

Statement of

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COMMITTEE ON THE JUDICIARY
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“Crossing the Finish Line on Patent Reform:
What Can and Should be Done?”

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Chairman Goodlatte, Ranking Member Watt, and Members of the Subcommittee:

Thank you for the opportunity to submit this statement and provide live testimony at the Subcommittee's hearing, the first of this Congress, on patent reform. The challenge, in my judgment, is to pass legislation that will work the greatest improvements in the operation of the American patent system, particularly in the U.S. Patent and Trademark Office (PTO), while minimizing the risks of unintended consequences that would impede "Progress in Science and the useful Arts," to quote the key phrase in the Patent Clause in Article I, Section 8 of the United States Constitution. These risks include increasing, rather than decreasing, delays, costs, uncertainty, and complexity. The intricate interactions among the courts, the PTO, inventors, investors, owners and all the other participants in this vast system are more important than the text of the Patent Act. Our patent system, a kind of innovation system, has been the primary engine of technological progress, economic growth and job creation in America for two centuries. In fact, its importance has increased even further in just the last two decades.

I stress the actual operation of this web of actors because one is tempted to focus unduly on altering the words in the Patent Act. But those provisions just set forth the rules and roles. The actual operations are much more complicated and depend on many persons, some of whom are not typically perceived as part of the patent community, particularly venture capital managers and CEOs of technology start-up firms. As everyone from the President on down now seems to agree, these two groups, interacting, promote most of America's economic growth and job creation, as well as technology development.

As a former member of another group of actors, the judges who enforce the patents that are issued by the PTO, I am pleased to try to provide fresh insights from the courts' perspective. My recommendations reflect daily dealings with patent cases for more than twenty-two years as a judge of the Court of Appeals for the Federal Circuit, and from 2004 to 2010, as its Chief Judge. As you know, Congress created this court in 1982, investing it with exclusive, nation-wide jurisdiction over virtually all patent appeals, both from the PTO and the district courts as well as the International Trade Commission. Because my 22 years commenced early in 1988, I served on the court for a large majority of its existence. From that privileged position, I saw the patent system up close and over time.

In fact, I originally intended to serve as long as able, in accordance with the life tenure guaranteed by the Constitution, because I truly loved the work. I changed my plans, retiring on May 31, 2010, precisely to be free to participate fully and without the restraints that limit participation by sitting judges in this important public policy debate. As long as I remained in judicial service, my comments were limited essentially to the potential impact of proposed legislation on judicial administration and court operations. Now, as a private citizen for the first time after 44 years of continuous public service, I may speak freely on all aspects of patent reform. I concluded that I could better serve the country off the court than on it. It seemed to me that getting patent reform right was far

more consequential for the welfare and prosperity of the nation than deciding appeals in individual court cases. So I can hardly express how grateful I am to the Subcommittee for inviting me to testify.

Of course, unlike most witnesses, I represent no coalition, company, industry, technology, trade group, or economic interest. I speak only for myself with a focus on what, in my judgment and from my experience, is in the best interest of the nation, of all companies, industries and technologies. While I do not have all the answers and certainly not all the knowledge, I believe I am as disinterested, neutral, impartial and objective as anyone could be. I believe that from my judicial service I am also well informed.

The genesis of the American patent system is important to recall. The Founders were so concerned about enabling the new nation to achieve economic development and security that they founded the system of private property rights to promote large public benefits right in the Constitution. In fact, among the enumerated powers of the Congress, the Patent Clause appears among the first, even above the power to declare war and to raise armies and maintain a navy. Attributed to the genius of James Madison, this clause was seen as of primary importance by the Founders. Therefore, in one of its first enactments in 1790, the new Congress passed the first Patent Act to implement the constitutional mandate: "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Rights to their respective Writings and Discoveries." The patent system was so important to the Founding generation that as Secretary of State to President George Washington, Thomas Jefferson personally reviewed patent applications and approved patent grants.

Contrary to what many people today believe and state, American patents do not grant monopolies, but merely the right of inventors to control their innovations for 20 years and to prevent others from using those inventions during that period without the inventor's permission and, usually, the payment of royalties. A property right, it grants not the exclusive right to make the product but the right to exclude others from doing so without the owner's consent. The American patent system was designed for everyone, not just the rich and powerful as in England and other countries. Everyone was encouraged to invent, for one could actually make a living by doing so. Yes, it allowed for private gain, but as the means for public good. In President Lincoln's famous phrase, it "added the fuel of interest to the fire of genius."

American industrial development gained momentum over the next two centuries, creating the most technologically-advanced and wealthy society in all history. But in the last decade or so, this steady momentum slowed. Investments in innovation began to dry up. Without approved patents, technology start-ups could not get funded. Some expired while waiting.

In my opinion, the most important question relating to patent reform and economic recovery is how to rev up this engine of innovation. The answer requires determining the causes of its decline. I conclude that in a single word, the primary cause is DELAY, especially the long delays in obtaining patents on new technology. So the problem lies

not primarily in the text of the Patent Act or the procedures it establishes, but in the operations and resources of the patent office and also the courts. The most important step for Congress is to provide the PTO with the resources it needs to examine patent applications expeditiously and carefully.

Over the last decade, while Congressional attention was focused on the Act and procedures in the courts, there developed a gigantic mismatch between the capacity of the PTO and its workload. Today, this gap is so huge as to impede recovery from recession and the job creation so urgently needed in America. Although internal efficiency measures in the PTO can help and are being instituted vigorously by the excellent leadership team under Director David J. Kappos, the gap is so large that it cannot possibly be closed except by a large increase in the resources of the PTO. And, it is needed immediately; in fact, it is years overdue.

The excessive delays caused by this resource gap were the subject of the Subcommittee's hearing on January 25, so the metrics are well known to you: 1.2 million patent applications pending, over 700,000 not yet given even a preliminary evaluation, delays that average about three years, often far longer, and growing for almost a decade. From 1.2 million pending patent applications, we can predict, based on historical grant rates, that approximately 700,000 patents will issue. Many will promote growth and jobs. But how soon?

Therefore, first and foremost, patent reform legislation must raise the user fee levels and ensure that all fees collected remain available to support PTO operations in current and future fiscal years. No taxpayer funds are involved and the deficit is not affected.

Regarding delay, I would also emphasize two additional points: first, despite the Congressional command that they must be completed with "special dispatch," delays in inter partes re-examinations average over 3 years, and delays at the appeals board have been almost as long. In fact, delays on appeal were intolerably long, even several years ago when the inventory of appeals was less than 4,000. It has since grown to over 19,000, so delays will likely increase substantially unless resources are greatly enlarged at the board.

Second, perhaps the most useful insight I can offer the Subcommittee is this: the numbers only tell half the story. What has also increased -- I would say exponentially -- is the complexity, technical difficulty and length of applications today. We saw this at my former court, which hears and decides 300-400 patent appeals per year out of a total 800 cases adjudicated. In 1988 when I was first on the court, the patents usually involved relatively simple technologies. Often the applications were less than 5 pages long and included less than 10 claims. I recall one for the design of portions of a running shoe. By the time I retired in 2010, a typical patent under court review involved extremely challenging technologies, such as advanced computers, bio-technology or pharmaceuticals, and ran to lengths of 10-20 pages with dozens of claims, many with dozens of claim components, called "limitations." Properly examining such applications takes more time and higher levels of technical expertise than what examiners faced a

decade or two ago. So the resource gap is actually far greater than the raw numbers imply.

And today's applications are usually supported by lengthy, complex documentation and require the examiner to review dozens of prior art patents and/or technology publications and assess each claim against all that prior art.

It is said that, on average, an examiner is expected to complete the examination in less than 20 hours. To me, that seems an impossible task. But taking more time on any one application in the examiner's docket means that all the other applications will experience even greater delay than otherwise. It is just an impossible situation -- for examiners, applicants, everyone affected. The lion's share of the solution can only be a vast increase in PTO resources.

The PTO desperately and immediately needs:

- several thousand additional examiners,
- dozens of additional board of appeals members, and
- major modernization of its IT systems, which are antiquated, inadequate and unreliable.

In addition, the office needs to attract, recruit, train and retain experienced scientists, engineers and other intellectual property professionals as examiners and board of appeals judges. That will require higher salary schedules, I expect. An expanded staff will also need more office space than the PTO presently has. Indeed, some 2,000 examiners now work at home. No doubt, many other enhancements are needed, but without the above improvements, I do not see how the PTO could promptly clear the backlog of 700,000 applications and stay current with the 500,000 new applications that arrived in 2010. Unless it does so, economic growth will be stunted.

The gap between resources and workload grew throughout the last decade. Congress last adjusted the fee levels in 2004. But this resource gap and the inadequacy of fee levels received little notice, as patent reform efforts focused on perceived problems in the courts and on adding new procedures in the PTO to review patents that allegedly should not have been granted.

But even worse than the inadequate fee levels, the PTO lost spending authority over an estimated \$800 million in fee revenues since 1992. Therefore, in addition to raising fee levels (or empowering the Director to do so), Congress must act to ensure that the PTO has access to all fees it collects and can use them to support operations in the current and future fiscal years.

In my judgment, fixing the problem of PTO funding is far more important than enacting those provisions in recent legislative proposals that would alter court practices or add new processes inside the PTO if they further increase the PTO's workload. So my principal recommendation is this: above all, fix the PTO funding problem. Make it

possible for the PTO to clear the 700,000 backlog of applications and get current on new filings. To me, current means all examinations concluded within two years of filing. Note, I do not mean two years as the average delay; I mean every application examined within two years and either granted or denied. One year would be ideal, but two years might be tolerable.

Remember too that by law most applications must be published on the internet 18 months after filing. So given current delays, the invention is made public long before it is protected. It can be used without permission -- and often without consequences -- for all the months and years between 18 months and the eventual issue date. Although once granted, patents are a form of private property, until granted the inventor obtains no rights. Examination delays thus defeat private property rights or at least diminish their value.

The story is told that thousands of foreign engineers sit, not in labs doing research, but rather at computer screens reading U.S. patent applications that disclose new technology. Perhaps the story is only apocryphal, but the motivation can be understood.

As to new post-grant procedures proposed for challenging patents in the PTO, how can Congress have confidence they could be completed expeditiously? A one year statutory deadline for completing the new post grant review -- which is not enforceable by anyone and may not be feasible -- follows a 9 month post-issuance period for filing a review petition and the months for ruling on that petition. So the review period looks to me like year two, not year one. We know that the "special dispatch" requirement for present inter partes re-examinations failed to produce timely decisions. How can Congress conclude that the one-year limit for the new post-grant review would fare any better?

As to the new inter partes re-examinations proposed, preventing serial challenges that could go on for years and years will be difficult as different parties could file another challenge as soon as the first one is concluded and so on. I suppose abuses can be prevented, but, in my view, only with carefully-crafted safeguards.

Attention must also be paid to the interplay between new post-issuance procedures to challenge validity in the PTO and co-pending infringement/validity cases in the courts. Already over two-thirds of pending inter partes re-examinations under the present system involve patents being litigated in court. With insufficient numbers of judgeships and more than 10% of authorized judgeships long unfilled, district courts are now so backlogged that judges will be under pressure to stay pending infringement suits until the PTO has concluded all possible validity challenges. If so, might issued patents, as a practical matter, not be enforceable in court until several years after being granted? Would that be acceptable and fair to all concerned? Again, perhaps with very careful crafting, provisions could be written to prevent such a scenario. But great care must be taken, for all agree that court delays, like PTO delays, are already too long. I believe they reduce innovation.

At the very least, any new PTO procedures that add burdens should not take effect for several years so the PTO can first ramp up and once again function carefully and expeditiously, based on the new resources it may receive.

As to changing court practices and rules, much has changed since patent reform hearings began in 2005. In my opinion the perceived problem with the issue of damage calculations has been satisfactorily solved by court decisions since 2005. And further adjustments can be and are being made continually, as seen in the recent Federal Circuit decision in the Uniloc case. The same can be said for issues of venue, willfulness, obviousness, injunctions and eligibility for patenting. Therefore, I see no need for court-related provisions. Although they are asserted to reduce cost, delay and uncertainty, I fear they are more likely to have exactly the opposite effects. In my opinion, they can safely be omitted from reform legislation.

After delays, the next most harmful dynamic is extended uncertainty over the validity of issued patents. If patents were to suffer under a cloud of possible invalidation for years on end, how could their value not diminish? What then happens to their power to induce investments by risk capital managers and even large company CEOs?

I therefore urge that if the Subcommittee elects to pursue not a streamlined reform bill but a comprehensive one, it first hear from CEOs of start-up technology companies and from leaders in the venture capital industry. As far as I am aware, these categories of actors in the patent system have not been adequately heard. Perhaps it was because they are not part of the traditional patent community or not focused on lobbying Washington. Whatever the reasons, they are better able than anyone else to explain the interactions between patents and growth, patents and job creation, patents and risk capital investments in research and development, in finalizing product design, in building new production facilities, in hiring new workers and in supporting initial public offerings of stock to continue the growth cycle.

Everyone agrees technology start-ups and other young, fast-growing businesses based on intellectual property generate most economic growth and create most net new jobs in our economy. Before concluding its work on broad patent reform legislation, the Subcommittee needs to hear from representatives of these two communities.

Finally, the Subcommittee needs, I respectfully suggest, to conduct continual oversight hearings on PTO operations as resources are increased to assure that requisite speed and quality of patent grants and other PTO procedures are being achieved. Court operations and obstacles could likewise be usefully probed, for delays in the courts, in my opinion, are almost as harmful to the nation's economic growth as delays in the patent office.

Many experts stand ready to assist the Subcommittee in its work, which is vital to the future of America. That includes me.

Thank you.