Congressional Research Service
Informing the legislative debate since 1914

The Patent Trial and Appeal Board and Inter Partes Review

Updated May 28, 2024

Congressional Research Service
https://crsreports.congress.gov
R48016

CRS REPORT
Prepared for Members and
Committees of Congress

Congressional Research Service
Informing the legislative debate since 1914

SUMMARY

R48016

May 28, 2024

Christopher T. Zirpoli
Legislative Attorney

Kevin J. Hickey
Legislative Attorney

The Patent Trial and Appeal Board and Inter Partes Review

The 2011 Leahy-Smith America Invents Act (AIA) is widely viewed as the most significant patent statute enacted by Congress in over 50 years. Although the AIA made many important changes to U.S. patent law, the most practically significant was the creation of the Patent Trial and Appeal Board (PTAB).

PTAB is a tribunal within the U.S. Patent and Trademark Office (USPTO), the federal agency responsible for reviewing patent applications and granting patents. The AIA created PTAB and granted it authority to hear several new types of administrative challenges to the validity of patents previously granted by USPTO. These challenges, which were also created by the AIA, include inter partes review (IPR) and post-grant review (PGR). IPRs and PGRs are typically decided by a panel of three administrative patent judges (APJs).

Entities accused of patent infringement have always been able to challenge the validity of patents asserted against them in federal court. Because those patents were reviewed and granted by USPTO, patents carry a presumption of validity when challenged in court. Patent invalidity must be demonstrated by a higher standard of proof (clear and convincing evidence) than the standard used for most issues in civil litigation (preponderance of the evidence). Litigating a patent case to a final judgment in a federal court is time-consuming and expensive: it typically takes several years, with average legal costs amounting to over a million dollars. In addition, because of judicial standing requirements, an entity can usually ask a court to decide the validity of a patent only if they have been sued or at least threatened with a patent lawsuit.

Congress's stated aim when creating IPR and PGR was to improve patent quality by providing a more efficient means to adjudicate patent validity issues. Congress was also concerned that poor-quality patents fueled litigation by so-called "patent trolls," a pejorative term for patent plaintiffs that do not manufacture or sell the patented products. From the perspective of a person accused of patent infringement (or worried about being sued), PTAB procedures are often more advantageous than federal court litigation in that they are faster, cheaper, and use a lower standard of proof. By statute, IPRs and PGRs are supposed to reach a final determination no later than one year after PTAB decides to institute the proceeding. The administrative procedures are more streamlined than civil litigation, with average legal costs typically in the hundreds of thousands of dollars (as opposed to millions). In addition, PTAB does not require standing, so any person other than the patent holder can challenge a patent before PTAB. As a result, it has become common for entities sued for patent infringement in federal court or before the U.S. International Trade Commission to petition PTAB to institute an IPR and seek to challenge the patent in that forum.

PTAB procedures—and IPR in particular—have aroused controversy among patent stakeholders since the enactment of the AIA. Critics of PTAB argue that it is biased against patent holders, creates uncertainty in patent rights, and discourages investment in innovation. PTAB critics further maintain that IPR is unfair to patent holders, who have successfully obtained a patent before USPTO but must now again defend their patent's validity before the same agency.

Since 2011, the Supreme Court has heard a number of cases concerning PTAB. In *Oil States Energy Services v. Greene's Energy Group*, the Supreme Court rejected a constitutional challenge to IPR, holding that challenges to already-issued patents in an administrative forum did not violate the Seventh Amendment or Article III of the U.S. Constitution. In *United States v. Arthrex Inc.*, the Court held that the unreviewable authority exercised by APJs violated the Constitution's Appointments Clause but spared PTAB by granting the Director of USPTO discretionary authority to review PTAB decisions.

Members of Congress have examined whether to maintain PTAB as it exists or to modify IPR and PGR procedures, with both House and Senate committees holding hearings on the issue. Legislative proposals introduced in recent Congresses include bills that would abolish PTAB entirely or make various procedural and substantive reforms to PTAB. For their part, USPTO and PTAB have issued regulations, precedential decisions, and other guidance on issues including USPTO Director review, repeat IPR petitions, and when PTAB should exercise its discretion to decline to institute (i.e., hear) an IPR or PGR. In 2024, USPTO issued notices of proposed rulemaking (NPRMs) on some of these issues.

Contents

Introduction 1
Overview of U.S. Patent Law 2
What Are Patents? 2
What Inventions Can Be Patented? 3
Eligible Subject Matter Requirement 3
Novelty Requirement 4
Nonobviousness Requirement 4
Utility Requirement 5
Requirements for Specification and Claims 5
How Do Inventors Obtain a Patent? 6
How Do Courts Adjudicate Patent Rights? 6
What Was USPTO's Role in Patent Adjudication Prior to the AIA? 8
Overview of the America Invents Act and PTAB 9
The AIA's Key Changes to Patent Law 9
PTAB's Structure 10
PTAB Post-Grant Proceedings 11
Inter Partes Review 11
Standing, Timing, and Grounds to Petition for IPR 12
Discretionary Institution of IPR 12
IPR Process Following Institution 13
Discovery in IPR 15
IPR Final Decisions, Director Review, and Appeals 16
IPR Statistics 17
Post-Grant Review 21
Covered Business Method Review 22
Comparison of PTAB and Other Post-Grant Proceedings 22
PTAB at the Supreme Court 23
Statutory Interpretation Cases 24
Cuozzo Speed Technologies, LLC v. Lee 24
SAS Institute, Inc. v. Iancu 26
Return Mail, Inc. v. U.S. Postal Service 27
Thryv, Inc. v. Click-to-Call Technologies, LP 29
Constitutional Challenges to IPR 30
Oil States Energy Services, LLC v. Greene's Energy Group, LLC 30
United States v. Arthrex 31
Current Debates and Proposed Reforms 33
What Roles Do the USPTO Director and PTAB Management Play in PTAB Decisions? 33
Interim Director Review Process 33
Concerns Regarding Transparency and APJ Independence 35
Who Has Standing to Petition PTAB and Appeal Its Decisions? 37
What Should Be PTAB's Standards for Invalidation and Claim Construction? 38
Invalidity: Preponderance of Evidence or Clear and Convincing Evidence? 38
Claim Construction: Should USPTO or Congress Decide the Right Standard? 39
When Should PTAB Deny Institution of an IPR? 40
Petitions Raising Previously Presented Prior Art and Arguments 41

Serial Petitions 42
Parallel Petitions 44
Parallel District Court Litigation 45
Patent Claims Already Upheld by a District Court 47
Conclusion 48

Figures

Figure 1. IPR and PGR Outcomes by Petition in FY2023 18

Tables

Table 1. USPTO Post-Grant Proceedings 23

Contacts

Author Information 48

Introduction

The Patent Trial and Appeal Board (PTAB), which is part of the U.S. Patent and Trademark Office (USPTO), was created by Congress in 2011 through the Leahy-Smith America Invents Act (AIA).[1] The AIA established new administrative procedures to challenge patent validity called *inter partes review* (IPR) and *post-grant review* (PGR).[2] While entities accused of patent infringement have long been able to challenge the validity of the patents asserted against them in court, IPR and PGR allow a party to petition PTAB to hear a challenge to the validity of an already-issued patent in an administrative forum, regardless of whether the petitioner has been sued or threatened with suit for patent infringement.[3]

IPR and PGR thus provide a way for anyone to challenge patents before USPTO and, if successful, cancel patent claims that PTAB concludes should have never issued.[4] From an accused patent infringer's perspective, using IPR or PGR to challenge patent validity is often more advantageous than judicial proceedings because PTAB processes are typically faster and less expensive, and require a lower burden of proof to invalidate patents.[5] It is thus common for entities threatened with or sued for patent infringement in court or in the U.S. International Trade Commission (ITC) to petition PTAB to attempt to invalidate the patents asserted against them in those other forums.[6]

Congress's stated purpose in creating PTAB was to "improv[e] patent quality and provid[e] a more efficient system for challenging patents that should not have issued; and reduc[e] unwarranted litigation costs."[7] Congress also observed that poor-quality patents may fuel litigation by so-called patent "trolls,"[8] a pejorative term for patent plaintiffs that do not manufacture or sell the patented products.[9] On this view, PTAB may be seen as an attempt to reduce patent-troll litigation by weeding out poor-quality patents.

Some stakeholders have criticized PTAB, labeling it a "patent death squad."[10] Critics of PTAB argue that PTAB has made it too easy to challenge patents, creating uncertainty in patent rights, stifling innovation, and discouraging investments in patent-intensive industries and early-stage

[1] Pub. L. No. 112-29 (2011).

[2] A third procedure created by the AIA was transitional and sunsetted in 2020. *See infra* "Covered Business Method Review."

[3] *See* 35 U.S.C. §§ 31–32.

[4] *See generally* CRS Report R46525, *Patent Law: A Handbook for Congress*, coordinated by Kevin J. Hickey, at 24–25 (2020).

[5] *See* CRS Report R47267, *Patents and Innovation Policy*, by Emily G. Blevins, at 10 (2020).

[6] *See* Jeffrey C. Totten, *Four Strategies to Stay Litigation in Favor of IPR*, FINNEGAN (May 2014), https://www.finnegan.com/en/insights/articles/four-strategies-to-stay-litigation-in-favor-of-ipr.html.

[7] H.R. REP. NO. 112-98, at 39–40 (2011), *as reprinted in* 2011 U.S.C.C.A.N. 67, 69.

[8] H.R. REP. NO. 112-98, at 54 ("A number of patent observers believe the issuance of poor business-method patents during the late 1990's through the early 2000's led to the patent 'troll' lawsuits that compelled the Committee to launch the patent reform project 6 years ago.").

[9] *See* FTC, PATENT ASSERTION ENTITY ACTIVITY: AN FTC STUDY 15–17 (2016) (defining "patent assertion entity"); Halo Elecs., Inc. v. Pulse Elecs., Inc., 579 U.S. 93, 109 (2016) ("Trolls, in the patois of the patent community, are entities that hold patents for the primary purpose of enforcing them against alleged infringers, often exacting outsized licensing fees on threat of litigation.").

[10] *See* Peter J. Pitts, *"Patent Death Squads" vs. Innovation*, WALL ST. J. (June 10, 2015, 7:23 PM), https://www.wsj.com/articles/patent-death-squads-vs-innovation-1433978591.

CARVANA EXHIBIT 1018, Page 5 of 53

startups.[11] PTAB critics also argue that administrative challenges to patents are unfair to patent holders who have successfully obtained a patent through the USPTO patent prosecution process but must now again defend their patent's validity before USPTO.[12]

These stakeholder debates have led to proposed reforms to PTAB, both from USPTO itself and from Members of Congress, including multiple bills introduced in the last several Congresses. This report provides the legal background necessary to understand these debates and the practical effects that changes to PTAB may have on technology and innovation.

This report begins with an overview of U.S. patent law, including what patents are, what kinds of inventions may be patented, the process of obtaining a patent with USPTO, and how patent owners may enforce their patent rights. It then discusses the AIA and its creation of PTAB, including PTAB's administrative structure. The report then explains and compares the three types of post-grant proceedings established by the AIA, focusing on IPR, the most used of these proceedings. The report follows with a discussion of several cases involving PTAB decided by the Supreme Court. Finally, the report discusses current debates and proposed reforms of PTAB, including standing, burdens of proof, discretionary institution of IPRs, claim construction, and the role of the USPTO Director in reviewing PTAB decisions.

Overview of U.S. Patent Law

What Are Patents?

Patents are a form of intellectual property that give their holders the exclusive right to *practice* their inventions (i.e., make, use, sell, offer to sell, or import them) for a limited period of time. The Constitution gives Congress the power to grant patent rights to inventors by authorizing Congress to "promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their respective . . . Discoveries."[13] Since 1790, Congress has enacted patent laws granting inventors certain exclusive rights in their inventions for a period of time.[14] (Currently, patents expire 20 years after the date that the patent application that gave rise to the patent was filed.[15]) Patents represent a "quid pro quo" by which the inventor publicly discloses an invention in exchange for time-limited, exclusive rights to practice it.[16] In the United States, USPTO is responsible for evaluating patent applications and granting patents on qualifying inventions, as explained below.[17]

---

[11] *See, e.g., id.*; ALLIANCE OF U.S. STARTUPS AND INVENTORS FOR JOBS, *Why Patents Matter*, https://www.usij.org/why-patents-matter/ (last visited Mar. 28, 2024).

[12] *See, e.g.*, Gene Quinn, *A Kinder, Gentler 'Death Squad': Ten Years in, Despite Some Reforms, the USPTO Is Still Killing U.S. Patents*, IP WATCHDOG (Sept. 19, 2021, 12:15 PM), https://ipwatchdog.com/2021/09/19/kinder-gentler-death-squad-ten-years-despite-reforms-uspto-still-killing-u-s-patents/id=137765/; Oil States Energy Servs. v. Greene's Energy Grp., 584 U.S. 325, 345–47 (2018) (Gorsuch, J., dissenting).

[13] U.S. CONST. art. I, § 8, cl. 8.

[14] *See, e.g.*, 35 U.S.C. § 271 (setting forth how patents may be infringed).

[15] *Id.* § 154(a)(2). Patent terms can be extended in some circumstances, such as delays by USPTO in reviewing a patent application. *See id.* §§ 154(b), 156.

[16] J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc., 534 U.S. 124, 142 (2001) ("The disclosure required by the Patent Act is 'the quid pro quo of the right to exclude.'" (quoting Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 484 (1974))); *see also* Universal Oil Prods. Co. v. Globe Oil & Refin. Co., 322 U.S. 471, 484 (1944) ("As a reward for inventions and to encourage their disclosure, the United States offers a . . . monopoly to an inventor who refrains from keeping his invention a trade secret. But the quid pro quo is disclosure of a process or device in sufficient detail . . . .").

[17] *See infra* "How Do Inventors Obtain a Patent?".

CARVANA EXHIBIT 1018, Page 6 of 53

Once granted, the holder of a valid patent has the exclusive right to make, use, sell, or import the invention in the United States until the patent expires.[18] Any other person who practices the invention without permission from the patent holder infringes the patent and is liable for monetary damages, and possibly subject to injunctive relief, if sued by the patentee.[19] Patents have the attributes of personal property, and the patentee may sell or assign the patent to another person.[20] A patentee may also *license* other persons to practice the invention, granting them permission to make, use, sell, or import the invention, usually in exchange for consideration (such as monetary royalties).[21]

What Inventions Can Be Patented?

In order to be patented, an invention must meet four substantive requirements: The invention must be (1) directed to patentable (or "eligible") subject matter, (2) new, (3) nonobvious, and (4) useful.[22] In addition to these four substantive patentability requirements, the Patent Act imposes minimum requirements for the technical disclosure of the invention in the patent application, which must adequately describe and distinctly claim the invention.[23] As discussed in this report, PTAB administers certain proceedings in which petitioners may seek to invalidate a patent previously granted by USPTO on the grounds that the patent fails to satisfy certain of these requirements. This section briefly surveys these patentability requirements.

Eligible Subject Matter Requirement

The Patent Act allows inventors to obtain patents on any new and useful "process, machine, manufacture, or composition of matter, or . . . improvement thereof."[24] Examples of technological areas for patentable inventions include pharmaceuticals, biotechnology, chemistry, computer hardware and software, electrical engineering, mechanical engineering, and manufacturing processes.[25] By contrast, the Supreme Court has long held that "laws of nature, natural phenomena, and abstract ideas" are not patentable.[26] The Court has reasoned that to permit a monopoly on the "'basic tools of scientific and technological work' . . . might tend to impede innovation more than it would tend to promote it."[27]

In a series of cases in the 2010s, the Supreme Court established a two-step test for patentable subject matter, sometimes called the *Alice* test or the *Alice/Mayo* framework.[28] The first step

[18] 35 U.S.C. § 271(a).

[19] *Id.* §§ 271, 281, 283–285.

[20] *Id.* § 261.

[21] *License*, BLACK'S LAW DICTIONARY (10th ed. 2014); 35 U.S.C. § 271(a).

[22] *See* 35 U.S.C. §§ 101–103.

[23] *Id.* § 112; *see generally* Hickey, *supra* note 4, at 12–14.

[24] 35 U.S.C. § 101.

[25] *See* USPTO, PATENT TECHNOLOGY CENTERS MANAGEMENT, https://www.uspto.gov/patent/contact-patents/patent-technology-centers-management (last visited Mar. 28, 2024) (listing technological divisions for USPTO examiners).

[26] Diamond v. Diehr, 450 U.S. 175, 185 (1981); *see generally* Hickey, *supra* note 4, at 10–20 (overviewing development of the law of patent-eligible subject matter).

[27] Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc., 566 U.S. 66, 71 (2012) (quoting Gottschalk v. Benson, 409 U.S. 63, 67 (1972)).

[28] *See* Alice Corp. Pty. Ltd. v. CLS Bank Int'l, 573 U.S. 208 (2014); Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576 (2013); *Mayo Collaborative Servs.*, 566 U.S. at 66. USPTO has issued guidelines for its patent examiners to determine whether a patent application seeks to claim ineligible subject matter. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019).

CARVANA EXHIBIT 1018, Page 7 of 53

addresses whether the patent claims are "directed to" ineligible subject matter—a law of nature, natural phenomenon, or abstract idea.[29] If not, the invention is patentable. If directed at ineligible subject matter, the invention is not patentable unless the patent claims have an "inventive concept" under the second step of the *Alice*/*Mayo* test. To have an "inventive concept," the patent claims must contain elements "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself," transforming the nature of the claim to a patent-eligible *application* of ineligible subject matter.[30]

Novelty Requirement

Perhaps the most fundamental requirement for patentability is that the claimed invention must be *novel* (i.e., new). By statute, USPTO cannot issue a patent if "the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention."[31] In other words, if every element of the claimed invention is already disclosed in the *prior art*—the information available to the public at the time of the patent application—then the alleged inventor "has added nothing to the total stock of knowledge," and no valid patent may issue to her.[32]

Nonobviousness Requirement

Even if a claimed invention is novel in the narrow sense that it is not "identically disclosed" in a prior art reference (such as an earlier patent or publication), the invention must further be *nonobvious* to be patentable.[33] Specifically, an invention cannot be patented if "the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious . . . to a person having ordinary skill" in the relevant technology.[34] When determining obviousness, courts may evaluate considerations such as "commercial success, long felt but unsolved needs, [or] failure of others . . . to give light to the circumstances surrounding the origin of the subject matter sought to be patented."[35] By its nature, obviousness is an "expansive and flexible" inquiry that cannot be reduced to narrow, rigid tests.[36] That said, if an invention merely combines "familiar elements according to known methods," yielding only "predictable results," it is likely to be deemed obvious.[37]

---

[29] *Alice Corp*., 573 U.S. at 217.

[30] *Id.* (quoting *Mayo Collaborative Servs.*, 566 U.S. at 73).

[31] 35 U.S.C. § 102(a)(1). There are certain exceptions to this requirement when, for example, the prior art disclosure derives from the inventor and the patent application is made within one year of the disclosure. *Id.* § 102(b)(1).

[32] Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 153 (1950); *see* Graham v. John Deere Co., 383 U.S. 1, 6 (1966) ("Congress may not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available.").

[33] 35 U.S.C. § 103.

[34] *Id.* Patent law frequently relies on the concept of a "person having ordinary skill in the art," a "hypothetical person" with a typical level of skill in the relevant technology who is "presumed to be aware of all the pertinent prior art" in the particular field. *See* Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 454 (Fed. Cir. 1985).

[35] *Graham*, 383 U.S. at 17–18.

[36] KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 415–19 (2007).

[37] *Id.* at 416.

CARVANA EXHIBIT 1018, Page 8 of 53

Utility Requirement

An invention must also be *useful* to be patentable, which means that it must have a specific and substantial utility.[38] The utility requirement derives from the Constitution's command that patent laws exist to "promote the Progress of . . . *useful* Arts."[39] The constitutional purpose of patent law thus requires a "benefit derived by the public from an invention with substantial utility," where the "specific benefit exists in currently-available form."[40] The bar for utility is low, requiring only that the claimed invention have some "significant and presently available benefit to the public" that "is not so vague as to be meaningless."[41]

Requirements for Specification and Claims

Along with the four substantive requirements discussed above, the Patent Act imposes requirements relating to the form of the patent application. These formal requirements pertain to two key sections of the patent application, known as the *claims* and the *specification*, which become part of the patent itself if the application is granted.

Section 112 of the Patent Act requires that patents contain a "specification" that includes

> a *written description* of the invention, and of *the manner and process of making and using it*, in such full, clear, concise, and exact terms as to enable any person skilled in the art to . . . make and use the same, and shall set forth *the best mode* contemplated by the inventor or joint inventor of carrying out the invention.[42]

This statutory language yields three basic disclosure requirements for patentability.[43] First, to satisfy the *written description requirement*, the specification must "reasonably convey[] to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date" of the patent application.[44] Second, to satisfy the *enablement requirement*, the specification must contain enough information to teach a person skilled in the art how "to make and use the invention without undue experimentation."[45] Finally, to satisfy the *best mode requirement*, the specification must show that the inventor "possessed a best mode for practicing the invention" at the time of the patent application, and disclose that preferred way of practicing the invention.[46] These disclosure requirements ensure that the patent adequately discloses the invention to the public so that the public can use the invention after the patent term expires.[47]

If granted, the patent's legal scope is defined by the *patent claims*, which are words that "particularly point[] out and distinctly claim[] the subject matter which the inventor . . . regards as the invention."[48] In essence, while the specification explains the invention in a *technical* sense,

---

[38] Brenner v. Manson, 383 U.S. 519, 534–35 (1966); *In re* Fisher, 421 F.3d 1365, 1371 (Fed. Cir. 2005).

[39] Stiftung v. Renishaw PLC, 945 F.2d 1173, 1180 (Fed. Cir. 1991) (citing *Brenner*, 383 U.S. at 528–29); *see also Graham*, 383 U.S. at 5–6.

[40] *Brenner*, 383 U.S. at 534–35.

[41] *In re Fisher*, 421 F.3d at 1371–72.

[42] 35 U.S.C. § 112(a) (emphasis added).

[43] *See* Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 736 (2002); Ariad Pharms., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1344 (Fed. Cir. 2010) (en banc).

[44] *Ariad Pharms.*, 598 F.3d at 1351.

[45] *In re* Wands, 858 F.2d 731, 735 (Fed. Cir. 1988).

[46] Eli Lilly & Co. v. Barr Lab'ys, Inc., 251 F.3d 955, 963 (Fed. Cir. 2001).

[47] *See* Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480–81 (1974).

[48] 35 U.S.C. § 112(b).

CARVANA EXHIBIT 1018, Page 9 of 53

the claims set forth the patent's *legal* effect.[49] Much as a deed may describe the boundaries of a tract of land, the claims define the "metes and bounds" of the patent right.[50] Patent claims must be sufficiently *definite* to be valid—that is, when the claims are read in context, they must "inform, with reasonable certainty, those skilled in the art about the scope of the invention."[51] This requirement is designed to give the public clear notice of what is and is not covered by the patent claims.

How Do Inventors Obtain a Patent?

The process for receiving a patent begins with the filing of an application with USPTO.[52] A USPTO patent examiner then reviews the application for compliance with the legal requirements for receiving a patent.[53] If the examiner determines that the application does not meet one of the requirements, she will reject the application.[54] The applicant may generally then amend the application in an effort to overcome the examiner's rejection.[55] Once the examiner determines that an application meets all of the patentability requirements, she "allows" the application to issue as a patent.[56]

Patent prosecution is the process of applying for a patent, addressing examiner concerns, and—if successful—receiving the patent.[57] USPTO examiners are generally not lawyers, but rather are subject specialists in the relevant science and/or technology area.[58] Accordingly, USPTO issues the *Manual of Patent Examining Procedure* (MPEP) to provide guidance for examiners and practitioners.[59]

How Do Courts Adjudicate Patent Rights?

Patents are not self-enforcing: to obtain relief from infringement, the patentee must sue in court.[60] Patent law is an area of exclusive federal jurisdiction,[61] and the traditional forum for patent

---

[49] *See Ariad*, 598 F.3d at 1347 (Fed. Cir. 2010); *In re* Vamco Mach. & Tool, Inc., 752 F.2d 1564, 1577 n.5 (Fed. Cir. 1985).

[50] Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257 (Fed. Cir. 1989).

[51] Nautilus, Inc. v. Biosig Instruments, Inc., 572 U.S. 898, 901 (2014).

[52] *See generally* 35 U.S.C. § 111.

[53] *See* JAMES E. HAWES & FREDERIC M. DOUGLAS, PATENT APPLICATION PRACTICE § 2:4 (2020) (providing an overview of the patent application process); USPTO, *General Information Concerning Patents* (Oct. 2015), https://www.uspto.gov/patents-getting-started/general-information-concerning-patents.

[54] HAWES & DOUGLAS, *supra* note 53, § 14:2.

[55] *Id.* § 15.7−15.19.

[56] *Id.* § 21.1.

[57] Nick Cornor, *Are Changes to the U.S. Patent System Objectively Killing Innovation?*, 24 CURRENTS: J. INT'L ECON. L. 87, 90 (2020) ("Patent prosecution refers to the process of applying for a patent."). Although the foregoing discussion provides a high-level overview of the process, patent prosecution is governed by specific laws and regulations, the detailed discussion of which could fill its own report. *See generally* HAWES & DOUGLAS, *supra* note 53.

[58] Lital Helman, *Decentralized Patent System*, 20 NEV. L.J. 67, 89 (2019) ("PTO examiners are not lawyers."); *cf.* Greg Reilly, *Decoupling Patent Law*, 97 B.U. L. REV. 551, 592 (2017) ("Inherently legal tasks—like parsing the wording of documents, analogizing and distinguishing precedent, and applying canons of document interpretation—are better suited for legally trained judges than legally limited patent examiners.").

[59] *See* USPTO, *Manual of Patent Examining Procedure* (9th ed. July 2022), https://www.uspto.gov/web/offices/pac/mpep/index.html [hereinafter MPEP].

[60] 35 U.S.C. § 281.

[61] 28 U.S.C. § 1338.

CARVANA EXHIBIT 1018, Page 10 of 53

disputes is federal district court.[62] Although patent suits may be filed in any district court across the country with jurisdiction over the defendant and proper venue, all appeals in patent cases are heard by a single specialized court, the U.S. Court of Appeals for the Federal Circuit (the Federal Circuit).[63]

Once accused of infringement in a district court case, the defendant may claim an "absence of liability" based on *noninfringement*.[64] In other words, the patentee may fail to prove that the activities of the accused infringer fall within the scope of the patent claims.[65]

Parties accused of patent infringement may also rely on several *affirmative defenses*, which are grounds on which the defendant—not the plaintiff—bears the burden of proof. First, although patents are subject to a presumption of validity, the accused infringer may assert that the patent is *invalid*.[66] To prove invalidity, the accused infringer must show, by clear and convincing evidence, that USPTO should not have granted the patent because the patent failed to meet the statutory requirements for patentability.[67] Thus, for example, the accused infringer may argue that the invention lacks novelty, is obvious, or claims nonpatentable subject matter; that the patent fails to enable the invention; or that the patent claims are indefinite.[68]

In addition, the accused infringer may argue the patent is *unenforceable* based on the patent holder's inequitable or illegal activities, such as obtaining the patent through fraud on USPTO.[69] All of these legal arguments are generally evaluated on a *claim-by-claim basis*—that is, a court may find that some of the patent's claims are valid but other claims are invalid, or that the defendant infringes some of the patent's claims but not others, for example.

Both patent infringement and patent validity determinations turn in part on the meaning and scope of a patent's claims,[70] which define the boundaries of the patentee's intellectual property right. For instance, if a patent's claims are interpreted broadly, it may be easier for the plaintiff to prove that the defendant's products or activities infringe that patent. On the other hand, interpreting

---

[62] In 2023, roughly 3,108 patent lawsuits were filed in federal district courts. *See 2023 Patent Dispute Report: Year in Review*, UNIFIED PATENTS (Jan. 8, 2024), https://www.unifiedpatents.com/insights/2024/1/8/patent-dispute-report-2023-in-review. An additional forum for patent infringement disputes is the ITC, which has authority to conduct administrative trials into whether imported goods violate patent and other IP rights. *See* 19 U.S.C. § 1337. The ITC may issue exclusion orders to stop such goods from entering the United States. *See* CRS In Focus IF12295, *An Introduction to Section 337 Intellectual Property Litigation at the U.S. International Trade Commission*, by Christopher T. Zirpoli (2024). The ITC typically initiates several dozen Section 337 investigations per year. *See Section 337 Statistics: Number of New, Completed, and Active Investigations by Fiscal Year*, ITC (last updated Oct. 12, 2023), https://www.usitc.gov/intellectual_property/337_statistics_number_new_completed_and_active.htm (reporting fifty-five new complaints in Fiscal Year 2023).

[63] 28 U.S.C. § 1295(a)(1).

[64] 35 U.S.C. § 282(b)(1).

[65] To prove direct infringement, the plaintiff must show that each element contained in a patent claim is practiced by the alleged infringer, either literally or by an equivalent. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 29–30 (1997).

[66] 35 U.S.C. § 282(a)–(b).

[67] *Id.* § 282(b)(2)–(3); Microsoft Corp. v. i4i LP, 564 U.S. 91, 95–96 (2011).

[68] 35 U.S.C. §§ 101, 102–103, 112, 282(b)(2)–(3).

[69] Therasense, Inc. v. Becton, Dickinson & Co., 649 F.3d 1276, 1285, 1290–91 (Fed. Cir. 2011) (en banc).

[70] MPHJ Tech. Invs., LLC v. Ricoh Ams. Corp., 847 F.3d 1363, 1364 (Fed. Cir. 2017) ("[T]he first step in any validity analysis is to construe the claims of the invention to determine the subject matter for which patent protection is sought." (quoting Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc., 183 F.3d 1347, 1353 (Fed. Cir. 1999))); Nazomi Commc'ns, Inc. v. Nokia Corp., 739 F.3d 1339, 1343 (Fed. Cir. 2014) ("The first step of the infringement analysis is claim construction . . . ."); *see also* TVIIM, LLC v. McAfee, Inc., 851 F.3d 1356, 1362 (Fed. Cir. 2017) ("Claim terms must be construed the same way for the purpose of determining invalidity and infringement.").

CARVANA EXHIBIT 1018, Page 11 of 53

claims broadly may make it easier for the defendant to show that the claims are invalid because they were anticipated or obvious in light of prior art. When the parties dispute how patent claims should be interpreted, the judge must decide how to construe the disputed claim terms.[71] The process for determining the meaning of a disputed patent claim term is referred to as *claim construction*.[72] While claim construction is a question of law decided by the judge,[73] the ultimate issue of whether the accused product(s) infringe the patent claims, as construed by the judge, is a question of fact generally tried to a jury.[74]

What Was USPTO's Role in Patent Adjudication Prior to the AIA?

In addition to asserting invalidity as an affirmative defense to a patent infringement lawsuit in district court, a person may petition to invalidate an issued patent in various administrative proceedings known as *post-grant proceedings*, which are administered by USPTO.[75] Before the AIA was enacted, the available post-grant proceedings included ex parte reexamination and inter partes reexamination.

Ex parte reexamination, the longest-standing post-grant proceeding, allows "[a]ny person at any time" (including the patent owner herself) to request that USPTO reexamine an issued patent.[76] The request must be based on "patents or printed publications which that person believes to have a bearing on the patentability of any claim of a particular patent."[77] If the USPTO Director determines that the request raises "a substantial new question of patentability affecting any claim of the patent," then she may institute an ex parte reexamination.[78] If a reexamination is initiated, it proceeds in the same manner as the initial patent examination; in other words, the examiner may reject the claims on the basis of the new prior art, the applicant may amend the claims, et cetera.[79] Claim terms are given their broadest reasonable construction consistent with the specification (as in the initial examination).[80] The person who sought reexamination, however, is not involved in the process once USPTO decides to initiate reexamination.

---

[71] Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996) ("We hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.").

[72] Netword, LLC v. Centraal Corp., 242 F.3d 1347, 1352 (Fed. Cir. 2001) ("'Claim construction' is the judicial statement of what is and is not covered by the technical terms and other words of the claims."); *see also* Abbott Lab'ys v. Sandoz, Inc., 544 F.3d 1341, 1358 (Fed. Cir. 2008) ("The first step in most infringement suits is the procedure called 'claim construction,' where the scope of the claim is defined by the court."); Pall Corp. v. Hemasure, Inc., 181 F.3d 1305, 1308 (Fed. Cir. 1999) ("Analysis of patent infringement starts with 'construction' of the claim, whereby the court establishes the scope and limits of the claim, interprets any technical or other terms whose meaning is at issue, and thereby defines the claim with greater precision than had the patentee.").

[73] *See Markman*, 517 U.S. at 372.

[74] *See* Apple Inc. v. Samsung Elecs. Co., 839 F.3d 1034, 1040 (Fed. Cir. 2016) (en banc) (reviewing jury verdict of infringement).

[75] Although the terminology is different, there is no practical difference between a district court invalidating a claim during litigation and USPTO cancelling a claim following an administrative proceeding. The result is the same: the patent can no longer be enforced.

[76] 35 U.S.C. § 302.

[77] *Id.* § 301(a)(1).

[78] *Id.* § 303(a). The USPTO Director may also determine whether a substantial new question of patentability exists on her own initiative. *Id.*

[79] *Id.* § 305. For more detail regarding initial examination, see Hickey, *supra* note 4, at 8–9.

[80] *In re* Man Mach. Interface Techs. LLC, 822 F.3d 1282, 1286 (Fed. Cir. 2016) ("In reexamination, claims are given their broadest reasonable interpretation . . . consistent with the specification.").

CARVANA EXHIBIT 1018, Page 12 of 53

In 1999, inter partes reexamination was added as an available post-grant proceeding for persons to challenge granted patents.[81] Inter partes reexamination provided third-party requesters the ability to participate to a limited extent in a reexamination through comments and declarations submitted during the reexamination proceedings.[82] Third-party requestors who sought inter partes reexamination were later estopped from alleging that a patent was invalid based on any grounds that could have been raised in the reexamination.[83]

The AIA eliminated inter partes reexamination and created two currently available adversarial post-grant proceedings—known as inter partes review and post-grant review—and established PTAB to administer them. The following sections discuss in depth the AIA, PTAB, and the new post-grant proceedings.

Overview of the America Invents Act and PTAB

In 2011, Congress passed the AIA, a major reform of U.S. patent law. Among the most important changes made in the AIA were the creation of PTAB and the new post-grant proceedings for PTAB to administer. This section provides an overview of the key provisions of the AIA and the administrative structure it established for PTAB.

The AIA's Key Changes to Patent Law

Under the AIA, PTAB replaced a body known as the Board of Patent Appeals and Interferences (BPAI), which ceased to exist when PTAB began operations in 2012.[84] PTAB took over BPAI's responsibility for hearing appeals from USPTO rejections of patent applications.[85] PTAB also took over BPAI's responsibility for hearing appeals from rejections of patent owners' claims in ex parte reexaminations.[86]

The AIA replaced inter partes reexamination with two new administrative proceedings—inter partes review (IPR) and post-grant review (PGR)—administered by PTAB. The AIA also created a transitional program to challenge covered business method (CBM) patents, which expired in 2020. These proceedings are discussed in detail below.[87]

In addition, the AIA effected a major change to U.S. patent law with respect to *priority*, or who is entitled to a patent when different people claim to have invented the same thing at around the same time.[88] Previously, the first person to *invent* a particular invention was generally given priority in obtaining a patent when two different people filed patent applications on the same invention.[89] The AIA provides that for applications filed on or after March 16, 2013, the first

[81] American Inventors Protection Act of 1999, Pub. L. No. 106-113.

[82] MPEP, *supra* note 59, §§ 2609, 2654.

[83] 35 U.S.C. § 315(c) (2011).

[84] U.S. GOV'T ACCOUNTABILITY OFF., GAO-22-106121, PATENT TRIAL AND APPEAL BOARD: PRELIMINARY OBSERVATIONS ON OVERSIGHT OF JUDICIAL DECISIONMAKING 1 n.1 (2022).

[85] 35 U.S.C. § 134(a) (allowing applicant to appeal to PTAB after "claim[] has been twice rejected").

[86] 35 U.S.C. § 134(b) (allowing owner to appeal to PTAB from "final rejection" in a reexamination). BPAI had also overseen appeals from inter partes reexamination proceedings.

[87] *See infra* "PTAB Post-Grant Proceedings."

[88] *See* SNIPR Techs. Ltd. v. Rockefeller Univ., 72 F.4th 1372, 1374 (Fed. Cir. 2023) ("'Patent priority' establishes who is entitled to a patent on a particular invention claimed by different parties.").

[89] Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 3(n)–(o), 125 Stat. 284, 293 (2011).

CARVANA EXHIBIT 1018, Page 13 of 53

inventor to *file* an application with USPTO is regarded as the inventor.[90] The AIA thus changed the United States from a *first-to-invent* to a *first-to-file* jurisdiction,[91] consistent with the rest of the world.[92] In addition to international uniformity, Congress sought to make priority determinations more "objective and simple" by changing to a first-to-file system.[93] (Generally speaking, it is simpler to determine when a person filed a patent application than when a person conceived of a particular idea and reduced it to practice.)

To match the change to a first-to-file patent system, the AIA overhauled proceedings for contesting priority. Previously, if a person claimed to have invented something earlier than the patent applicant, that person could contest ownership of the patent via a challenge known as an *interference*, which could be asserted in administrative proceedings decided by BPAI or in district court.[94] The AIA left interferences in place for patents filed prior to March 16, 2013 (i.e., under the first-to-invent regime),[95] and transferred responsibility for those proceedings to PTAB.[96] For patents filed on or after March 16, 2013, interference proceedings "are no longer necessary because it is now the first filer—not the first inventor—who has priority and is entitled to a patent."[97]

For patents filed on or after March 16, 2016, the AIA replaced interference with *derivation*, a challenge that may be asserted in proceedings decided by PTAB or in district court litigation.[98] Whereas interference allowed a challenger to take priority over a patent by showing that the challenger had invented the claimed subject matter before the patentee, derivation requires the challenger to show that an earlier patent filer derived the invention from the challenger (i.e., the patentee took the idea from the challenger as opposed to inventing it independently).[99] Derivation is used infrequently, with one survey counting fewer than two dozen derivation petitions filed at USPTO between 2013 and 2022.[100]

PTAB's Structure

The AIA provides that PTAB consists of the USPTO Director and Deputy Director, the Commissioner for Patents, the Commissioner of Trademarks, and an unspecified number of

[90] *Id.*; *see also* 35 U.S.C. § 102.

[91] *See SNIPR Techs.*, 72 F.4th at 1373.

[92] *See id.* at 1375 ("The U.S. was the last remaining country in the world to use a first-to-invent system.").

[93] *Id.* at 1374. Consistent with the new first-to-file system, the AIA amended the definitions of prior art and obviousness so that both would be assessed as of the filing date rather than the time of invention. *See id.* at 1375.

[94] *See id.* at 1375.

[95] *See id.* at 1376; Biogen MA, Inc. v. Japanese Found. for Cancer Rsch., 785 F.3d 648, 655 (Fed. Cir. 2015) (noting "interference proceedings are to continue with respect to . . . applications filed before March 16, 2013").

[96] The AIA also left interference in place for patents that contain at least one claim each with pre- and post-March 16, 2013, effective filing dates. *See SNIPR Techs.*, 72 F.4th at 1376. In *SNIPR Techs.*, the Federal Circuit held that "pure AIA patents" with no claims having pre-March 16, 2013, filing dates may not be subjected to interference, including where the alleged basis for prior inventorship is a pre-AIA patent. *See id.* at 1374.

[97] *Id.* at 1374.

[98] *See* 35 U.S.C. § 135 (derivation proceedings decided by PTAB), § 291 (derivation asserted in district court); *SNIPR Techs.*, 72 F.4th at 1375–76 ("AIA . . . repealed interferences in pre-AIA §§ 135 and 291 . . . .").

[99] See *SNIPR Techs.*, 72 F.4th at 1376 ("Whereas interference proceedings determined who was the first inventor, derivation proceedings determine whether the earlier filer had derived the claimed invention from a later filer.").

[100] *See* Barbra Clarke McCurdy et al., *Spotted: The Rare AIA Derivation Proceeding!*, FINNEGAN (April 22, 2022), https://www.finnegan.com/en/insights/blogs/at-the-ptab-blog/spotted-the-rare-aia-derivation-proceeding.html.

CARVANA EXHIBIT 1018, Page 14 of 53

administrative patent judges (APJs).[101] Currently, PTAB employs more than 200 APJs.[102] PTAB is divided into a Trial Division and an Appeals Division. The Trial Division administers post-grant proceedings created by the AIA, while the Appeals Division hears appeals of patent prosecution decisions.

The Secretary of Commerce, in consultation with the USPTO Director, appoints the APJs to serve on PTAB.[103] The AIA requires that APJs be "persons of competent legal knowledge and scientific ability."[104] The Director, who is appointed by the President with advice and consent of the Senate, is a member of PTAB and maintains a degree of authority over the APJs.[105] The AIA gives the Director authority to select the three-member APJ panels who decide IPRs[106] and to issue regulations governing the conduct of PTAB proceedings,[107] although in practice the Director has delegated panel selection to a Chief Judge.[108] The AIA also gives the Director authority to designate selected written decisions as precedential and thus binding on future panels of APJs.[109] APJs cannot be removed without cause.[110]

PTAB Post-Grant Proceedings

As noted above, the AIA charged PTAB with administering three new types of post-grant proceedings for challenging the validity of patents previously issued by USPTO. One of these proceedings, CBM review, sunset in 2020 pursuant to the AIA. The other two—IPR and PGR—have no sunset provision and are regularly used.

This section provides an overview and comparison of IPR, PGR, and CBM reviews. The discussion focuses principally on IPR, which has been both the most used type of PTAB proceeding and the target of many current reform efforts, which are discussed in the final section of the report.[111]

Inter Partes Review

IPR is the most-used type of post-grant proceeding introduced by the AIA by an overwhelming margin.[112] This section discusses the statutory requirements for filing an IPR, PTAB's discretion whether to institute IPRs, and the IPR process.

---

[101] 35 U.S.C. § 6(a).

[102] U.S. Gov't Accountability Off., GAO-23-105336, Patent Trial and Appeal Board: Increased Transparency Needed in Oversight of Judicial Decision-Making 14 (2022), at 5 [hereinafter GAO PTAB Report].

[103] 35 U.S.C. § 6(a).

[104] *Id.*

[105] *See id.*

[106] *Id.* § 6(c).

[107] *Id.* § 6(b)(2).

[108] USPTO, Patent Trial and Appeal Board: Standard Operating Procedure 1 (rev. 15), https://www.uspto.gov/sites/default/files/documents/SOP%201%20R15%20FINAL.pdf [hereinafter SOP 1].

[109] *See* USPTO, Patent And Trial Appeal Board: Standard Operating Procedure 2 (rev. 11) (July 24, 2023), https://www.uspto.gov/sites/default/files/documents/20230724_ptab_sop2_rev11_.pdf.

[110] 35 U.S.C. § 3(c); 5 U.S.C. § 7513(a); *see also* United States v. Arthrex, Inc., 594 U.S. 1, 16–17 (2021).

[111] *See infra* "Current Debates and Proposed Reforms."

[112] *See* USPTO, PTAB Trial Statistics: FY23 End of Year Outcome Roundup—IPR, PGR 3, https://www.uspto.gov/sites/default/files/documents/ptab_aia_fy2023__roundup.pdf (last visited Mar. 28, 2024) [hereinafter PTAB FY23 Statistics].

CARVANA EXHIBIT 1018, Page 15 of 53

Standing, Timing, and Grounds to Petition for IPR

Any person other than the patent owner may file a petition requesting that PTAB institute (i.e., proceed with) an IPR.[113] An IPR petition may be filed at any time starting nine months after the patent issues through the time the patent expires.[114] If the petitioner or their "real party in interest[] or privy" is sued for infringement of the patent, the petitioner may not file the petition any later than one year after they are served with the infringement complaint.[115]

An IPR petition may challenge the validity of patent claim on only two bases—anticipation (35 U.S.C. § 102) or obviousness (35 U.S.C. § 103).[116] It may not challenge patentability for other reasons, such as whether the patent claims eligible subject matter (35 U.S.C. § 101) or is not enabled (35 U.S.C. § 112). The IPR petition may rely only on prior art patents or printed publications.[117] Other forms of prior art, such as public uses or sales of the claimed invention, cannot be a basis for IPR.[118]

An IPR petition must also meet a number of procedural requirements. For example, the petitioner must identify all real parties-in-interest; identify the challenged patent claims and the grounds for the challenge "with particularity"; and pay a fee set by USPTO.[119]

Discretionary Institution of IPR

The AIA makes the USPTO Director responsible for deciding whether or not to institute an IPR.[120] The Director is charged with making this decision based on the challenger's petition as well as an optional preliminary response that the patent owner may choose to file within three months of the petition.[121] The Director must determine whether to institute the IPR within three months of receiving the preliminary response (or three months after the last date on which such a response could be filed).[122] The Director has delegated all IPR institution decisions to PTAB.[123] When an IPR petition is filed, a panel of three APJs is assigned to the case, and it is this panel that makes the institution decision.[124] Thus, references to the "Director" in the provisions of the AIA regarding institution now refer, in practice, to a PTAB panel of three APJs.

The AIA does not permit PTAB to institute an IPR unless it determines that the petition and any preliminary response "shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."[125] Nonetheless, the AIA does not *require* PTAB to institute an IPR if this threshold is satisfied, and it provides that "[t]he

---

[113] 35 U.S.C. § 311(a).

[114] *Id.* § 311(c). If a PGR is instituted with respect to the patent, an IPR may not be filed until the PGR concludes. *Id.*

[115] *Id.* § 315(b). A "real party in interest" refers to the "person entitled under the substantive law to enforce the right sued on." *Real party in interest*, BLACK'S LAW DICTIONARY (11th ed. 2019). A "privy" refers to "someone who controls a lawsuit though not a party to it; someone whose interests are represented by a party to the lawsuit; and a successor in interest to anyone having a derivative claim." *Privy*, BLACK'S LAW DICTIONARY (11th ed. 2019).

[116] 35 U.S.C. § 311(b).

[117] *Id.* § 311(b).

[118] *Cf. id.* § 102(a)(1).

[119] *Id.* § 312.

[120] *Id.* § 314(a).

[121] *See id.* §§ 313, 314; 37 C.F.R. § 42.107(a)–(b).

[122] 35 U.S.C. § 314(b).

[123] 37 C.F.R. § 42.108.

[124] *See* GAO PTAB REPORT, *supra* note 102, at 8; SOP 1, *supra* note 108, at 1.

[125] 35 U.S.C. § 314(a).

CARVANA EXHIBIT 1018, Page 16 of 53

determination by the Director whether to institute an inter partes review under this section shall be final and nonappealable."[126]

The AIA also prohibits institution of IPR in specific situations regarding related district court and PTAB proceedings. First, the AIA provides that an IPR may not be instituted if, prior to the filing of the petition, the petitioner or "real party in interest" filed a district court action (i.e., a declaratory judgment action[127]) challenging any claim of the same patent.[128] Thus, a party cannot file a district court case requesting a declaratory judgment of invalidity and then file an IPR petition challenging any claims of the same patent.

Second, the AIA contains an estoppel provision that prohibits some so-called serial petitions, which are discussed in greater depth below.[129] The estoppel provision states that, once an IPR results in a final written decision, the petitioner (or their real party in interest or privy) cannot "request or maintain" any other USPTO "proceeding" (including IPR) with respect to the same *patent claim* based on "any ground that the petitioner raised or reasonably could have raised" in the original IPR.[130] The estoppel provision does not, however, prevent the petitioner from filing a second IPR petition regarding the same patent claim(s) prior to a final written decision on the first IPR. It also does not prevent a petitioner from filing a second IPR petition regarding different claims in the same patent.

Through guidance and PTAB precedent, USPTO has developed guidelines for PTAB's decisions whether or not to institute IPRs in cases where none of the above-noted prohibitions on IPRs apply.[131] These guidelines address common scenarios such as serial IPR petitions and parallel district court proceedings. The guidelines—and related reforms proposed by certain Members of Congress and USPTO itself—are explained in more detail in the final section of this report.

IPR Process Following Institution

The framers of the AIA intended for IPR to serve as a faster, less costly alternative to district court litigation.[132] The AIA itself sets forth certain requirements for conducting and deciding IPR proceedings.[133] As directed by the AIA,[134] USPTO has supplemented those requirements by promulgating more detailed rules on PTAB trial practice and procedure.[135] PTAB also provides

[126] *Id.* § 314(d) (the "no-appeal provision").

[127] *Cf. id.* § 315(a)(3) (providing that this prohibition does not apply where the petitioner is sued for infringement and responds with "[a] counterclaim challenging the validity of a claim").

[128] *See id.* § 315(a)(1).

[129] *See infra* "Serial Petitions."

[130] 35 U.S.C. § 315.

[131] *See, e.g.*, Memorandum from USPTO Director Katherine K. Vidal to PTAB, *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* (June 21, 2022), https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

[132] *See* H.R. REP. NO. 112-98, at 39–40 (2011) (stating that among the goals of the AIA were to "improv[e] patent quality and provid[e] a more efficient system for challenging patents that should not have issued" and to "limit unnecessary and counterproductive litigation costs").

[133] 35 U.S.C. §§ 316–319.

[134] *Id.* § 316(a) ("The Director shall prescribe regulations . . . .").

[135] *See* 37 C.F.R. pt. 42.

CARVANA EXHIBIT 1018, Page 17 of 53

guidance on its standard practices for conducting these proceedings in its Consolidated Trial Practice Guide.[136]

Once an IPR is instituted, PTAB issues a scheduling order setting forth key dates and deadlines. The patent owner is given time to file a response to the petition—regardless of whether the patentee filed a preliminary response before institution—followed by sur-replies by each party to address any new arguments.[137]

During the IPR, the patent owner may also file a motion either to cancel any challenged claims or to amend claims by "propos[ing] a reasonable number of substitute claims" for each such challenged claim that would not "enlarge the scope" of the existing claims.[138] In March 2024, USPTO issued a notice of proposed rulemaking that would formalize a pilot program that it established in 2019 to give patent holders additional options when filing a motion to amend (MTA) their claims.[139] Under this pilot program (and the proposed rule), patent holders may request "preliminary, non-binding guidance" from PTAB on the merits of an MTA.[140] Patent holders may also file either a revised MTA or a reply brief in support of the original MTA following the petitioner's opposition and any preliminary guidance from PTAB.[141] Patent holders have had more success amending claims in AIA proceedings since the pilot program began in 2019. USPTO notes that 24% of final determinations have granted at least one substitute claim during the pilot program, versus 14% previously.[142]

The petitioner in an IPR has the burden of proving unpatentability of challenged claims by a preponderance of the evidence.[143] As in district court litigation, PTAB may need to resolve disagreements about claim construction (i.e., the interpretation of patent claims) in order to reach a decision as to their validity.[144] PTAB currently applies the same claim construction standard used in district court litigation,[145] which requires PTAB to construe claim terms according to their "ordinary and customary meaning . . . to a person of ordinary skill in the art in question at the time of the invention."[146] To discern this meaning, PTAB must look to the claims themselves, the patent specification, documents from the prosecution of the patent (prosecution history), and, to a lesser degree, "extrinsic evidence" such as expert testimony, dictionaries, and treatises.[147]

---

[136] PTAB, CONSOLIDATED TRIAL PRACTICE GUIDE (Nov. 2019), https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf [hereinafter CONSOLIDATED PTAB PRACTICE GUIDE].

[137] 37 C.F.R. § 42.107, 42.120; CONSOLIDATED PTAB PRACTICE GUIDE, *supra* note 136, at 73–75.

[138] 35 U.S.C. § 316(d).

[139] Motion to Amend Practice and Procedures in Trial Proceedings Under the America Invents Act Before the Patent Trial and Appeal Board, 89 Fed. Reg. 15531 (Mar. 4, 2024). In addition to IPR, the pilot program and proposed rule apply to PGR and derivation proceedings. *See id*.

[140] *Id.* at 15532.

[141] *See id*.

[142] *See id.* at 15533.

[143] 35 U.S.C. § 316(e).

[144] *See supra* "How Do Courts Adjudicate Patent Rights?".

[145] *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51340 (Oct. 11, 2018) (codified at 37 C.F.R. § 42.100(b)); Personalized Media Commc'ns, LLC v. Apple Inc., 952 F.3d 1336, 1340 n.2 (Fed. Cir. 2020) ("Per recent regulation, [PTAB] applies the *Phillips* claim construction standard to IPR petitions filed on or after November 13, 2018.").

[146] Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005).

[147] *See id.* at 1313–19.

CARVANA EXHIBIT 1018, Page 18 of 53

As discussed below,[148] some reform efforts seek to eliminate USPTO's authority to depart from the currently used claim construction standard, in light of the fact that PTAB previously employed a different standard.

Discovery in IPR

Parties to an IPR may obtain evidence through discovery, although the scope of available discovery is narrower than in district court litigation. The AIA largely defers to USPTO to "set[] forth standards and procedures for discovery,"[149] specifying only that discovery shall be limited to "the deposition of witnesses submitting affidavits or declarations"[150] and "what is otherwise necessary in the interest of justice."[151] USPTO has promulgated rules requiring each party, at a minimum, to provide "routine discovery" comprising the disclosure of any exhibit cited by the party, disclosure of nonprivileged information inconsistent with the party's litigation positions, and making witnesses who submit affidavits available for cross-examination.[152]

Under USPTO rules, the parties may also conduct discovery via "mandatory initial disclosures." Despite their name, these "mandatory" disclosures are required only if the parties agree to them or, barring agreement, if PTAB grants a party's motion to require them.[153] The parties may agree either on narrow initial disclosures modeled on those required in district court litigation[154] or on a "more extensive" set of disclosures focusing on nonpublished prior art and secondary indicia of nonobviousness, as set forth in the Consolidated Trial Practice Guide.[155] If the IPR is instituted, the parties may "automatically" take further discovery regarding information identified in mandatory initial disclosures.[156]

Parties may agree or move to conduct additional discovery "in the interests of justice."[157] When determining whether additional discovery is in the interests of justice, PTAB looks to five factors, known as the *Garmin* factors: (1) whether there is more than a "mere possibility" or "mere allegation" that useful information will be found; (2) whether the discovery request is a pretext to seek the other party's litigation positions or contentions; (3) whether the requesting party can obtain the information by other means; (4) whether the discovery request is "easily understandable"; (5) and whether the request is overly burdensome.[158] Finally, parties may move to request authorization to compel testimony or documents from third parties, similar to issuing a subpoena in a civil lawsuit.[159]

---

[148] *See infra* "Claim Construction: Should USPTO or Congress Decide the Right Standard?".

[149] 35 U.S.C. § 316(a)(5).

[150] *Id.* § 316(a)(5)(A).

[151] *Id.* § 316(a)(5)(B).

[152] 37 C.F.R. § 42.51(b)(1).

[153] *Id.* § 42.51(a)(1), (2).

[154] CONSOLIDATED PTAB PRACTICE GUIDE, *supra* note 136, at 29 (citing Fed. R. Civ. P. 26(a)(1)(A)).

[155] *See id.* at 30–31.

[156] 37 C.F.R. § 42.51(a)(1)(ii).

[157] *Id.* § 42.51(a)(2)(i).

[158] *See* CONSOLIDATED PTAB PRACTICE GUIDE, *supra* note 136, at 25–28 (citing Garmin Int'l, Inc. v. Cuozzo Speed Techs. LLC, Case IPR2012-00001 (P.T.A.B. Mar. 5, 2013) (Paper 26) (precedential)).

[159] 37 C.F.R. § 42.52(a).

CARVANA EXHIBIT 1018, Page 19 of 53

IPR Final Decisions, Director Review, and Appeals

PTAB may decide an IPR based solely on written submissions by the parties, although the parties may request an oral hearing before the three-APJ panel.[160] A typical hearing consists of about an hour of oral argument from each side.[161] Although usually the hearing solely involves attorney argument, live witness testimony may also be presented at the discretion of the panel.[162]

PTAB must issue a final written decision within one year after it institutes the IPR, although this deadline may be extended by up to six months for "good cause."[163] Final written decisions must address the patentability of each claim challenged by the petition, as well as any substitute claims sought to be added by the patentee.[164] Final decisions are accompanied by publication of a certificate that cancels or confirms each claim depending on whether PTAB finds it to be patentable; the certificate may also incorporate into the patent any patentable new or amended claims.[165] If the patent owner and any petitioner reach a settlement with one another prior to the final written decision, they may request to terminate the IPR as to that petitioner by filing a motion to terminate and the settlement agreement.[166] If no petitioners remain in the IPR, PTAB may choose either to terminate the IPR or to proceed to a final written decision.[167]

As originally enacted, the AIA allowed for parties to seek rehearing of a decision in an IPR only from PTAB itself.[168] As discussed below, following a 2021 Supreme Court decision, parties may instead request review of final PTAB panel decisions by the USPTO Director.[169] In addition, final PTAB decisions (or denials of rehearing of a final decision) may be appealed to the Federal Circuit.[170] Any of the parties to the IPR have a right to be a party to such an appeal.[171] The USPTO Director may also intervene in the appeal to defend PTAB's decision, regardless of whether any party does so.[172] PTAB's decision to institute an IPR or not, however, is not appealable.[173]

---

[160] *Id.* § 42.70(a); CONSOLIDATED PTAB PRACTICE GUIDE, *supra* note 136, at 81–82.

[161] CONSOLIDATED PTAB PRACTICE GUIDE, *supra* note 136, at 81.

[162] *Id.* at 85 ("[PTAB] receives relatively few requests for presenting live testimony.").

[163] 35 U.S.C. § 316(a)(11).

[164] *Id.* § 318(a).

[165] *Id.* § 318(b).

[166] *Id.* § 317.

[167] *Id.* § 317(a).

[168] *Id.* § 6(c); 37 C.F.R. § 42.71(d).

[169] *See infra* "*United States v. Arthrex*"; "What Roles Do the USPTO Director and PTAB Management Play in PTAB Decisions?".

[170] 35 U.S.C. § 319. While the AIA affords a procedural right to appeal, the appealing party must have Article III standing under the Constitution to maintain an appeal. *See generally* Cong. Rsch. Serv., *ArtIII.S2.C1.6.1 Overview of Standing*, https://constitution.congress.gov/browse/essay/artIII-S2-C1-6-1/ALDE_00012992/ (last visited Mar. 28, 2024). A patent holder dissatisfied with a PTAB decision will usually have standing to appeal the cancellation of a patent claim. However, challengers to patents that do not practice the invention (e.g., nonprofit groups) may lack standing to appeal PTAB decisions upholding the patent. *See, e.g.*, Consumer Watchdog v. Wis. Alumni Rsch. Found., 753 F.3d 1258, 1262–63 (Fed. Cir. 2014) (holding that nonprofit consumer rights organization lacked standing to appeal IPR decision affirming patentability).

[171] 35 U.S.C. § 319.

[172] Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC, 584 U.S. 325, 332–35 (2018).

[173] 35 U.S.C. § 314(d).

CARVANA EXHIBIT 1018, Page 20 of 53

IPR Statistics

In a typical year, PTAB receives between 1,000 and 2,000 petitions for IPR or PGR.[174] Of these filings, the overwhelming majority are IPRs.[175] In FY2023, for example, PTAB received 1,209 IPR petitions (97.6%), compared with 30 PGR petitions (2.4%).[176]

Litigating an IPR costs several hundreds of thousands of dollars in legal costs on average.[177] While expensive, an IPR is usually many times cheaper than litigating a patent suit in the federal courts, which can cost several million dollars.[178]

IPR Outcomes

Very roughly, PTAB denies institution—that is, declines to hear the IPR or PGR—in a little less than one-third of petitions.[179] A similar number of cases settle.[180] For example, of the 1,327 petitions resolved in FY2023, PTAB denied institution in 374 cases (28%), and 402 cases settled (30%).[181] Thus, PTAB typically reaches a final written decision for between 35–40% of the petitions it receives.[182]

In those IPRs and PGRs that do reach a final written decision, PTAB cancels some or all of the patent claims at issue in the large majority of cases. In FY2023, for example, PTAB issued a final written decision in 508 cases.[183] Of those, it found all the claims unpatentable in 343 cases (67.5%), upheld all of the patent claims in 87 cases (17.1%), and reached a mixed result (i.e., upholding some patent claims and canceling others) in 78 cases (15.4%).[184] **Figure 1** displays these outcome statistics as reported by USPTO.

---

[174] PTAB FY23 Statistics, *supra* note 112, at 3 (1,239 post-issuance review petitions received in FY2023); USPTO, PTAB Trial Statistics: FY23 End of Year Outcome Roundup—IPR, PGR 3 (2022), https://www.uspto.gov/sites/default/files/documents/ptab__aia_fy2022_roundup.pdf [hereinafter PTAB FY22 Statistics] (1,367 post-issuance review petitions received in FY2022); *see also* Dani Kass, *PTAB Filings Drop Alongside Declining Patent Litigation*, Law360 (Feb. 7, 2024, 11:02 PM), https://www.law360.com/articles/1794397 (number of annual IPR filings between 2014 and 2023 ranging from a high of 1,723 petitions in 2017 to a low of 1,157 petitions in 2023).

[175] *See* Kass, *supra* note 174 (showing over 1,000 IPRs filed each year, but only several dozen PGRs).

[176] PTAB FY23 Statistics, *supra* note 112, at 3.

[177] AIPLA, Report of the Economic Survey 2019, at 52 (2019), https://ipwatchdog.com/wp-content/uploads/2021/08/AIPLA-Report-of-the-Economic-Survey-Relevant-Excerpts.pdf (median litigation costs for IPRs ranging from $100,000 to $350,000 depending on the type of case and amount in controversy).

[178] *Id.* at 50–52 (median total patent litigation costs ranging from $700,000 to $8 million depending on the type of case and amount in controversy); *accord* Stephen Yelderman, *Prior Art in Inter Partes Review*, 104 Iowa L. Rev. 2705, 2706 (2019) ("[T]he cost of litigating an IPR to a final written decision was about $324,000, which pales in comparison to the $1–2 million reported cost of litigating a patent in court.").

[179] *See, e.g.*, PTAB FY23 Statistics, *supra* note 112, at 10 (institution denied for 28% of petitions in FY2023); PTAB FY22 Statistics, *supra* note 174, at 11 (institution denied for 30% of petitions in FY2022).

[180] *See, e.g.*, PTAB FY23 Statistics, *supra* note 112, at 10 (30% of petitions settled in FY2023); PTAB FY22 Statistics, *supra* note 174, at 11 (27% of petitions settled in FY2022).

[181] PTAB FY23 Statistics, *supra* note 112, at 10.

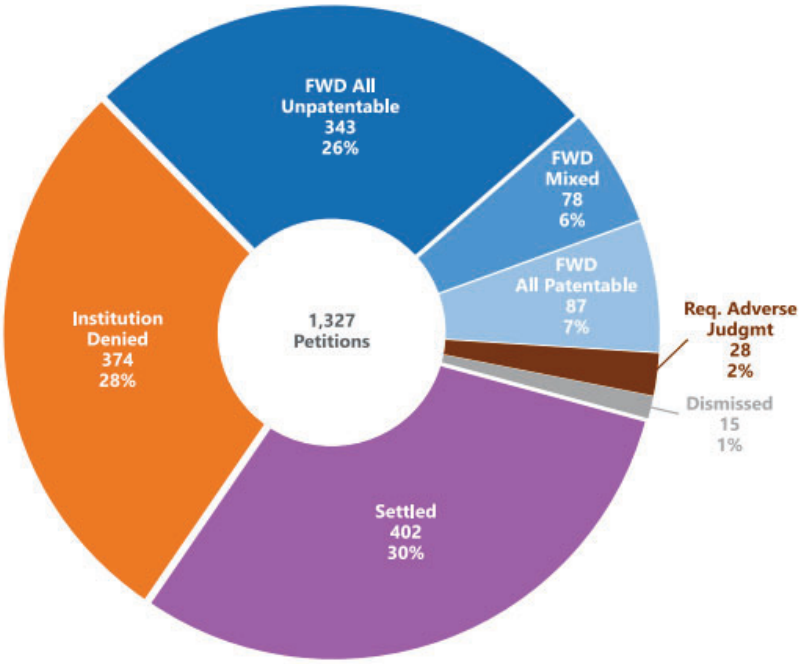
[182] *See, e.g.*, *id.* (final written decision in 39% of petitions in FY2023); PTAB FY22 Statistics, *supra* note 174, at 11 (final written decision in 37% of petitions in FY2022).

[183] *See* PTAB FY23 Statistics, *supra* note 112, at 10.

[184] *See id.*

CARVANA EXHIBIT 1018, Page 21 of 53

Figure 1. IPR and PGR Outcomes by Petition in FY2023



Source: USPTO, PTAB TRIAL STATISTICS: FY23 End of Year Outcome Roundup—IPR, PGR 10 (2023), https://www.uspto.gov/sites/default/files/documents/ptab_aia_fy2023__roundup.pdf.

Notes: "FWD" means final written decision by the Patent Trial and Appeal Board (PTAB). "IPR" refers to inter partes review; "PGR" refers to post-grant review.

Some critics of PTAB argue that because PTAB cancels at least one patent claim in over 80% of its final written decisions, the panels may be biased against patent owners.[185] While that number is accurate, PTAB denies institution in nearly one-third of IPRs filed. Since a denial of institution leaves the patent claims intact, it arguably represents a "win" for the patent holder.[186] Moreover, because PTAB may institute an IPR only if it finds that "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged,"[187] it is perhaps not surprising that most of the instituted IPRs in fact invalidate one or more claims.[188]

[185] *See* Steve Brachmann & Gene Quinn, *Are More than 90 percent of Patents Challenged at the PTAB Defective?*, IPWATCHDOG (June 14, 2017, 10:00 AM), https://ipwatchdog.com/2017/06/14/90-percent-patents-challenged-ptab-defective/id=84343/ (arguing that the statistics suggest that either "PTAB APJs are being too aggressive in invalidating patents or that the examiners are producing incredibly poor quality patents").

[186] *See* Angela Morris, *US PTAB Invalidation Rates Under the Microscope as Reform Bill Refiled*, IAM (June 26, 2023), https://www.iam-media.com/article/us-ptab-invalidation-rates-under-the-microscope-reform-bill-refiled ("The petitions that were denied institution should be viewed as a patent holder win."). Counted in that way, one could argue that the patent holder "wins" (374 denials and 87 written decisions upholding all claims) about as often as they "lose" (343 written decisions finding all claims unpatentable and 78 finding some claims unpatentable). Some argue that settlements should be also counted as losses for the patent holder, however. *See* Brachmann & Quinn, *supra* note 185 (arguing that "many (if not all) of these [IPR] settlements result in outcomes unfavorable to the patent owner"). Ultimately, how to characterize these various outcomes is a matter of interpretation.

[187] 35 U.S.C. § 314(a).

[188] *See* Brachmann & Quinn, *supra* note 185 ("If [PTAB] judges are doing a really good job on institution, one should expect to see that most of the decisions instituted reach a fairly favorable petitioner outcome." (quoting Brian Howard)).

CARVANA EXHIBIT 1018, Page 22 of 53

When appealed to the Federal Circuit, the large majority of PTAB findings on patent validity or invalidity are affirmed.[189] One study found an affirmance rate for IPRs of over 90%.[190] While district court patent validity findings are also usually affirmed by the Federal Circuit, the affirmance rate (85%) is somewhat lower.[191] Notably, the Federal Circuit reverses district courts on patent validity issues at a higher rate (12.1% reversal rate) than it does PTAB decisions (4.8% reversal rate).[192]

[189] Matthew G. Sipe, *Experts, Generalists, Laypeople—and the Federal Circuit*, 32 HARV. J.L. & TECH. 575, 578 (2019).

[190] *Id.* at 604 tbl.7.

[191] *Id.* at 610 tbl.15.

[192] *See id.* ("Three tendencies emerge from this picture: (1) the PTAB is affirmed notably more often than district courts on validity issues; (2) district court decisions tend to be reversed outright, rather than vacated or remanded; and (3) PTAB decisions, on the other hand, experience both types of non-affirmance in roughly equal measure.").

CARVANA EXHIBIT 1018, Page 23 of 53

"Big Tech" and IPRs

Some observers allege that large technology companies lobbied for the creation of PTAB and are its primary beneficiaries.[193] As evidence, critics note that some so-called "big tech" firms are among the most frequent users of IPRs. According to one analysis, in 2021, Samsung, Apple, Google, Intel, and Microsoft collectively accounted for 81% of PTAB petitions filed by the top 10 petitioners during that year.[194] Critics allege that such companies are using PTAB as "a key tool in their predatory infringement strategies."[195]

Large technology firms are also among the most frequent defendants in patent litigation.[196] Some stakeholders claim that financial incentives may lead these companies to infringe patents more often than smaller firms.[197] This view holds that well-resourced firms may choose to engage in a practice called *efficient infringement*, in which a firm intentionally infringes a patent rather than purchasing or licensing it, based on the calculation that potential profits outweigh the potential costs associated with legal fees or damages it may owe as a result of infringement.[198]

Some observers argue that the practice of efficient infringement has been encouraged by recent legal changes, which have made obtaining injunctive relief for patent infringement (i.e., a court order stopping the defendant's infringing activities) more difficult to obtain.[199] They claim that when injunctive relief is not granted and adequate damages are not awarded to patent owners whose rights have been infringed, potential infringers may decide that the economic benefits of infringement outweigh the potential costs of being sued for patent infringement.[200]

Others argue that large technology firms are frequently sued not because they are more likely to infringe patents but because they are attractive targets of abusive litigation practices. Such practices, they claim, often involve so-called "patent trolls"[201] asserting low quality patents that should not have been granted by USPTO.[202] For example, in 2022, Google's general counsel argued the declining quality of U.S. patents was causing an uptick in abusive patent litigation and accused patent trolls and opportunistic companies of weaponizing such patents against their rivals.[203]

---

[193] *See* Adam Mossoff, *Big Tech's Abuse of Patent Owners in the PTAB Must End*, HERITAGE FOUNDATION 5–6 (June 29, 2023), https://www.heritage.org/sites/default/files/2023-06/LM336.pdf; Paul R. Michel, *Big Tech Has a Patent Violation Problem*, HARVARD BUSINESS REVIEW (Aug. 5, 2023), https://hbr.org/2022/08/big-tech-has-a-patent-violation-problem.

[194] Paul Michel & Chris Israel, *Don't Let Big Tech Sabotage U.S. Innovators' Protections*, BLOOMBERG LAW (Apr. 22, 2022) (companies listed in the order they appear in the article).

[195] Mossoff, *supra* note 193, at 5–6; *see* Michel, *supra* note 193.

[196] *See* Figure 11 in UNIFIED PATENTS, *2022 Patent Dispute Report* (Jan. 5, 2023), https://www.unifiedpatents.com/insights/2023/1/4/2022-patent-dispute-report (identifying Alphabet, Amazon, Apple, AT&T, Cisco, Lenovo, Microsoft, Samsung, Verizon, and Walmart as the most frequently named defendants in patent infringement suits in U.S. federal courts in 2022).

[197] *See* Michel, *supra* note 193.

[198] *See* Julie Turner, *The Nonmanufacturing Patent Owner: Toward a Theory of Efficient Infringement*, 86 CAL. L. REV. 179, 210 (1998).

[199] *See* Kristen Osenga, "*Efficient" Infringement and Other Lies*, 52 SETON HALL L. REV. 1085 (2022); Adam Mossoff, *Institutional Design in Patent Law: Private Property Rights or Regulatory Entitlements*, 92 S. CAL. L. REV. 921 (2019). In the 2006 case *eBay v. MercExchange*, the Supreme Court held that an equitable balancing test governed the decision of whether a district court should issue a permanent injunction in patent infringement cases, reversing the Federal Circuit rule that injunctions should issue "absent exceptional circumstances." 547 U.S. 388 (2006).

[200] *See* Mossoff, *supra* note 199, at 939. According to one commentator, when injunctive relief is not routinely granted, "it makes much more sense for a potential infringer to infringe now—and pay later. At worst, if an injunction is not granted following a patent infringement trial, the infringer will simply have to pay damages for past infringement and an ongoing royalty for continued, future infringement. This result is akin to having taken a license to start with, but with the bonus of an interest-free loan for the period of infringement prior to and during the trial period." Osenga, *supra* note 199, at 1087.

[201] "Patent troll" is a pejorative term for patent plaintiffs that enforce patents but do not manufacture or sell products. FTC, *supra* note 9, at 15–17. According to an opinion from the Supreme Court, "Trolls, in the patois of the patent community, are entities that hold patents for the primary purpose of enforcing them against alleged infringers, often exacting outsized licensing fees on threat of litigation." Halo Elecs., Inc. v. Pulse Elecs., Inc. 579 U.S. 93, 109 (2016).

[202] Patent quality generally refers to whether granted patents actually meet the statutory standards of patentability. These include requirements that the invention claimed in a patent be novel, nonobvious, and clearly described.

(continued...)

CARVANA EXHIBIT 1018, Page 24 of 53

Post-Grant Review

In addition to IPR, the AIA created PGR, another administrative proceeding that can result in cancellation of an issued patent.[204] There are three primary differences between PGR and IPR. First, a petition for PGR may be filed only during the first nine months after a patent issues.[205] An IPR petition, by contrast, may be filed only *after* the window for filing PGR ends; that is, an IPR must be filed more than nine months after the patent issues (and after any PGR regarding the patent concludes).[206] Second, the standard for instituting a PGR is higher, requiring PTAB to find "that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable."[207] By contrast, institution of IPR requires only "a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."[208]

The third main difference between PGR and IPR concerns the grounds for cancellation that may be presented to PTAB. While an IPR may challenge a patent claim only on grounds of anticipation (35 U.S.C. § 102) or obviousness (35 U.S.C. § 103) based on prior art patents or printed publications (and not other forms of prior art, such as public uses),[209] a PGR may challenge whether a patent claim meets *any* of the requirements for validity in the Patent Act.[210] For example, a PGR petitioner may argue that the patent is not directed to patentable subject matter under 35 U.S.C. § 101 or that the claims are indefinite under 35 U.S.C. § 112—arguments that are not available in IPR.

Procedurally, PGR functions similarly to IPR. Anyone other than the patent holder may file a petition with USPTO requesting that PTAB initiate PGR to review the validity of the patent.[211] After a PGR petition is filed, the patent owner may file a preliminary response arguing that the patent claims meet all patenting requirements.[212] Based on the petition and any response, the USPTO Director determines whether "it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable."[213] If so, PTAB may institute review.[214] PTAB may also institute review if the petition "raises a novel or unsettled legal question that is important to other patents or patent applications."[215] As with IPRs, the decision whether to institute a PGR is unreviewable.

---

[203] Halimah DeLaine Prado, *Reforming the Patent System to Support American Innovation*, GOOGLE: THE KEYWORD, (Apr. 28, 2022), https://blog.google/outreach-initiatives/public-policy/reforming-the-patent-system-to-support-american-innovation/.

[204] 35 U.S.C. §§ 321–329.

[205] *Id.* § 321(c).

[206] *Id.* § 311(c).

[207] *Id.* § 324(a).

[208] *Id.* § 314(a).

[209] *Id.* § 311(b).

[210] *Id.* § 321(b).

[211] *Id.* § 321(a).

[212] *Id.* § 323.

[213] *Id.* § 324(a). The USPTO Director has delegated this authority to PTAB. 37 C.F.R. § 42.4 ("[PTAB] institutes the trial on behalf of the Director."); Thryv, Inc. v. Click-to-Call Techs., LP, 590 U.S. 45, 49 (2020) ("The Director has delegated institution authority to the Patent Trial and Appeal Board.").

[214] 35 U.S.C. § 324(a). Notably, the decision whether to institute is permissive, rather than mandatory. *See id.* (stating that "the director may not authorize" PGR "*unless*" the petitioner demonstrates that it is more likely than not that at least one claim is unpatentable, but not mandating institution (emphasis added)).

[215] *Id.* § 324(b).

CARVANA EXHIBIT 1018, Page 25 of 53

If PTAB institutes review, the patent owner may file a full response to the petition; the petitioner may file a reply; and, generally, the patent owner may file a sur-reply.[216] The patent owner may also file a motion to amend the claims.[217] Following the sur-reply, PTAB holds a hearing where the petitioner and patent owner present arguments regarding whether the patent meets the relevant requirements for patenting.[218] Following the hearing, PTAB issues a final written decision determining whether the patent claims are valid.[219] A party dissatisfied with the final written decision may seek review by the USPTO Director[220] or appeal to the Federal Circuit.[221] If, after all appeals, the patent claims are held invalid, USPTO issues a certificate cancelling those claims.[222]

Covered Business Method Review

The AIA also introduced CBM review, a time-limited administrative proceeding for reviewing patents relating to methods of doing business.[223] CBM review followed many of the same procedures as PGR,[224] with several differences. A CBM review petition could be filed only by a party who "has been sued for infringement of the patent or has been charged with infringement under that patent" and only against a patent that is the subject of the suit.[225] Moreover, the patent had to claim a "covered business method," which the statute defined as "a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term [did] not include patents for technological inventions."[226] The CBM review program sunsetted on September 16, 2020.[227]

Comparison of PTAB and Other Post-Grant Proceedings

Table 1 compares filing deadlines, standing, grounds for invalidation, and evidentiary thresholds for the three types of post-grant proceedings established by the AIA—PGR, IPR, and CBM review—as well as ex parte reexaminations, which predate the AIA and are not administered by PTAB.

---

[216] *See* CONSOLIDATED PTAB PRACTICE GUIDE, *supra* note 136; *see also* 35 U.S.C. § 326(a) (giving USPTO Director the power to promulgate regulations governing PGR).

[217] 35 U.S.C. § 326(a)(9).

[218] *See id.* § 326(a)(10).

[219] *Id.* § 328(a).

[220] *See infra* "Interim Director Review Process."

[221] 35 U.S.C. § 329.

[222] *Id.* § 328(b).

[223] Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 331, § 18(a) (2011).

[224] *Id.* § 18(a)(1)(A).

[225] *Id.* § 18(a)(1)(B).

[226] *Id.* § 18(d)(1).

[227] *Id.* § 18(a)(3).

CARVANA EXHIBIT 1018, Page 26 of 53

Table 1. USPTO Post-Grant Proceedings

Proceeding	Time for Filing	Challenger (Standing)	Grounds	Evidentiary Threshold	Sunset Date
Ex Parte Reexamination (*not* PTAB-administered)	Any time.	Anyone, including the USPTO Director on his/her own initiative.	Novelty or nonobviousness on the basis of patents or printed publications.	Substantial new question of patentability.	None.
PGR	No later than nine months after issuance or reissuance of a patent.	Anyone except the patent owner.	Patent-eligible subject matter; novelty; nonobviousness; indefiniteness; written description; enablement.	More likely than not that at least one of the challenged patent claims is unpatentable.	None.
IPR	No earlier than (1) nine months after patent grant or (2) after the termination of any PGR.	Anyone except the patent owner.	Novelty or nonobviousness on the basis of patents or printed publications.	Reasonable likelihood that the petitioner would prevail with respect to at least one of the challenged claims.	None.
CBM Review	Any time before the sunset date.	A person or the person's real party in interest or privy who has been sued or charged with infringement under the challenged patent.	May challenge only a covered business method patent. May raise patent-eligible subject matter; novelty; nonobviousness; indefiniteness; written description; or enablement issues.	More likely than not that at least one of the challenged claims is unpatentable.	Sept. 16, 2020.

Source: Created by CRS based on Title 35 chapters 30 (ex parte reexamination), 31 (IPR), and 32 (PGR), and Public Law No. 112-29, 125 Stat. 331, section 18 (CBM review).

Notes: "PTAB" means the Patent Trial and Appeal Board; "PGR" means post-grant review; "IPR" means inter partes review; "CBM" means covered business method.

PTAB at the Supreme Court

Starting in 2016, the Supreme Court decided six major cases involving PTAB in a five-year period.[228] The Court's interest in PTAB may reflect, to some degree, novel statutory and constitutional issues raised by the AIA, as well as PTAB's importance in the patent system. This section surveys the facts and holdings of each of these cases.

[228] *See* Cuozzo Speed Techs., LLC v. Lee, 579 U.S. 261 (2016); SAS Inst., Inc. v. Iancu, 138 S. Ct. 1348 (2018); Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC, 584 U.S. 325 (2018); Return Mail, Inc. v. U.S. Postal Serv., 139 S. Ct. 1853 (2019); Thryv, Inc. v. Click-to-Call Techs., LP, 590 U.S. 45 (2020); United States v. Arthrex, Inc., 594 U.S. 1 (2021).

CARVANA EXHIBIT 1018, Page 27 of 53

Statutory Interpretation Cases

Four of the six Supreme Court cases addressing PTAB have raised questions regarding the correct interpretation of provisions of the AIA, including whether the AIA gives PTAB authority to select a certain legal standard for claim construction in AIA proceedings (yes), whether the AIA allows PTAB to institute an IPR for only some of the patent claims challenged in a petition (no), and whether the federal government is a "person" that may file a petition for IPR (no).

In addition, two of these cases addressed the proper interpretation of 35 U.S.C. § 314(d), an AIA provision stating that the decision whether or not to institute an IPR is "final and nonappealable."[229] As discussed below, the Supreme Court held that PTAB's decision to institute an IPR cannot be appealed on grounds that the petition did not comply with the AIA's requirements or was untimely.

Cuozzo Speed Technologies, LLC v. Lee

The first Supreme Court decision to address IPR, 2016's *Cuozzo Speed Technologies, LLC v. Lee*, involved two separate issues: (1) the scope of Section 314(d)'s no-appeal provision and (2) whether the AIA authorized USPTO to issue a regulation adopting a "broadest reasonable construction" (BRC) standard for claim construction in IPR proceedings.[230] The Court concluded that PTAB's institution decision was nonappealable and that USPTO had authority to issue the BRC regulation,[231] affirming the Federal Circuit's decision below.[232]

Nonappealability of Institution Decisions. Regarding the no-appeal provision, Cuozzo, a patent owner, argued that PTAB had improperly instituted an IPR because it invalidated certain of its patent claims on bases only implicitly raised in the petition.[233] Thus, Cuozzo argued, the petition had not identified the challenged claims or grounds "with particularity" as required by 35 U.S.C. § 312(a)(3).[234]

The Supreme Court held that the no-appeal provision rendered PTAB's decision to institute nonappealable.[235] While the Supreme Court recognized a "'strong presumption' in favor of judicial review" that could only "be overcome by 'clear and convincing' indications" from Congress, it held that the language in Section 314(d) met that standard.[236] To hold otherwise, the Court reasoned, would undercut the congressional objective of allowing USPTO to revisit patentability determinations.[237] Specifically, the Court doubted that Congress would have given USPTO these review powers if it "thought that the agency's final decision could be unwound under some minor statutory technicality related to its preliminary decision to institute [an IPR]."[238]

Nevertheless, the Supreme Court indicated that Section 314(d)'s scope is not boundless. The Court cautioned that the no-appeal provision "applies where the grounds for attacking the

[229] 35 U.S.C. § 314(d).

[230] *Cuozzo*, 579 U.S. at 265–66.

[231] *See id.* at 266.

[232] *See id.* at 283.

[233] *See id.* at 270.

[234] *See id*.

[235] *See id.* at 271.

[236] *Id.* at 273–74 (quoting Block v. Cmty. Nutrition Inst., 467 U.S. 340, 349–50 (1984)).

[237] *See id.* at 272.

[238] *Id*.

CARVANA EXHIBIT 1018, Page 28 of 53

decision to institute [an IPR] consist of questions that are closely tied to the application and interpretation of statutes related to the Patent Office's decision to initiate [IPR]."[239] Thus, for instance, Section 314(d) bars judicial review where a patent holder challenges PTAB's determination that the petition shows a "reasonable likelihood" of success.[240]

By contrast, the Court stated that it was not deciding whether the no-appeal provision would apply to "appeals that implicate constitutional questions, that depend on other less closely related statutes, or that present other questions of interpretation that reach, in terms of scope and impact, well beyond 'this section.'"[241] The Court also indicated that "shenanigans" where PTAB acted beyond its statutory jurisdiction would be reviewable.[242] (As explained below, the Court would revisit the scope of Section 314(d)'s scope four years later, in *Thryv, Inc. v. Click-To-Call Technologies, LP*.[243])

Justice Alito, dissenting in part and joined by Justice Sotomayor, argued that Section 314(d) did not overcome the presumption against judicial review.[244] Justice Alito argued that Section 314(d) should be read solely as precluding a party from appealing directly from the institution decision itself, while permitting a party to seek judicial review of the institution decision after PTAB issues its final written decision in the IPR.[245]

USPTO Authority for the BRC Claim Construction Standard. Turning to claim construction, the Court held that the AIA's provision giving USPTO authority to issue regulations "establishing and governing [IPR]" allowed it to issue a regulation adopting the BRC standard.[246] Since the AIA did not specify the claim construction standard to be used in IPR, the Court held that, as a matter of *Chevron* deference, USPTO was permitted to adopt reasonable rules to fill that statutory "gap."[247] The Court concluded that adopting the BRC standard was reasonable, explaining that USPTO has used this standard in other contexts for many years and that this standard protects the public by helping prevent patentees from "tying up too much knowledge."[248] The Court rejected Cuozzo's argument that PTAB was required to use the same claim construction standard used by district courts, noting that IPR is "more like a specialized agency proceeding" than a judicial proceeding in some respects and is meant to serve a public interest in keeping "'patent monopolies . . . within their legitimate scope.'"[249]

In a concurring opinion, Justice Thomas argued that *Chevron* deference was unnecessary to resolve the BRC question, since the AIA "contains an express and clear conferral of authority to the Patent Office to promulgate rules governing its own proceedings," and the rule adopting the BRC standard was not "'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law'" under the Administrative Procedure Act.[250]

---

[239] *Id.* at 274–75.

[240] *Id.* (citing 35 U.S.C. § 314(a)).

[241] *Id*. at 275.

[242] *Id*.

[243] 590 U.S. 45 (2020).

[244] *Cuozzo*, 579 U.S. at 387 (Alito, J., concurring in part and dissenting in part).

[245] *See id.* at 291.

[246] *Id*. at 276 (quoting 35 U.S.C. § 316(a)(4)).

[247] *Id*. at 276–77 (citing Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984)).

[248] *See id.* at 281.

[249] *Id.* at 278–80 (quoting Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co., 324 U.S. 806, 816 (1945)).

[250] *Id.* at 286–87 (Thomas, J., concurring) (quoting 5 U.S.C. § 706(2)(A)).

CARVANA EXHIBIT 1018, Page 29 of 53

SAS Institute, Inc. v. Iancu

In the 2018 decision *SAS Institute, Inc. v. Iancu*,[251] the Supreme Court held that the AIA did not permit a PTAB practice called "partial institution," whereby PTAB could institute an IPR for some but not all patent claims challenged in a petition.[252] Under the holding in *SAS*, PTAB must follow an all-or-nothing approach to institution decisions, either denying institution entirely or instituting an IPR on all of the claims the petitioner challenged.[253] In other words, PTAB may not selectively "weed out" challenges to certain claims at the institution stage.

The case began when SAS petitioned PTAB to institute an IPR on all 16 claims of another company's software patent.[254] Based on a USPTO regulation allowing "partial institution," PTAB instituted an IPR as to nine of those claims, ultimately finding eight of them unpatentable.[255] On appeal to the Federal Circuit, SAS argued that the AIA required PTAB to decide the patentability of all of the claims challenged in the petition once it instituted an IPR, but the Federal Circuit rejected this argument.[256]

The Supreme Court's opinion, by Justice Gorsuch, held that the plain text of 35 U.S.C. § 318(a) prohibited partial institution.[257] Section 318(a) provides: "If an [IPR] is instituted and not dismissed under this chapter, the [PTAB] shall issue a final written decision with respect to the patentability of any patent claim challenged by the petitioner."[258] The Court held that "any" in this context implies "every," requiring PTAB to resolve the patentability of every claim challenged in the petition if it decides to institute an IPR.[259] The Court reasoned that other statutory features supported this reading of Section 318(a), including the fact that the AIA does not permit PTAB to institute an IPR of its own initiative and that IPR utilizes a "party-directed, adversarial process."[260] Further, the Court held that Section 318(a) is unambiguous, foreclosing any possible deference to PTAB's interpretation of the statute.[261] In short, the Court held, while PTAB generally has discretion "*whether* to institute review" if the petitioner shows a reasonable likelihood of success on at least one patent claim, PTAB does not have discretion "regarding *what* claim that review will encompass."[262]

Four Justices dissented from the Court's opinion. Justice Ginsburg authored one dissenting opinion, arguing that the Court's holding would needlessly waste PTAB's resources.[263] Justice Ginsburg reasoned that, since PTAB is never required to institute an IPR, PTAB could accomplish the same result as partial institution—albeit less efficiently—by denying institution and encouraging the petitioner to file a new petition challenging only a subset of the same claims.[264]

---

[251] 138 S. Ct. 1348 (2018).

[252] *See id.* at 1354.

[253] *See id.* at 1353.

[254] *See id.* at 1354.

[255] *See id*.

[256] *See id*.

[257] *See id*.

[258] 35 U.S.C. § 318(a).

[259] *See SAS*, 138 S. Ct. at 1354.

[260] *Id.* at 1355.

[261] *See id.* at 1358 (discussing Chevron U.S.A. Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984)).

[262] *Id.* at 1356.

[263] *Id.* at 1360 (Ginsburg, J., dissenting).

[264] *See id*.

CARVANA EXHIBIT 1018, Page 30 of 53

In a second dissenting opinion, Justice Breyer argued that Section 318(a) is ambiguous, requiring the Court to defer to PTAB's reasonable interpretation of the statute under *Chevron*.[265] Justice Breyer reasoned that the phrase "any patent claim challenged by the petitioner" could refer either to challenges made in the petition or to challenges that remain once the IPR instituted.[266] Justice Breyer further contended that PTAB's resolution of this ambiguity, allowing "partial institution," was reasonable and entitled to deference.[267]

Return Mail, Inc. v. U.S. Postal Service

In 2019, the Supreme Court decided *Return Mail, Inc. v. U.S. Postal Service*,[268] holding that the AIA does not permit governmental entities to petition for AIA proceedings (i.e., IPR, PGR, or CBM review).[269] This holding has significance for scenarios in which the government—or certain private parties acting on the government's behalf, such as government contractors—might be accused of patent infringement.

Return Mail, Inc. owned a patent on a method for processing undeliverable mail.[270] Asserting that the U.S. Postal Service infringed this patent, Return Mail sued the Postal Service in the U.S. Court of Federal Claims under 28 U.S.C. § 1498.[271] Section 1498 allows a patent owner to sue the United States in the Court of Federal Claims when the patented invention "is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same."[272] Section 1498 allows a patent owner—such as Return Mail—to recover the "reasonable and entire compensation for such use and manufacture," as well as costs and attorneys' fees in some cases.[273]

In response to Return Mail's pre-suit infringement accusations, the Postal Service petitioned USPTO for ex parte reexamination of the asserted patent.[274] USPTO conducted an ex parte reexamination and confirmed the validity of the patent (albeit by substituting claims).[275] Then, after Return Mail had filed its infringement suit in the Court of Federal Claims, the Postal Service petitioned for CBM review of the patent.[276] PTAB initiated a CBM review and ruled that the

---

[265] *Id.* (Breyer, J., dissenting) (citing Chevron, 467 U.S. at 842–43).

[266] *Id.* at 1361 (Breyer, J., dissenting).

[267] *See id.* at 264.

[268] 139 S. Ct. 1853 (2019).

[269] *See id.* at 1867.

[270] *See id.* at 1861.

[271] *See id*.

[272] 28 U.S.C. § 1498(a).

[273] *Id.* (permitting award of costs and fees "if the owner is an independent inventor, a nonprofit organization, or an entity that had no more than 500 employees at any time during the 5-year period preceding the use or manufacture"). Section 1498 provides that patent owners may bring such claims against the United States not only when the government itself uses or manufactures the invention, but also when private parties use or manufacture the invention "for" the government with its "authorization or consent." *Id*. ("[T]he use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States.").

[274] *See Return Mail*, 139 S. Ct. at 1861.

[275] *See id*.

[276] *See id*.

CARVANA EXHIBIT 1018, Page 31 of 53

patent was invalid because it was directed to ineligible subject matter. On appeal, the Federal Circuit affirmed PTAB's decision.[277]

At the Supreme Court, *Return Mail* hinged on whether, as a matter of statutory interpretation, the government is a "person" eligible to petition for CBM review or other AIA proceedings.[278] The AIA allows "a person who is not the owner of a patent" to petition for IPR, PGR, and CBM review,[279] but it does not define the word "person."[280]

The Court, in an opinion by Justice Sotomayor, held that "person" as used in the AIA does not include the government and its agencies.[281] To reach this holding, the Court applied a "longstanding interpretive presumption" that the word "person" does not include the government.[282] The Court noted that Congress itself had adopted this presumption[283] in a 1947 law (the Dictionary Act) providing that specific words, as used in acts of Congress, should be interpreted according to definitions provided in the Dictionary Act "unless the context indicates otherwise."[284] The Dictionary Act's definition of a "person," the Court noted, included certain corporate entities but not the government.[285]

The Court rejected the Postal Service's argument that Congress must have intended the government to be able to petition for AIA proceedings since Congress has made the government liable to pay compensation for patent infringement under Section 1498.[286] In response to this argument, the Court noted that the government's potential liability under Section 1498 is less severe than that of ordinary infringers in a civil suit, and the government may still assert invalidity as a defense in any Section 1498 lawsuit and petition for non-AIA proceedings such as ex parte reexamination.[287]

Justice Breyer issued a dissenting opinion that was joined by Justices Ginsburg and Kagan.[288] The dissent argued that the presumption against interpreting "person" in the AIA to include the government was weakened by the fact that certain other uses of "person" in the Patent Act (e.g., those referring to eligibility to obtain a patent) include the government.[289] The dissent also argued that allowing the government to petition for AIA proceedings would better serve Congress's purpose in enacting the AIA and that it would be anomalous for Congress not to allow the

---

[277] *See id*.

[278] *See id*.

[279] *Id.* at 1860; *see* 35 U.S.C. §§ 311(a) (IPR), 321(a) (PGR); Pub. L. No. 112-29 § 18(a)(1), (B), 125 Stat. 330 (2011) (providing that CBM review "shall be regarded as, and shall employ the standards and procedures of, a [PGR]" and that "[a] person may not file a petition for [CBM review] unless the person or the person's real party in interest or privy has been sued . . . or . . . charged with infringement").

[280] *See Return Mail*, 139 S. Ct. at 1861.

[281] *See id.* at 1867.

[282] *Id.* at 1862–63 (quoting Vt. Agency of Nat. Res. v. United States ex rel. Stevens, 529 U.S. 765, 780–81 (2000)).

[283] *See Return Mail*, 139 S. Ct. at 1863.

[284] 1 U.S.C. § 1.

[285] *See id.* ("[T]he words 'person' and 'whoever' include corporations, companies, associations, firms, partnerships, societies, and joint stock companies, as well as individuals . . . .").

[286] *See Return Mail*, 139 S. Ct. at 1866–67.

[287] *See id*.

[288] *See id.* at 1868–72 (Breyer, J., dissenting).

[289] *See id.* at 1868–70.

CARVANA EXHIBIT 1018, Page 32 of 53

government to petition for AIA review while allowing the government to be sued for patent infringement and to avail itself of other USPTO invalidity proceedings.[290]

Thryv, Inc. v. Click-to-Call Technologies, LP

In 2020, the Supreme Court again considered Section 314(d)'s no-appeal provision in *Thryv, Inc. v. Click-to-Call Technologies, LP*.[291] *Click-to-Call* concerned the "time-bar" provision of 35 U.S.C. § 315(b), which requires petitioners to file an IPR no more one year after they are sued for infringement of the patent.[292] The Court, in an opinion by Justice Ginsburg, held that Section 314(d) bars judicial review of PTAB determinations regarding Section 315(b)'s time bar.[293]

The respondent, Click-to-Call Technologies, LP, owned a patent that Thryv, Inc. challenged via an IPR petition filed in 2013.[294] Click-to-Call claimed the petition was untimely, arguing that Section 315(b)'s one-year clock had begun to run in 2001, when Thryv's predecessor was sued for infringement of the patent.[295] PTAB, however, ruled that this infringement suit did not trigger the one-year clock because it had been dismissed without prejudice.[296]

The Court found *Cuozzo*'s holding—that Section 314(d) bars review of "matters 'closely tied to the application and interpretation of statutes related to' the institution decision"—controlling in *Thryv*, since the Section 315(b) time bar is an "integral" condition on institution.[297] The Court also determined that the "purpose and design" of the statute creating IPR reinforces the conclusion that the no-appeal provision applies to the time bar because IPR "sought to weed out bad patent claims," and that allowing review of the time bar would permit the continued enforcement of patents held to be invalid.[298]

The Court rejected Click-to-Call's arguments that Section 314(d) does not apply to time-bar determinations, including its attempt to read Section 314(d) as limited to the initial merits determination.[299] The Court found this argument foreclosed by *Cuozzo* and inconsistent with related no-appeal provisions that Congress drew more narrowly. If Congress had intended Section 314(d)'s scope to be narrower, the Court reasoned, it would have used narrower language.[300] Accordingly, the Court vacated and remanded the Federal Circuit's judgment, with instructions to dismiss the appeal for lack of jurisdiction.[301]

Justice Gorsuch issued a dissenting opinion that Justice Sotomayor joined in part. Justice Gorsuch argued that Section 314(d)'s text indicates that the no-appeal provision applies only to PTAB's initial determination on the merits of the petition, not to other determinations.[302] Justice Gorsuch contended that *Cuozzo*'s statement to the contrary was "dicta" (i.e., nonbinding language not

[290] *See id.* at 1870–71.

[291] 590 U.S. 45 (2020).

[292] *See id.* at 47–49.

[293] *See id*.

[294] *See id.*

[295] *See id.* & n. 4.

[296] *See id*. at 47–49.

[297] *Id.* at 46 (quoting *Cuozzo*, 579 U.S. at 273–75).

[298] *See id.* at 52–54.

[299] *See id.* at 56–57.

[300] *See id.* at 56–59.

[301] *See id.* at 60–61.

[302] *See id.* at 65–66 (Gorsuch, J., dissenting).

CARVANA EXHIBIT 1018, Page 33 of 53

necessary to the holding of that case) and should not control the present case.[303] Moreover, he argued that the presumption of judicial review indicates that the no-appeal provision should be read narrowly to reach only the initial merits determination.[304] Justice Gorsuch also opined that the Court's precedents interpreting the AIA shifted too much power to USPTO at the expense of the courts, particularly considering that the USPTO Director is a political appointee.[305] Finally, he criticized the Court's previous decision upholding the IPR's constitutionality as part of a trend of "handing over judicial powers involving the disposition of individual rights to executive agency officials."[306]

Constitutional Challenges to IPR

While the foregoing cases addressed questions of statutory interpretation of the AIA, the Supreme Court has also heard two cases challenging aspects of IPR proceedings on constitutional grounds. In the first of these cases, the Supreme Court upheld the constitutionality of IPR against arguments that it violates separation-of-powers principles and the constitutional guarantee of jury trials. In the second case, the Supreme Court invalidated a provision of the AIA that prevented the USPTO Director from reviewing IPR decisions, holding that it violated the Constitution's Appointments Clause.

Oil States Energy Services, LLC v. Greene's Energy Group, LLC

In *Oil States Energy Services, LLC v. Greene's Energy Group, LLC*,[307] the Court addressed whether IPR violates Article III or the Seventh Amendment of the Constitution. In *Oil States*, a party whose patent claims had been invalidated in IPR argued that IPR was unconstitutional because patent rights can be revoked only by an Article III court (e.g., a federal district court), with the right to a jury trial pursuant to the Seventh Amendment.[308] The Supreme Court rejected this argument.[309]

The Supreme Court explained that, while Article III "vests the judicial power of the United States" in federal courts, proceedings that adjudicate "public rights" do not necessarily involve an exercise of judicial power.[310] This "public rights doctrine" gives Congress "significant latitude" to allow tribunals other than Article III courts to adjudicate public rights.[33] The Court held that patent rights are public rather than private rights, since patents are created pursuant to statute and give the owner a "public franchise" or monopoly that prevents the public from practicing the claimed invention.[311] Since IPR is "simply a reconsideration" of the initial granting of that public right[312]—and since patent claims are granted subject to the possibility that they may be invalidated in IPR[313]—the Court held that an issued patent's validity can constitutionally be

[303] *See id.* at 75–77.

[304] *See id.* at 70–72.

[305] *See id.* at 79–81.

[306] *Id.* at 77–79; *see infra* "*Oil States Energy Services, LLC v. Greene's Energy Group, LLC*."

[307] 584 U.S. 325 (2018).

[308] *See id.* at 332–34. PTAB is an administrative or legislative court, not an Article III court, because PTAB hears cases in which the petitioner lacks standing and APJs do not enjoy protections afforded to Article III judges such as lifetime tenure. *See generally* CRS Report R43746, *Congressional Power to Create Federal Courts: A Legal Overview* (2015).

[309] *Oil States*, 584 U.S. at 344–45.

[310] *See id.* at 332–35.

[311] *Id.* at 334–38.

[312] *Id.* at 334–35.

[313] *See id.* at 335–37.

CARVANA EXHIBIT 1018, Page 34 of 53

determined by PTAB rather than an Article III court. Further, since Congress was permitted to assign IPR proceedings to non-Article III tribunal, the Court held that appellants had no right to a trial by jury under the Seventh Amendment.[314]

Seven Justices joined Justice Thomas's majority opinion in full, with three of those Justices concurring to express their perspective that private rights may also sometimes be adjudicated by bodies other than Article III courts.[315] Justice Gorsuch, joined by Chief Justice Roberts, dissented.[316] Justice Gorsuch argued that, based on historical practice in the United States and England, cancelling an issued patent is an exercise of "judicial power"[317] that is not comparable to USPTO's initial decision whether to grant a patent.[318] Whereas the majority noted that, prior to the creation of PTAB and IPR, Congress had established other non-Article III proceedings to cancel issued patents since 1980,[319] Justice Gorsuch stressed that such proceedings did not exist from 1790 (when Congress enacted the first Patent Act) to 1980.[320]

United States v. Arthrex

In the 2021 case *United States v. Arthrex*,[321] the Supreme Court invalidated the provision of the AIA that prevented the USPTO Director from reviewing APJs' IPR decisions, holding that this provision violated the Constitution's Appointments Clause.[322] The Court's decision in *Arthrex* prompted PTAB to develop an interim process for the Director to review panel decisions—a process discussed in the following section of this report.

The Appointments Clause sets forth how "Officers of the United States," such as APJs, may be appointed.[323] It gives Congress discretion to vest the appointment of "inferior [o]fficers" either in "the President alone, in the Courts of Law, or in the Heads of Departments" but requires the President to appoint all other officers—whom the Supreme Court refers to as *principal officers*—with the Senate's advice and consent.[324] In *Arthrex*, a company whose patent had been invalidated in an IPR claimed that APJs' appointment by the Secretary of Commerce was unconstitutional, arguing that APJs were principal officers requiring presidential appointment and Senate confirmation.[325]

The Supreme Court, in an opinion by Chief Justice Roberts, held that the AIA gave APJs authority that was "incompatible with their appointment by the Secretary to an inferior office."[326]

---

[314] *See id.* at 334–38.

[315] *See id.* at 334–38 (Breyer, J., concurring).

[316] *Id.* at 345–47 (Gorsuch, J., dissenting).

[317] *See id.* at 347–54.

[318] *See id.* at 354–55.

[319] *See id.* at 354–56.

[320] *See id.* at 352–54 (Gorsuch, J., dissenting). The majority and Justice Gorsuch also reached differing interpretations regarding the extent to which nonjudicial proceedings to cancel patents were an accepted practice under English law at the time of the framing of the Constitution. *Compare id.* at 340–42 (majority opinion, noting practice of vacating patents via petitions to the Privy Council), *with id.* at 351–52 (Gorsuch, J., dissenting, arguing that this practice had become a "last resort" by the time of the Constitution).

[321] 594 U.S. 1 (2021).

[322] *See id.* at 24–28.

[323] *See* Cong. Rsch. Serv., *Officer and Non-Officer Appointments,* CONSTITUTION ANNOTATED, https://constitution.congress.gov/browse/essay/artII-S2-C2-3-10/ALDE_00013100/ (last visited Mar. 28, 2024).

[324] U.S. CONST. art. II, § 2, cl. 2.

[325] *See Arthrex*, 594 U.S. at 9–14.

[326] *Id.* at 23.

CARVANA EXHIBIT 1018, Page 35 of 53

The AIA, as written, did not subject the APJs' IPR decisions to "review by a superior executive officer," such as the USPTO Director.[327] The Court reasoned that only principal officers nominated by the President and confirmed by the Senate may make "final decision[s] binding the Executive Branch" in administrative adjudications such as IPRs.[328] Under the AIA, however, only PTAB itself (not the USPTO Director) could grant rehearing of PTAB decisions, giving APJs the final word of the executive branch on PTAB's patentability decisions in IPRs.[329] In short, the Court held that the structure of PTAB violated the Constitution because it gave inferior officers (APJs) "unreviewable executive power."[330]

Despite this constitutional flaw, the Court did not invalidate the PTAB itself or the administrative processes created by the AIA. Instead, it concluded that the appropriate remedy was to grant the Director unilateral power to review PTAB decisions.[331] Although the AIA specifically insulated PTAB decisions from further review within the executive branch—providing that "[o]nly the [PTAB] may grant rehearings"[332]—the Court severed (or invalidated) this statutory provision to save the remainder of the statute.[333] *Arthrex* thus gave the Director "discretion" to rehear PTAB decisions.[334] The Court reasoned that this remedy was sufficient since APJs are inferior officers "[i]n every respect save the insulation of their decisions from review within the Executive Branch."[335]

Justice Gorsuch joined the majority opinion on the merits but dissented as to the appropriate remedy.[336] He argued that the Court's "severance" doctrine—in which the Court excises part of a statute to cure a constitutional problem—is inappropriate when there is more than "one possible way" to cure the constitutional problem and Congress has not provided any specific direction.[337] Justice Gorsuch argued the Court should instead decline to enforce the statute—in this case, allowing challengers to vacate PTAB decisions until Congress fixed the constitutional problem[338]—to avoid guessing "what a past Congress would have done."[339]

Justice Thomas, joined in part by Justices Breyer, Sotomayor, and Kagan, dissented as to the merits of the Appointments Clause question, arguing that the PTAB's structure was consistent with the Constitution.[340] Justice Thomas argued APJs are inferior officers because they are "lower in rank to at least two different officers"—the Director and the Secretary[341]—and because the Director has a number of tools to supervise and control APJs, making them "functionally" inferior.[342] For instance, the AIA allows the Director to decide whether to institute an IPR, control

[327] *Id.* at 14.

[328] *Id.* at 23.

[329] *See id.* at 23–27 (discussing 35 U.S.C. § 6(c)).

[330] *Id.* at 18–19.

[331] *See id.* at 23–28.

[332] 35 U.S.C. § 6(c).

[333] *Arthrex*, 594 U.S. at 23–25.

[334] *Id.* at 27–28.

[335] *Id.* at 23–25.

[336] *See id.* at 27–28 (Gorsuch, J., dissenting).

[337] *Id.* at 30–32.

[338] *See id*.

[339] *Id.* at 34–35.

[340] *See id.* at 43–46 (Thomas, J., dissenting).

[341] *Id.* at 48–50.

[342] *Id*.

CARVANA EXHIBIT 1018, Page 36 of 53

which APJs are assigned to the panel, and add additional members (including the Director) to panels.[343]

Justice Breyer, joined by Justices Sotomayor and Kagan, issued a separate opinion dissenting on the merits, arguing that the Appointments Clause grants Congress "a degree of leeway"[344] and that the Court should "take account of . . . why Congress enacted a particular statutory limitation" and consider the "practical consequences" of that choice.[345] Here, Justice Breyer argued, the "technical nature of patents, the need for expertise, and the importance of avoiding political interference" justified Congress's decision to give APJs a degree of independence.[346]

Current Debates and Proposed Reforms

PTAB has administered AIA post-grant proceedings for more than a decade. As PTAB has gained experience with these new types of proceedings—and developed rules, operating procedures, guidelines, and precedential decisions for them—several issues have attracted attention and differing views from stakeholders. Some of these issues include the proper role of the USPTO Director and PTAB management in PTAB proceedings (especially following *Arthrex*); who should be able to file petitions; the proper standards for proving invalidity and for claim construction; and the circumstances when PTAB should deny institution of an IPR.

This section of the report explains PTAB's current practices in these areas and selected proposed reforms, including the Promoting and Respecting Economically Vital American Innovation Leadership Act (PREVAIL Act), introduced in the 118th Congress as S. 2220,[347] and several proposed rulemaking notices published by USPTO.[348] This section discusses how selected provisions in the PREVAIL Act and USPTO's proposed rules would reform certain aspects of PTAB.[349]

What Roles Do the USPTO Director and PTAB Management Play in PTAB Decisions?

Interim Director Review Process

As discussed above, the Supreme Court's 2021 *Arthrex* decision gave the USPTO Director unilateral power to review PTAB's decisions and invalidated a provision of the AIA to the extent

[343] *See id.* at 50–53.

[344] *Id.* at 38 (Breyer, J., dissenting).

[345] *Id.* at 41.

[346] *Id.* at 41.

[347] *See* PREVAIL Act, S. 2220, 118th Cong. (2023). An identical bill has been introduced in the U.S. House of Representatives as H.R. 4370, 118th Cong. (2023).

[348] *See* Patent Trial and Appeal Board Rules of Practice for Briefing Discretionary Denial Issues, and Rules for 325(d) Considerations, Instituting Parallel and Serial Petitions, and Termination Due to Settlement Agreement, 89 Fed. Reg. 28693 (Apr. 19, 2024) [hereinafter Discretionary Denial NPRM]; Rules Governing Director Review of Patent Trial and Appeal Board Decisions, 89 Fed. Reg. 26807 (Apr 16, 2024) [hereinafter Director Review NPRM]; Changes Under Consideration to Discretionary Institution Practices, Petition Word-Count Limits, and Settlement Practices for America Invents Act Trial Proceedings Before the Patent Trial and Appeal Board, 88 Fed. Reg. 24503 (Apr. 21, 2023) [hereinafter ANPRM].

[349] This section does not comprehensively review all of the proposed changes in the PREVAIL Act and proposed rulemaking notices. For example, this section does not analyze PREVAIL Act's provisions on real parties-in-interest or USPTO fee diversion.

CARVANA EXHIBIT 1018, Page 37 of 53

that it prohibited director review.[350] Days after the Court decided *Arthrex*, USPTO implemented the decision by establishing an "Interim Director Review Process" that allows parties to seek director review of PTAB decisions.[351] Although the *Arthrex* decision concerned only IPR,[352] the Interim Director Review Process applies to PGR and derivation proceedings as well.[353]

As currently designed, the Interim Director Review Process allows parties to request director review of PTAB's (1) institution decisions, (2) final written decisions, and (3) decisions granting requests for rehearing.[354] Requests for director review are limited to decisions that present either an abuse of discretion or "important issues of law or policy," except that requests for review of final written decisions may also seek review of allegedly erroneous findings of material fact or legal conclusions.[355] Requests for director review may not include new evidence or arguments not already in the record.[356] A body called the Advisory Committee, comprising at least 11 members from various USPTO business units, reviews requests for director review and makes recommendations on whether or not the Director should grant review.[357]

If the Director grants review, she generally makes a decision based on the existing record but may order additional briefing, discovery, or oral argument.[358] The Director reviews PTAB decisions *de novo* (i.e., without giving any deference to PTAB), except for decisions whether to institute a trial or grant rehearing that do not involve important issues of law and policy, which are reviewed only for abuse of discretion.[359]

In addition to reviews requested by a party, the Director has authority to review PTAB decisions *sua sponte* (i.e., of her own volition).[360] Whereas parties may request review only of certain kinds of decisions, the Director may review any PTAB decision sua sponte.[361] The Director may seek recommendations from the Advisory Committee whether or not to review a decision sua sponte.[362] The Director may—but is not required to—give the parties an opportunity to submit briefing on sua sponte reviews.[363]

---

[350] *Arthrex*, 594 U.S. at 25 ("We conclude that a tailored approach is the appropriate one: Section 6(c) cannot constitutionally be enforced to the extent that its requirements prevent the Director from reviewing final decisions rendered by APJs.").

[351] *See* USPTO, Revised Interim Director Review Process, https://www.uspto.gov/patents/ptab/decisions/revised-interim-director-review-process (last visited Mar. 28, 2024) [hereinafter Interim Director Review Process]; Request for Comments on Director Review, Precedential Opinion Panel Review, and Internal Circulation and Review of Patent Trial and Appeal Board Decisions, 87 Fed. Reg. 43249 (July 20, 2022) [hereinafter Request for Comments on Director Review] ("On June 29, 2021, the USPTO implemented an interim process for Director review.").

[352] *Arthrex*, 594 U.S. at 26 ("[T]his suit concerns only the Director's ability to supervise APJs in adjudicating petitions for inter partes review. We do not address the Director's supervision over other types of adjudications conducted by the PTAB.").

[353] *See* Interim Director Review Process, *supra* note 351, Section 1.

[354] *See id.*, Section 2.A.

[355] *See id.,* Section 2.B.

[356] *See id.,* Section 3.E.

[357] *See id.,* Section 4.A.

[358] *See id.,* Section 4.A.ii.

[359] *See id.,* Section 5.C.

[360] *See id.*, Section 4.C.

[361] *See id.*, Section 2.A.

[362] *See id.,* Section 4.A.

[363] *See id.,* Section 4.C.

CARVANA EXHIBIT 1018, Page 38 of 53

If the Director decides to review a PTAB decision, either upon request of a party or sua sponte, she may choose to delegate the review to a Delegated Rehearing Panel (DRP).[364] A DRP is composed of APJs who did not serve on the initial panel.[365] Whether or not the Director delegates review to a DRP, the process concludes with a decision that affirms, reverses, modifies, or vacates the PTAB's decision; remands the decision for further PTAB proceedings; or some combination of the above. Review decisions constitute final written decisions that may be appealed to the Federal Circuit,[366] and a party may also request rehearing of a review decision.[367]

In April 2024, USPTO published a notice of proposed rulemaking (NPRM) that proposes to codify in USPTO regulations a director review process that generally "is consistent with the current interim process."[368] The proposed rule deviates from the current Interim Director Review Process in some respects, however. As commentators have noted,[369] the proposed rule would not expressly limit the grounds to request director review, as the Interim Director Review Process does (i.e., limiting director review to decisions presenting an abuse of discretion, important issues of law or policy, and—for final written decisions only—erroneous findings of material fact or erroneous legal conclusions).[370] The proposed rule would also require that, if the Director grants review and does not withdraw the grant, the review must conclude with "a decision or order that provides the reasons for the Director's disposition of the case."[371] In addition, the proposed rule would prohibit communications from third parties from being considered in the review process, except for "authorized amicus briefing."[372]

Concerns Regarding Transparency and APJ Independence

While the Interim Director Review Process governs director review of already-issued decisions, PTAB's management has utilized various other practices for oversight and peer review of draft decisions before they are issued.[373] Some stakeholders have raised concerns about the transparency of these practices and their potential effects on the independence of APJs.[374]

In December 2022, the U.S. Government Accountability Office (GAO) issued a report making recommendations that included "specifying in finalized policies PTAB management and USPTO Director roles in internal oversight processes and circumstances in which judges are required to incorporate management comments" in their decisions.[375] GAO noted that some stakeholders and APJs were uncertain about the role of the Director and PTAB management in overseeing panel

---

[364] *See id.,* Section 5.A.iii

[365] *See* Delegated Rehearing Panel, Section 2.A ("The DRP shall be selected from the Chief Judge, Deputy Chief Judge, Vice Chief Judges, and Senior Lead Judges, excluding judges who served on the original Board panel for the case under review or otherwise have a conflict with the case.").

[366] *See* Interim Director Review Process, *supra* note 351, Section 5.C.i.

[367] *See id.*, Section 5.C.ii.

[368] Director Review NPRM, *supra* note 348, at 26810.

[369] *See* Kassandra M. Officer et al., *USPTO Publishes Notice of Proposed Rulemaking for Director Review*, FINNEGAN (April 2024), https://www.finnegan.com/en/insights/blogs/at-the-ptab-blog/uspto-publishes-notice-of-proposed-rulemaking-for-director-review.html.

[370] *Compare* Director Review NPRM, *supra* note 348, at 26813 *with* Interim Director Review Process, *supra* note 351, Section 2.B.

[371] Director Review NPRM, *supra* note 348, at 26813.

[372] *Id*.

[373] *See generally* GAO PTAB REPORT, *supra* note 102, at 14 (providing timeline of PTAB oversight mechanisms).

[374] *See id.* at 41–42 (making recommendations to USPTO Director).

[375] *Id.* at "Highlights" page.

CARVANA EXHIBIT 1018, Page 39 of 53

decisions.[376] One area of uncertainty concerned whether panels were required to incorporate comments management provided on draft decisions.[377]

The GAO report also explored to what extent, if at all, PTAB management might change or expand the composition of PTAB panels to influence case outcomes.[378] Eighty percent of APJs surveyed by GAO reported experiencing panel changes, 20% of whom felt that such changes were made "to alter or influence" panel decisions.[379] PTAB management reported that it was "exceptionally rare to use paneling as a vehicle for oversight."[380] Overall, 75% of judges responded that oversight practices "had an effect on their independence."[381]

In October 2023, PTAB issued a standard operating procedure (SOP 4)[382] to address some of the issues discussed in the GAO report.[383] SOP 4 allows panel members to request nonbinding input on draft decisions from a pool of "non-management peer judges"[384] and/or from a review team designated by PTAB Executive Management, which consists of the Chief Judge, Deputy Chief Judge, Vice Chief Judges, and Senior Lead Judges.[385] SOP 4 gives PTAB panel members discretion whether or not to solicit input from these bodies and gives PTAB panels "final authority and responsibility for the content of a decision," including "in what manner, if at all, to incorporate any feedback."[386] SOP 4 gives a third body responsibility for reviewing issued decisions to determine whether they require further attention, such as sua sponte Director review.[387]

SOP 4 states that the Director will not be involved in directing or influencing panel decisions before they issue (unless the Director is a member of the panel).[388] SOP 4 also states that the Director will not influence paneling decisions prior to issuance of a decision, but she may direct repaneling when reviewing or rehearing an issued decision.[389]

The PREVAIL Act contains provisions that its sponsors contend would increase transparency of PTAB proceedings.[390] It would require the Director to issue a separate written opinion in the public record that sets forth the reasons for any reconsideration, rehearing, or review of an IPR or

---

[376] *Id.* at 33.

[377] *Id.* at 29–31.

[378] *Id.* at 36.

[379] *Id.* at 36.

[380] *Id.* at 36 n. 78.

[381] *Id.* at 23.

[382] PTAB, STANDARD OPERATING PROCEDURE 4: PROCEDURE FOR PRE-ISSUANCE OPTIONAL DECISION REVIEW AND POST-ISSUANCE DECISION REVIEW (Oct. 2023), https://www.uspto.gov/sites/default/files/documents/ptab_sop_4-2023-oct.pdf [hereinafter SOP 4].

[383] In its report, GAO noted that some of these changes had previously been incorporated into the Interim Director Review Process as of May 2022. *See* GAO PTAB REPORT, *supra* note 102, at "Highlights" page. GAO stated that such changes could improve transparency about oversight practices "if finalized and . . . made publicly available." *Id.*

[384] SOP 4, *supra* note 382, at 1–2 (a Circulation Judge Pool or CPJ).

[385] *Id.* at 3–4 (PTAB Management Pre-Issuance Optional Review team).

[386] *Id.* at 1.

[387] *Id.* at 5 (PTAB Post-Issuance Review team).

[388] *Id.* at 4–5.

[389] *Id.* at 5.

[390] THE PREVAIL ACT WILL HELP ENSURE U.S. GLOBAL TECHNOLOGY LEADERSHIP AND PROTECT ECONOMIC AND NATIONAL SECURITY 2, https://www.coons.senate.gov/imo/media/doc/prevail_act_fact_sheet.pdf (last visited Mar. 28, 2024) [hereinafter PREVAIL ACT FACT SHEET].

CARVANA EXHIBIT 1018, Page 40 of 53

PGR decision.[391] The bill's sponsors state that this requirement would "increase transparency and reduce concerns that the Director unfairly influences PTAB decisions."[392] The bill would also require that any changes to the membership of a panel be noted in the public record.[393]

The PREVAIL Act would also require the Director—and any other officers with disciplinary or supervisory authority over APJs—to "refrain from communications with [a PTAB panel] that direct or otherwise influence any merits decision."[394] Some commentators would like to see this provision go further by extending this prohibition on so-called "ex parte contacts" to institution and procedural decisions.[395] Some have also called on Congress to restore APJs' pre-*Arthrex* independence by requiring that they be appointed by the President and confirmed by the Senate, thus making them superior officers who may constitutionally be insulated from Director supervision.[396]

Who Has Standing to Petition PTAB and Appeal Its Decisions?

Although many IPRs are brought by persons sued for patent infringement in court, being sued or threatened with suit is not a requirement to bring an IPR or PGR petition. Under the AIA, any person other than the patent holder may file an IPR or PGR petition.[397] By contrast, parties may challenge patents in federal court only if there is "a substantial controversy, between the parties having adverse legal interests, of sufficient immediacy and reality."[398]

The lack of a standing requirement means that a broader set of people and groups may use IPR and PGR, even if they do not make products that could infringe the challenged patents. For example, public interest and nonprofit groups, such as the Electronic Frontier Foundation[399] and Consumer Watchdog,[400] have used IPRs to challenge patents. In addition, some IPRs are brought by petitioning organizations that receive funding from companies that may be sued for patent infringement. For example, Unified Patents—an organization whose members include many large technology companies[401]—is among the most frequent users of IPR.[402]

---

[391] PREVAIL Act, S. 2220, 118th Cong. § 4(f), 5(f) (2023).

[392] PREVAIL ACT FACT SHEET, *supra* note 390, at 2.

[393] S. 2220 § 3.

[394] S. 2220 § 3.

[395] *See* Written Statement of Joseph Matal, *Reforming the Patent Trial and Appeal Board—The PREVAIL Act and Proposals to Promote U.S. Innovation Leadership: Hearing Before the Senate Comm. on the Judiciary, Subcomm. on Intellectual Property*, 118th Cong. (Nov. 8, 2023), https://www.judiciary.senate.gov/download/2023-11-08-testimony-matal, at 17 [hereinafter Matal Statement].

[396] *See id.* at 18.

[397] 35 U.S.C. §§ 311(a), 321(a).

[398] Prasco LLC v. Medicis Pharm. Corp., 537 F.3d 1329, 1334 (Fed. Cir. 2008) (quoting MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118, 127 (2007)).

[399] *See* Pers. Audio, LLC v. Elec. Frontier Found., 867 F.3d 1246 (Fed. Cir. 2017) (appeal from IPR brought by the Electronic Frontier Foundation).

[400] *See* Consumer Watchdog v. Wis. Alumni Rsch. Found., 753 F.3d 1258 (Fed. Cir. 2014) (appeal from IPR brought by Consumer Watchdog).

[401] *See* UNIFIED PATENTS, *Members*, https://www.unifiedpatents.com/members (last visited Mar. 28, 2024).

[402] *See* UNIFIED PATENTS, *2022 Annual PTAB Report*, https://portal.unifiedpatents.com/ptab/annual-report (last visited Mar. 28, 2024) (listing Unified Patents as the sixth most active PTAB petitioner in 2022, behind Apple, Inc., Samsung Electronics Co., Google LLC, Samsung Electronics America, and Amazon.com).

CARVANA EXHIBIT 1018, Page 41 of 53

The PREVAIL Act would restrict who may file petitions for IPR (but not for PGR).[403] The bill's language would allow a person to file an IPR petition only if they have been sued for infringing the patent or "charged with infringement" of the patent.[404] The latter term is defined to mean a "real and substantial controversy" of the sort required for standing in federal court.[405]

Supporters of this standing requirement contend it would encourage independent and small business inventors to develop and seek patent protection for new inventions by giving them assurance that the patents would not be challenged unless they assert them against alleged infringers.[406] Opponents argue that restricting standing in this manner would stop petitioning organizations and others from filing petitions against low-quality patents used by "nuisance-settlement plaintiffs" that file abusive patent infringement lawsuits against parties who cannot, individually, afford to litigate such lawsuits.[407] Opponents also argue that restrictions on standing could reduce consumer choices and raise prices by preventing businesses from filing "clearance petitions" to gain assurance that they can commercialize products without risking patent infringement.[408]

What Should Be PTAB's Standards for Invalidation and Claim Construction?

Invalidity: Preponderance of Evidence or Clear and Convincing Evidence?

One difference between district court litigation and IPRs and PGRs is the standard of proof needed to invalidate a patent. The Patent Act provides that patents are presumed to be valid.[409] Based on that presumption, the Supreme Court and the Federal Circuit have held that district courts may invalidate a patent only if there is "clear and convincing evidence" of invalidity.[410] The AIA, on the other hand, allows IPR and PGR petitioners to show that a patent is invalid by a lower standard: the "preponderance of the evidence."[411]

The sponsors of the PREVAIL Act propose to "harmonize" these standards by holding PTAB challengers to the higher, "clear and convincing evidence" standard used in district court.[412] Thus, the PREVAIL Act would place the burden on the petitioner in an IPR or PGR to prove the unpatentability of a previously issued claim of a patent by clear and convincing evidence.[413]

---

[403] S. 2220, 118th Cong. § 4(a).

[404] *Id.*

[405] *Id.*; *see generally MedImmune*, 549 U.S. at 126–36.

[406] *See* Written Statement of Michelle E. Armond, *Reforming the Patent Trial and Appeal Board—The PREVAIL Act and Proposals to Promote U.S. Innovation Leadership: Hearing Before the Senate Comm. on the Judiciary, Subcomm. on Intellectual Property*, 118th Cong. (Nov. 8, 2023), https://www.judiciary.senate.gov/download/2023-11-08-testimony-armond, at 12 [hereinafter Armond Statement].

[407] *See* Matal Statement, *supra* note 395, at 12–14.

[408] *See id.* at 11–12 (arguing many clearance petitions are directed against patents owned by NPEs).

[409] 35 U.S.C. § 282 ("A patent shall be presumed valid.").

[410] Microsoft Corp. v. i4iLP, 564 U.S. 91, 95 (2011). The Supreme Court noted in its opinion that the Federal Circuit—the appellate court with jurisdiction over patent litigation—had required the same "clear and convincing evidence" standard since 1984. *See id.* at 97 ("In the nearly 30 years since *American Hoist*, the Federal Circuit has never wavered in this interpretation of § 282." (citing Am. Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350 (Fed. Cir. 1984))).

[411] 35 U.S.C. § 316(e).

[412] PREVAIL Act Fact Sheet, *supra* note 390, at 2.

[413] S. 2220, 118th Cong. §§ 4(d)(2), 5(d)(2).

CARVANA EXHIBIT 1018, Page 42 of 53

(With respect to substitute claims proposed by the patentee during an IPR or PGR, however, the petitioner would have only "the burden of persuasion, by a preponderance of the evidence," to show unpatentability.[414])

Proponents of this change contend that it would "promote consistency by harmonizing standards between the PTAB and district court."[415] Opponents argue that, while it is appropriate for district courts to give "deference to the expert agency [USPTO] that issued the patent" by using the clear-and-convincing-evidence standard to invalidate a patent, USPTO should not be required to defer to its own earlier decision to grant a patent, and therefore PTAB should continue to use the lower preponderance-of-evidence standard in AIA proceedings.[416]

Claim Construction: Should USPTO or Congress Decide the Right Standard?

PTAB previously used a different standard than district courts for the construction (i.e., interpretation) of patent claims. Before 2018, PTAB gave claims their "broadest reasonable construction" (BRC),[417] the standard used by USPTO during patent prosecution.[418]

District courts and the ITC, by contrast, construe claims according to a standard articulated by the Federal Circuit in its 2005 opinion in *Phillips v. AWH Corp*.[419] The *Phillips* standard requires the adjudicator to construe claim terms according to their "ordinary and customary meaning . . . to a person of ordinary skill in the art in question at the time of the invention."[420] To discern this meaning, courts must look to the claim themselves, the patent specification, documents from the prosecution of the patent (prosecution history), and, to a lesser degree, "extrinsic evidence" such as expert testimony, dictionaries, and treatises.[421] Construing claims under the *Phillips* standard tends to result in a narrower scope of patent claims than the BRC standard, potentially making it harder for patentees to prove patent infringement (since fewer accused articles may fall within the claims) but easier to defend patent validity (since less prior art may anticipate the claims or render them obvious).

In 2018, USPTO issued a final rule requiring PTAB to use the *Phillips* standard instead of the BRC standard to construe patent claims in AIA proceedings.[422] Thus, PTAB now applies the same claim construction standard used in district courts and the ITC. USPTO noted that the majority of comments it received supported this change.[423] USPTO cited the benefits of "greater uniformity and predictability" and "judicial efficiency" as reasons for PTAB to use the same claim construction standard as districts courts and the ITC, especially since many patents subject to AIA proceedings are also involved in litigation in those forums.[424] USPTO also noted that the rule

[414] S. 2220, 118th Cong. §§ 4(d)(2), 5(d)(2).

[415] Armond Statement, *supra* note 406, at 11.

[416] Matal Statement, *supra* note 395, at 9.

[417] Cuozzo Speed Techs., LLC v. Lee, 579 U.S. 261, 270 (2016) (citing 37 C.F.R. § 42.100(b)).

[418] Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) ("The Patent and Trademark Office . . . determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction 'in light of the specification as it would be interpreted by one of ordinary skill in the art.'" (quoting In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004))).

[419] *See id*.

[420] *Id.* at 1313.

[421] *See id.* at 1313–19.

[422] *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51340 (Oct. 11, 2018) (codified at 37 C.F.R. § 42.100(b)).

[423] *See id.* at 51345.

[424] *Id.* at 51342.

CARVANA EXHIBIT 1018, Page 43 of 53

addresses "potential unfairness" that some patent owners believed could result from PTAB construing claim terms more broadly than other forums.[425] PTAB's use of the *Phillips* standard does not necessarily mean PTAB, district courts, and the ITC reach identical constructions of specific claims or claim terms, although the 2018 rule requires PTAB to "consider" prior district court or ITC constructions that are "timely made of record" in AIA proceedings.[426]

The PREVAIL Act essentially seeks to codify the 2018 rule change so that PTAB would be statutorily required to continue using the *Phillips* standard.[427] Currently, as the Supreme Court held in *Cuozzo*, the AIA "leaves open the question of which claim construction standard is proper" and gives USPTO authority to select the proper standard through rulemaking.[428] USPTO exercised this authority when it initially adopted the BRC standard and, later, when it switched to the *Phillips* standard. The PREVAIL Act would remove this authority from USPTO and prevent it from reverting to the BRC standard or adopting any other alternative claim construction standard for PTAB.

When Should PTAB Deny Institution of an IPR?

As noted above, the AIA gives PTAB discretion to deny institution of an IPR. Questions about when and how PTAB should exercise this discretion often arise in situations where a single patent is challenged multiple times or in multiple forums, including the following:

- **Previously Addressed Prior Art and Arguments.** An IPR raises the same prior art or arguments already considered by PTAB in an earlier petition or during initial examination.
- **Parallel Petitions.** A party files multiple IPRs against the same patent at or about the same time (e.g., based on different legal arguments or prior art).
- **Serial Petitions.** A party files subsequent IPRs against the same patent claims following an initial petition by the same party challenging those claims.
- **Parallel District Court Litigation.** A party files an IPR against patent claims that are the subject of ongoing district court litigation.
- **Patents Already Adjudicated in Court.** A party files an IPR challenging the validity of a patent that has already been litigated and upheld as valid in court.

This section discusses how PTAB currently approaches each of these scenarios and how some Members of Congress and USPTO have proposed to reform PTAB's practice in this area. As explained below, the PREVAIL Act would change PTAB's practices in the above-listed scenarios in various ways. In addition, in April 2024, USPTO published a Notice of Proposed Rulemaking (NPRM) that would affect PTAB's discretionary denial practice in three of these scenarios—previously addressed prior art and arguments, parallel petitions, and serial petitions—as detailed below.[429] In 2023, USPTO had published an Advance Notice of Proposed Rulemaking (ANPRM)

[425] *See id.* ("Because the [BRC] standard potentially reads on a broader universe of prior art than does the *Phillips* standard, a patent claim could potentially be found unpatentable in an AIA proceeding on account of [a broader] claim scope that the patent owner would not be able to assert in an infringement proceeding.").

[426] *Id.* at 51358–59 (codified at 37 C.F.R. §§ 42.100(b), .200(b)).

[427] *See* S. 2220, 118th Cong. § 4(d)(3), 5(d)(3).

[428] *Cuozzo*, 579 U.S. at 279–80.

[429] *See* Discretionary Denial NPRM, *supra* note 348, at 28704–05. In addition, this NPRM would allow parties to file separate briefing on discretionary denial issues. *See id.* at 28704 (allowing petitioner and patent owner to file papers regarding whether there is good cause to institute parallel petitions), 28703–04 (allowing patent owner to file request (continued...)

CARVANA EXHIBIT 1018, Page 44 of 53

that would also have changed PTAB's practices regarding parallel district court litigation and patents already adjudicated in district court.[430] The April 2024 NPRM on discretionary denial issues did not include proposed rules on those two scenarios but noted that USPTO "continues to consider issuing proposed rules" on issues raised in the ANPRM.[431]

Petitions Raising Previously Presented Prior Art and Arguments

As noted above, when PTAB decides whether or not to institute an IPR, 35 U.S.C. § 325(d) authorizes USPTO to consider whether "substantially the same prior art or arguments" were "previously presented" to USPTO.[432] This may occur when an IPR petition raises prior art or arguments that USPTO considered during its initial examination (i.e., prosecution) of the patent, earlier AIA proceedings (i.e., earlier IPRs or PGRs), or other USPTO proceedings.[433]

PTAB currently applies a two-part test to decide whether to deny institution under Section 325(d).[434] PTAB considers first whether "the same or substantially the same" prior art or arguments were previously presented to USPTO.[435] If so, PTAB then considers "whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims."[436]

In applying the first part of the test, PTAB may consider "similarities and material differences between the asserted art and the prior art involved during examination," "the cumulative nature of the asserted art and the prior art evaluated during examination," and "the extent of the overlap between the arguments made during examination and the manner in which the petitioner relies on the prior art or the patent owner distinguishes the prior art."[437] For the second part of the test, PTAB may consider "the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection," "whether the petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art," and "the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments."[438]

In its NPRM on discretionary denial issues, USPTO has proposed a rule that would limit Section 325(d) denials based on previously presented prior art to circumstances in which "the same or substantially the same prior art was previously meaningfully addressed" by USPTO with regard to the same or a related patent.[439] The proposed rule provides that prior art is considered "substantially the same" only if "the disclosure in the prior art previously addressed contains the

---

for discretionary denial on grounds other than parallel petitions, with an opportunity for petitioner and patent owner to file opposition to and reply in support of the request, respectively).

[430] *See* ANPRM, *supra* note 348, at 24510 (prior adjudications upholding validity), 24513–17 (parallel litigation).

[431] Discretionary Denial NPRM, *supra* note 348, at 28695.

[432] 35 U.S.C. § 325(d).

[433] *See* ANPRM, *supra* note 348, at 24512 (noting such other proceedings including reissue, ex parte reexamination, and inter partes reexamination).

[434] *See* Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH, IPR2019–01469, Paper 6 at 8 (P.T.A.B. Feb. 13, 2020) (precedential); ANPRM, *supra* note 348, at 24511.

[435] *See* ANPRM, *supra* note 348, at 24511.

[436] *Id.* at 24511 (citing *Advanced Bionics*).

[437] *Id.* at 24511 (citing Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017–01586, Paper 8, at 17–18 (P.T.A.B. Dec. 15, 2017) (precedential as to Section III.C.5, first paragraph)).

[438] *Id*.

[439] Discretionary Denial NPRM, *supra* note 348, at 28705.

CARVANA EXHIBIT 1018, Page 45 of 53

same teaching relied upon in the [PTAB] petition."[440] It also provides that prior art is "meaningfully addressed" only "when [USPTO] has evaluated the art or arguments and articulated its consideration of the art or arguments in the record."[441]

The proposed rule provides that, even if USPTO meaningfully addressed prior art at an earlier time, an IPR may be instituted if the petitioner establishes material error by USPTO.[442] USPTO explains that material error could include errors of law—such as incorrect claim term constructions—and overlooking teachings of the relevant prior art.[443]

The PREVAIL Act would impose a bright-line rule that PTAB must reject an IPR or PGR petition "that presents prior art or an argument that is the same or substantially the same as prior art or an argument that previously was presented to the [USPTO]."[444] The sponsors contend that this requirement would prevent "costly and inefficient" proceedings involving the same prior art already considered by USPTO.[445] Critics argue that this bill would require PTAB to deny institution of IPRs involving any prior art that was previously "presented" to USPTO, whether or not USPTO had actually considered that prior art—potentially incentivizing patent applicants to "immunize" their patents against future challenges by disclosing more prior art references than the examiner can "meaningfully consider."[446]

Serial Petitions

Serial PTAB petitions refer to when a petitioner files a second IPR or PGR attacking the same patent claims it challenged in an earlier petition, after the preliminary response to the first petition.[447]

Based on the "potential for abuse" through "repeated attacks on patents," PTAB precedent sets out several nonexclusive factors (sometimes called the *General Plastic* factors) that it considers in deciding whether to exercise its discretion to decline to institute a serial IPR.[448] Those factors are

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;
2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;
3. whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received [PTAB's] decision on whether to institute review in the first petition;
4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;

[440] *Id.* at 28705.

[441] *Id*.

[442] *See id.* at 28705.

[443] *See id.* at 28700–01.

[444] S. 2220, 118th Cong. §§ 4(c)(1)(E), 5(c)(3).

[445] PREVAIL ACT FACT SHEET, *supra* note 390, at 3.

[446] Matal Statement, *supra* note 395, at 10–11.

[447] *See* ANPRM, *supra* note 348, at 24510.

[448] Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha, IPR2016-01357, at 16–17 (P.T.A.B. Sept. 16, 2017) (precedential).

CARVANA EXHIBIT 1018, Page 46 of 53

5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
6. the finite resources of [PTAB]; and
7. the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.[449]

The first factor essentially considers whether a subsequent petition should be considered a "serial petition" at all. In applying this factor, PTAB considers not only whether the named petitioner has previously petitioned to invalidate the claims at issue but also whether parties in "privity" with the petitioner have done so.[450] PTAB has, for instance, exercised its discretion to deny a petition where one of the petitioner's licensees—who was also the petitioner's codefendant in a parallel district court suit—had previously petitioned to cancel the same claims.[451] The first factor likewise weighs against institution where the petitioner previously joined an already-instituted IPR on the same patent claims.[452]

USPTO's NPRM on discretionary denial issues defines a *serial petition* as one that challenges the "same or overlapping claims of the same patent that have already been challenged by the petitioner, the petitioner's real party in interest, or a privy of the petitioner" and is filed after the time the patent owner files their preliminary response or, if no preliminary response is filed, the deadline for such response.[453] The NPRM proposes a rule to codify "substantially the same factors" to evaluate serial petitions as *General Plastics*, with the goal of balancing the interests of "preventing undue harassment by patent owners" and "allowing petitioners reasonable opportunities to seek review."[454] The factors set forth in USPTO's proposed rule, corresponding to the second through fifth *General Plastics* factors, are:

> (1) Whether, at the time of filing of the first petition, the petitioner knew of the prior art asserted in the second petition or should have known of it;
>
> (2) Whether, at the time of filing of the second petition, the petitioner had already received the patent owner preliminary response to the first petition or had received [PTAB's] decision on whether to institute review in the first petition;
>
> (3) The length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition; and
>
> (4) Whether the petitioner provided an adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent.[455]

The PREVAIL Act contains an estoppel provision that would generally prohibit serial petitions. The estoppel provision would generally prohibit a petitioner who has "previously requested" an IPR on any claim in a given patent, a real party in interest, or a privy of the petitioner to request or maintain another "proceeding" before USPTO on a ground that the petitioner "raised or reasonably could have raised" in the previous IPR petition.[456] The sole exception to this rule

---

[449] *Id.* at 16.

[450] ANPRM, *supra* note 348, at 24507.

[451] Valve Corp. v. Elec. Scripting Prods., Inc., IPR2019-00062, -00063, -00084, 2019 WL 1490575 (P.T.A.B. Apr. 2, 2019) (precedential) (*Valve I*).

[452] *See* ANPRM, *supra* note 348, at 24507; Valve Corp. v. Elec. Scripting Prods., Inc., IPR2019-00064, -00065, -00085, 2019 WL 1965688 (P.T.A.B. May 1, 2019) (*Valve II*).

[453] Discretionary Denial NPRM, *supra* note 348, at 28703.

[454] *Id.* at 28699.

[455] *Id*. at 28706.

[456] S. 2220, 118th Cong. § 4(c)(1)(F).

CARVANA EXHIBIT 1018, Page 47 of 53

applies where, after filing the initial IPR petition, the petitioner, party in interest, or privy is "charged with infringement of additional claims of the patent" and requests a subsequent IPR solely on such additional claims.[457]

Parallel Petitions

A distinct but similar practice to serial petitions, "parallel" PTAB petitions, refers to a petitioner filing multiple IPRs and PGRs attacking the same patent on different grounds at or about the same time.[458] One reason that petitioners sometimes file parallel petitions attacking the same patent is that PTAB rules impose limits on the length of each petition and subsequent briefing.[459] Thus, parallel petitions allow the petitioner more space to explicate arguments for each ground for invalidation. At the same time, USPTO notes that parallel petitions "may place a substantial and unnecessary burden on the patent owner and could raise fairness, timing, and efficiency concerns."[460] PTAB may deny institution of parallel petitions.[461]

USPTO's NPRM on discretionary denial issues defines *parallel petitions* as two or more petitions challenging the same patent that are filed on or before the time the patent owner files their preliminary response or, if no preliminary response is filed, the deadline for such response.[462] The NPRM proposes a rule under which PTAB would not institute parallel petitions unless the petitioner shows "good cause as to why more than one petition is necessary."[463] The proposed rule provides that information relevant to a showing of good cause might include

> (1) A petitioner's ranking of their petitions in the order in which petitioner desires [PTAB] to consider the merits of their petitions relative to their other parallel petitions;
>
> (2) An explanation of the differences between the petitions and why the issues addressed by the differences are material;
>
> (3) The number of patent claims of the challenged patent that have been asserted by the patent owner in district court litigation;
>
> (4) The number of claims the petitioner is challenging;
>
> (5) Whether there is a dispute about the priority date of the challenged patent;
>
> (6) Whether there are alternative claim constructions that require different prior art references on mutually exclusive grounds;
>
> (7) Whether the petitioner lacked information, such as the identity of asserted claims, at the time they filed the petitions;

[457] *Id*. § 4(c)(1)(F).

[458] ANPRM, *supra* note 348, at 24512.

[459] *See* 37 C.F.R. § 42.24(A)(1)(i) (14,000 word limit for IPR petition), (ii) (18,700 word limit for PGR).

[460] ANPRM, *supra* note 348, at 24512.

[461] *See* CONSOLIDATED PTAB PRACTICE GUIDE, *supra* note 136, at 59–61 ("Based on [PTAB's] experience, one petition should be sufficient to challenge the claims of a patent in most situations. . . . Nonetheless, [PTAB] recognizes that there may be circumstances in which more than one petition may be necessary, including, for example, when the patent owner has asserted a large number of claims in litigation or when there is a dispute about priority date requiring arguments under multiple prior art references. In such cases two petitions by a petitioner may be needed, although this should be rare.").

[462] Discretionary Denial NPRM, *supra* note 348, at 28703.

[463] *Id.* at 28706.

CARVANA EXHIBIT 1018, Page 48 of 53

(8) The complexity of the technology in the case; and

(9) Any other information believed to be pertinent to the good cause determination.[464]

The same PREVAIL Act estoppel provision that would generally prohibit serial petitions would equally apply to prohibit parallel petitions.[465] Likewise, the sole exception to that estoppel provision—for petitions attacking additional claims of the patent that were asserted against the petitioner, parties-in-interest, and privies after the initial petition—would apply to both serial and parallel petitions.[466] The sponsors of the PREVAIL Act argue this estoppel provision would reduce litigation costs and give patent owners "quiet title" to their IP.[467] Some opponents argue that this "single petition" requirement would make it "impossible to effectively challenge patents" with a large number of claims or disputed priority dates, due to the applicable word-count limits on each petition.[468]

Parallel District Court Litigation

In addition to serial and parallel petitions, PTAB must often determine whether to deny institution of an IPR on patent claims that are subject to ongoing ("parallel") district court litigation. In a 2020 precedential decision, PTAB developed a multifactor test to determine whether to exercise its discretion to deny an IPR in such cases.[469] PTAB intended for these factors to help it determine "whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel [court] proceeding."[470]

The six factors that PTAB is to take into account—known as the *Fintiv* factors—are

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to [PTAB's] projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the [PTAB's] exercise of discretion, including the merits.[471]

In June 2022, USPTO released statistics showing that the number and percentage of *Fintiv* denials peaked in the first half of FY2021 (with over 10% of all petitions being denied under the *Fintiv* factors) before declining sharply afterward.[472] Contemporaneous with the study, USPTO

[464] *Id*.

[465] *See* S. 2220, 118th Cong. § 4(c)(1)(F); *see also* PREVAIL ACT FACT SHEET, *supra* note 390, at 2 (noting that this provision "appl[ies] estoppel at the time the [first] challenge is filed").

[466] *See* S. 2220, 118th Cong. § 4(c)(1)(F).

[467] PREVAIL ACT FACT SHEET, *supra* note 390, at 2.

[468] Matal Statement, *supra* note 395, at 8.

[469] *See* Apple v. Fintiv, IPR2020-00019, at 5 (P.T.A.B. Mar. 20, 2020) (designated precedential May 5, 2020).

[470] *Fintiv*, IPR2020-00019, at 6.

[471] *Id*.

[472] *See* USPTO, PATENT TRIAL AND APPEAL BOARD PARALLEL LITIGATION STUDY (June 2022), https://www.uspto.gov/sites/default/files/documents/ptab_parallel_litigation_study_20220621_.pdf?utm_campaign=subscriptioncenter&utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=.

CARVANA EXHIBIT 1018, Page 49 of 53

Director Vidal issued a binding guidance memorandum (the Guidance Memo) making four main clarifications to how PTAB should apply the *Fintiv* factors.[473]

The Guidance Memo narrows or eliminates circumstances in which PTAB might otherwise deny institution based on *Fintiv*. First, as a gloss on factor six, the Guidance Memo states that PTAB should not deny institution under *Fintiv* if the petition "presents compelling evidence of unpatentability,"[474] meaning evidence that, "if unrebutted in trial, would plainly lead to a conclusion that one or more claims are unpatentable by a preponderance of the evidence."[475] Second, the Guidance Memo clarified that, contrary to some past practice by PTAB, *Fintiv* applies only to parallel district court litigation and should not be applied to deny institution due to parallel proceedings in the ITC.[476] Third, the Guidance Memo clarified that, under factor four, PTAB will not deny institution based on parallel district court litigation if the petitioner stipulates that they will not assert the same invalidity grounds in the district court case.[477] Fourth, the Guidance Memo clarified that factor two does not always weigh in favor of denial where the district court's scheduled trial date is prior to PTAB's projected deadline for a final written decision, given that scheduled trial dates may be "unreliable and subject to change."[478] Some observers note that the number of *Fintiv* denials declined following the Guidance Memo.[479]

In its April 2023 ANPRM, USPTO proposed replacing the *Fintiv* factors with a "clear, predictable rule" to streamline its decisions whether to institute an IPR on a patent involved in parallel district court litigation.[480] Under this approach, PTAB would have denied institution of any IPR if there were parallel district court litigation involving at least one of the challenged claims if PTAB determined the district court trial was "likely to occur" before the statutory deadline for the final written decision in the IPR.[481] In addition, the ANPRM proposed adopting a "streamlined version" of some of the *Fintiv* factors in order to avoid "an unduly harsh outcome" in certain cases.[482] Finally, the ANPRM proposed "safe harbors" that would have precluded discretionary denial where the petitioner filed a stipulation "agreeing not to pursue potentially overlapping grounds in district court" or where the parallel district court proceeding had been stayed (i.e., paused by the court).[483]

---

[473] USPTO, Memorandum to Members of PTAB Regarding Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings With Parallel District Court Litigation 2 (June 2022), https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf?utm_campaign=subscriptioncenter&utm_content=&utm_medium=email&utm_name=&utm_source=govdelivery&utm_term=.

[474] *Id.* at 5.

[475] *Id.* at 4.

[476] *See id.* at 6 (noting that, "[u]nlike district courts, the ITC lacks authority to invalidate a patent and its invalidity rulings are not binding on either the [USPTO] or a district court).

[477] *See id.* at 7 (citing *Sotera Wireless, Inc. v. Masimo Corporation* (§ II.A), IPR2020-01019, Paper 12 (Dec. 1, 2020) (designated precedential Dec. 17, 2020)).

[478] *Id.* at 8.

[479] *See* Armond Statement, *supra* note 406, at 10.

[480] ANPRM, *supra* note 348, at 24514.

[481] *Id.* at 24515.

[482] *Id.* at 24516.

[483] *Id.* at 24515–16.

CARVANA EXHIBIT 1018, Page 50 of 53

In the April 2024 NPRM on discretionary denial issues, USPTO did not propose rules concerning parallel district court litigation. USPTO noted that it "continues to consider issuing proposed rules" on issues raised in the ANPRM.[484]

The PREVAIL Act aims to "[e]nd duplicative patent challenges" that result from challengers "raising the same or similar validity challenges" both at PTAB and in district court.[485] Thus, the "single forum" provision in the PREVAIL Act would prevent the petitioner, a real party in interest, or a privy of the petitioner from maintaining a challenge to the validity of a patent on any 35 U.S.C. § 311(b) grounds (i.e., anticipation or obviousness in light of prior art patents and printed publications) in a district court or ITC proceeding once an IPR is instituted on that patent.[486] Proponents argue that this change would "more closely align" PTAB's practice with "the policy goal of streamlining patent invalidity litigation and avoiding lengthy duplicate invalidity disputes."[487] Some opponents argue that concerns about duplicative litigation would be better addressed by legislation requiring parallel district court litigation to be stayed if an IPR is instituted, since doing so could avoid costly district court litigation on patent claims that may be invalidated.[488]

Patent Claims Already Upheld by a District Court

A final circumstance involves patents claims that have already been upheld as valid in district court litigation. Currently, PTAB may choose to initiate or continue IPR proceedings after a district court has already ruled on the validity of the patent at issue. One example involved a patent owner that successfully sued Apple in district court for infringing its patents relating to virtual private networks (VPNs).[489] In 2014, the Federal Circuit upheld the district court's decision that the patents were valid.[490] Two years later, however, PTAB found that the same patents were invalid.[491] This year, the Federal Circuit affirmed PTAB's decision and vacated the $576 million judgment against Apple. The Federal Circuit held this was consistent with its 2014 decision because PTAB is entitled to find invalidity under a more permissive "preponderance of evidence" standard (as noted above).[492]

USPTO's April 2023 ANPRM proposed changing PTAB's practice such that PTAB would generally deny petitions challenging claims that "substantially overlap" with claims that have already been upheld by a "final adjudication" in district court.[493] The ANPRM would have provided an exception for petitioners who (1) either had standing to challenge the claims in district court *or* intended to pursue commercialization of a product or service in the same field, (2) were not a real party in interest or privy to the party previously challenging the claims *unless*

[484] Discretionary Denial NPRM, *supra* note 348, at 28695.

[485] PREVAIL Act Fact Sheet, *supra* note 390, at 2.

[486] *See* S. 2220, 118th Cong. § 4(c)(1)(C).

[487] Armond Statement, *supra* note 406, at 10.

[488] Matal Statement, *supra* note 395, at 15.

[489] *See* VirnetX Inc. v. Cisco Sys., 767 F.3d 1308, 1313–14 (Fed. Cir. 2014).

[490] *See id.* at 1324.

[491] VirnetX Inc. v. Mangrove Partners Master Fund, Nos. 2020-2271, 2272, 2023 WL 2708975, at *3 (Fed. Cir. Mar. 30, 2023), *cert. denied*, No. 23-315, 2024 WL 674719 (U.S. Feb. 20, 2024).

[492] *Id.* at *8 n.8.

[493] ANPRM, *supra* note 348, at 24510 (noting finality would be defined consistent with 28 U.S.C. § 1295(a)(1)).

CARVANA EXHIBIT 1018, Page 51 of 53

the earlier petition was resolved for reasons not materially related to the merits, and (3) met a higher burden of "compelling merits."[494]

In the April 2024 NPRM on discretionary denial issues, USPTO did not propose rules concerning patent claims already upheld by a district court. USPTO noted that it "continues to consider issuing proposed rules" on issues raised in the ANPRM.[495]

The PREVAIL Act's sponsors assert that instituting or maintaining PTAB proceedings following a district court decision on validity leads to inefficiency and inconsistent decisions.[496] Thus, the PREVAIL Act would require PTAB to deny institution—as well as dismiss proceedings already in progress—if a district court or the ITC has already entered a final judgment deciding a challenge to the validity of the same patent claim on any Section 311(b) grounds in a case in which the petitioner, a real party in interest, or a privy of the petitioner was a party.[497] Opponents argue that district courts are not an "adequate substitute" for PTAB review, given PTAB's technical expertise compared with district courts and juries,[498] and thus that "district court validity decisions are insufficiently reliable to serve as the final word on patent validity."[499]

Conclusion

Since its creation in 2011, PTAB has become one of the more significant—and controversial—aspects of the U.S. patent system. IPR, in particular, has become one of the most common ways to determine the validity of issued patents. Patent law stakeholders thus often have strong views on the procedural and substantive workings of PTAB and IPR. Current proposals for PTAB include maintaining the tribunal as it exists, modifying IPR and PGR procedures, or abolishing PTAB entirely. In weighing these options, Congress may consider whether the tribunal is effectively serving its intended purpose of improving patent quality by providing an efficient means of determining patent validity issues—or if, instead, AIA proceedings are unfair to patent holders and create undue uncertainty in patent rights.

Author Information

Christopher T. Zirpoli
Legislative Attorney

Kevin J. Hickey
Legislative Attorney

[494] ANRPM, *supra* note 348, at 23510.

[495] Discretionary Denial NPRM, *supra* note 348, at 28695.

[496] *See* PREVAIL Act Fact Sheet, *supra* note 390, at 3.

[497] *See* S. 2220, 118th Cong. § 4(c)(1)(G).

[498] *See* Matal Statement, *supra* note 395, at 3–5.

[499] *Id.* at 18.

CARVANA EXHIBIT 1018, Page 52 of 53

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.

CARVANA EXHIBIT 1018, Page 53 of 53