Recent Developments in Patent Administration: Implications for Innovation Policy

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Summary

Congressional interest in the operation of the U.S. Patent and Trademark Office (USPTO) has been demonstrated by extensive discussion of patent reform proposals that would impact that agency. An increasing number of patent applications filed each year, the growing complexity of cutting edge technology, and heightened user demands for prompt and accurate patent services are among the challenges faced by the USPTO. Stakeholders have expressed concern over the agency's large backlog of patent applications that have been filed but have yet to receive examiner review. Others have expressed concerns about the agency's accuracy in approving applications only on those inventions that fulfill the statutory requirements to receive a patent.

Even as discussion of patent reform has continued in Congress, the USPTO has actively engaged in efforts to address its application backlog, maintain high levels of patent quality, and more generally improve contemporary patent administration. The agency has launched a number of initiatives in recent years to address perceived concerns over the patent-granting process, including

- The Patent Application Backlog Stimulus Reduction Plan, which allows an individual who has filed multiple applications to receive expedited review of one patent application when he agrees to withdraw another, unexamined application.
- The Patent Prosecution Highway, which allows certain inventors who have received a favorable ruling from the USPTO to receive expedited review from foreign patent offices.
- The Enhanced First Action Interview Pilot Program, which allows applicants to conduct an interview with patent examiners early in the review process.
- The "Three-Track Initiative," under which an application would be placed into one of three queues: prioritized examination, traditional examination, or delayed examination.
- The Adoption of Metrics for the Enhancement of Patent Quality, which endeavors to improve USPTO mechanisms for measuring the quality of patent examination.

A number of patent reform issues under consideration by the 112th Congress would potentially impact upon the ability of the USPTO to respond to changing circumstances in the intellectual property environment. In particular, two bills before the 112th Congress, H.R. 1249 and S. 23, would grant the USPTO the ability to set its own fees, potentially allowing the agency to act in a more flexible manner. In addition, discussion persists over whether the USPTO should have greater ability to engage in substantive rulemaking.

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Introduction

Growing recognition of the crucial role that technological innovation plays in the U.S economy has led to increased congressional activity with respect to the intellectual property laws. As evidenced by patent reform proposals currently before the 112th Congress,[1] the operation of the U.S. Patent and Trademark Office (USPTO) is among the subjects of legislative interest. Stakeholders have expressed concerns over a number of issues, including the USPTO's backlog of filed but unexamined applications, as well as the quality of the patents issued by the agency.

Some knowledgeable observers have expressed concern that the USPTO does not possess the capability to process the large number of patent applications that it receives.[2] The growing backlog of applications awaiting examiner review could potentially lead to long delays in the time the USPTO requires to grant patents.[3] Extended USPTO delays in reviewing applications may increase industrial uncertainty about whether a patent will cover a particular technology or not. Lengthy approval delays may also decrease the usefulness of the patent system for industries subject to a brisk pace of technological change, as a patent on an invention that is rapidly becoming obsolete has limited value.[4]

The USPTO has long strived to approve only those patent applications that meet the statutory requirements for obtaining a patent. Because they meet all the requirements imposed by the Patent Act, quality patents may be dependably enforced in court and employed as a technology transfer tool.[5] In contrast, improvidently granted patents may require firms to spend considerable resources either obtaining a license or mounting a legal challenge to the patent.[6] Some commentators believe that within an era of increasingly complex, fast-moving technology, the task of issuing quality patents on a consistent basis presents a considerable challenge to the USPTO.[7]

The USPTO has actively engaged in efforts to address its application backlog and concerns over patent quality, and more generally to improve contemporary patent administration. A number of USPTO initiatives have responded to perceived concerns about the patenting process. Among them are

- The Patent Application Backlog Reduction Stimulus Plan, which allows an individual who has filed multiple pending applications to receive expedited

[1] *See* Patent Reform in the 112th Congress: Innovation Issues, CRS Report for Congress, by (name redacted) and (name redacted).

[2] *See, e.g.,* Michael J. Meurer, "Patent Examination Priorities," 51 *William and Mary Law Review* (Nov. 2009), 675.

[3] *See* Patrick A. Doody, "How to Eliminate the Backlog at the Patent Office," 37 *American Intellectual Property Law Association Quarterly Journal* (2009), 395.

[4] *See* Sharon Barner, "Strategies for the USPTO: Ensuring America's Innovation Future," 8 *Northwestern Journal of Technology & Intellectual Property* (2010), 440.

[5] *See* R. Polk Wagner, "Understanding Patent-Quality Mechanisms," 157 *University of Pennsylvania Law Review* (2009), 2135.

[6] *See* James E. Malackowski & Jonathan A. Barney, "What is Patent Quality? A Merchant Banc's Perspective," 43 *les Nouvelles* (June 2008), 123.

[7] *See* Chris J. Katopis, "Perfect Happiness?: Game Theory as a Tool for Enhancing Patent Quality," 10 *Yale Journal of Law and Technology* (2007-08), 360.

review of one patent application when he agrees to withdraw another, unexamined application.[8]

- The Patent Prosecution Highway (PPH), which potentially applies to inventors who have filed patent applications in multiple countries. If the inventor receives a favorable ruling from the patent office of the country where he filed first, he may request expedited review in other patent offices participating in the PPH.[9]
- The Enhanced First Action Interview Pilot Program, which allows participants to conduct an interview with the patent examiner early in the application review process.[10]
- The "Three-Track Initiative," under which applications would be placed into one of three queues: prioritized examination, traditional examination, or delayed examination.[11]

The Adoption of Metrics for the Enhancement of Patent Quality, which endeavors to improve USPTO mechanisms for measuring the quality of patent examination.[12]

This report reviews a number of recent USPTO initiatives designed to enhance the patent application review process. It begins by offering a brief review of patent acquisition proceedings as well as challenges faced by the USPTO. This report then reviews the innovation policy issues that are implicated by patent administration policies. Recent USPTO initiatives are then discussed. The report closes by reviewing possible congressional options.

Fundamentals of Patent Acquisition

The U.S. Constitution provides Congress with the power "To promote the Progress of Science and useful Arts, by securing for limited Times to ... Inventors the exclusive Right to their ... Discoveries...."[13] In accordance with the Patent Act of 1952 (the "Patent Act"),[14] an inventor may seek the grant of a patent by preparing and submitting an application to the USPTO.[15] Under current law, each application is then placed into queue for eventual review by officials known as examiners.[16]

[8] Department of Commerce, USPTO, "Patent Application Backlog Reduction Stimulus Plan," 74 *Federal Register* (Nov. 27, 2009), 62285.

[9] *See, e.g.,* Department of Commerce, USPTO, "Patent Prosecution Highway (PPH) Program," 73 *Federal Register* (June 24, 2008), 35661.

[10] Department of Commerce, USPTO, "Enhanced First Action Interview Pilot Program," 1347 *Official Gazette of the USPTO* 173 (Oct. 20, 2009).

[11] Department of Commerce, USPTO, "Enhanced Examination Timing Control Initiative: Notice of Public Meeting," 75 *Federal Register* (June 4, 2010), 31763.

[12] Department of Commerce, USPTO," Adoption of Metrics for the Enhancement of Patent Quality, Fiscal Year 2011," available at http://www.upsto.gov/patents/init_events/qual_comp_metric.pdf.

[13] Article I, Section 8, Clause 8.

[14] P.L. 82-593, 66 Stat. 792 (codified at Title 35 United States Code).

[15] 35 U.S.C. §111.

[16] 35 U.S.C. §131.

The USPTO publishes most, but not all, pending patent applications "promptly after the expiration of a period of 18 months" from the filing date.[17] Among the applications that are not published prior to grant are those that the applicant represents will not be the subject of patent protection abroad. In particular, if an applicant certifies that the invention disclosed in the U.S. application will not be the subject of a patent application in another country that requires publication of applications 18 months after filing, then the USPTO will not publish the application.

USPTO officials known as examiners then determine whether the invention disclosed in the application merits the award of a patent. The USPTO examiner will consider a number of legal requirements, including whether the submitted application fully discloses and distinctly claims the invention.[18] In particular, the application must enable persons skilled in the art to make and use the invention without undue experimentation.[19] In addition, the application must disclose the "best mode," or preferred way, that the applicant knows to practice the invention.[20]

The examiner will also determine whether the invention itself fulfills certain substantive standards set by the patent statute. To be patentable, an invention must meet four primary requirements. First, the invention must fall within at least one category of patentable subject matter.[21] According to the Patent Act, an invention that is a "process, machine, manufacture, or composition of matter" is eligible for patenting.[22] Second, the invention must be useful,[23] a requirement that is satisfied if the invention is operable and provides a tangible benefit.[24] Third, the invention must be novel, or different, from subject matter disclosed by an earlier patent, publication, or other state-of-the-art knowledge.[25] Finally, an invention is not patentable if "the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."[26] This requirement of "nonobviousness" prevents the issuance of patents claiming subject matter that a skilled artisan would have been able to implement in view of the knowledge of the state of the art.[27]

If the USPTO allows the patent to issue, its owner obtains the right to exclude others from making, using, selling, offering to sell or importing into the United States the patented invention.[28] Those who engage in those acts without the permission of the patentee during the term of the patent can be held liable for infringement. Adjudicated infringers may be enjoined from further infringing acts.[29] The patent statute also provides for an award of damages "adequate

[17] 35 U.S.C. §122(b).

[18] 35 U.S.C. §112.

[19] *See Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363 (Fed. Cir. 2009).

[20] 35 U.S.C. §112.

[21] *See Bilski v. Kappos*, ___ U.S. ___, 130 S.Ct. 3218 (2010).

[22] 35 U.S.C. §101.

[23] *Id.*

[24] *See In re '318 Patent Infringement Litigation*, 583 F.3d 1317 (Fed. Cir. 2009).

[25] 35 U.S.C. §102.

[26] 35 U.S.C. §103.

[27] *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

[28] 35 U.S.C. §271.

[29] 35 U.S.C. §283.

to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer."[30]

The maximum term of patent protection is ordinarily set at 20 years from the date the application is filed.[31] At the end of that period, others may employ that invention without regard to the expired patent. Although patent term is based upon the filing date, the patentee gains no enforceable legal rights until the USPTO allows the application to issue as a granted patent. A number of Patent Act provisions may modify the basic 20-year term, including examination delays at the USPTO[32] and delays in obtaining marketing approval for the patented invention from other federal agencies.[33]

Like most rights, those provided by a patent are not self-enforcing. Patent owners who wish to compel others to respect their proprietary interests must commence enforcement proceedings, which most commonly consist of litigation in the federal courts.[34] Although issued patents enjoy a presumption of validity, accused infringers may assert that a patent is invalid or unenforceable on a number of grounds.[35] The Court of Appeals for the Federal Circuit (Federal Circuit) possesses nationwide jurisdiction over most patent appeals from the district courts.[36] The Supreme Court enjoys discretionary authority to review cases decided by the Federal Circuit.[37]

Contemporary Challenges for the USPTO

Backlog of Applications

The growing popularity of the patent system has placed strains upon the resources of the USPTO. During 2010,[38] the USPTO received 520,277 applications—an increase of 7.8% from the 482,871 applications it received during the 2009 fiscal year. The increase in filings is substantial when viewed over a longer time frame. For example, the number of applications filed in 2005 was 417,508; and 293,244 applications were filed at the USPTO in 2000.[39]

The USPTO has candidly admitted that "the volume of patent applications continues to outpace our capacity to examine them."[40] As a consequence, the USPTO reportedly holds an inventory in

[30] 35 U.S.C. §284.

[31] 35 U.S.C. §154(a)(2).

[32] 35 U.S.C. §154(b).

[33] 35 U.S.C. §156.

[34] 35 U.S.C. §281.

[35] 35 U.S.C. §282.

[36] 28 U.S.C. §1295(a)(1).

[37] 28 U.S.C. §1254(1).

[38] References to particular years in this discussion refer to the USPTO fiscal year, which extends from October 1st to September 30th of each calendar year.

[39] USPTO, *A New Organization for a New Millennium: Performance and Accountability Report Fiscal Year 2000*, available at http://www.uspto.gov/about/stratplan/ar.

[40] USPTO, *2007–2012 Strategic Plan*, at 6; http://patents.uspto.gov/web/offices/com/strat2007/ stratplan2007-2012.pdf.

excess of 1.2 million patent applications that have yet to be reviewed by an examiner.[41] In addition, a USPTO examiner in 2009 would not review a patent application until, on average, 25.8 months after it was filed.[42] The "first action pendency" during 2000 was 13.6 months.[43] Many observers believe that if current conditions continue, the backlog and delay are likely to grow at the USPTO in coming years.[44]

Long delays for patent approvals may negatively impact high technology industries by increasing uncertainty about the availability and scope of patent rights. For market segments that feature a rapid pace of innovation and short product cycles, such as consumer electronics, lengthy USPTO delays may also significantly devalue the patent right. Put simply, by the time a patent issues, the entire industry might have moved on to more advanced technologies.[45] Commerce Secretary Gary Locke reportedly described the length of time the USPTO requires to issue patents as "unacceptable," explaining that "[t]his delay causes uncertainty for inventors and entrepreneurs and impedes our economic recovery."[46] USPTO Director David Kappos recently opined that "[e]very quality patent application that sits on the shelf represents jobs not created."[47]

In addition, under current law, USPTO delays may qualify certain patents for an extension of term.[48] For example, if the UPSTO does not respond to an application within 14 months of the day it is filed, the term of a patent that results from that application is extended by one day for each day of delay. Given that the average first action pendency is now almost 26 months, this rule of "Patent Term Adjustment" may cause many U.S. patents to have a term that exceeds 20 years.[49] A patent with a longer term may be of greater value to its proprietor, but also may impact the ability of others to develop competing products.[50]

Patent Quality

Many observers believe that the USPTO should only issue patents on inventions that meet each of the statutory criteria.[51] Quality patents are said to enhance predictability within the marketplace by clarifying the ownership and scope of private rights associated with particular inventions.

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[41] See John Schmid & Ben Poston, "Patent Delays Harmful to U.S. Economy, Commerce Secretary Says," *Milwaukee Journal Sentinel* (Aug. 23, 2009), available at http://www.jsonline.com/business/54199852.html. Other sources report that the backlog is smaller. *See, e.g.,*

[42] USPTO, *Performance and Accountability Report Fiscal Year 2009*; http://www.uspto.gov/web/ offices/com/ annual/2009/mda_02_02.html.

[43] USPTO, *2003 Performance and Accountability Report*, available at http://www.uspto.gov/about/ stratplan/ar/2003/040201_patentperform.jsp.

[44] *See, e.g.,* Jon Dudas et al., "Let the PTO Pay Its Own Way," 198 *New Jersey Law Journal* no. 12 (Dec. 21, 2009), 975; Steven Andersen, "Out of Balance," *Inside Counsel* (Nov. 1, 2009).

[45] *See* Goldman, *supra*.

[46] Schmid & Poston, *supra*.

[47] Intellectual Property Office (UK), *UK and US Announce Action Plan to Reduce Global Patent Backlogs* (March 10, 2010); http://www.ipo.gov.uk/about/press/press-release/press-release-2010/press-release-20100310.htm.

[48] 35 U.S.C. §154(b).

[49] *See* Patently O, *Patent Term Adjustment Statistics* (Jan. 13, 2010), available at http://www.patentlyo.com/ patent/2010/01/patent-term-adjustment-statistics.html.

[50] *See generally* Scott E. Kamholz, "Patent Term Adjustment for Fun and Profit," *Intellectual Property Today* (Aug. 2006), 24.

[51] *See* Wagner, *supra*.

When inventors, investors, managers, and other stakeholders possess confidence that patents are reliably enforceable, they are said to have increased incentives to innovate, to finance research and development, and to bring new technologies into the marketplace.[52]

In contrast, poor patent quality may encourage activity that is not socially productive. Private parties may be required to engage in extensive due diligence efforts in order to determine whether individual issued patents would be enforced by a court or not.[53] Entrepreneurial speculators may find it easy to obtain patents that can then be enforced against manufacturers and service providers.[54] Patent owners and investors may also be negatively impacted. A patentee may make managerial decisions, such as building production facilities or hiring workers, based upon their expectation of exclusive rights in a particular invention. If a patent is declared invalid by a court, the patent owner—along with his financial backers—is stripped of this intellectual property right without compensation.[55]

The goal of consistently high levels of patent quality may pose a considerable challenge for the USPTO. Increasingly complex technologies appear to have resulted in patent applications that are both lengthy and potentially more difficult for examiners to parse.[56] In addition, technological innovation is today a global phenomenon that is occurring at an increasingly rapid pace. As compared to previous years, USPTO examiners may face more difficulty in locating the most pertinent documents that describe the state of the art.[57] Of course, the increasing number of patent applications—along with a large backlog of unexamined applications—also potentially impacts the ability of the USPTO to maintain high levels of patent quality.[58]

Previous Initiatives

The USPTO has developed a number of initiatives in order to address modern challenges of patent administration. The agency has hired many new examiners, including 1,193 in 2006; 1,215 in 2007; and 1,211 in 2008.[59] The significance of this hiring rate should be assessed in view of the fact that in 2009, the total size of the patent examining corps was 6,242.[60] The recent economic downturn has caused the USPTO to limit new hiring, however.[61] As the title of recent congressional testimony of the Government Accountability Office indicates—"Hiring Efforts Are Not Sufficient to Reduce the Patent Application"[62]—many observers are of the view that "[d]ue

[52] *Id.*

[53] *See* Lee Petherbridge, "On Addressing Patent Quality," 158 *University of Pennsylvania Law Review PENNumbra* (2009), 13.

[54] *See* Susan Walmsley Graf, "Improving Patent Quality Through Identification of Relevant Prior Art: Approaches to Increase Information Flow to the Patent Office," 11 *Lewis & Clark Law Review* (2007), 495.

[55] *See* Craig Allen Nard, "Certainty, Fence Building, and the Useful Arts," 74 *Indiana Law Journal* (1999), 759.

[56] *See* John R. Allison & Mark A. Lemley, "The Growing Complexity of the United States Patent System," 82 *Boston University Law Review* (2002), 77.

[57] *Id.*

[58] *See* Katopis, *supra*.

[59] USPTO, *A New Organization for a New Millennium: Performance and Accountability Report Fiscal Year 2008*, available at http://www.uspto.gov/web/offices/com/annual/2008/mda_02_02.html.

[60] USPTO, *A New Organization for a New Millennium: Performance and Accountability Report Fiscal Year 2009*, available at http://www.uspto.gov/about/stratplan/ar/2009/2009annualreport.pdf.

[61] *Id.*

to both monetary and infrastructure constraints, the USPTO cannot simply hire examiners to stem the tide of applications."[63]

The USPTO also proposed rules with respect to claims and so-called continuing applications that were designed to reduce its examination burdens. These rules would have limited the number of claims that could be filed in a particular patent application, unless the applicant supplied the USPTO with an "Examination Support Document" in furtherance of that application.[64] They would have also limited the ability of applicants to re-file their applications—an opportunity more technically termed a "continuing application"—absent a petition and showing by the patent applicant of the need for such an application.[65] These rules never came into effect due to a temporary court ruling enjoining their implementation.[66] In the face of considerable opposition to these rules by many members of the patent bar and innovative firms, the USPTO announced on October 8, 2009, that it was rescinding the rules package entirely.[67]

The USPTO has continued to press forward with a number of additional initiatives. The remainder of this report reviews several of these programs.

Patent Application Backlog Reduction Stimulus Plan

In November, 2009, the USPTO announced a "Patent Application Backlog Reduction Stimulus Plan."[68] Under that program, an applicant may choose to abandon a previously filed application that the USPTO has not yet reviewed. If the applicant does so, he may select another application to be examined on an expedited basis. According to the agency, the Plan "allows applicants having multiple applications currently pending before the USPTO to have greater control over the priority with which their applications are examined while also stimulating a reduction of the backlog of unexamined patent applications pending before the USPTO."[69]

For its supporters, the advantage to the USPTO of the Patent Application Backlog Reduction Stimulus Plan is straightforward—the voluntary removal of unexamined applications from its backlog. Inventors might also benefit from obtaining more prompt review of a particular patent

(...continued)

[62] Government Accountability Office, *U.S. Patent and Trademark Office: Hiring Efforts Are Not Sufficient to Reduce the Patent Application Backlog* (Feb. 27, 2008), available at http://www.gao.gov/new.items/d08527t.pdf.

[63] *See* Kevin Myhre, "*Tafas v. Dudas* and *Tafas v. Doll*: The Problem of Efficient Innovation," 16 *Boston University Journal of Science and Technology Law* (2010), 157.

[64] *See* Depart. of Commerce, USPTO, Final Rule, "Change to Practice for Continued Examination Filings, Patent Applications Containing Patentably Indistinct Claims, and Examination of Claims in Patent Applications," 72 *Federal Register* (August 21, 2007), 46716.

[65] *Id.*

[66] *See* Tafas v. Doll, 559 F.3d 1345 (Fed. Cir.), *vacated*, 328 Fed. Appx. 658 (Fed. Cir. 2009).

[67] USPTO, Press Release, *USPTO Rescinds Controversial Patent Regulations Package Proposed by Previous Administration* (Oct. 8, 2009), available at http://www.uspto.gov/news/09_21.jsp.

[68] Department of Commerce, USTPO, "Patent Application Backlog Reduction Stimulus Plan," 74 *Federal Register* (Nov. 27, 2009), 62285.

[69] Department of Commerce, USPTO, "Extension of the Patent Application Backlog Reduction Stimulus Plan," 75 *Federal Register* (Nov. 22, 2010), 71072.

application. For example, an inventor may believe that one application relates to a technology that is particularly significant to his business plans, while the marketplace outlook of the invention claimed in another application is poor. In that circumstance, he may be well-served by expediting consideration of the former application while abandoning the latter.[70]

The Patent Application Backlog Reduction Stimulus Plan was originally restricted to applicants that qualified as "small entities"—a category that generally consists of individuals, small business concerns, and nonprofit organizations.[71] The USPTO subsequently allowed any applicant to participate in the Plan.[72] All applicants are limited to 15 individual uses of the Plan—that is to say, the abandonment of 15 unexamined applications in exchange for expedited review of 15 other applications.[73]

The USPTO will continue to operate the Patent Application Backlog Reduction Stimulus Plan until December 31, 2011, or until 10,000 applications have received expedited review. The USPTO retains the option of further extending the Plan, however. In view of applicant use of the Plan, the limitation of 10,000 applications may not be significant. Reportedly the Plan has thus far been the subject of only limited participation.[74] It should be appreciated, however, that the Plan remains a relatively recent initiative and that innovative industry may make greater use of it in the future.

Patent Prosecution Highway

There is no uniform, global patent system. Patents issued by the USPTO have no effect in other countries. Conversely, patents issued by foreign patent offices are not legally operative in the United States. For the most part, patents must be obtained on a nation-by-nation basis.[75] An individual or firm that develops a new technology, and that seeks protection in more than one country, must therefore file multiple patent applications claiming the same invention. In turn, the patent offices of different nations must commit significant effort towards examining applications that are identical or similar to those filed elsewhere.

The Patent Prosecution Highway (PPH) is an initiative intended to rationalize and expedite multinational patent acquisition in light of these legal realities. The PPH consists of a series of bilateral arrangements between the patent offices of a number of nations. In broad outline, the PPH designates one national office as the Office of First Filing (OFF) and the other as the Office of Second Filing (OSF). If the OFF approves of at least one claim, then the applicant may request

[70] *See* Warren K. Mabey, Jr., "Deconstructing the Patent Application Backlog ... A Story of Prolonged Pendency, PCT Pandemonium & Patent Pending Pirates," 92 *Journal of the Patent and Trademark Office Society* (2010), 208.

[71] 37 C.F.R. §1.27.

[72] Department of Commerce, USPTO, "Expansion and Extension of the Patent Application Backlog Reduction Stimulus Plan," 75 *Federal Register* (June 24, 2010), 36063.

[73] *Id.*

[74] *See* Perry E. Van Over, "A New Pilot Program: Patent Application Backlog Reduction Stimulus Plan," *Orthopreneur* (March/April 2010), 36.

[75] *See* Robert R. Willis, "International Patent Law: Should United States and Foreign Patent Law Be Uniform? An Analysis of the Benefits, Problems, and Barriers," 10 *North Carolina Journal of Law & Technology* (Spring 2009), 283.

that the OSF "fast track" the examination of corresponding claims in an application filed before that agency.[76]

Consider, for example, the PPH arrangement between the USPTO and Canadian Intellectual Property Office (CIPO). Suppose that a pharmaceutical firm initially files an application at the USPTO, and then subsequently files at the CIPO, claiming the same chemical compound. The USPTO subsequently issues an "Office Action" approving the U.S. application. The firm may then contact the CIPO and request expedited review of the Canadian application.

The PPH potentially allows inventors to obtain patents more promptly and efficiently. Each participating patent office may also potentially benefit from the work previously done by another office. For example, examiners in the OSF may be able to take advantage of work done by examiners in the OFF—including searches of the relative technical literature and analysis of the applicant's invention—when conducting their own review of the application.[77]

Although this worksharing benefit is potentially substantial, the various PPH initiatives by no means guarantee that a favorable result at the USPTO will be followed elsewhere. Differences in the patent laws of different nations, or simply a differing assessment of the merits of the case by a foreign patent examiner, may potentially lead to rejections overseas even though a U.S. patent was granted. Nonetheless, the allowance rate of some foreign applications that have been previously approved in the United States is reportedly higher than average.[78]

The USPTO has currently entered into PPH arrangements with over a dozen foreign patent offices, including the European Patent Office and the patent offices of Australia, Canada, Germany, Japan, Korea, and the United Kingdom. A number of bilateral PPH arrangements exist between two foreign patent offices as well. For example, the European and Japanese Patent Offices currently operate a PPH between them. Certain of these programs have been established as pilot programs and could potentially be discontinued in the future.[79]

Enhanced First Action Interview Pilot Program

Patent applicants generally interact with the USPTO through the exchange of formal correspondence with an examiner. At times, applicants may wish to discuss their application with the examiner in person, telephonically, or even through the exchange of email. In patent parlance, each of these less formal exchanges is termed an "interview." Agency policy stipulates that an interview will generally not be held prior to the initial written communication by the examiner to the applicant (the "First Office Action").[80]

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[76] *See* Todd Mattingly, *et al.,* "Still Under Construction: The Patent Prosecution Highway and the Triway: Are These the Roads to a World Patent Office?," 20 *Intellectual Property & Technology Law Journal* (Nov. 2008), no. 11 at 23.

[77] *See* Mabey, *supra*.

[78] *See, e.g.,* Shoichi Okuyama *et al.*, "A Comparative View of Nanotechnology Patents in Japan and the U.S.: A Case Study of Two Patents," 5 *Nanotechnology Law & Business* (Winter 2008), 455 ("The authors have found that, under the PPH Japanese Examiners seem to be biased to give weight to the results of the U.S. prosecution, and thus more likely to give allowance based on the examination results in the United States.")

[79] *See* J. Scott Larson, "Excessive Harmonization of International Patent Prosecution May Strike Discord in Patent Litigation," 22 *Intellectual Property & Technology Law Journal* no. 7 at 6 (July 2010).

[80] Department of Commerce, USPTO, *Manual of Patent Examining Procedure*, Section 713.02.

The USPTO has explored an alternative to this longstanding procedure though an "Enhanced First Action Interview Pilot Program." Applicants that choose to participate receive a Pre-Interview Communication providing the results of a technical literature search conducted by the examiner. The applicant may then conduct an interview with the examiner with the hope of expediting approval of the application.[81] This program originally applied only to certain divisions of the USPTO, but was recently extended to cover the entire agency under the title "Full First Action Interview Pilot Program."[82]

The USPTO reports that this pilot program has yielded several benefits to participants, including the ability to advance prosecution of an application, resolve issues one-on-one with the examiner, and potentially facilitate early allowance.[83] The program has been operated on a provisional basis, and was recently extended through May 16, 2012, with future extensions possible.[84]

Three-Track Initiative

The USPTO recently announced a "Three-Track Initiative" that would place each patent application into one of three separate queues.[85] Through this mechanism, inventors could pay a surcharge to obtain more prompt review of their applications; or alternatively delay examination and the payment of corresponding fees for those services. According to the White House report "A Strategy for American Innovation: Securing Our Economic Growth and Prosperity," the Three-Track Initiative "will allow applicants to prioritize applications, enabling the most valuable patents to come to market within 12 months."[86]

Under current procedures, the USTPO dockets each patent application in the order it was received.[87] Some regulatory exceptions to this general practice allow inventors to both expedite and delay review of their applications, however. Inventors must ordinarily petition the USPTO to obtain this distinct treatment.[88]

An inventor may currently expedite USPTO review of his application by filing a "petition to make special" under the agency's accelerated examination program. This program aspires to complete examination of applications within 12 months of the filing date. A patent application must have no more than 20 claims to participate in the program. In addition, applicants must submit a "support document" reporting the results of a preexamination search for prior art references and explaining why their invention is patentable over these references. A fee of $130 applies, although the USPTO waives the fee if the invention will enhance the quality of the

[81] Department of Commerce, USPTO, "Enhanced First Office Action Interview Pilot Program," 1347 *Official Gazette of the USPTO* (Oct. 20, 2009), 173.

[82] Department of Commerce, USPTO, "Full First Action Interview Pilot Program," available at http://www.uspto.gov/patents/init_events/faipp_full_preog.pdf.

[83] *Id.*

[84] *Id.*

[85] Department of Commerce, USPTO, "Enhanced Examination Timing Control Initiative; Notice of Public Meeting," 75 *Federal Register* (June 4, 2010), 31763 ("Three-Track Notice").

[86] The report is available at http://www.whitehouse.gov/innovation/strategy.

[87] Department of Commerce, USPTO, *Manual of Patent Examining Procedure*, Section 708.

[88] *See* Bernard P. Codd, "USPTO to Introduce New Fast Track Examination Program," 23 *Intellectual Property & Technology Law Journal* (June 2011) no. 6 at 19.

environment, relates to the development or conservation of energy resources, or contributes to counterterrorism.[89]

The USPTO will also expedite review of the application for applicants 65 years or older, or for those in poor health such that they might not be able to assist in the prosecution of their applications if that procedure ran its normal course. The USPTO also operates a "Green Technology Pilot Program" that allows applications relating to clean technologies, such as environmental quality, energy conservation, development of renewable energy resources, and greenhouse gas emission reductions. This program is set to expire on December 31, 2011, although it may be extended further in the future. No fee or support document is required under either of these programs.[90]

The USPTO also allows inventors to delay review of their applications. In order to defer, the applicant must pay an additional $130 processing fee and, at the outset, choose the number of months of deferral. The maximum period of deferral is 36 months.[91] Applicants have reportedly used this procedure infrequently.[92]

As noted, the USPTO is contemplating a Three-Track Initiative that would provide additional mechanisms for governing the review of patent applications. Under this system, the USPTO would place all applications into one of three distinct separate queues: an accelerated Track One; traditional examination in Track Two; and a deferral of examination in Track Three. Entering Track One would require a prioritized examination fee of $4,000. The application would then be placed within a docket designed to provide a final disposition of the application within twelve months of the prioritized status grant. A Track One application must have no more than four independent claims and thirty claims total. Prioritized status is forfeited if the applicant ever requests an extension of time to respond to a USPTO communication.[93]

In contrast, if an inventor requests that a particular application be deferred, it is placed in Track Three. The inventor must request that the application be examined within 30 months from the filing date. Upon receipt of such a request, the USPTO will place the application into queue for review by an examiner.[94]

The remaining option, Track Two, includes applications that have been neither prioritized nor deferred. Track Two applications would be docketed immediately and will be reviewed by an examiner in the order in which they are received.[95]

The Three-Track Initiative would also significantly change USPTO procedures with respect to applications that were first filed outside the United States—for example, at the European Patent Office or the Japanese Patent Office. The USPTO currently does not consider the national origin of the application when it is placed into queue for examination. Under the proposal, an

[89] *Id.* at §708.02.

[90] *Id.*

[91] 37 C.F.R. §1.103(d).

[92] *See* Department of Commerce, USPTO, "Request for Comments and Notice of Roundtable on Deferred Examination of Patent Applications," 74 *Federal Register* (Jan. 28, 2009), 4946.

[93] Three-Track Notice, *supra*, at 31765-66.

[94] *Id.* at 31766.

[95] *Id.*

application will only be placed into one of the three tracks if it was originally filed in the United States. Applications that were originally filed abroad would not be docketed for examination at all. The USPTO would take no action on a foreign-origin application until it received copies of (1) the prior art search conducted by the foreign office, (2) the initial communication of the foreign office to the USPTO, and (3) the applicant's reply to that communication.[96]

An example illustrates the working of this procedure. Suppose that a German inventor filed an application at the European Patent Office on December 1, 2011. On December 1, 2012, the inventor then files the same application at the USPTO. Under the Three-Track Initiative, the USPTO would not consider the application until the European Patent Office had conducted a search of the literature, communicated its initial review of the European application to the applicant, and received a reply from the applicant. In contrast, an application that was first filed in the USPTO—by a U.S. or foreign citizen—would be placed on one of the three tracks immediately.

The USPTO initially planned to implement Track One of the Three-Track Initiative as of May 4, 2011.[97] However, on April 29, 2011, the USPTO announced that it would delay implementation of the program due to reduced spending authority in the Full-Year Continuing Appropriations Act of 2011. According to USPTO Director David Kappos, "[w]ithout the resources to hire a sufficient number of examiners to implement Track One, we must postpone the effective date of the program until we are in a position to implement it successfully while ensuring there will be no adverse impact on non-prioritized examination applications."[98]

According to the USPTO, the Three-Track Initiative "recognizes that the traditional 'one-size-fits-all' examination timing may not provide applicants much opportunity to choose the examination timing they need."[99] The Three-Track Initiative has nonetheless attracted controversy. Some observers believed that the program might favor larger or wealthier firms over start-ups or smaller enterprises.[100] Others were concerned that if industry made significant use of Track One, the ability of the USPTO to review Track Two applications might be diminished.[101]

The disparate treatment of applications based on the office of first filing has also aroused controversy. According to the USPTO, this "proposal would increase the efficiency of examination of [foreign] applications by avoiding or reducing duplication of efforts by the office of first filing and the USPTO."[102] The USPTO also noted that "major patent filing jurisdictions like the Japanese and European patent office[s] have already adopted office-drive systems in which they address the applications for which they are the office of first filing."[103]

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[96] *Id.* at 31766-67.

[97] Department of Commerce, USPTO, "Changes to Implement the Prioritized Examination Track (Track I) of the Enhanced Examination Timing Control Procedures," 76 *Federal Register* (April 4, 2011), 18399.

[98] Department of Commerce, USPTO, "Changes to Implement the Prioritized Examination Track (Track I) of the Enhanced Examination Timing Control Procedures," 76 *Federal Register* (April 29, 2011), 23876.

[99] USPTO, Three-Track Notice at 31765.

[100] *See* Angus Loten, "Expediting U.S. Innovation Comes at a Cost," *The Wall Street Journal* (Feb. 3, 2011), B7.

[101] American Intellectual Property Law Association, "Comments on 'Enhanced Examination Timing Control Initiative'," (Aug. 20, 2010), available at http://www.aipla.org ("AIPLA Comments").

[102] USPTO, Three-Track Notice at 31764.

[103] *Id*.

The United States is a signatory to the Paris Convention for the Protection of Industrial Property and also a member state of the World Trade Organization. Article 2 of the Paris Convention and Article 3 of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) requires that nationals of foreign signatory states be treated as well as U.S. citizens. Even if the Three-Track Initiative may be justified under these measures, some observers have expressed concerns that "placing foreign nationals at a distinct disadvantage in their pursuit of patent rights in the U.S. ... could trigger, among other things, the imposition of new barriers for U.S. inventors to obtain patent rights in foreign jurisdictions."[104]

Patent Quality Metrics

The USPTO has for many years maintained an internal quality control group that monitors the quality of the patent examination process by reviewing a sample of approved patents.[105] In 2011, the USPTO endeavored to increase the effectiveness and transparency of its quality review procedure through the implementation of new metrics that measure patent quality.[106] These metrics were designed to "reveal the presence of quality issues during examination" and "aid in identification of their sources so that problems may be remedied by training...."[107]

The USPTO identified seven individual metrics that are then tallied to produce a composite score. The seven metrics are: (1) the correctness of the final decision on the application (i.e., whether the examiner properly allowed or rejected the application), (2) the propriety of the examiner's actions taken during the course of the examination, (3) the degree to which the examiner's initial search of the technical literature comports with best agency practices, (4) the extent to which the examiner's initial review of the application follows best agency practices, (5) whether global USPTO data indicates compact, robust prosecution, (6) an external survey of patent applicants and practitioners, and (7) an internal survey of patent examiners.[108] The USPTO displays the seven individual metrics, as well as the calculated composite metric, on the "Data Visualization Center" or "dashboard" portion of its website.[109]

The new USPTO metrics have, for the most part, been positively received by the patent bar. As explained by Douglas K. Norman, President of the Intellectual Property Owners Association, "metrics for measurement of appropriate indicia of patent quality, as well as their collection, reporting, review and analysis, are fundamental to evaluating the success of patent systems in issuing quality patents."[110] However, some commentators believe that certain of the metrics may

[104] AIPLA Comments, *supra*, at 3.

[105] *See* Eric B. Chen, "Conflicting Objectives: The Patent Office's Quality Review Initiative and the Examiner Count System," 10 *North Carolina Journal of Law and Technology Online Edition* (2008), 28.

[106] Department of Commerce, USPTO, "Requests for Comments on Enhancement in the Quality of Patents," 74 *Federal Register* (Dec. 9, 2009), 65093.

[107] Department of Commerce, USPTO, "Adoption of Metrics for the Enhancement of Patent Quality, Fiscal Year 2011," available at http://www.uspto.gov/patents/init_events/qual_comp_metric.pdf.

[108] *Id.* at 3-4.

[109] The "Data Visualization Center" is available at http://www.uspto.gov/dashboards.

[110] Statement of Douglas K. Norman, President, Intellectual Property Owners Association, Before the House Committee on the Judiciary, Subcommittee on Intellectual Property, Competition, and the Internet (Jan. 25, 2011) (Appendix at 2).

not always reflect an accurate and efficient review of a patent application and have suggested that other metrics—such as the outcomes of patent litigation—might also be introduced.[111]

Congressional Issues and Options

At the same time the USPTO has engaged in changes to its administrative practices in order to address concerns over its backlog of unexamined applications and to improve patent quality, the 112th Congress is engaged in extensive patent reform discussions. Two bills, H.R. 1249 and S. 23, each titled the American Invents Act, would make a number of changes to current patent law. Reform proposals within these bills bear upon the ability of the USPTO to develop and implement new initiatives.

In particular, both H.R. 1249 and S. 23 propose that the USPTO be given the authority to "set or adjust by rule any fee established or charged by the Office."[112] Any fees set must, in the aggregate, cover the estimated costs of the agency's services. Under H.R. 1249, USPTO authority to set fees terminates six years following the enactment of the statute; S. 23 does not include a sunset provision. This proposal would provide the USPTO with greater flexibility to adjust its fee schedule absent congressional intervention. This capacity may provide the agency with heightened capability to develop new initiatives without need for congressional activity.

The statutory authority of the USPTO to promulgate regulations pertaining to patent law procedures and substantive law also bears upon current patent administration reform efforts. Current law provides the USPTO with the ability, among others, to establish regulations that "govern the conduct of proceedings" before it.[113] However, it should be appreciated that "Congress has not vested the [USPTO] with any general substantive rulemaking power...."[114] Certain of the predecessor versions of the America Invents Act would have enhanced the USPTO's regulatory authority. For example, in the 110th Congress, H.R. 1908 would have allowed the USPTO to "promulgate regulations to ensure the quality and timeliness of applications and their examination...."[115] However, in the 112th Congress, neither H.R. 1249 nor S. 23 includes such a provision. USPTO experience with current and future initiatives may provide Congress with guidance over the most appropriate scope of that agency's regulatory authority.

New realities within the intellectual property environment, including a growing number of patent applications, increasingly complex technologies, and heightened user demand for prompt and accurate patent services have encouraged the USPTO to innovate in recent years. Reforms to longstanding patent examination practices were introduced in an effort to maintain high levels of patent quality and to reduce the backlog of applications awaiting review by the examiner corps. Along with judicial opinions and potential legislative reforms, the recent USPTO initiatives form a notable part of the changing patent landscape within the United States.

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[111] Elysium Digital's Response to the U.S. Patent Office's Request for Comments on Enhancement in the Quality of Patents of Dec. 9, 2009, available at http://www.uspto.gov.

[112] H.R. 1249 at §9; S. 23 at §9.

[113] 35 U.S.C. §2(b)(2).

[114] Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1479 (Fed. Cir. 1998) (*en banc*) (Newman, J., additional views).

[115] H.R. 1908, §12(a).

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