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# Reengineering US patent law with the America Invents Act

By Steve Ritchey

The second article in a two-part series reviews patent law changes that began in 2011 with the signing of the America Invents Act and suggests best practices for complying with the law.

On September 16, 2011, President Barack Obama signed the Leahy-Smith America Invents Act (AIA). That signature kick-started what is considered to be the most substantial overhaul of United States patent law since enactment of the present Patent Act in 1952. The AIA implemented the changes in three stages across an 18-month timeline:

- September 2011—implementation of a wide variety of miscellaneous changes;
- September 2012—implementation of changes challenging the validity of patents before the United States Patent and Trademark Office (USPTO); and
- March 2013—the US changed from a first-to-invent regime to a first-to-file regime.

Although the changes were many and detailed, this article offers a high-level discussion of the most significant changes along the timeline.

## Miscellaneous changes effective September 16, 2011

A wide variety of miscellaneous changes became effective September 16, 2011, including several measures that affect patent infringement, patent marking, and prior use defense.

### *Best mode*

One of the more perplexing changes involved the “best mode” requirement (i.e., the inventor’s disclosure regarding the best way to practice the invention). Although Congress did not eliminate the requirement, it eliminated “failure to disclose the best mode” as a basis for which a claim or a patent may be canceled or held invalid or unenforceable. This was done because patent infringement defendants often alleged the patent was invalid for failing to disclose the best mode. These defenses usually were unsuccessful, but reaching the decision point typically involved a substantial amount of time and money to conduct discovery on a very fact-dependent inquiry focused on events that took place 10 to 15 years earlier.

Moreover, most, if not all, other countries do not require disclosing the best mode to obtain patents. On its face, this change seems to allow applicants to avoid part of the quid pro quo bargain (that is, disclosure in exchange for the limited patent monopoly) and keep their best mode a secret. However, not disclosing the best mode does involve risk: This change has not yet been before the courts, and, therefore, its propriety and scope have not yet been determined.

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## Patent marking

Marking a product as covered by one or more patents is an important responsibility of patent owners if they wish to obtain the full extent of damages that could be available for acts of patent infringement. These patent markings typically appear as the small type declaring a product to be “patent pending” or protected by a patent number. Failing to comply with the marking statute can be quite costly. For example, a company's failure to properly mark its patented products in one case resulted in a reduction of more than \$16 million from a damages award.<sup>1</sup>

The AIA made two significant changes to patent marking. First, it created the option of marking a product with “patent” or “pat.” with an internet website address identifying the applicable patents. This so-called virtual marking provides patent owners with much more flexibility in satisfying and managing their patent marking obligations. Second, the AIA essentially eliminated a raft of “false marking” lawsuits that had been filed against deep-pocketed patent owners in recent years for failing to remove expired patents from patent markings. This was accomplished by requiring the plaintiff to suffer a “competitive injury” as a result of the false marking and creating a safe harbor for listing expired patents.

## Expansion of prior user defense

The AIA expanded the prior user defense to all patents issued on or

after September 16, 2011. To take advantage of the defense, an accused infringer must have commercially used the technology, in good faith, for at least one year before the earlier of the effective filing date of the claimed invention or the date on which the claimed invention was publicly disclosed by the inventor. The defense is personal in nature and it may not be licensed, assigned, or transferred, except in connection with the sale of “the entire enterprise or line of business to which the defense relates.” The defense also is limited to the same production volume(s) and location(s) where the subject product was made before the patent's effective filing date. Thus, the defense does not cover a new manufacturing plant or increased production numbers.

Another significant AIA change to the prior use defense is the creation of a so-called university exception. Under this exception, a prior use defense may not be asserted if the claimed invention was, at the time the invention was made, owned or subject to an obligation of assignment to either an institution of higher education or a technology transfer organization affiliated with such an educational institution. Unlike the prior user defense, the university exception attaches to the patent itself and may be licensed or assigned, which may enhance the value of such patents and thereby enhance the compensation to the university. This may be an additional incentive for companies to engage universities when conducting research in a field that is active among competitors. Furthermore, when licensing a university's technology, a company also might wish to license the exception right.

## Patent challenge changes effective September 12, 2012

### Supplemental examination

A patent owner may request supplemental examination of a patent so the USPTO can consider, reconsider, or correct information believed to be relevant to the patent. Supplemental examination was created primarily to offer a relatively quick way to address potential “issues” a patent owner dis-

covers prior to asserting a patent in litigation to avoid allegations of inequitable conduct or at least reduce the possible factual bases for inequitable conduct allegations.

The concept of inequitable conduct arises because patent applicants have a duty of candor and good faith to the USPTO, which includes, for example, an obligation to disclose material prior art known by the applicant. An inequitable conduct allegation is of particular concern, because, if proved, all the claims of the patent will be unenforceable. In fact, inequitable conduct in procuring a patent can render all related patents unenforceable as well. In contrast, invalidity based on, for example, anticipation is determined on a claim-by-claim basis. Therefore, even if the broadest claim is determined to be invalid, a claim of narrower scope may continue to be valid and infringed.

As with the change to best mode, supplemental examination was created to address a systemic concern of inequitable conduct allegations being made in almost all patent litigations, which significantly increased costs and duration, despite the fact that the defense usually was unsuccessful. Now, if a patent owner discovers that a prior art reference was known to the inventors but not disclosed to the USPTO, the reference may be disclosed as part of a request for supplemental examination, and it will be considered by the USPTO. The USPTO will make a determination as to whether the patent needs to be reexamined within three months of receiving the supplemental examination request. Even if the USPTO determines that reexamination is not warranted, the failure to disclose the reference when the application is examined by the USPTO can no longer be a basis for inequitable conduct. That said, patent attorneys have expressed concerns that the supplemental examination request itself could be a basis for an inequitable conduct allegation.

The Federal Circuit (which has exclusive jurisdiction over appeals in patent cases) beat Congress to the punch on addressing the issue of widespread use of inequitable conduct claims in patent litigation. Its *Therasense*<sup>2</sup> decision imposed



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US Patent and Trademark Office.

a much more stringent standard for proving inequitable conduct. As a result, utilization of supplemental examination likely will be rare, especially because of the potential risks and its relatively high cost—the USPTO fee is \$4,400 for the request and \$12,100 if a reexamination is ordered. Moreover, preparing the request and conducting a reexamination will involve significant attorney costs.

### Inter Partes Review

Most types of examination in the USPTO are ex parte, that is, only between the applicant and the USPTO. Prior to the AIA, there was a procedure referred to as “Inter Partes Reexamination” in which a patent challenger also participated. The AIA replaced Inter Partes Reexamination with Inter Partes Review. Like the predecessor procedure, Inter Partes Review is limited to addressing the validity of an issued patent only with respect to prior art patents and printed publications. The AIA made two significant changes to Inter Partes Review procedures.

First, the threshold for instituting the procedure was raised from a “significant new question of patentability” to a reasonable likelihood of success that the petitioner would prevail. This higher standard has decreased the number of decisions to grant requests from 95 percent to 88 percent during US FY 2013 and 75 percent during US FY2014.

Second, the time for filing a petition was substantially limited. Specifically, under the old procedure, a petition could be filed at any time, even well into a patent infringement lawsuit, whereas a petition under the new procedure must be filed:

- After the postgrant review period (see below), which is the later of the end of the period to petition for postgrant review or the termination of a postgrant review;
- Before the petitioner files a Declaratory Judgment action alleging invalidity of the patent; and
- No later than one year after being served with a patent infringement complaint.

Although the threshold was raised, the inter partes review has become an often used tool for challenging the

**Table 1. Fact pattern**

<b>Applicant A made an invention on April 1, 2013, and filed an application October 1, 2013, claiming the invention. Applicant B independently made the same invention two months after Inventor A on June 1, 2013. Applicant B publicly disclosed the invention on September 1, 2013, one month before Applicant A's application was filed. Applicant B filed an application on December 1, 2013, two months after Applicant A's application was filed.</b>		
Outcome under the first-to-invent regime	Outcome under the first-to-file-or-disclose regime	Outcome under a true first-to-file regime
Applicant A is entitled to the patent because he/she invented first and Applicant B's public disclosure was less than one year before Applicant A's filing date.	Applicant B is entitled to the patent because his/her public disclosure, which occurred before Applicant A's filing date, is prior art to Applicant A's application and removes Applicant A's application from being prior art to Applicant B's application.	Neither Applicant A nor Applicant B is entitled to a patent because Applicant public disclosure is prior art to both applications.

validity of a patent. In fact, USPTO is handling more than twice as many reviews as it anticipated when first implementing the law. For example, for fiscal year 2014, the USPTO estimated it would accept 450 reviews but it is on track to accept nearly 1000. One likely reason for high number is that 95 percent of the claims considered have been held to be invalid. This high invalidation rate is due, at least in part, to the fact that the USPTO uses a “broadest reasonable interpretation” standard when construing the claim terms whereas a court would use a narrower “ordinary and customary meaning” standard. With a broader claim construction, it is more likely that one or more prior art references would be found to anticipate or render obvious the claimed invention.

### Postgrant review

Postgrant review is a new procedure for the USPTO to review validity of issued patents on any ground, not just prior art. A petition for postgrant review must be filed within nine months of the patent being granted. For the USPTO to grant the petition and institute a postgrant review, the petitioner must show either:

- More likely than not that at least one claim is unpatentable; or
- The petition raises a novel or unsettled legal question that is important to other patents or applications.

In the event the petition is granted, the USPTO is supposed to reach a final decision on the postgrant review within one year, which is very quick for a procedure of this type.

Despite several advantages compared with challenging the validity of

a patent in the courts (chief among them speed and cost), there are issues associated with inter partes and postgrant reviews that should be considered before they are pursued.

First, a patent challenger is estopped, or prevented, from bringing another proceeding in the USPTO or to the courts based on any ground that was raised, or reasonably could have been raised, in the postgrant review. This is a significant concern because patent owners and their attorneys tend to be leery of pursuing administrative remedies at the expense of limiting their ability to seek judicial remedies.

Second, if the patent owner has a pending related application, the owner can concede the more challenging inter partes or post-grant review and choose to fight the same unpatentability arguments anew in ex parte prosecution of the pending related application.

### First-to-file change effective March 16, 2013

Shifting the US to a so-called first-to-file jurisdiction on March 16, 2013, was the AIA's most fundamental change to US patent law. Prior to that date, the US patent system was a “first-to-invent” regime that primarily depended on dates of invention rather than patent application filing dates. In general, this means that between two persons claiming the same invention, the patent will be awarded to the one who filed an application first, even if the other was the first to invent.

### Changing the rules for what is considered prior art

Although the change eliminated many complex legal issues relating to



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the date of invention, it necessitated extensive changes to what is considered prior art to a US patent application. The AIA expanded what is considered prior art in some respects and narrowed it in others. For example, the AIA narrowed the prior art by:

- Removing from the prior art disclosures made by fewer than all of the listed inventors;
- Removing “prior knowledge” and “nonpublic uses” of the invention by another party from the prior art; and
- Applying the prior art exception for inventions made by coworkers and that result from joint research agreements to novelty and obviousness.

On the other hand, the AIA expanded the prior art by:

- Making printed publications, public uses, and sales of the invention by others prior art if they occurred any time before the effective filing date of an application; and
- Including public uses and sales of an invention that occur outside the US in the prior art; and
- Making a Patent Cooperation Treaty (PCT) application that designates US prior art as of the date it was effectively filed regardless of the language in which it was published.

The foregoing examples of AIA changes are by no means exhaustive. A determination as to whether a particular reference constitutes prior art to a particular patent application must be done on a case-by-case basis.

## A not quite first-to-file system

Although it is common to refer to the US as a first-to-file jurisdiction, the AIA did not create a true or strict first-to-file regime like the one that exists in Europe. That is because Congress carried over a significantly modified version of the one-year grace period from the pre-AIA first-to-invent regime.

This one-year grace period allowed applicants to obtain a patent even if they publicly disclosed their invention before filing the application if the application was filed within one year after the disclosure. The grace period was significantly modified by the AIA. An applicant’s less-than-one-year-earlier public disclosure is not prior art against the applicant, and it removes from the prior art all less-than-one-year-earlier public disclosures and applications of the same invention made or filed by another. As such, the current regime is better described as a “first-to-file-or-disclose” system. The scenario displayed in Table 1 helps illustrate the changes to the US system and the differences of both compared with a strict first-to-file regime.

Notwithstanding the displayed scenario, the outcome of an actual application of the AIA grace period, in particular the ability to potentially remove prior art, is far from certain. It is highly unlikely that the two independently developed inventions and the disclosures thereof would be essentially identical, but the AIA grace period applies only to the extent the disclosed subject matter is the same. Therefore, until such time as the courts interpret and apply the new law, we will not know, for example, what effect minimal or even obvious variations in disclosures may have on an outcome.

For example, a person, upon learning of your disclosure, may also make a disclosure regarding an obvious variant of your disclosed invention before you get around to filing your application. This obvious variant disclosure would be prior art to your application. Although it would not prevent you from obtaining a patent with claims of a scope limited to your disclosure, it may prevent you from obtaining the full breadth of claim scope to which you other-

wise would have been entitled. Thus, the safest way to view the AIA grace period is that it is limited to your less-than-one-year-earlier public disclosures rather than as a mechanism to remove other people’s disclosures from being prior art to your application.

Regardless of the availability of the grace period, if at all possible, inventors should avoid making public or nonconfidential disclosures before filing their patent application. If, however, an unintentional disclosure is made, it should be followed promptly by filing an application. On the other hand, if there is a decision to intentionally disclose before filing—a situation that may face a university researcher—it is advisable to disclose all the subject matter pertaining to the invention to maximize the benefit of the grace period.

## Protecting an invention with trade secret and patent law

The principles set forth in the *Metalizing Engineering*<sup>3</sup> decision in conjunction with the pre-AIA prevented inventors from commercializing an invention in a nonpublic or secret manner for more than one year before filing a patent application. Therefore, an owner of an invention that could be exploited secretly had one year to make an irreversible decision—seek patent protection or attempt to keep it a trade secret.

However, according to the Congressional Record, the AIA “was drafted in part to do away with precedent under current law that private offers for sale or private uses or secret processes ... may be deemed patent-defeating prior art.” Congress wanted to stop an inventor from secretly exploiting an invention for an unlimited period of time before filing a patent application. Thus, the AIA allows for the secret exploitation by the patentee, and it preserves possible patent protection for innovations that are confidentially given to consumers to use for a trial period. It should be noted that foreign patent laws may find information publicly accessible and, therefore, available as prior art, even if the commercialization was subject to a nondisclosure agreement.

## What is your IP IQ?

The USPTO offers an Intellectual Property Awareness Assessment, which was developed in conjunction with the National Institute of Standards and Technology/Manufacturing Extension Partnership (NIST/MEP). The assessment allows users to determine their intellectual property awareness. When they have completed the assessment, users receive customized training materials. Find details at [www.uspto.gov/inventors/assessment/start.html](http://www.uspto.gov/inventors/assessment/start.html).

An inventor should be cautious in deciding to adopt this approach. There is some concern that this aspect of the AIA may be inconsistent with the Patent and Copyright Clause of the US Constitution. For example, in *Pennock v. Dialogue*<sup>4</sup>, the US Supreme Court expressly disapproved of an inventor profiting from his non-publicly-disclosed invention for a long period “and then, and then only, when the danger of competition should force him to secure the exclusive right, he should be allowed to take out a patent, and thus exclude the public from any further use than what should be derived under it during [the patent term.]” To allow such conduct “would materially retard the progress of science and the useful arts, and give a premium to those who should be least prompt to communicate their discoveries.” As a result, until such time as the propriety of this AIA change is acknowledged by the courts, choosing to secretly exploit an invention for more than one year before seeking patent protection involves the risk that the inventor’s patent might be invalid.

## Conclusion

The AIA was widely described by its proponents in Congress, the Administration, industry, and academia as bringing the US patent system into the 21st century by aligning it more closely with other patent systems in the world and eliminating uncertainty associated with a first-to-invent regime. Although true to a certain extent, it should be evident that the changes to US patent law were so extensive that the AIA also created significant uncertainty around several previously well-established principles of US patent law. The key to adjusting to, and thriving under, this new legal framework is to be aware of the changes, be proactive in order to take advantage when appropriate, and be mindful of the potential long-term consequences associated with choosing to utilize presently untested changes.

## About the author

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## AIA best practices

By Steve Ritchey

The changes made in shifting the US from the first-to-invent regime that had been in place for 226 years were substantial and sometimes unclear. The full effects of the changes probably will not be known until applicable patents are issued and litigated, which means it likely will be eight to 10 years before we begin to get direction from the courts.

Therefore, what best practices can inventors, applicants, and companies adopt or continue under the AIA?

### Consider implementing a virtual patent marking system

This is likely to be a more efficient and less costly manner of appropriately marking your patented products. Also, an effective patent marking system allows a patent owner to obtain damages for infringing acts that occurred before an infringer received actual notice of infringement.

### Monitor the art closely

Be aware of commercial activities of competitors, scientific journals, symposiums, and published patent applications inside and outside the US. Knowledge of the art is important for facilitating the preparation and prosecution your patent applications. Moreover, closely monitoring the art will make it possible for you to timely institute certain USPTO proceedings, such as a derivation action, an Inter Partes Review, or a postgrant review.

### Utilize prior art exceptions

In addition to the normal benefits associated with an extensive knowledge of the relevant art, closely monitoring the art may allow you to utilize certain exceptions to remove references from the prior art to your application by acquiring ownership of an earlier-filed application or executing a joint research agreement before the effective date of your application.

### Keep detailed records of research activities and disclosures

Do not assume that because the US has switched to a “first-to-file” system that you can throw out your detailed lab notebooks from years ago. Instead, continue to keep detailed records about research activities and disclosures (when, where, by, and to whom). These

records may be useful to:

- Establish that a disclosure you made was about an independently developed invention and, therefore, qualifies as prior art to a competitor’s application;
- Defend against a charge that the invention in your earlier-filed application was derived from another with a later-filed application; or
- Support a prior commercial use defense.

### Avoid public and confidential prefiling disclosures

Notwithstanding the above-described grace period, if at all possible, it is more important than ever to file a patent application before disclosing your invention publicly or even pursuant to a confidentiality agreement.

### Increase provisional application filings

File provisional applications early and often as advances are made and prior to any disclosure. Because it is now a race to the USPTO, you may wish to have your attorney immediately file a detailed, enabling invention disclosure prepared by the inventor(s) as a provisional application and file a follow-up attorney-prepared provisional application as soon as possible thereafter.

### Avoid intervening disclosures

Because many provisional applications are filed early, it is common for the commercially relevant embodiments of an invention to change as the invention is developed. Thus, even if you have filed a provisional application, avoid making disclosures about your invention until after the nonprovisional application is filed.

### Do not necessarily race to the patent office

The expansion of the prior commercial user defense—along with the described elimination of the bar against a patentee from practicing an invention for extended periods before seeking patent protection—seems to have substantially mitigated the potentially negative consequences of not filing a patent application for inventions that can be secretly exploited. In other words, if it makes more sense from a business perspective to confidentially use or test your product before filing, do not be afraid to discuss that option with your patent attorney. Not everyone has to burn rubber to the patent office. ■

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## References

<sup>1</sup>Versata Software Inc. v. SAP America Inc., Civ. No. 2:07–CV–153 CE, (E.D. Tex.

Sept. 9, 2011).

<sup>2</sup>*Therasense Inc. v. Becton Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011) (*en banc*).

<sup>3</sup>*Metallizing Engineering Co. v. Kenyon Bearing & Auto Parts*, 153 F.2d 516, 520 (2nd Cir. 1946).

<sup>4</sup>*Pennock v. Dialogue*, 27 U.S. 1, 19 (1829). ■