

STATEMENT OF  
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**ANTITRUST MODERNIZATION COMMISSION**  
**HEARING ON THE NEW ECONOMY AND PATENT REFORM**  
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**Executive Summary**

The United States Patent and Trademark Office (USPTO) appreciates interest in America's system of intellectual property (IP) protection. We affirm the underlying principle of intellectual property rights as inherently private rights, and note the significant economic benefits that have accrued to our Nation as a result of protection for those private rights. The USPTO welcomes ideas that strengthen and improve the U.S. patent system and operations, and we support certain proposed patent reforms by members of Congress, as well as by third-party entities.

Given our mission, the USPTO is focused on reforms that improve patent quality, and reforms that reduce a tremendous backlog of patent applications waiting to be examined. We are concerned that a growing patent backlog may discourage innovation. For example, a large backlog may encourage increased use of "trade secret protections," with a concurrent decline in the publication and sharing of useful discoveries. More practically, it may impede financing of new ideas and the release of new products. Further, a disproportionate backlog of unexamined patent applications contributes to legal uncertainty as competitors try to invent around un-issued patents.

The USPTO is addressing the issues of quality improvement and a growing backlog by hiring more patent examiners at a controlled rate and by training them differently. We are using more targeted testing and training throughout the patent application review process, applying better quality metrics, and raising the standards for patent examiner certification and recertification. We are also working to make our patent system more effective and efficient by improving *ex parte* patent reexamination proceedings, pre-appeal brief conferences, and patent appeal time.

The USPTO is considering a new patent rules package that would help achieve the goals of certainty, quality, and efficiency in the patent system by encouraging patent applicants to be more open and rigorous throughout the patent application process. Specifically, our rules package would instill more discipline in filing continuations on patent applications,

focus on representative claims in patent applications, and require more complete information disclosure statements from patent applicants.

We believe that a good understanding of America's IP system throughout our government, together with the enactment of sound patent reforms, will encourage even greater innovation and growth in today's knowledge-based economy.

## **Introduction**

Chair Garza, Vice-Chair Yarowsky, and Commissioners:

Thank you for your interest in gaining a better understanding of America's intellectual property (IP) protection and patent reform – as part of your broader effort to make recommendations on antitrust law modernization.

When examining certain economic relationships, developing a greater appreciation of IP protections can prevent conclusions and actions that unintentionally stifle the innovation and competition they seek to encourage.

The United States Patent and Trademark Office (USPTO) wholeheartedly affirms and supports the underlying principles of America's system of intellectual property rights protection, which have helped propel our Nation from a small agrarian society to the world's pre-eminent technological and economic superpower.

The USPTO welcomes ideas that strengthen and improve our patent system and operations, and we support patent reforms that promote even greater innovation and economic opportunity in America.

Therefore, we support the objectives and many of the patent reforms being considered in Congress today, as well as some of the recommendations in the National Academies Board on Science, Technology, and Economic Policy (NAS) report: "A Patent System for the 21<sup>st</sup> Century" (2004), and the Federal Trade Commission (FTC) report: "To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy (2003).

Further, the USPTO will soon be introducing more patent reforms of our own that can be implemented administratively.

## **Affirmation of America's Fundamental Patent System**

Throughout our Nation's history, Presidential Administrations, the Congress, and the Courts have given due consideration to the principles of IP protection, strengthening a patent system over time that has functioned as an engine of economic growth.

The USPTO is the Federal Government's tangible expression of its commitment to invention and creativity. This commitment goes back to the first days of our republic. Our Founders recognized the importance of patents and copyrights in encouraging research and innovation. In drafting the framework for the United States, they placed in the Constitution in Article I, Section 8, the authority for Congress "[t]o promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."

The Founders understood that a property interest granted to inventors and creators, for a limited period, would create the incentive for innovation to propel us into an advanced and prosperous country. And for more than two centuries, our Nation has remained deeply committed to that vision.

In our economy today, intellectual property-based enterprises form the largest sector. U.S. IP is worth between \$5 trillion and \$5.5 trillion, equivalent to about 45 percent of the U.S. gross domestic product (GDP) and greater than the GDP of any other nation in the world." (Robert Shapiro and Kevin Hassett, "The Economic Value of Intellectual Property," October 2005) Intellectual property – designs and innovations, business and product names, what is written or created – play a leading role in the U.S. economy. And IP-based industries, such as entertainment, information technology, and biotechnology, must be able to protect their property in order to protect their livelihood.

Understanding the U.S. patent system begins with the recognition that patents are a form of property anticipated by the U.S. Constitution. The supposed tension between intellectual property law and antitrust law often arises from a misunderstanding of patents as a form of "monopoly." Although a patent allows an inventor to exclude others from using or selling the invention without permission, it is not a monopoly in the antitrust sense.

While patents can encourage risk-taking and investment in new ideas, patents also limit the advantage they confer. An inventor does not have exclusive rights to his invention forever. Once the term of the patent expires, the invention is in the public domain and may be used or manufactured by anyone. This term limit creates incentives for patent holders not to rest on their laurels; rather, they must continue to innovate because the patent protection is temporary.

In granting an inventor a temporary patent, the public is given permanent and valuable consideration. In exchange for the limited grant, inventors must fully disclose their inventions for all the world to see, study, replicate, and improve upon. The patent must describe and disclose the invention so completely that it would allow someone of ordinary skill in the art to replicate the invention without difficulty.

This is a remarkable tradeoff. It is analogous to asking businesses to teach their competitors how to use the latest, most cutting-edge technologies. This disclosure requirement is all the more stunning when one considers it also allows a **competitor** to see where the competition's research may take them in the future. It is highly unlikely that businesses would ordinarily open such windows into their research and development

without obtaining a valuable right in exchange. Under our patent system, that which might forever remain locked up as a trade secret is opened for inspection. In analyzing the economic effects of the patent system, commentators often ignore this *quid pro quo* that society obtains from inventors in exchange for the temporary patent grant.

Patent law also encourages the disclosure of secret information in another way. It creates an incentive for inventors to publish their new technologies early, even if they do not intend to patent them, because the publication of an invention can disqualify another who might independently arrive at the same discovery from obtaining patent rights. Many have noted the importance to competition of encouraging the disclosure of research. Patent law obviously plays an important role in advancing that objective.

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A patent is not simply a grant of economic advantage, nor is it a form of economic regulation. A patent must be earned through the satisfaction of objective criteria, as well as by appropriate disclosure of the innovation. When an inventor applies to the USPTO for a patent, the application is examined to ensure that under patent law, the claimed invention is new, useful, and non-obvious when measured against all previous inventions.

Patent examination does not include an analysis of the potential commercial impact of a patent. This is consistent with the principle of intellectual property rights as private rights. It is for the applicant and the marketplace – not the government – to determine what is commercially valuable and what is not. Certainly, history has demonstrated that an invention gathering dust for lack of vision can suddenly achieve prominence and commercial viability as circumstances and insights change.

Patent examination also does not determine the relevant market in which the invention may be marketed or sold. And no patent examiner projects the economies of scale to be achieved through the invention. Patent examiners, in considering the breadth of claims, are guided by the principle that a patentee's rights are limited only by the ability to make a fully enabling disclosure of the invention, to provide an adequate written description of the invention, to demonstrate the utility of the invention, and to show the invention is novel and non-obvious in view of what we call the "prior art."

An innovator in a new area of technology may gain what is called a "pioneer patent," which provides broad rights. There is nothing new, nor should it be anything unsettling. The history of patents, and that of America, is replete with examples of inventions that broke new ground. From the telephone to biotech discoveries, from automobiles to plastics, the issuance of patents has not impeded the development of new technologies and resulting industries, despite initial protests that a patent would decimate innovation and competition.

Although patent law and competition law are not universally congruent, they are highly compatible and serve many similar ends. To the extent that patent law and antitrust laws are based on dissimilar policies, competition regulators are rightfully cautious in assuming that the Congress automatically intends the distinctive policies of antitrust laws

to trump those underlying the intellectual property system. This is especially true when one contemplates that the foundations of IP protection are found directly in the U.S. Constitution.

Over the last two decades, the USPTO, the Congress, the Courts, and other government agencies have worked within the framework of the patent system to facilitate innovation and productivity in the American economy. For example, licensing guidelines that the FTC and the Department of Justice put forth in the 1980s helped articulate a balanced view of the value of patent rights. That development allowed enterprises to increasingly see patents not merely as tools for protecting their product market, but as valuable assets that serve broader economic purposes. Based on the value of these assets, a proliferation of start-up firms in the last decade received financing even before they had products to sell.

Over the past two decades, the value of patents as business portfolio assets has increased, and the areas in which patents could be obtained have expanded. These developments enhance the usefulness of patent law as a motivator for innovation. This is reflected in today's unprecedented explosion of patent applications, particularly in biotechnology.

Today, established firms and universities have increasing incentives to look for others who can use their patented technologies in order to maximize return on their intellectual property. In contrast, a return by competition regulators to viewing IP rights with a 1970s-era suspicion risks interfering with these market-based incentives to innovate.

Some regard the increase in patent filings with suspicion. The USPTO regards the growth with mixed emotions. The growth in patent applications reflects both the increased importance of patents to the economy and to innovation, and it reinforces to the USPTO the importance of the mission we have undertaken. For many years, we have been engaged in what sometimes seems an epic struggle to muster sufficient resources to provide the timely and quality service our customers need. But we remain confident that the growth in patent applications is a boon for America's economy, as well as contributing to our Nation's genius for innovation.

In fact, a recent World Bank Study found that an increase of 20 percent in the annual number of USPTO patents granted is associated with an increase of 3.8 percent in annual economic growth for the United States. And looking across the world, we also see a high correlation between a country's economic strength and the vitality of its patent system. Of course no single cause explains economic growth, but neither is it an accident nor coincidence that the United States stands at the top of both lists.

### **NAS and FTC Reports**

The USPTO welcomed the reports on our patent system by the National Academies Board on Science, Technology, and Economic Policy (NAS): “A Patent System for the 21<sup>st</sup> Century” (2004), and the Federal Trade Commission (FTC): “To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy (2003) to the extent we believe they provided useful contributions to our ongoing efforts to improve the U.S. patent system.

The NAS Report supports several USPTO efforts that are underway, including many listed in the USPTO 21<sup>st</sup> Century Strategic Plan. And the NAS report seems to take a balanced look at the importance of America’s patent system.

Regarding the FTC report, we agree with the premise that patent and competition law must work together in proper balance. And we were pleased that the FTC report endorsed several longstanding USPTO goals -- such as obtaining adequate funding, offering post-grant review, and implementing our 21<sup>st</sup> Century Plan.

The USPTO also has many other recommendations of our own, which I will describe in detail.

### **USPTO View of Patent Issues**

The areas of focus for our office today are continually improving our quality and reducing our patent backlog.

The USPTO is issuing more than 170,000 patents each year. We began FY05 with almost 510,000 new patent cases in our backlog, and another 85,000 new cases were added to that backlog during the fiscal year. If filing continues at a 6 percent growth rate, we project that we will add another 100,000 cases to our backlog in FY06.

Today’s USPTO backlog is approximately 600,000 unexamined applications. If we closed our doors today, it would take about two years to work that off. We would then reopen our doors to find that almost 850,000 applications had been filed during that time.

The USPTO – and hence the United States – continues to have the fastest and least expensive patent processing in the world. It takes the USPTO an average of 21.1 months to take first action on a patent application, and 29.1 months before we issue a decision. Our average cost-per-patent issued is \$9,700. By contrast, the European Patent Office and the Japanese Patent Office take significantly longer and cost considerably more.

However, without policy and operational changes, the USPTO patent backlog will continue to grow to unacceptable proportions. Some may wonder why it is bad if the patent backlog continues to grow. The concern is that a growing patent backlog may discourage innovation. For example, with a longer backlog, many larger companies may

resort to more “trade secret protection,” instead of patents. This discourages the eventual publication and sharing of knowledge.

A growing backlog makes patents particularly less useful to industries with relatively brief product cycles. It hurts small inventors and small businesses as well – because as they wait longer to receive a patent, their asset becomes less valuable, and financing may not be available for them. This can slow new products from being brought to market, as investors hesitate to invest in products with pending patents. In general, a large backlog creates legal uncertainty in the market – with competitors trying to invent around un-issued patents.

For the USPTO, an enormous backlog means we have to hire too many people too fast -- beyond the 45 percent growth rate in hiring patent examiners we already project over two years. New hires take more time and training from primary examiners, supervisory patent examiners, and managers. When our senior people are spending most of their time training and reviewing the work of new people, then our most productive people are not examining patent applications. And when we have too many new hires, there are not enough senior people to review all of the new work adequately. Clearly, this has implications for patent quality, and ultimately, it contributes to a larger patent application backlog.

Without policy and operational changes, the USPTO backlog will continue to grow. Therefore, the USPTO has taken several steps to address it already. And we are considering more changes that would involve our applicants in improving the review process. We believe these changes will facilitate higher-quality, faster patent application examinations.

### **USPTO Reform Actions Taken**

In part, we are addressing backlog and quality through hiring more patent examiners and training them differently. In 2005, we hired almost 1,000 additional patent examiners, and we will do the same in 2006. Before this hiring, we had fewer than 4,000 examiners, so this will mean a roughly 50 percent increase in professional staff within two years.

To effectively train these large numbers of new examiners, we are establishing an innovative new Patent Examiner Academy in January 2006. We believe it will offer more efficient, effective training than our traditional one-on-one model.

To further improve patent quality, we are using more targeted testing and training throughout the patent application review process, applying better metrics, and raising the standards for patent examiner certification and recertification.

We are also working to make our patent system more effective and efficient by improving *ex parte* patent reexamination proceedings, pre-appeal brief conferences, and patent appeal time.

We have now completed actions on all 1,200 *ex parte* patent application reexaminations that had been pending for over two years. We have improved our reexamination quality by creating a “super-group” of top patent examiners (about half of whom have law degrees) for these proceedings. Our goal going forward is to review new proceedings within 20 months.

In FY05, we developed a new pre-appeal brief conference pilot program that lets applicants request a panel to formally review their application rejections – before they file an appeal brief. We expect this change to save our applicants at least \$30 million **annually** in legal fees.

And our USPTO Board of Patent Appeals and Interferences has dramatically reduced its inventory of appeals pending -- from more than 6,000 at the end of FY 2000, to fewer than 1,000 both in FY04 and FY05.

We are making progress, but it will certainly take more before we turn the corner. So, we are proposing other, more aggressive steps to address the growth in patent applications.

### **USPTO Reforms under Consideration**

The USPTO is considering a new patent rules package that would involve our applicants in improving our patent system. The new rules would place restrictions on filing continuations on patent applications, focus on representative claims in patent applications, and require more complete information disclosure statements from patent applicants. We believe these proposals will add more certainty, quality, and efficiency to our patent system.

#### **Disciplined Continuations**

Currently, the U.S. patent system allows for almost unlimited reworking of applications through “continuations.” In FY04, more than 100,000 of the USPTO’s 375,000 new applications were some form of rework. That is, on almost one-third of the applications examiners reviewed, they had rejected them before, but then the applicant tweaked them.

Some measure of discipline in this area would have obvious efficiency effects on processing patent applications – and getting to new technologies faster. The USPTO is evaluating ways to bring greater efficiency to the continuation process and to create greater finality in examination.

The USPTO is not considering changes to a first continuation request. But we are looking closely at second and subsequent continuation requests and Requests for Continued Examination (RCEs). These account for 20,000 to 30,000 of the approximately 100,000 total continuing applications we receive each year.

**Representative Claims**

Another critical part of the patent application is “the claims,” which define what is being patented. Every year, a small number of applications are filed with an extraordinary number of claims. The USPTO is exploring initiatives that will help us find the right balance between allowing inventors to submit such applications when needed, while making it feasible for examiners to effectively examine this higher volume of claims.

For ideas, we looked at how U.S. courts operate. Typically, our courts do not litigate every claim in a patent. Rather, they look at representative claims, which the parties involved have agreed upon. The USPTO is considering something similar, in which the applicant and examiner focus on a set of representative claims initially.

However, the USPTO will not issue any claim it has not examined. For example, if we received an application with 50 claims, we might look at only the first 10 claims throughout the process of rejections and amendments. Assuming we accepted the representative claims– but before we issued the final patent – we would examine the remainder of the claims. This approach would improve quality and efficiency.

**Better Information Disclosure Statements (IDS)**

Typically, patent applications are filed with information disclosure statements (IDSs). An IDS allows a patent applicant to bring relevant information about the invention to the patent examiner’s attention. Items cited in an IDS frequently include U.S. and foreign patent documents, and other articles or literature called non-patent literature. Applicants frequently rely on these statements and the cited items as a means of satisfying their duty to disclose known material information to the USPTO.

Sometimes, patent applicants submit voluminous amounts of references that they have not even read, or identified as relevant. These submissions may include more than 50 documents with no indication of relevancy.

So, we are considering requiring applicants submitting voluminous citations to include only prior art references that they have reviewed and believe are relevant. If 25 or fewer references are cited, there would be no change. And the majority of patent applications – almost 90 percent -- cite 25 or fewer references. But when more than 25 references are cited, the USPTO may require applicants to identify which parts are relevant to the case, and why the applicant believes each reference is relevant.

Complete, clear, well-drafted IDSs, with well-identified, pertinent references, take less time to properly examine. And better input contributes directly to the quality and speed of examination.

A more accurate, efficient patent system benefits everyone. Applicants obtain better quality patents faster, and everyone involved can make the most informed decisions going forward.

## **Proposed Patent Reform Legislation in Congress**

We support Congress's goal of proposing patent reform legislation to improve patent quality, reduce patent litigation costs, and further harmonize patent laws internationally.

The current bill (H.R. 2795, introduced in June 2005, by Rep. Lamar Smith) is an excellent start. However, as indicated in the hearings conducted, there has not been consensus among the various industry groups who have weighed in so far.

The bill contains litigation reforms that affect patent policy in general. As part of the Bush Administration, we are also concerned about reducing litigation costs, and we continue to engage in the debate about the best ways to accomplish this. A post-grant review procedure at the USPTO would help contain litigation costs by offering a low-cost alternative. Most industries support a post-grant procedure, but not all agree on the specifics.

In addition to post-grant review, the bill includes other reforms that would directly affect USPTO operations, such as first-inventor-to-file and inequitable conduct reform. We continue to discuss these issues with members of Congress and others as appropriate.

## **Conclusion**

Again, I appreciate the opportunity to provide the Commission with more information about America's system of intellectual-property protection, our views on recent third-party analyses of our patent system, and the reforms underway at the USPTO and in Congress.

The USPTO believes – and American history supports the belief -- that patents provide incentives to investigate and develop alternative products and processes, and they disclose new knowledge and information. We further believe that a good understanding of America's IP system throughout our government leads to policies that encourage innovation and growth in today's knowledge-based economy.