

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

SANDPIPER CDN, LLC,
Patent Owner

Case IPR2025-00826
U.S. Patent No. 9,021,112

**PATENT OWNER'S BRIEF ON
DISCRETIONARY DENIAL**

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Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

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77 Fed. Reg. 48680-01 (Aug. 14, 2012)	18

PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	“Cloud CDN: content delivery network,” <i>Google Cloud</i> , accessed at https://cloud.google.com/cdn (last accessed July 2, 2025)
2002	Non-Final Office Action, U.S. Application No. 14/164,925 (Dec. 1, 2015)
2003	National Judicial Caseload Profile – United States District Courts (March 2025)
2004	<i>Sandpiper CDN, LLC v. Google LLC</i> , 2:24-cv-03951, ECF No. 1 (C.D. Cal. May 10, 2024)
2005	<i>Sandpiper CDN, LLC v. Google LLC</i> , No. 2:24-cv-03951, Invalidity Contentions (April 22, 2025)
2006	<i>Sandpiper CDN, LLC v. Google LLC</i> , No. 2:24-cv-03951, ECF No. 82 (C.D. Cal. June 24, 2025)
2007	<i>Sandpiper</i> , No. 2:24-cv-03951, ECF No. 28 (C.D. Cal. Sept. 16, 2024)
2008	FAQs for Interim Processes for PTAB Workload Management, accessed at https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management
2009	<i>Gestures Tech. Partners LLC. v. Apple Inc. et al.</i> , Petition for Writ of Certiorari, Case. No. 24- (filed June 11, 2025)
2010	<i>Intentionally Left Blank</i>
2011	<i>Intentionally Left Blank</i>
2012	Interim Processes for PTAB Workload Management Memorandum (March 26, 2025)

I. INTRODUCTION

Inter partes review of U.S. Patent Number 9,021,112 (“the ’112 patent”) would be a waste of the Board’s limited resources. The ’112 patent came into force more than a decade ago. Petitioner Google LLC (“Petitioner” or “Google”) has known about the ’112 patent for nearly that entire period, receiving a rejection in its own patent application based on the publication of the ’112 patent less than seven months after issuance of the ’112 patent. Petitioner, moreover, has been aware of the ’112 patent family for even longer—almost 15 years. Yet, despite the settled expectation that Patent Owner could rely on its property right, Petitioner waited until the last possible moment to challenge the ’112 patent—almost 11 months after it was served with a complaint.

Additionally, the ’112 patent has expired. There is little potential benefit to the industry or the public at large in the Office invalidating a patent in which the patentee no longer possesses a monopoly over its invention. The remaining private disputes do not warrant use of the Board’s limited resources and are best adjudicated in the parallel district court proceeding.

Further adding to the inefficiency of instituting review is the timing of the Petition. Because Petitioner waited until the last moment to file its Petition, trial is scheduled to occur in the district court proceeding *two months before* a Final Written Decision would be rendered here. And the court has denied Google’s

request to stay the scheduled trial date at this time. Given this timing and the investment that the parties have made (and will make) in the district court proceeding, the *Fintiv* factors weigh heavily in favor of discretionary denial.

Beyond these issues, the Petition contains numerous flaws that favor discretionary denial. Petitioner's arguments on the merits are weak, and the Petition relies heavily on expert testimony to fill the gaps of the prior art. Those flaws are compounded by Petitioner's lack of particularity with respect to its grounds of unpatentability, using the conjunction "and/or" that results in a multitude of potential combinations beyond the grounds Petitioner expressly names. This violation of 35 U.S.C. § 312(a)(3) further favors discretionary denial.

Of note, the Petition here challenges one of seven patents presently asserted against Google LLC (Petitioner) in the Central District of California. All of the asserted patents are also challenged in Petitions before the Board, and many of the facts here are similar to those in other proceedings.

IPR2025	Months Petitioner Waited to file IPR	Patent Expiration	Litigation Status
-00806 ('517)	10.5	Expired	Asserted
-00826 ('112)	10.5	Expired	Asserted
-00860 ('573)	11	2029	Asserted
-00846 ('778)	11.25	2032	Dismissed (§ 101)
-00952 ('886)	11.25	2032	Dismissed (§ 101)
-00969 ('903)	11.25	Expired	Asserted
-01010 ('322)	4	2036	Added late

Accordingly, the Board should not expend its limited resources to review the validity of the '112 patent. The Petition should be discretionarily denied.

II. BACKGROUND

The challenged patent arises from pioneering technology directed to delivering content across a network. Content delivery networks (CDNs) provide the critical services that enable content providers like Google to quickly deliver online content to millions of consumers simultaneously over the Internet. The technology underlying these CDNs was made possible through a series of inventions developed by a California start-up called Sandpiper Software Consulting, LLC, a predecessor of Patent Owner Sandpiper CDN, LLC.

In the early 1990s, the World Wide Web saw increasing adoption, becoming a household staple. This mass adoption led to data congestion issues from the ever-growing number of users seeking to simultaneously access Internet content. A typical computer server in the 1990s could only handle a limited number of simultaneous connections before becoming overloaded. Moreover, signals take time to traverse routers and move through content-congested internet cables. Consumers living far from the physical server(s) hosting content experienced sluggish load times and high latency due to problems such as overloaded servers, congested network segments, and geographic separation.

In the mid-1990s, Andrew Swart and David Farber were among the first individuals to develop services that allowed content providers to distribute their content over the Internet, while avoiding the common congestion and performance issues that plagued Internet transmission at that time. Sandpiper's solution was to deploy CDN servers around the world, replicate appropriate content from customers' origin servers to appropriate CDN servers, and transparently rendezvous end-users requesting that content to the "best" CDN server to deliver that content, all while providing their customers with control over their content and user experience. This service and its architecture was quickly imitated by many others in the industry.

Using solutions developed by Mr. Swart and Mr. Farber, end-users would connect to an optimal edge server—one that that was closer to them or that had available capacity. Distributing content across a network of servers alleviated data congestion issues, and allowing consumers to connect to edge servers located near them reduced latency. Swart and Farber developed and built systems and methods for propagating data from origin servers to edge servers (known as "caching") based on network demand and for seamlessly routing users to the optimal edge server with the correct content. Using caching to perform the replication process within the CDN framework flew in the face of conventional wisdom.

In 1996, Mr. Swart and Mr. Farber founded Sandpiper Networks Inc. to further develop and commercialize their novel concept for a content delivery network. Sandpiper Networks was based in Thousand Oaks, California. There, the inventors designed and built a CDN ultimately referred to as “Footprint.” By at least May 24, 1996, the Sandpiper team had conceived techniques for delivering static and dynamic content, including streaming resources, such as audio and video, using Sandpiper’s CDN.

Sandpiper Networks labored not only to build and implement its CDN, but also to protect their groundbreaking innovation through the patent system. Recognizing that its invention could revolutionize content delivery worldwide, Sandpiper Networks (and its successor companies, including Patent Owner) filed numerous patent applications directed to its foundational CDN technology, including the patent challenged in this Petition.

By at least May 1998, Sandpiper Networks was caching content and delivering cached content to end users of content providers using its CDN. Sandpiper Networks’ first paying customer was the L.A. Times, which paid Sandpiper Networks to host the report of Independent Counsel Ken Starr on his investigation of President Bill Clinton (“the Starr Report”) beginning on September 11, 1998. Sandpiper Networks’ CDN was capable of caching, and was

used to cache and deliver Internet resources including inter alia, pictures, text files, dynamic resources, and streaming multimedia resources.

In the early-to-mid 2000s, demand for CDNs exploded. Sandpiper Networks continued to commercialize its technology and compete in this expanding market, doing business as various entities including Digital Island, Inc. and a company called “Level 3.” It also created Patent Owner, Sandpiper CDN, LLC. Other businesses also entered the market by misappropriating Sandpiper’s innovations and directly competing with Sandpiper for market share.

One such company is Google. Google built its own in-house CDN, which uses technology described and claimed by Sandpiper’s patents. Additionally, YouTube, which Google purchased in 2006, relies upon CDN technology to meet its enormous data streaming needs, as well as for Google’s video search results (powered by YouTube). EX2001. Google did not license this patented technology from Sandpiper, Level 3, and/or its predecessors. Accordingly, Sandpiper brought suit against Google in district court for patent infringement. Google filed IPR Petitions against all of Sandpiper’s asserted patents in response.

III. OVERVIEW OF THE ’112 PATENT

The ’112 patent is entitled “Content Request Routing and Load Balancing For Content Distribution Networks.” The ’112 patent is a divisional application of U.S. Patent Application No. 09/982,721, filed on October 18, 2001.

When offering CDN services, there is a need for responding to requests by providing content quickly and without unnecessary network traffic to more distant sources. Providers of CDN services face challenges relating to serving content in a timely manner from multiple servers while maintaining a positive user experience.

The inventors of the '112 patent solved these issues, as described in the '112 patent. For example, the '112 patent includes solutions using DNS technology and anycast addresses in a CDN where the DNS infrastructure routes the content request to the server that is closest in terms of network distance to the user. The described solutions improve upon anycast DNS. The solutions in the '112 patent address issues relating to bandwidth and latency, which users may experience as unacceptable delays. The inventors of the '112 patent recognized the impact on users' experiences due to these problems.

The inventors devised methods for delivering content in a network involving using multiple servers to serve requests. For example, the inventors provided methods of causing servers to respond to requests, including by using certain hostnames in association with certain servers to retrieve content for users. The solutions recited in the claims of the '112 patent include specific combinations that were not conventional at the time of the invention of the '112 patent. The '112 patent describes how the solutions are implemented. For instance, the claimed solutions in the '112 patent can improve localization for DNS, where servers as

close as possible may be desirable but may provide too many options, while the use of anycast as recited in the '112 patent can be used to leverage servers closest in the network, and to leverage the Border Gateway Protocol and provide for co-location of servers.

IV. PROSECUTION HISTORY OF THE '112 PATENT

The '112 patent was filed as U.S. Application No. 12/050,348 (“the '348 application”) on March 18, 2008. The '112 patent is a divisional application of U.S. Application 09/982,721, filed October 18, 2001. As noted below, the '112 patent and its related family received a thorough prosecution on the merits, including multiple Office actions. During prosecution, Patent Owner filed seven information disclosure statements citing a multitude of prior-art references including U.S. Patent Nos. 6,405,252 to Gupta et al. (EX1003, “Gupta”) and 6,006,264 to Colby et al. (EX1006, “Colby”), both of which are included in Petitioner’s grounds.

During prosecution, the Office issued seven Office Actions, thoroughly evaluating multiple prior-art references, before allowing the claims. EX1007, 64-338. Of note, Patent Owner amended independent claim 1 during prosecution to clarify its operation:

1. (Currently Amended) A method of content delivery in a network, the method comprising:
 - (A) providing a plurality of Domain Name System (DNS) servers associated with a Content Delivery Network (CDN), said plurality of CDN DNS servers sharing a common anycast address, wherein each CDN DNS server is associated with a respective plurality of content servers;
 - (B) causing said plurality of CDN DNS servers to be authoritative for a hostname associated with a content provider by causing said common anycast address to be associated with said hostname;
 - (C) responsive to a request for content associated with the content provider and issued by a client, said request including at least said hostname,
 - (c1) causing said hostname to be resolved to said common anycast address by an Internet Service Provider (ISP) DNS server ~~associated with an Internet Service Provider (ISP)~~; and then
 - (c2) by one of said plurality of CDN DNS servers, resolving said hostname to identify an IP address for use by the client to retrieve the content from a content server.

EX1007, 132.

To differentiate from the prior art, Patent Owner explained that independent claim 1 “includes: (c1) causing the hostname to be resolved to the common anycast address by an ISP DNS server; and then (c2) by one of said plurality of CDN DNS servers, resolving said hostname to identify an IP address for use by the client to retrieve the content from a content server.” EX1007, 139. Thus, as the Patent Owner explained, “in response to a request associated with a content provider (the request including a hostname), the hostname is resolved to the common anycast address by an ISP DNS and then to an IP address for one of the content servers by one of the CDN DNS servers.” *Id.*, 140 (emphasis in original). In other words,

claim 1 requires “two DNS servers performing two resolves,” which none of the prior art taught. *Id.*, 36.

Upon consideration of this and other arguments, the Examiner allowed the claims. EX1007, 10. The ’112 patent issued on April 28, 2015. EX1001, (45).

V. LEGAL STANDARDS

It is Petitioner’s burden to demonstrate unpatentability by a preponderance of the evidence. The Petition must establish, with particularity, the grounds and evidence that support invalidating the patented claims. 35 U.S.C. §312(a)(3). Petitioner “must ‘specify where each element of the claim is found in the [relied upon] prior art patents.’” *In-Depth Geophysical, Inc. v. ConocoPhillips Co.*, IPR2019-00850, Paper 56 at 27 (PTAB Sept. 3, 2020) (quoting 37 C.F.R. § 42.104(b)(4)).

In addition, the Board makes its determination regarding institution based on what the Petition actually presents and not what it could have reasonably contained had it been drafted differently. *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1381 (Fed. Cir. 2016) (holding that the Board is not “free to adopt arguments on behalf of petitioners that could have been, but were not, raised by the petitioner during [a post-grant proceeding]”). The Board cannot “deviate from the grounds in the petition and raise its own” theories of invalidity. *Sirona Dental Sys. GmbH v. Institut Straumann AG*, 892 F.3d 1349, 1356 (Fed. Cir. 2018); *SAS Inst., Inc. v.*

Iancu, 584 U.S. 357, 365-367 (2018) (the Petition “define[s] the scope of” an IPR proceeding “all the way from institution through to conclusion,” and “the Board does not “enjoy[] a license to depart from the petition.”).

In addition to the underlying failures of the Petition, the Board should deny institution under *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”) and other discretionary factors committed to the Board’s discretion under § 314(b), including the factors identified by the Acting Director in the March 26, 2025 Memorandum (EX2012, “Director Memo”) and the Board’s latest guidance on the Interim Processes for PTAB Workload Management (EX2008, “FAQs”). The *Fintiv* factors include:

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

Fintiv, 5-6; EX2012, 2. The Board takes a “holistic view” of whether efficiency and integrity of the system are best served by denying or instituting review. *Id.*

Furthermore, the Director Memo identified a non-exhaustive number of additional factors that may be considered by the Board when evaluating how to apply the Board’s discretion under § 314(b) (“Memo Factors”) including:

1. Whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims;
2. Whether there have been changes in the law or new judicial precedent issued since issuance of the claims that may affect patentability;
3. The strength of the unpatentability challenge (related to *Fintiv* Factor 6, above);
4. The extent of the petition’s reliance on expert testimony;
5. Settled expectations of the parties, such as the length of time the claims have been in force;
6. Compelling economic, public health, or national security interests; and
7. Any other considerations bearing on the Director’s discretion.

EX2012, 2-3. The Board’s FAQs further indicate that “[t]he Process Memorandum includes a non-exhaustive list of issues that may be raised in discretionary briefing.

Parties are encouraged to address any fact or circumstance they believe bears on the Director’s discretion to institute, including reasons not discussed in current

Board precedent or in the Process Memorandum.” EX2008, Q.11 (emphasis added).

VI. THE BOARD SHOULD EXERCISE DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 314(A).

Inter partes review of the ’112 patent would not be an efficient use of the Board’s limited resources. The ’112 patent came into force more than a decade ago. Petitioner has known about the ’112 patent for nearly that entire period, receiving a rejection in its own patent application based on the publication of the ’112 patent less than seven months after issuance of the ’112 patent. Petitioner’s decade of inaction supports the settled expectation that Patent Owner could rely on its property right.

Adding to the settled expectations of the parties, the ’112 patent is expired. The inventions disclosed therein are already free to the public going forward. The only remaining interest in the ’112 patent is a claim for past damages that is presently pending in district court. *See* EX2004 (*Sandpiper CDN, LLC v. Google LLC*, 2:24-cv-03951, ECF No. 1 (C.D. Cal. May 10, 2024)). All of Petitioner’s IPR invalidity arguments against the challenged claims are already presented in district court. *See* EX2005 (Petitioner’s Invalidity Contentions served April 22, 2025). Petitioner carved out from its *Sotera* stipulation the right to assert system-art variations of the present challenges in district court. *See* EX1027, 1 (limiting its stipulation to challenges “on the basis of prior art patents or printed publications”).

While the parallel district court case is in its early stages, there is no urgency to Petitioner's validity challenge. Indeed, Petitioner waited almost 11 months to file the Petition. Additionally, the Petition is needlessly complicated because its lack of particularity presents voluminous alternative grounds. It is more efficiently litigated in the district court.

A. Settled expectations and efficiency weigh against institution.

The Office has correctly found that it is an inefficient use of resources and upsets the settled expectations of patent owners and the marketplace to review patentability challenges for patents that have been in force for many years. *See, e.g., Dabico Airport Solutions Inc., v. AXA Power ApS*, IPR2025-00408, Paper 21 at 2 (PTAB June 18, 2025) (discretionarily denying review for a patent that had been in force for “almost eight years”); *Intel Corp. v. Proxense LLC*, IPR2025-00327, Paper 12 at 2 (PTAB Jun. 26, 2025) (“[T]he challenged patents have been in force over nine years, creating settled expectations, and Petitioner does not provide any persuasive reasoning why an *inter partes* review is an appropriate use of Board resources.”). Here, the challenged patent came into force more than a decade ago, and Petitioner has known of the patent for nearly the same amount of time. These facts weigh heavily in favor of discretionary denial.

Moreover, the '112 patent is expired, and adjudicating the validity of an expired patent would be an inefficient use of the Board's resources. There is little

potential benefit to the industry or the public at large in the Office invalidating a patent that has already expired, as the patentee no longer possesses a monopoly over its invention. Because only private interests remain, this fact further favors denial.

1. Petitioner had knowledge of the '112 patent for nearly a decade and failed to act.

Due to the early priority date of the '112 patent, it served as prior art to many other patent applications in the industry, including Petitioner's own applications. For example, on December 1, 2015—nearly 10 years before Petitioner filed its IPR Petition—the USPTO issued an Office action (“the Petitioner Office action”) rejecting *all* claims of Petitioner's U.S. Application No. 14/164,925 over U.S. Publication No. 2008/0235400, the publication of the '112 patent. EX2002 (Non-Final Rejection (Dec. 1, 2015)), 3-13, 15. Despite this rejection, Petitioner did not challenge the validity of the '112 patent.

Moreover, Petitioner's knowledge of the '112 patent's family dates back *almost 15 years*. In at least five other cases, U.S. Patent Application No. 09/982,721 (the parent of the '112 patent), was cited in Information Disclosure Statements or included within the list of references cited by the Examiner. *See* U.S. Patent No. 8,676,922, Information Disclosure Statement (Aug. 15, 2013) (Petitioner's IDS citing US Application No. 09/982,721); US Patent No. 7,565,423, List of references cited by examiner (Jan. 8, 2008) (Examiner's citation

of US Application No. 09/982,721); US Patent No. 8,224,964, Information Disclosure Statement (Aug. 11, 2014) (Petitioner's IDS citing US Application No. 09/982,721); US Patent No. 8,065,275, Information Disclosure Statement (Sept. 28, 2010) (Petitioner's IDS citing US Application No. 09/982,721); US Patent No. 8,812,651, Information Disclosure Statement (Aug. 11, 2010) (Petitioner's IDS citing US Application No. 09/982,721).

The facts of this proceeding are similar to those in *iRhythm Technologies, Inc. v. Welch Allyn, Inc.*, IPR2025-00363, Paper 10 (PTAB Jun. 6, 2025), where the Director denied institution based on the settled expectations of the parties. In *iRhythm*, the patent owner argued that institution should be denied because the patent-at-issue had been in force for 13 years, and the petitioner had knowledge of the patent for at least 12 years, "having cited the then-pending application that issued as the challenged patent in an Information Disclosure Statement" in the petitioner's own application. *iRhythm*, IPR2025-00363, Paper 7 at 29-30 (PTAB Apr. 18, 2025). The Director determined that "Petitioner's awareness of Patent Owner's applications and failure to seek early review of the patents favors denial," outweighing other factors favoring institution. *iRhythm*, IPR2025-00363, Paper 10 at 2.

For at least the same reasons as those highlighted by the Director in *iRhythm*, Petitioner's request for *inter partes* review should be denied. The '112

patent has been in force for more than 10 years. And Similar to *iRhythm* where its petitioner had knowledge of the prior art and its related family based on IDS filings, here, Petitioner had knowledge of the '112 patent and its family for at least a decade, evidenced by IDS filings and an Office action citing the publication of the '112 patent as a primary reference. Petitioner's decade-long, material knowledge of the '112 patent, and failure to challenge it, has created a reasonable and settled expectation that Patent Owner could rely on its property rights in the '112 patent. In light of Petitioner's knowledge and delay in taking action, the Board should exercise discretion to deny institution.

2. Adjudicating the validity of an expired patent is an inefficient use of resources.

The '112 patent expired October 18, 2021. Proceeding with an IPR on an expired patent is an inefficient use of the Board's and the parties' resources. While the Board has jurisdiction to do so in its discretion,¹ committing substantial Board and party resources to adjudicate an expired patent, especially where validity of the

¹ The Supreme Court is currently being asked to review the issue of whether expired patents can be subject to PTAB review. EX2009 (*Gestures Tech. Partners LLC. v. Apple Inc.*, Petition for Writ of Certiorari, Case. No. 24- (filed June 11, 2025)).

same claims is already at issue in the district court, is contrary to the goals of improving PTAB efficiency and managing workload.

While there is a claim for past damages attributable to infringing the patent in district court, EX2004 (*Sandpiper CDN LLC v. Google LLC*, No. 2:24-cv-03951, D.I. 1 (C.D.Cal. May 2024)), the limited nature of that dispute does not justify expending the Board’s resources on adjudicating the validity of the patent. There is little potential benefit to the industry or the public at large in the PTAB canceling a patent that has already expired. The subject matter of this patent is already available to the public, and has been for nearly four years. Instituting review of this Petition is therefore unlikely to expand the industry’s freedom to operate in this space, and therefore does not promote the legislative purpose of IPR proceedings. *See* Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48680-01 (Aug. 14, 2012); *see also* *Hunting Titan, Inc. v. DynaEnergetics Europe GmbH*, 28 F.4th 1371, 1381 (Fed. Cir. 2022) (observing that the “basic purpose of IPR proceedings” is to reexamine an earlier agency decision to “[keep] patent monopolies ... within their legitimate scope”).

Expired patents do not implicate the right to exclude or the public’s interest in policing a patentee’s exercise of that right. *See Kimble v. Marvel Ent., LLC*, 576 U.S. 446, 451 (2015) (“[W]hen the patent expires, the patentee’s prerogatives

expire too, and the right to make or use the article, free from all restriction, passes to the public.”). The end of the inventor’s exclusive monopoly likewise ends the need for an administrative process to protect the public interest by maintaining that monopoly within its legitimate scope. *See Oil States Energy Services, LLC v. Greene’s Energy Group, LLC*, 584 U.S. 325, 336-37 (2018). When a patent expires, the “public” part of the patent right ceases to exist, and “the right to make or use the article, free from all restriction, passes to the public.” *Kimble*, 576 U.S. at 451 (citing *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 230 (1964)). As such, disputes involving expired patents do not implicate the public’s interest in “seeing that patent monopolies are kept within their legitimate scope.” *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 279-80 (2016) (cleaned up). This factor thus weighs strongly in favor of discretionary denial.

B. The *Fintiv* Factors weigh in favor of denial in view of the parallel district court litigation.

On March 24, 2025, the Office issued new guidance clarifying how the Board will apply the precedential *Fintiv* and *Sotera* decisions to parallel proceedings (“*Fintiv* Guidance”). *See also Fintiv*, IPR2020-00019, Paper 11 (articulating six non-exclusive factors for determining whether to institute an AIA post-grant proceeding where there is parallel litigation). Every one of the *Fintiv* Factors favors denial, and the balance of the factors heavily favors discretionary denial of this Petition.

***Fintiv* Factor 1 favors denial.** There is no stay of proceedings in the parallel district court case and trial is set for September 28, 2026—two months before a Final Written Decision is due here. While the district court has extended certain pre-trial deadlines to fall after the Director’s expected discretionary denial decisions, the trial date remains unchanged. *See* EX2006, 5 (*Sandpiper CDN, LLC v. Google LLC*, No. 2:24-cv-03951, ECF No. 82 (C.D.Cal. June 24, 2025)).

The district court indicated that *if* the PTAB were to institute on *all* of Google’s pending petitions, then “the likelihood of resource conservation and issue simplification would be far more crystalized” and noted that Sandpiper (Patent Owner) would agree to a post-institution stay under such circumstances. *Id.* at 4. Patent Owner submits that the PTAB should not institute on all petitions. Indeed, it should discretionarily deny all of them or otherwise deny institution on the merits.

Indeed, for most of the petitions, certain countervailing facts align with situations the Director has recently found to justify discretionary denial. Google petitions in IPR2025-00806, IPR2025-00826, and IPR2005-00969 challenge expired patents that have each been in force for over a decade. The Office has recently denied similar petitions. *See, e.g., Dabico*, IPR2025-00408, Paper 21 at 2 (discretionarily denying review for a patent that had been in force for “almost eight years”). And Google petitions in IPR2025-00846 and IPR2025-00952 challenge patents that the district court found invalid under 35 U.S.C. § 101. *See* EX2007

(*Sandpiper*, No. 2:24-cv-03951, ECF No. 28 (C.D. Cal. Sept. 16, 2024)). The Office should deny institution of the '846 and '952 petitions under *Hulu, LLC v. Piranha Media Distribution, LLC*, IPR2024-01252, IPR2024-01253 (PTAB April 17, 2025) (designated precedential May 7, 2025).

Furthermore, all of Google's petitions have serious flaws on the merits, as well as other factors that the Director considers to weigh in favor of denial, as further detailed in their respective briefs. Even if one or two petitions were instituted, the district court has now indicated that such a limited institution would not meaningfully conserve resources or simplify the issues, making a stay of the district court case less likely. *See* EX2006, 4. Factor 1, therefore, favors denial—for this and all six other Petitions.

***Fintiv* Factor 2 favors denial.** The projected statutory deadline for a Final Written Decision in this IPR is November of 2026. *See* 35 U.S.C. § 316(a)(11). A jury trial in the parallel litigation is set for September of 2026. *See* EX2006, 5. Accordingly, multiple tribunals will be adjudicating validity at the same time, increasing duplication and expenses for the parties and the tribunals. Moreover, the jury will render its verdict on all issues—including overlapping invalidity issues—two months *before* the PTAB would render its Final Written Decision here.

To the extent Google argues that the scheduled trial date is uncertain, this trial date further aligns with the median time to trial in the Central District of

California, which is currently 27.8 months from case filing. EX2003, 68. As the district court proceeding was filed May 10, 2024, the median time to trial confirms that trial is expected to occur two months before the PTAB would render its Final Written Decision.

The Board has recently confirmed that where another tribunal will adjudicate the same issues presented in the petition before the scheduled FWD date, that weighs heavily against institution. *See, e.g., EClinicalWorks, LLC v. Decapolis LLC*, IPR2022-00229, Paper 10 at 9 (PTAB Apr. 13, 2022) (finding this factor weighed in favor of discretionary denial and denying institution where “the beginning of the jury trial ... is roughly one to two months before any final decision would have been due had inter partes review been instituted” (emphasis added)); *see also, e.g., Resmed Corp. v. Cleveland Med. Devices Inc.*, IPR2023-00565, Paper 13 at 11 (PTAB September 25, 2023) (denying institution where trial was scheduled to occur “approximately one month” before the deadline to issue a final written decision). Factor 2, therefore, favors denial.

***Fintiv* Factor 3 favors denial.** Significant work has already been done in the parallel district court litigation. Patent Owner served its infringement contentions in January 2025, and Petitioner served its invalidity contentions in April 2025. Fact discovery opened in March 2025 with the exchange of initial disclosures, and the parties have since propounded written discovery.

Additionally, the parties briefed and the district court already decided multiple substantive motions, including a motion to dismiss multiple asserted patents based on subject-matter ineligibility under 35 U.S.C. § 101. *See, e.g.*, EX2007. In the process of adjudicating these motions, the district court has already become well-versed with the underlying patented technology (per *Alice* step one), and the general state of the art and specific disclosures of the pertinent prior art (per *Alice* step two). *Id.* Instituting review of the Petition will therefore do little to preserve judicial economy compared to other cases.

Moreover, Petitioner waited until almost the last moment—almost 11 months after being served with a complaint—to file its Petition. *Fintiv*, 11-12 (When analyzing *Fintiv* Factor 3, if “the evidence shows that the petitioner did not file the petition expeditiously, ... these facts have favored denial.”). Factor 3, therefore, favors denial.

***Fintiv* Factor 4 favors denial.** The parallel litigation involves the same claims and defenses as those at issue in the Petition. *See Fintiv* Memo, 7–8 (emphasis added). Petitioner has nominally executed a *Sotera* stipulation. *See* EX1027; *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (PTAB Dec. 1, 2020) (precedential as to § II.A). The effect of this stipulation, however, is mitigated because Petitioner asserts obviousness combinations of unpublished system prior art in the district court proceeding together with prior-art

references relied on in its Petition, and several other invalidity theories. *Compare* Pet., 81 *and* EX1027, *with* EX2008, Q.14 (“The Director will take into account whether the stipulation materially reduces overlap between the proceedings. Where the petitioner is relying on corresponding system art in a copending proceeding and/or several other invalidity theories, a stipulation may not be particularly meaningful because the efficiency gained by any AIA proceeding will be limited.”).

Indeed, Petitioner has expressly carved out from its stipulation the option to try overlapping invalidity arguments in multiple fora, undermining the efficiency sought by the creation of *inter partes* review in the AIA. *See* EX1027. As the Acting Director recently recognized, such stipulations do not ensure that the IPR proceedings would be a “true alternative” to the district court proceeding where unpublished system prior art is asserted in combination with the art used in the IPR grounds. *Motorola Sol’ns, Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 3-4 (PTAB March 28, 2025) (finding that a *Sotera* stipulation was unlikely to moot the petitioner’s combination of IPR art with unpublished system prior art in district court proceedings, and therefore could not outweigh other factors favoring denial). Because Petitioner’s stipulation specifically preserves the right to file invalidity grounds based on prior-art systems and products, it confirms Petitioner’s intent to

raise the very kinds of duplicative arguments that the Director identified as a cause for concern in *Motorola. Id.* Factor 4, therefore, favors denial.

***Fintiv* Factor 5 favors denial.** The parties are the same in both proceedings. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 15 (PTAB May 13, 2020) (“*Fintiv II*”) (“Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.”).

***Fintiv* Factor 6 favors denial.** *Fintiv* Factor 6 concerns “other circumstances that impact the Board’s exercise of discretion, including the merits.” *Fintiv*, 14. As discussed in the sections below, the petition suffers from numerous flaws, including the weak merits of the arguments presented, heavy reliance on expert testimony to fill gaps in the prior art, and voluminous and excessive grounds asserting dozens of unexplained prior art combinations.

C. The weak merits of the Petition favor denial.

Fintiv Factor 6 and Memo Factor 3 weigh against institution in view of multiple flaws in the unpatentability grounds advanced in the Petition. These flaws span across all seven independent claims, and therefore the Petition does not establish a reasonable likelihood of success with respect to any claim.

1. The Petition fails to establish that the cited art renders obvious “causing said hostname to be resolved to said

common anycast address by an Internet Service Provider (ISP) DNS server” (independent claim 1, element [1d]).

Claim 1 recites, “(c1) causing said hostname to be resolved to said common anycast address by an Internet Service Provider (ISP) DNS server.” EX1001, 9:11-13 (element [1d]²). The Petitioner alleges that “Glines, alone or combined with Gupta, discloses this limitation.” Pet., 19. The Petition, however, does not identify “an Internet Service Provider (ISP) DNS server” that resolves “said hostname ... to said anycast address,” as required by element [1d]. EX1001, 9:11-13.

Specifically, Petitioner alleges that Glines’s “**local DNS resolver 18 ... is an ISP DNS server**” because when a user enters a URL, “local DNS resolver 18 sends a request to a root DNS server 38” to “return the anycast address” corresponding to the URL. Pet., 20-21 (citing EX1002, 13:24-15:4) (emphasis added). Petitioner’s mapping fails to meet the claim language because claim 1 requires “causing said hostname **to be resolved** to said common anycast address **by an Internet Service Provider (ISP) DNS server.**” EX1001, 9:11-13 (emphasis added). Petitioner, however, does not allege that Glines’s “local DNS resolver 18” performs any resolution. Pet., 20-22. Instead, Petitioner relies on “root DNS server

² To reduce confusion, Patent Owner uses Petitioner’s element identifiers, as set forth in the Petition. Pet., viii-xiv.

38” for that purpose. *Id.*, 20-21 (“**[R]oot DNS name server 38** is ‘programmed to ... **return the anycast address ...**.’” (emphasis added)). Glines’s “local DNS resolver 18” thus cannot satisfy the claim requirements because it does not resolve “said hostname ... to said anycast address,” as element [1d] requires.

Petitioner goes on to argue that even if “local resolver 18” is not the “ISP DNS server,” it would be obvious to implement or modify “local resolver 18” to be an “ISP DNS server.” Pet., 22. Petitioner argues that “ISP-provided DNS servers are typically located in close proximity to a user’s physical location, making them faster and more efficient than more distant DNS servers” and that this change would “have been nothing more than the simple substitution of known elements to yield predictable results” *Id.* But Petitioner does not explain how this supposed change would satisfy the claim language. Petitioner does not rely on Glines’s “local DNS resolver 18” for performing the resolution recited in element [1d]—it relies on Glines’s “root DNS server 38,” Pet., 20-22. Therefore, even if Petitioner’s hindsight-driven, unexplained modification were undertaken, the alleged resolution of the hostname to an anycast address would still not be performed by Glines’s modified local resolver 18 under Petitioner’s theory.

Recognizing Glines’s deficiencies, Petitioner goes on to argue that even if Glines does not teach the claimed “Internet Service Provider (ISP) DNS server,” then “it would have been obvious to combine Glines and Gupta to arrive at this

feature.” Pet., 23. Specifically, the Petitioner alleges that Gupta’s “client DNS server 170” provides the claimed “ISP DNS server” because “users 150 and 160 ... connect with ISP 60” and that “client DNS server 170 is typically provided within ISP 60.” *Id.*, 23. Petitioner further alleges that a “POSITA would have understood Gupta’s ISP 60 to be an obvious substitute for Glines’s local resolver 18.” *Id.*, 24. Again, Petitioner does not rely on Glines’s “local DNS resolver 18” for performing the resolution recited in element [1d], Pet., 20-22, so substituting Gupta’s ISP 60 for Glines’s “local DNS resolver 18” does not satisfy the claim language.

Moreover, Gupta’s “ISP 60” (and its included “client DNS server 170”) would not be “an obvious substitute for Glines’s local resolver 18” because Glines relies on a fundamentally different architecture than Gupta. *Id.*, 24. In particular, Glines’s “local resolver 18” functions as a cache, rather than DNS server. Glines states that when “local resolver 18” receives a request from a browser, it “determines **whether or not the requested content file is available locally.**” EX1002, 13:24-14:1 (emphasis added). “For example, it determines if ‘example.com’ is located in the **local** web server 20.” EX1002, 14:1-2 (emphasis added).

Thus, unlike Gupta’s “client DNS server 170” that is used “to resolve a host name into an IP address,” EX1003, 6:4-8, Glines’s “local resolver 18” is designed to determine whether requested content is available locally—not to resolve host

names, EX1002, 13:24-14:1. This architecture allows Glines’s “local resolver 18” to function as a cache server, rather than a DNS server, obviating the need to perform any resolution for locally-available content. Petitioner’s motivation to combine Glines and Gupta is thus based on a false premise that “Gupta’s ISP 60 [] performs the same functions as Glines’s local DNS resolver 18.” Pet., 24.

Petitioner provides no reason to alter Glines’s architecture—that it could be done is insufficient. *Adidas AG v. Nike, Inc.*, 963 F.3d 1355, 1359 (Fed. Cir. 2020) (“The obviousness inquiry does not merely ask whether a skilled artisan could combine the references, but instead asks whether ‘they would have been motivated to do so.’ ... Fundamental differences between the references are central to this motivation to combine inquiry.” (internal citations omitted)).

2. The Petition fails to establish that the cited art renders obvious the “plurality of content providers” limitations of independent claims 13, 18, 22, and 23.

Independent claim 13 recites, “(B) configuring each DNS server and respective plurality of content servers to support content delivery **for a plurality of content providers**, wherein each of the plurality of content providers has a respective hostname associated therewith.” EX1001, 9:61-65 (element [13b]) (emphasis added). Independent claims 18, 22, and 23 recite similar features. *See* EX1001, 10:41-52 (elements [18p] and [18b]) (“A content delivery system for delivering content **on behalf of a plurality of content providers**, ... said plurality

of DNS servers being authoritative for said hostnames associated with **said plurality of content providers**” (emphasis added)), 12:9:11 (element [22b]) (“wherein the DNS server is authoritative for hostnames **associated with a plurality of content providers**” (emphasis added)), 12:30-32 (element [23b]) (“wherein each DNS server and respective plurality of content servers is configured to support content delivery **for a plurality of content providers**” (emphasis added)). Petitioner, however, presents no theory as to how Glines’s system is configured to serve “a plurality of content providers,” as required by the claims. Therefore, Petitioner cannot meet its burden to establish obviousness of these claim elements.

Specifically, for claims 13, 18, and 23, Petitioner merely cites its analysis of element [1b] with no further explanation. *See* Pet., 41, 48, 54. In discussing element [1b], the Petition alleges that Glines’s discussion of “www.example.com” discloses the claimed “content provider.” Pet., 16-18 (citing EX1002, 6:23-7:13, 13:15-15:10). However, Petitioner offers no theory of how Glines’s discussion of the single provider “www.example.com” renders obvious “a plurality of content providers,” as required by the claims. EX1001, 9:61-65, 10:47-49, 10:47-49. Indeed, Petitioner fails to address this claim language anywhere in its analysis.

Petitioner’s failure to address this language of the claims is alone dispositive as to independent claims 13, 18, and 23. *Intelligent Bio-Sys., Inc. v. Illumina*

Cambridge Ltd., 821 F.3d 1359, 1369 (Fed. Cir. 2016) (cleaned up) (“It is of the utmost importance that petitioners . . . adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the grounds for the challenge to each claim.’” (quoting 35 U.S.C. § 312(a)(3))). Petitioner “must ‘specify where each element of the claim is found in the [relied upon] prior art patents.’” *In-Depth Geophysical*, Paper 56 at 27 (quoting 37 C.F.R. § 42.104(b)(4)). Petitioner raises no theory identifying how Glines’s disclosure renders obvious these elements of independent claims 13, 18, and 23, and the Board cannot “deviate from the grounds in the petition and raise its own obviousness theory.” *Sirona Dental*, 892 F.3d at 1356; *SAS*, 584 U.S. at 365-367.

The Petition is similarly deficient with regard to its analysis of independent claim 22. Here, Petitioner points to element [13p], arguing that “Glines expressly discloses that its system may be used with either a ‘single provider’ or ‘multiple providers,’ and thus discloses content delivery on behalf of a plurality of content providers, as claimed. *See* Pet., 53 (citing Pet., 39-40; EX1002, 17:3-9).

Petitioner’s citations mischaracterize Glines.

In particular, the cited portions of Glines do not refer to “content providers,” as required by the claims, but rather to network providers. The complete paragraph of Glines, of which Petitioner merely cites to a portion of, discloses:

The selection of routing protocol may have profound effects on the propagation and convergence of group membership changes. “Membership” in the group is contingent [sic] upon distributed routing state. In the case of deployment **within a single provider, where the anycast routing is internal to that network** (and transparent to the outside - the Internet), and an internal routing protocol like iBGP or OSPF is used, propagation [sic] of changes should be fast. In the case of deployment across **multiple providers**, full fledged external BGP (“eBGP”) preferably would be used. Membership changes would be effected in such a scenario when the state change propagates at least half the way towards each other member in the anycast group, and that should cover all of external routers which would tag a particular anycast advertisement as “closest.” State changes would possibly take longer, but would not require flooding over the entire Internet.

EX1002, 17:3-14 (emphasis added).

It is clear from the cited disclosure that Glines’s “provider” refers to a network provider, not the claimed “content provider” because, it discloses, for example: (1) “deployment **within a single provider, where the anycast routing is internal to that network**” (e.g., deployment on a network); (2) “deployment **across multiple providers**,” (e.g., deployment across multiple networks; and (3) routing protocols (e.g., how messages are communicated within and across networks). EX1002, 17:3-14 (emphasis added).

The Petition further alleges, “[a] POSITA would have understood Glines’s disclosure of providing content from an origin source would have included supporting more than one origin source (e.g., more than one website or content provider)” because “[a]dding origin servers and content providers to Glines’s system ... would have been nothing more than replicating Glines’s teaching of storing and providing content associated with one origin server, with expected results.” Pet., 40 (citing EX1002, 12:11-22, 13:21-14:3).

Petitioner’s citations to Glines again contain no discussion of multiple content providers. Rather, Petitioner’s citations refer to content servers storing “replicas of one or more content files” of a *single* content provider. EX1002, 12:11-12. Moreover, Petitioner does not explain how “Glines’s teaching of storing and providing content associated with one origin server” would operate, or why such a modification would achieve “expected results.” Pet., 40. Petitioner’s expert does not fill the gaps of the Petition, merely repeating the Petition’s conclusory assertions verbatim with no further reasoning or evidence. *Compare* Pet., 19, with EX1003, ¶93; *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (holding that testimony that “merely repeats, *verbatim*, the conclusory assertion for which it is offered to support . . . is entitled to little weight.”); *TQ Delta, LLC v. Cisco Systems, Inc.*, 942 F.3d 1352, 1359 (Fed. Cir.

2019) (“This court’s opinions have repeatedly recognized that conclusory expert testimony is inadequate to support an obviousness determination . . .”).

For these reasons, the Petition fails to establish that Glines renders obvious independent claims 13, 18, 22, and 23.

3. The Petition fails to establish that the cited art renders obvious the “switch” limitations of independent claims 13, 18, 19, 21, and 22.

Independent claim 19 recites, “by at least one switch, selecting the content server from said respective plurality of content servers associated with said resolving DNS server.” EX1001, 11:21-23 (element [19f]). Independent claims 13, 18, 21, 22, and 23 recite similar limitations. *Id.*, 10:8-11 (element [13e]), 10:63-67 (element [18f]), 12:1-4 (element [21e]), 12:20-21 (element [22g]). The Petition’s conclusory assertions with respect to these claim elements are unsupported by its citations to Glines, and thus Petitioner cannot meet its burden to establish obviousness of these claim elements.

For each of these claim elements, Petitioner refers back to its analysis with respect to claim 11. Pet., 42, 49, 52, 53. Petitioner’s entire analysis consists of one paragraph, asserting that “Glines describes a Layer 4 switch used for ‘standard load balancing’ among multiple content servers to apply a load balancing policy and select a content server.” Pet., 39 (referring to EX1002, 19:10-16). But Glines does

not disclose a layer 4 switch used to “determine[] which content server should be selected,” Pet., 39, as Petitioner contends.

Instead, Glines discloses that “standard load balancing” is accomplished by “returning multiple local IP addresses to a name lookup” that correspond to “multiple content servers,” rather than a switch selecting the appropriate content server. EX1002, 19:13-16. In other words, the DNS server returns the IP addresses for the content servers to the browser, which then requests content from one of the servers. *Id.*, 15:27-16:8 (“[T]he name server 53 associated with this closest rate will then respond by reporting the unique IP address of its associated replica content server 51.”). While Glines generally mentions the use of “layer 4 switches,” it does not teach that those switches are used to “select[] the content server from said respective plurality of content servers associated with said resolving DNS server,” as required by the claims, and Petitioner provides no reason to modify Glines to do so. Pet., 39.

For these additional reasons, the Petition fails to establish that Glines renders obvious independent claims 13, 18, 19, 21, and 22.

4. Petitioner’s general motivation to combine Glines with Gupta is insufficient.

Beyond the Petition’s failures with respect to element [1d] of claim 1, the Petition fails to articulate any reason *why* a person of ordinary skill in the art (“POSITA”) would have been motivated to combine Glines and Gupta. Every “B”

Ground (Grounds 1B, 2B, 3B, 4B, and 5B) in the Petition relies on the combination of Gupta and Glines, underscoring the Petition's weak merits.

In particular, Petitioner provides a section titled, "Motivation to Combine Glines with Gupta." Pet., 7-8. The sum total of Petitioner's motivation-to-combine analysis provided in that section consists of comparing Glines and Gupta, determining that they each include similar elements, and concluding that a POSITA would have been motivated to combine the references based on these similarities. *See* Pet., 7-8; EX1008, ¶¶68-72 (providing similar conclusory analysis). For example, Petitioner contends that "Glines and Gupta share a similar architecture to one another," and "[g]iven their similarities and shared desire to increase content delivery performance, a POSITA would have understood that Glines and Gupta were analogous art." Pet., 7-8. The Federal Circuit, however, has consistently held that the existence of similar arrangements in the prior art "does not provide a reason that a skilled artisan would have substituted" one for the other. *Virtek Vision Int'l ULC v. Assembly Guidance Sys., Inc.*, 97 F.4th 882, 887 (Fed. Cir. 2024).

Virtek Vision is instructive. In *Virtek*, the Federal Circuit reversed the Board's findings of obviousness based on an insufficient motivation to combine. *Id.* at 886-88. The patent at issue discussed aligning a laser projector on a work surface, and the claims required identifying targets in a 3D coordinate system. *Id.*

at 884-85. The petitioner relied on a two-reference combination. *Id.* at 886.

Although the primary reference disclosed identifying the angular direction of each target, the petitioner substituted in the secondary reference to teach identifying targets in the 3D coordinate system. *Id.* at 886.

Recognizing that “obviousness concerns whether a skilled artisan not only *could have made but would have been motivated* to make the combinations or modifications of prior art to arrive at the claimed invention,” the court found that neither reference provided “any reason why a skilled artisan would use 3D coordinates instead of angular directions in a system.” *Id.* at 886-87 (quoting *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (emphasis added)). Moreover, the Federal Circuit stated that “[i]t does not suffice to meet the motivation to combine requirement to recognize that two alternative arrangements ... were both known in the art.” *Id.* at 886. That is, the mere existence of these different arrangements was not a reason to combine them. *Id.* at 887. In conclusion, the Federal Circuit noted that “KSR did not do away with the requirement that there must exist a motivation to combine various prior art references in order for a skilled artisan to make the claimed invention.” *Id.*

The Petition suffers from the same fatal flaws as the petition in *Virtek*. The Petition makes four assertions: (1) both references disclose delivering content over the internet; (2) both references resolve DNS requests; (3) both references disclose

similar network architectures; and (4) both references desire to increase content delivery performance. *See* Pet., 7-8. After listing these similarities, Petitioner simply concludes that Glines and Gupta were analogous art teaching well-known methods, and “a POSITA would have had a reasonable expectation of success in the combination.” *Id.*, 7-8.

Notably absent from the petition is any reason *how* or *why* a POSITA would combine Glines and Gupta, or *why* the combination would be successful. As highlighted by the Federal Circuit’s *Virtek* decision, that a POSITA could combine Glines and Gupta because of their similarities is insufficient to establish a motivation to combine. *Virtek*, 97 F.4th at 887; *Adidas*, 963 F.3d at 1359. This failure to establish a motivation to combine Glines and Gupta further supports discretionary denial of the Petition.

D. Heavy reliance on an expert testimony favors denial.

Memo factor 4 favors discretionary denial of the Petition. As the Board’s FAQs explain:

While the Board may consider expert testimony, as a matter of efficiency, extensive reliance on expert testimony and/or reasonable disputes between experts on dispositive issues may suggest that the questions are better resolved in an Article III court. The statute and our reviewing court require that petitions be based on prior art patents and printed publications. As the judges have technical and legal expertise, it is not necessary for an expert to explain every aspect of the prior art.

It is most helpful if an expert is providing focused testimony, for example to provide helpful context or to explain terms of art. The failure to provide focused expert testimony may weigh against institution.

FAQs at Q.21. Here, Petitioner relies heavily on expert argument and inferences to fill in the gaps of the prior art, and to explain why the prior art would be modified and combined to allegedly arrive at the challenged claims. *Cf. iRhythm*, Paper 10 at 2-3 (suggesting that reliance on expert testimony to fill gaps in the prior art weighs in favor of denial). Petitioner also relies on expert testimony for every cited claim limitation and every ground, citing its expert's declaration *more than 200 times*, rather than providing a focused expert declaration addressing the limitations for which expert testimony is necessary. *See* Pet., 2-80; *Contra* FAQ at Q.21.

Specifically, for Grounds 1A/1B, the Petition relies heavily on its expert's declaration to provide the understanding and interpretation of a POSITA, for example, independent claim elements [1a], [1c], [1d], [13p], [13i], [13j], [18b], [21e], [22e], [22f], and dependent claims 2, 4, 5, 7, 8, 11, 12, 16. Indeed, Petitioner relies on its expert to fill numerous gaps in the prior art, alleging that "[a] POSITA would have understood," "recognized," or "modifi[ed]" the disclosure of the prior art at least 20 times for Grounds 1A/1B alone. *See* Pet., 7-58. For instance, recognizing its flawed mapping of Glines's "DNS resolver" to the claimed

“Internet Service Provider (ISP) DNS server,” Petitioner relies solely on its expert to support “substitut[ing] an ISP DNS server for Glines’s local resolver 18.” Pet., 22 (citing EX1008, ¶¶157-63). The Petition similarly relies heavily on the expert declaration for the other grounds, making similar statements to fill gaps in the prior art more than 20 additional times. *See* Pet., 58-61 (Grounds 2A/2B), 61-68 (Grounds 3A/3B), 68-80 (Grounds 4A/4B and 5A/5B).

Patent Owner, in its Preliminary Response, will present competing expert testimony explaining why Petitioner’s arguments and inferences are incorrect and do not meet the claim limitations. The extensiveness of the competing expert testimony better suits this dispute to resolution in district court, where the experts can present live testimony with cross-examination. This factor thus favors denial of institution. FAQs at Q.21.

E. The Petition’s lack of particularity resulting in voluminous and excessive Grounds with indeterminate prior art being applied favors denial.

A petition must identify “**with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.**” *Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20 at 15 (PTAB Mar. 6, 2019) (emphasis added) (informative) (citing 35 U.S.C. § 312(a)(3)). While the Petition expressly names 10 grounds challenging the ’112 patent claims, Petitioner’s use of “and/or” and “with

or without” for numerous grounds, as well as inclusion of additional documents that are not named as art for the Grounds but relied art for teachings within the Grounds, results in excessive alternative grounds that thwarts “the interests of efficient administration of the Office” and “procedural fairness to Patent Owner.” *Adaptics*, IPR2018-01596, Paper 20 at 24 (citing 35 U.S.C. § 316(b)). Institution should, therefore, be denied.

Adaptics is highly instructive. In *Adaptics*, the Board denied institution because the petition included “voluminous and excessive grounds” based on the use of “and/or,” yielding “hundreds of possible combinations.” *Adaptics*, IPR2018-01596, Paper 20 at 18-19. The Board characterized the petitioner’s grounds as “not reasonably bounded in scope and unduly burdensome for both Patent Owner and the Board to address.” *Id.* at 21. Even under a “conservative interpretation” that limited the petition’s grounds to “a total of seventeen possible combinations,” the Board determined that this number of grounds “yields an unduly burdensome number of combinations.” *Id.* at 19. The Board should deny institution here for the same reasons.

The Petition purports to challenge the ’112 patent claims based on 10 grounds, as depicted below:

Ground	Art	Basis	Claims
1A	Glines	§103	1-8, 10-23
1B	Glines-Gupta	§103	1-8, 10-23
2A	Glines-Chung	§103	4
2B	Glines-Gupta-Chung	§103	4
3A	Glines-Chiou	§103	7-9, 19-20
3B	Glines-Gupta-Chiou	§103	7-9, 19-20
4A	Glines-Colby	§103	10-22
4B	Glines-Gupta-Colby	§103	10-22
5A	Glines-Chiou-Colby	§103	19-20
5B	Glines-Gupta-Chiou-Colby	§103	19-20

Pet., 1. Similar to the petition in *Adaptics*, however, the Petition includes numerous instances of “and/or” and “with or without” when discussing prior art combinations, making the grounds “voluminous and excessive.” *Id.*, 18-19. For example, Petitioner asserts:

1. “Even if the first and second DNS server are understood to be different servers, this feature would have been obvious over Glines **and/or** Gupta.”

Pet., 45 (emphasis added).

2. “Glines, alone or combined with Gupta **and/or** Chiou, discloses claim 7.”

Pet., 64 (emphasis added).

3. “Glines, alone or combined with Gupta **and/or** Chiou, discloses claim [9].”
Pet., 65 (emphasis added).
4. “Glines, alone or combined with Gupta **and/or** Chiou, discloses claim [20].”
Pet., 67 (emphasis added).
5. “Glines, alone or combined with Gupta **and/or** Colby, discloses claim 11.”
Pet., 70 (emphasis added).
6. “Glines, alone or combined with Gupta, **and/or** Colby, discloses claim 13.”
Pet., 73 (emphasis added).
7. “Glines, alone or combined with Gupta **and/or** Chiou, and Colby, discloses claim 19.” Pet., 75 (emphasis added).
8. “Glines, **with or without** Gupta **and/or** Chiou, in further combination with Colby, would have rendered the “switch” of Limitation [19f] obvious.” Pet., 76 (emphasis added).
9. “Glines, **with or without** Gupta **and/or** Chiou, in further combination with Colby, would have rendered this limitation obvious.” Pet., 77 (emphasis added).

As in *Adaptics*, the use of “the conjunction ‘and/or’ results in a multiplicity of grounds, none of which is presented with sufficient particularity.” *Adaptics*, Paper 20 at 18. For example, with regard to claim 7, the Petition asserts that “[a] POSITA would have found it obvious to combine Chiou’s cache tag table with

Glines, with or without Gupta, for example, because using the target device from the table would have reduced lookup time by determining the source of data directly and without additional DNS resolution, which can add latency.” Pet., 66. The Petition then goes on to assert that “[t]his also would have made the system more robust against DNS outages ...” and that “[t]he **combination** would have been nothing more than combining known elements to yield predictable results ...” *Id.* (emphasis added). However, Petitioner fails to identify with particularity what “this” refers to, or which references are part of “the system” or “the combination.” *Id.*

As another example, for element [19f], Petitioner asserts that “Colby discloses a switch for selecting a server.” Pet., 76. Petitioner then contends that “A POSITA would have implemented these teachings **with Glines, with or without Gupta and/or Chiou**, to select a content server using a switch.” *Id.*, 77 (emphasis added). This catch-all approach of asserting all possible combinations of references “yields an unduly burdensome number of combinations.” *Adaptics*, IPR2018-01596, Paper 20 at 19-21. Petitioner’s lack of particularity thus favors denial.

The Petition also suffers from a lack of particularity due to reliance on documents not included in Petitioner’s specified grounds for the alleged teaching of certain claim elements. 35 U.S.C. § 312(a)(3); *Adaptics*, IPR2018-01596, Paper 20 at 22-23. For example, the Petition alleges that independent claim 23 is obvious

over “Glines” or “Glines-Gupta” (Grounds 1A/1B). Pet., 1. When discussing element [23C], however, Petitioner relies on additional documents (EX1024 and EX1025) to satisfy the claim language. Pet., 54.

Specifically, Petitioner states that “Glines, alone or combined with Gupta, additionally renders Limitation [23c] obvious **based on Internet content** as of the priority date.” Pet., 54 (emphasis added). Petitioner then goes on to cite Yahoo! News as the “Internet content” allegedly corresponding to the claimed “*first request*.” *Id.*, 54-55 (“For example, it would have been obvious for Glines’s name servers to respond to an anycast message based on a request for a news aggregator website, such as Yahoo! News (e.g., <http://dailynews.yahoo.com>)”) (citing EX1024; EX1025); *see also id.*, 55 (“Applying Glines, alone or combined with Gupta, to respond to a first request for the URL <http://dailynews.yahoo.com> would have been an obvious application of Glines’s system.”). Petitioner’s additional, unspecified ground including “Yahoo! News” adds to the voluminous and excessive grounds set forth in the Petition and further underscores Petitioner’s failure to meet the particularity requirement of § 312(a)(3). *Adaptics*, IPR2018-01596, Paper 20 at 22 (“The extent to which these additional documents may be relied upon to fill gaps in the asserted references with respect to the claimed subject matter increases our concern that the Petition lacks the required particularity”).

Petitioner similarly reaches outside of its specified grounds for element [23e]. Again, Petitioner relies on “Yahoo! News” as allegedly teaching the claimed “*second request*” but fails to specify a ground that includes “Yahoo! News.” Specifically, Petitioner alleges that the second request includes “a request for the article ‘U.S. Senate Approves Ashcroft, 58-42’ at http://dailynews.yahoo.com/h/nm/20010201/ts/congress_ashcroft_dc_71.html, where the hostname is ‘http://dailynews.yahoo.com,’ and the second content is a news article.” Pet., 56 (citing EX1025). This mapping adds yet another unspecified ground to the Petition’s already voluminous and excessive grounds and favors denial of institution. *Adaptics*, Paper 20 at 22.

F. Compelling economic and public interest concerns favor denial.

Memo Factor 6 favors denial. Congress enacted the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284, in 2011 to, *inter alia*, “limit unnecessary and counterproductive litigation costs.” H.R. REP. No. 112-98, pt. I, at 40 (2011); *see also* 37 C.F.R. § 42.100 (2017) (observing the purpose of IPR as promoting just, speedy, and inexpensive resolution of patent-validity disputes). While promoting judicial economy is among the goals of the IPR process, the AIA was also a reaction to the financial hardship on many smaller defendants faced with complex commercial litigation. *Id.*

Petitioner Google is one of the most prolific patent-infringement defendants in history. On balance, this weighs against institution in view of the fact that Google (as of March 2025) has \$345.26 Billion USD in net assets and is the world's 5th wealthiest company. Google is more than capable of litigating its patent challenges in district court. Unlike the smaller defendants Congress may have had in mind to benefit from a less-costly alternative to court, Google does not need to tax the resources of the Patent Office to offload its invalidity defenses or reduce its litigation costs. The Office's limited resources are better used elsewhere.

VII. CONCLUSION

The Board should exercise discretion to deny *inter partes* review of the '112 patent.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jason D. Eisenberg/

Jason Eisenberg, Reg. No. 43,447

Daniel Block, Reg. No. 68,395

Kristina Caggiano Kelly, Reg. No. 58,164

Steven Pappas, Reg. No. 58,164

Ethan Goldschen, Reg. No. 80,057

Counsel for Patent Owner

Date: July 14, 2025

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600

CERTIFICATE OF WORD COUNT (37 C.F.R. § 42.24(d))

1. This Patent Owner's Brief on Discretionary Denial complies with the type-volume limitation of 14,000 words, comprising 10,179 words, excluding the parts exempted by 37 C.F.R. § 42.24(a)(1).

2. This Patent Owner's Brief on Discretionary Denial complies with the general format requirements of 37 C.F.R. § 42.6(a) and has been prepared using Microsoft® Word 2016 in 14-point Times New Roman font.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jason D. Eisenberg/

Jason D. Eisenberg
Registration No. 43,447
Counsel for Patent Owner

Date: July 14, 2024

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600

CERTIFICATE OF SERVICE (37 C.F.R. § 42.6(e))

I certify that the above-captioned **PATENT OWNER'S BRIEF ON DISCRETIONARY DENIAL** and associated Exhibits 2001-2009 and 2012 were served in their entireties on July 14, 2024, upon the following parties via electronic mail:

Erika H. Arner (Lead Counsel) erika.arner@finnegan.com
Kara A. Specht (Back-Up Counsel) kara.specht@finnegan.com
Sydney R. Kestle (Back-Up Counsel) sydney.kestle@finnegan.com
Cara E. Regan (Back-Up Counsel) cara.regan@finnegan.com
Daniel C. Tucker (Back-Up Counsel) daniel.tucker@finnegan.com
Alexander M. Boyer (Back-Up Counsel) alexander.boyer@finnegan.com
Google-Sandpiper-IPRs@finnegan.com
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX PLLC

/Jason D. Eisenberg/

Jason D. Eisenberg
Registration No. 43,447
Counsel for Patent Owner

Date: July 14, 2024

1101 K Street, NW, 10th Floor
Washington, DC 20005
(202) 371-2600