whether or not to grant an injunction. Only weeks ago, the Court overturned a district court's judgment, based on the specific facts of the case, that a permanent injunction was not warranted because of the patentee's demonstrated willingness to license the patent.<sup>[vi]</sup> Only in cases of public health emergencies or well-being has the Court readily considered non-issuance of an injunction. Thus, the courts seldom engage in a balance of the equities, and the granting of an injunction has become nearly automatic. Moreover, there is no automatic stay of an injunction pending appeal.

Combined, these factors mean that an accused infringer must go into a patent infringement trial prepared for the possibility of an immediate injunction at the end of trial. This leverage point is recognized and exploited by patentees who do not actually desire injunctive relief, but use its threat to extract disproportionately high payments from defendants. This problem is especially burdensome for vendors of "system products" that, as explained above, may have thousands of patented or patentable features contained within them. A trial on any of those patents threatens to shut down the entire product.

BSA applauds the Subcommittee's inclusion of a provision reestablishing an incrementally broader consideration of equitable principles than is currently being practiced by the courts. We believe this provision, while certainly not applicable in most cases, will be meaningful in a small, but economically significant, set of the most abusive patent assertions.

### **Burden of Proving Invalidity**

An area not included in the Committee print, but which BSA thinks requires attention, is the burden of proving invalidity. Under current law, an issued patent is presumed valid and any party challenging validity must overcome this presumption with "clear and convincing evidence." This is true even when it is clear that the patent examiner did not have an opportunity to consider all of the prior art that forms the basis for a later validity challenge. To address this issue, we recommend that the evidentiary burden for challenging the validity of a patent based in whole or in part on information or references not considered during examination should be lowered to "preponderance of the evidence," to reflect the fact that the validity of the patent was not in fact fully vetted relative to those prior art references. \_\_

### **Disincentives to Domestic R&D**

The Committee print correctly recognizes that Section 271(f), as interpreted by the Courts, presents potentially serious problems for developers of software, and indeed for developers of any information-based products. BSA supports the changes proposed in the Committee print on this issue. Given marketplace developments since the enactment of section 271(f), the Committee may want to consider repealing this provision.

In 1984, Congress added Section 271(f) to prevent companies from manufacturing components of an infringing product in the United States, and exporting those parts for assembly abroad to avoid the claim of infringement. Today, the provision has been interpreted by the courts in ways that deter domestic development of software. Under recent court holdings, a copy of a computer program made outside the United States may in some cases nonetheless be included as part of United States damages if the software is made from a "master disk" developed in the United States. If the software had been developed outside the US, this rule would not apply. The same issue may exist with respect to development of other information-based products that are made wholly outside the United States based on information developed in the United States. We believe this application of the law creates an unintended incentive to move valuable development activity outside the US, and should be clarified or removed from the law. \_

### **Harmonization**

The Committee print includes a number of provisions harmonizing United States patent law with a worldwide first-to-file patent system. BSA fully supports this goal: BSA member companies derive a substantial portion of their revenues from overseas and hold numerous patents in all major jurisdictions.

We fear, however, that the provisions in the Committee print could have unintended consequences by making changes that go beyond what is needed to normalize our laws with those of other countries. Specifically, by reformulating the current law on the conditions for patentability, these changes would call in to question decades of established case law on prior art. This change could spur unnecessary litigation to reformulate standards of prior art.

Specifically, by shifting away from the current categories of prior art -- especially subject matter that was used or offered for sale -- the provision included in the print risks the possibility that subject matter already being used and commercialized within the United States will nonetheless be patentable by a third party. The injection of an inquiry whether subject matter was "readily and effectively accessible" contemplates that subject matter that is harder to access, even if widely deployed, will be unavailable as prior art. This could result in an unintended new gamesmanship of patenting concepts already in deployment commercially and may significantly increase the number of patent filings for all manner of inventions. We question whether this is a step that should be taken.

Instead, BSA encourages Congress to take an approach towards harmonization that brings the United States into alignment with other countries' laws without unnecessarily also diminishing the scope of prior art by excluding materials that may have been difficult to access, but were nonetheless publicly available. \_

### **Duty of Candor**

The Committee print includes a provision significantly reducing the effect of a patent applicant's violating her duty of candor in front of the Patent and Trademark Office. We question whether this provision is appropriate, particularly in this era of increased emphasis on candor and full disclosure in dealing with governmental agencies and public institutions.

The purpose of the duty of candor is to compel a patent applicant to provide the Patent and

Trademark Office with as much information known to the applicant as may be helpful to the examiner. The related litigation defense of inequitable conduct asks whether the patentee effectively commit fraud on the Patent and Trademark Office by intentionally withholding such key information that the PTO's ability to examine the patent was compromised. This current structure provides a powerful incentive for applicants to act with utmost candor in front of the Patent and Trademark Office.

The changes included in the Committee print risk undermining this incentive in a number of ways. First, by moving to a "but for" test for inequitable conduct, the proposed law would lower the incentive for an applicant to err on the side of over-inclusion in disclosure, thus potentially depriving the patent examiner of information that could be material to examination. In addition, the changes to existing law on who can be held liable for inequitable conduct seem to create the risk that parties could participate in a fraud on the Patent and Trademark Office, but avoid any adverse consequences of such behavior by transferring the patent to a third party. Finally, by removing the issue of breach of duty of candor from the court and placing it with the Patent and Trademark Office, the proposal risks further overloading the PTO.

We do believe, however, that it could be efficient and useful to bifurcate the issue of inequitable conduct in litigation and present that issue solely to a court after liability has been adjudicated. \_

## **CONCLUSION**

Thank you again for the opportunity to provide input on the critical topic of patent quality and improvement. BSA strongly supports your efforts and commends you for the excellent Committee print. We look forward to working with you in your efforts to improve the United States patent system and ensure that it continues to serve this country's great interest in promoting innovation and providing the public with the benefit of that innovation.

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[i] BSA members include Adobe, Apple, Autodesk, Avid, Bentley Systems, Borland, Cadence Design Systems, Cisco Systems, CNC Software/Mastercam, Dell, Entrust, HP, IBM, Intel, Internet Security Systems, Macromedia, McAfee, Microsoft, PTC, RSA Security, SAP, SolidWorks, Sybase, Symantec, UGS and VERITAS Software.

[ii] See *To Promote Innovation: The Proper Balance Of Competition and Patent Law Policy*, Report by the Federal Trade Commission, section II.B., available at <http://www.ftc.gov/reports/index.htm>.

[iii] See generally Mark A. Lemley and Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 Boston University Law Review 63 (2004), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=462404](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=462404)

[iv] See *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana et al.*, 383 F.3d 1337 (Fed Cir. 2004) (Dyk, Circuit Judge, concurring-in-part, dissenting-in-part).

[v] See generally Mark A. Lemley and Ragesh K. Tangri, *Ending Patent's Willfulness Game*, 18 Berkeley Technology Law Journal 1085 (2003), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=472901](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=472901)

[vi] *MercExchange v. eBay, Inc. et al*, 401 F.3d 1323, 2005 U.S. App. LEXIS 4308, \*41 (Fed. Cir. March 16, 2005).

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