

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

SANDPIPER CDN, LLC,
Patent Owner

Case IPR2025-00806
U.S. Patent No. 8,645,517

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

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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	Prosecution History of U.S. Application No. 10/259,497
2003	Prosecution History of U.S. Application No. 11/932,162
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	<i>Intentionally Left Blank</i>
2013	Interim Processes for PTAB Workload Management Memorandum (March 26, 2025)
2014	National Judicial Caseload Profile – United States District Courts (March 2025)

I. INTRODUCTION

Inter partes review of the '517 patent would be a complete waste of the Board's limited resources. The '517 patent is expired. The inventions disclosed therein are already free to the public going forward and the settled expectations of the parties counsels against institution. Additionally, the Office already expended substantial resources on this patent during its initial prosecution and prosecution of its family members, which was thorough and specifically evaluated many of the same references that are asserted again in this Petition.

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.

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

For the '517 patent, despite waiting almost 11 months to file this petition, much of the art and arguments Petitioner presents were largely already considered and rejected by the original Examiner. 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 ’517 PATENT

Expired U.S. Patent Number 8,645,517 (“the ’517 patent”) is entitled “Policy-Based Content Delivery Network Selection.” As the title suggests, a novel feature of the invention includes a particular kind of policy for directing network traffic in an innovative way. The ’517 patent claims benefit via four non-provisional applications in two family chains to U.S. Provisional Application No. 60/325,177 filed September 28, 2001.

When using CDN technology, challenges arise related to network traffic associated with requests for content. For example, companies that want to provide

their content to end users using a CDN face issues regarding directing network traffic to serve end users' requests. As one example, issues arise when trying to deliver content from multiple servers at geographically-separated locations with suitable end-user experiences under high traffic loads.

The inventors of the '517 patent understood these challenges faced by CDN providers and their customers relating to directing network traffic and end-user requests for content. The inventors devised solutions utilizing Domain Name Server ("DNS") technology and allowing for the resolution of requests to multiple CDNs based on various policies. Embodiments of the disclosed invention solve network traffic issues, such as server failure and controlling the distribution of requests according to economic or contractual parameters, by providing a network distribution infrastructure that can be configured with network traffic rules. These rules can account for factors like server availability, geolocation, load, and latency.

The '517 patent addresses specific needs in the art via specific combinations, which were not conventional at the time of the invention of the '517 patent, and the '517 patent describes how specific technical solutions are achieved. For instance, content providers must address how to handle requests from end users, in some cases in accordance with policy constraints faced by the content providers, even as network conditions affecting the Internet are subject to change. The inventors of the '517 patent developed methods to address these issues, including methods in

which a server network implements policy-based traffic direction. For example, embodiments of the invention in the '517 patent provide a specific graphical user interface for obtaining at least one policy for the direction of network traffic, such as using a decision tree with resource and branch nodes. The various criteria that can be used may relate to IP addresses or geographic zones, with answers consisting of IP addresses and CNAMEs, for example.

IV. PROSECUTION HISTORY OF THE '517 PATENT

The '517 patent was filed on December 24, 2010 and reflects the product of a thorough prosecution on the merits, including multiple office actions and substantive discussions concerning the prior art across the family of applications. It claims priority to two lines of applications that similarly received substantive examinations. It was initially rejected in a Non-Final Office Action dated March 11, 2013. In this Non-Final Office Action, claims 2–5, 10–13, 18 and 19 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,484,261 to Wiegel. Claims 9 and 17 were similarly rejected under 35 U.S.C. § 103(a) as being unpatentable over Wiegel view of U.S. Patent Application Publication 2002/0145975 to McLampy. Claims 6, 7, 14, 15, 20 and 21 were rejected under § 103(a) over Wiegel in view of U.S. Patent No. 6,092,178 to Jindal. Claims 8 and 16 were rejected under § 103(a) over Wiegel in view of U.S. Patent No. 6,052,788 to Wesinger. EX1002, 64-72.

Patent Owner overcame that rejection by explaining the novel features of the claims that were not present in the primary reference, Wiegel. Specifically, Wiegel did not disclose “having one or more resource nodes specify one or more answers to be provided in response to a Domain Name Service (DNS) request.” EX1002, 55. This unique node structure and function could not be found in the prior art. The Office then allowed the claims. *Id.*, 40.

The prosecution history of the ’517 patent further shows that many of the references cited in the Petition were considered and even applied in rejections in predecessor applications. In particular, the Ben-Shaul reference cited in the Petition, *see* Pet., 2, 39–74, was applied in rejections during the prosecution of U.S. Application No. 10/259,497 (“’497 application”) and U.S. Application No. 11/932,162 (“’162 application”) in the priority chain. *See* EX2002; EX2003.

Patent Owner overcame the rejection in the ’497 application by including the novel features of the claims indicated as allowable subject matter by the Examiner (“[c]laims 14, 15 . . . are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims”) that were not present in the Ben-Shaul reference. *See* EX2002, 239, 290 (“[c]laim 10 has been amended to include the subject matter of objected-to claim 15,” indicated as allowable subject matter by the Examiner, namely “a monitored server, wherein an availability of the

monitored server is dynamically monitored” and/or “a managed server, wherein . . . a load share or a shed fraction of the managed server is defined dynamically”).

Ben-Shual’s lack of dynamic monitoring and server management also distinguish it from the policy and policy-based features of the ’517 patent claims.

Patent Owner also overcame that rejection in the related ’162 application by explaining that Ben-Shaul did not disclose or suggest “any such dependent relationship between the receipt of a client request for a domain name resolution, on one hand, and the retrieval of policies from a name server’s policy database and the selection of a network based on those retrieved policies, on the other.” *See* EX2003, 1316. The Examiner then allowed the claims based on the amendments of the above features. *See* EX2003, 1331 (“[T]he ’120 reference does not disclose the Applicant’s invention as claimed in detail, such as receipt of a client request to resolve a domain name at a name server, the policy database being on the name server and selecting either the CDN or subscriber server. The ’120 reference appears to be drawn to formatting content of a web page rather than load sharing/balancing of a network.”). The specific role of the policy and policy-based features in the ’517 claims similarly distinguishes Ben-Shaul.

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 (EX2013, “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; EX2013, 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.

EX2013, 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 '517 patent would not be an efficient use of the Board's limited resources. First, the '517 patent is expired. The inventions disclosed therein are already free to the public going forward, and the settled expectations of the parties counsels against institution. Additionally, the Office

already expended substantial resources on this patent during its initial prosecution and prosecution of its family members, which were thorough and substantively evaluated many of the same references that are asserted again in this Petition. *See, e.g.,* EX-2002, 159-170, 232-241 (considering Ben-Shaul); EX-2003, 694-700, 1237-1303, 1331 (considering Ben-Shaul); EX-2003, 154-158 (considering Biliris).

The only remaining interest in the '517 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* EX1016, 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 it relies upon 35 U.S.C. §102(b) art and §102(e) art in the alternative, contingent upon a priority challenge that presents flawed written-description arguments. It is more efficiently litigated in the district court.

A. Settled expectations and efficiency weigh against institution.

The Office has indicated that it is not a good 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.”). The patent challenged here has been in force for even longer. This factor thus weights in favor of discretionary denial.

Moreover, the ’517 patent expired August 7, 2023. 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

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. et al.*, Petition for Writ of Certiorari, Case. No. 24- (Filed June 11, 2025)).

Board and party resources to adjudicate an expired patent, especially where the same claims are already pending 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, the limited nature of that dispute does not justify expending the Board's resources on instituting review of the Petition. 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 two 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 Apple*, 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). The Office should not decide differently here.

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. *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. 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. EX2014, 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 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 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* EX1016; *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., 77 and EX1016 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* EX1016. 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 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.** The petition suffers from numerous flaws, including a fundamentally flawed priority challenge, and the merits of the arguments presented are weak for the reasons discussed in detail below. Factor 6 favors denial.

C. Heavy reliance on an expert declaration to provide the understandings and expectations of a POSA favors denial.

Memo factor 4 favors discretionary denial of the Petition. 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.

EX2008, 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 Technologies, Inc., v. Welch Allyn, Inc.*, IPR2025-00363, Paper 10 at 2-3 (PTAB June 6, 2025) (suggesting that identifying portions of 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 the declaration over 230 times, rather than providing a focused expert declaration addressing the limitations for which expert testimony is necessary. *Contra* EX2008, Q.21.

Specifically, for Ground 1, the Petition relies heavily on the declaration to provide the understanding and interpretation of a POSA, for example, independent claim elements [1.a], [1.b], [1.d], [1.e.ii], [1.f], and dependent claims 4-8, [9.pre.i], [9.pre.ii], [9.c]. For ground 2, the Petition relies heavily on the declaration to provide the understanding and interpretation of a POSA, for example, dependent claims 2-3. For grounds 3A and 3B, the Petition relies relatively heavily on the declaration to provide the understanding and interpretation of a POSA, for example, independent claim elements [1.pre.ii], [1.a], [1.b], [1.d], [1.e.ii], [1.g], and dependent claims 2-8.

Furthermore, several of the Petition’s citations to the expert are for the purpose of filling in gaps in the disclosure—especially for the features that the Examiner cited as the reasons for allowance. *See, e.g.*, Pet., 20-21 (filling gap in limitation 1.e, a key limitation as discussed above in Section IV). There is no reason provided why the “answers” (servers selected for handling a request) would be in the prior-art GUI. The Petition merely declares that doing so “would [be] enable[d]” in a single conclusory sentence. *Id.* Additional examples include statements like “a POSITA would have understood to include defining policy information” with no explanation or evidence. Pet., 17 (discussing element 1.b).

As another example, the Petition engages in blatant hindsight and circular reasoning in using expert testimony to fill gaps in Beaumont’s disclosure. *See* Pet., 19-20 (providing “[w]hen used in Beaumont’s network, . . . and thus ‘answers’ provided in response to DNS questions” purports to map the claim limitation to the prior art without explanation, and that “[i]n the tree structure of the combined GUI, these content delivery servers . . . would thus act as a decision criterion,” which is a bare conclusion without explanation or corroborating evidence as to why).

It similarly relies on its expert to fill gaps in Ben-Shaul’s disclosure, but expert testimony is conclusory and devoid of corroborating evidence. *See, e.g.*, Pet., 48, 53 (citing expert for including the policies in the tree GUI, where Ben-Shaul’s GUI configures server hierarchies and nothing in Ben-Shaul shows it as

being used for including policies for direction of network traffic). The Petition also improperly mixes mappings of Ben-Shaul's policy discussion and relies on conclusory expert testimony without corroborating evidence to argue that the claim limitation would be supported by Ben-Shaul's GUI. *See* Pet., 57.

Finally, Patent Owner, in its Preliminary Response, will present and rely heavily on 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 favors thus favors denial of institution. EX2008, Q.21.

D. The weak merits of Grounds 1 and 2 favor denial.

Fintiv Factor 6 and Director Memo Factor 3 weigh against institution in view of multiple facial flaws in the unpatentability grounds advanced in the Petition.

As a preliminary matter, the Petition is needlessly complicated because it first presents a priority date challenge, and then presents every single prior-art reference as alternatively prior art under 35 U.S.C. § 102(b) or § 102(e) based on the success of that priority challenge. *See* Pet., 8 ("Accordingly, under the actual October 26, 2007, priority date, each of these references are prior art under 35 U.S.C. §102(b). But each reference was filed before the claimed September 28,

2021, priority date, and remains prior art under 35 U.S.C. §102(e) under any priority date.”). The Office will therefore need to resolve the Petition’s challenge to the written description before it can provide the statutory basis for its unpatentability analysis. The payoff for that extra layer of complexity is not worth the Board’s effort, as discussed below, because the Petition is unlikely to succeed on the merits.

1. Grounds 1 and 2 fail at least because the cited prior art does not teach or suggest the claimed unique “policy” features.

The Petition relies on prior art that fails to teach or suggest the “policy-based” or “at least one policy” limitations of the claims. As discussed in Sections III and IV, the unique policy described and claimed in the ’517 patent directs network traffic in an innovative way not found in the prior art. That these claimed unique policy limitations are missing from the cited prior art precludes any likelihood of success on Grounds 1 or 2.

Independent claims 1, 9, and 17 (all independent claims) recite various features involving a “policy,” specifically:

A [(1) method/(9)administrative agent/(17)system], operable in a framework in which an adaptive traffic control name server network **implements policy-based traffic direction**, the name server network comprising at least one domain name server comprising hardware in combination with software and constructed and adapted **to provide**

adaptive policy-based domain name service, the method
comprising:

. . .

(B) **using said GUI to obtain at least one policy for direction of network traffic**, wherein the GUI supports the setting of said at least one policy using a decision tree representing rules; and

(C) **providing said at least one policy to the name server network**, wherein the decision tree comprises one or more resource nodes, and one or more branch nodes, wherein the one or more resource nodes specify one or more answers to be provided in response to a Domain Name Service (DNS) request, and wherein . . .

EX1001, 31:24-56. The '517 patent is clear that a “policy” or a “policy-based” feature generally refers to a course, rule, or principle of action. *See* EX1001, 1:43-2:7 (“This invention solves these and other problems by providing a means to distribute network (e.g., Internet) traffic according to a configurable set of rules.”).

In the context of these claims, it is a course, rule, or principle of action to direct traffic of the underlying servers. *Id.* (“These rules together provide an extremely fine-grained level of network Internet traffic control to providers of Internet content and applications . . .”). The policy or policy-based features make decisions based on the geographical locations and the capacities of the underlying servers in the subscriber’s network to manage and direct traffic. *See* EX1001, 6:33-44 (“For example, the subscriber may set up policies to direct traffic with respect

to considerations such as the geographical locations and the capacities of the underlying servers in the subscriber's network),” 7:13-28 (“Decisions are based on location of the end-user or an approximate thereof, e.g., using the IP address of an end-user's resolver”) (“The subscriber can explicitly specify the amount of traffic (load share) to be directed to each of their servers within a defined server set in the subscriber server network”).

Importantly, the “policy” or “policy-based” features are structurally and functionally different from the “geographical locations and the capacities of the underlying servers,” EX1001, 6:33-36, that the policy features use. In other words, the policy governs the process, while the geographical locations and the capacities of the underlying servers are the inputs that the policy uses to determine traffic direction. *See* EX1001, 6:33-44, 15:28-35.

The '517 patent further illustrates what it means by “policy” and “policy-based” course, rule, or principle of action through several examples. *See* EX1001, 7:13-8:25. One example is a “geographic policy,” in which decisions are based on location of the end-user or an approximate thereof, e.g., using the IP address of an end-user's resolver. *See* EX1001, 7:13-21. In this example, the policy or policy-based course, rule, or principle of action is interpreted as “if the IP address is within the U.S., the request may be directed to a domestic group of servers in the

subscriber server network, otherwise it may be directed to international servers in the network.” *Id.*

The cited prior art does not disclose this kind of policy or policy-based feature at all. In Ground 1, Petitioner relies entirely on Beaumont (EX1007), as disclosing the policy for all of the policy-based limitations of the claims. Pet., 2, 9-34. Petitioner points to a preference table (*see* Beaumont’s Figure 2 below) including locations, capabilities, or statuses of a server for allegedly teaching the recited “policy-based” or “at least one policy” features. Petitioner argues that “Beaumont’s method operates in a ‘data network’ (framework) including a content provider DNS server that directs requests (traffic) **according to a configurable preference table (policies).**” *See* Pet., 15.

	C1	C2	C3	C4 (optional)	C5 (optional)	C6 (optional)
	Delivery Server Address	Destination Domain	Estimated Distance (milliseconds)	number of times being selected per hour	Health	Time-To-Live (minutes)
R1						
R2	152.192.16.15	182.192	100	100	Working	1
R3	153.192.16.15	182.192	90	90	Down	2
R4	154.192.16.15	182.192	10	10	Working	9
R5	155.192.17.15	155.192	20	20	Working	8
R6	156.192.17.15	156.192			Working	1
R7	157.192.17.15	156.192	50	50	Working	5
R8	158.192.17.15	156.192	70	70	Working	3

EX1007, FIG. 2.

A preference table is not a policy. Beaumont's preference table has none of the structure of the claimed policy, which is characterized by a conditional and a result. *See* EX1001, 8:55-56, 15:28-32, 16:5-7. Nor does the preference table of Beaumont function like the claimed policy. Beaumont's preference table merely records locations, capabilities, or statuses of a server, such as delivery serve address, destination domain, estimated distance, number of times being selected per hour, health, and time-to-live. *See* EX1007, FIG. 2. It is a listing of information. It does not provide the claimed course, rule, or principle of action. It does not govern any process or direct the traffic of the underlying servers as claimed. Indeed, the information recorded in Beaumont's preference table could be used to inform a policy—but Beaumont does not teach this nor does Beaumont disclose any kind of policy that could use this information in action.

Put another way, what is missing from Beaumont is any disclosure of how the information in the table could be used to direct network traffic. In the '517 patent claims, the information is used to navigate a decision tree by following the policy rules. *See* EX1001, 7:13-21, 9:13-25. The information in Beaumont's preference table could be used by a policy to determine which group of servers to direct the request, but Beaumont's preference table itself does not expressly or inherently disclose any policy. The preference table only discloses the IP address. There is no action or rule of directing such IP address from the preference table.

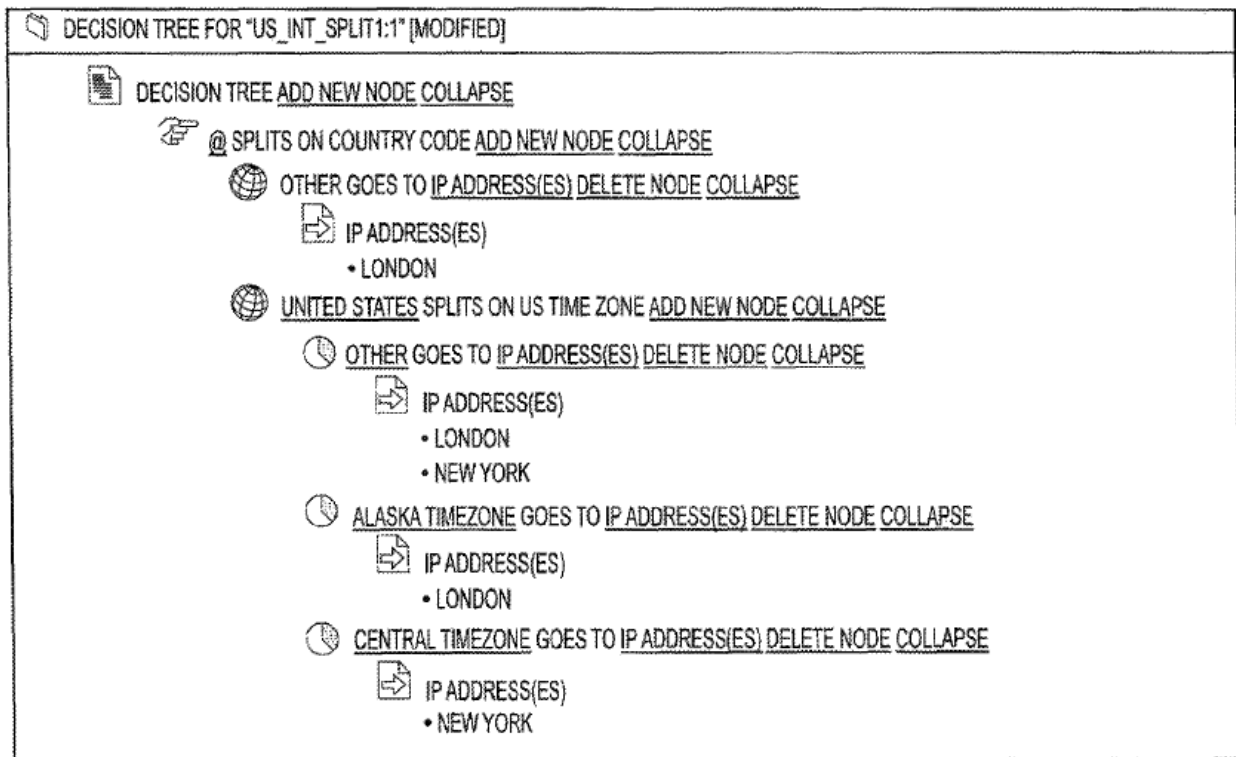
The other reference cited in Grounds 1 and 2, Hasan, is cited for other limitations of the independent claims. Pet., 2, 9–39. The Petition does not rely on Hasan for any disclosure of policies or policy-based features. Nor does it disclose the claimed policy in any event. Biliris is cited only in Ground 2 and only for dependent claims. Pet., 2, 35–39. The purported combinations in Grounds 1 and 2 therefore do not disclose this limitation. The absence of at least these claimed “policy” limitations from the prior art defeats any likelihood that Grounds 1 or 2 will prevail.

2. Grounds 1 and 2 further fail at least because the cited prior art does not teach or suggest “the one or more branch nodes specify one or more decision criteria to be applied.”

Neither Beaumont nor Hasan discloses the limitation, “the one or more branch nodes specify one or more decision criteria to be applied,” that appears in all independent claims. Petitioner points to a table as satisfying the decision criteria, but the table does not have any criteria. Beaumont never explains how the table is used, and Petitioner’s expert never explains how the table constitutes decision criteria as claimed.

Specifically, independent claims 1, 9, and 17 recite “wherein the one or more branch nodes specify one or more decision criteria to be applied ... (ii) one or more decision criteria for the one or more branch nodes.” *See* EX1001, 31:24-56. This claim limitation basically has two elements: (1) the decision criteria to be

applied, and (2) the one or more branch nodes needed to specify the criteria. The '517 patent makes clear that “decision criteria to be applied” are criteria for selecting or grouping different servers. *See* EX1001, 9:6-8, FIG. 10(a)-(o); *see also* EX1001, 7:37-39 (“It may also alternatively instruct the ATC framework to direct traffic to servers other than the primary servers.”). For example, in Figure 10(b) of '517 patent as below, the recited “decision criteria” is interpreted as “SPLITS ON COUNTRY CODE” and/or “SPLITS ON US TIME ZONE.” Also, in this example, these “decision criteria” need to be specified in the branch node of the decision tree in Figure 10(b).



EX1001, FIG. 10(b).

Petitioner relies on Beaumont’s content provider DNS server for allegedly teaching sharing the destination domain of the client. *See* Pet., 19. Petitioner then suggests that sharing the destination domain satisfies the “decision criteria” limitation because it provides “answers” in response to a DNS request, according to the configurable preference table shown above in Beaumont’s Figure 2. *Id.*

Petitioner further relies on content delivery servers represented in rows R2, R3, and R4 in Beaumont’s Figure 2 for allegedly teaching a “decision criterion” to group the content delivery servers—under the same destination domain and the destination domain. *See* Pet., 20. Beaumont’s teaching that “content delivery servers identified in column C1 of rows R2, R3, and R4)” can be grouped under the same destination domain, *see* EX1007, ¶28, however, does not disclose a decision criterion as claimed. That is because Beaumont does not teach or suggest the claimed “one or more decision criteria to be applied”—which is interpreted as “content delivery . . . are mapped to the same destination domain,” *id.*—needs to be specified by “the one or more branch nodes.”

Petitioner argues that Beaumont suggests a “decision criterion” in its depiction of rows R2, R3, and R4 in the configurable preference table (Beaumont’s Figure 2) because they “are mapped to the same destination [domain], 182.192.” Pet., 20. But the elements of rows R2, R3, and R4 of Beaumont’s preference table are—at most—listings of the locations, capabilities, or statuses of a server. *See*

EX1007, FIG. 2. That one can map them to their destination domains does not indicate why they are mapped and what criteria were used to make that decision. Accordingly, the preference table listings do not provide the claimed *criteria* for selecting and grouping different content delivery servers. For the sake of argument, even if Beaumont's selection for rows R2, R3, and R4 was based on grouping different content delivery servers based on the shortest estimated distance to the client, then that selection instruction would need to be explicitly specified in the "one or more branch nodes" associated with the preference table (Beaumont's Figure 2), as claimed in '517 patent. *See* Pet., 20; *compare* EX1007, FIG. 2 *with* EX1001, FIG. 10(b). Clearly, Beaumont's configurable preference table does not have this teaching or suggestion in any way.

Hasan does not cure the deficiencies of Beaumont with respect to at least the above recited features. Petitioner relies on Beaumont's content provider DNS server in view of Hasan's GUI that provides "a hierarchical layout" in a "familiar tree structure, with . . . the branches being the facilities, subscribers, devices and log servers" for allegedly teaching the recited "one or more branch nodes" that specify "one or more decision criteria to be applied." *See* Pet., 19–20. In particular, the Petition argues that when incorporated into Beaumont's network, higher-level branches in Hasan's GUI may represent decision criteria and sub-branches in

Hasan's GUI may represent individual delivery servers that fulfill the decision criteria and are thus "answers" provided in response to a DNS request. *Id.*

However, neither Beaumont nor Hasan (alone or in combination) teaches or suggests that the "one or more decision criteria"—referring to the above-noted grouping instruction—have to be explicitly specified in the "one or more branch nodes" (or in any of the higher-level branches or sub-branches as disclosed by Hasan). In other words, these references are missing the teaching that the "one or more decision criteria" are specified in the structures that Petitioner alleges to be the "one or more branch nodes." Hasan's GUI does not have that teaching or suggestion among its branches, as there are no criteria in this GUI at all. This failure is a separate and independent reason why Grounds 1 and 2 cannot succeed on the merits.

E. Grounds 3A and 3B present weak challenges and should be denied based on Section 325(d) based on art and arguments already considered by the Office.

In addition to the needless complexity of the priority challenge discussed in Section VI.D., above, Grounds 3A and 3B fail to present challenges worth the Board's limited resources because they rely on art and arguments already considered and rejected by the Office in prosecution of the '517 patent's family members for similar distinguishing claimed subject matter, which warrants denial under Section 325(d). Specifically, the Office already extensively considered the

Ben-Shaul reference in prosecution of the '517 patent's family members, and Petitioner does not identify any error in that consideration. *See* Section IV; EX2002, 232–241; EX2003, 1331 (explaining Ben-Shaul fails to disclose a “dependent relationship between the receipt of a client request for a domain name resolution, on one hand, and the retrieval of policies from a name server’s policy database and the selection of a network based on those retrieved policies, on the other”).

As discussed in Section IV, Ben-Shaul was cited in a rejection during prosecution of two applications in the priority chain, both of which have similar claims to the '517 patent. As detailed in Section IV, Patent Owner overcame those rejections by distinguishing Ben-Shaul on the merits, including by explaining that Ben-Shaul did not disclose or suggest “any such dependent relationship between the receipt of a client request for a domain name resolution, on one hand, and the retrieval of policies from a name server’s policy database and the selection of a network based on those retrieved policies, on the other.” *See* EX2003, 1316; *see also* EX2002, 239, 290. That failing of Ben-Shaul to disclose these policy details also distinguishes the '517 claims.

The Board should not expend its limited resources considering this art and argument again. *See* 35 U.S.C. § 325(d); *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB. Feb. 13,

2020) (precedential March 24, 2020); *see also Becton, Dickinson & Co. v. B.*

Braun Melsungen AG, IPR2017-01586, Paper 8 at 17-18 (PTAB Dec. 15, 2017)

(informative); *Microsoft Corp. v. AlmondNet, Inc.*, IPR2022-01319, Paper 9 at 11

(PTAB Jan. 30, 2023) (denying institution under § 325(d) where Petitioner did not sufficiently address whether the Office materially erred in its prior consideration of the cited prior art).

1. Grounds 3A and 3B also fail at least because the cited prior art does not teach or suggest a policy that can be implemented for “direction of network traffic.”

The prior art of Grounds 3A and 3B does not teach or suggest at least the claimed “policy-based” or “at least one policy” can be implemented for “direction of network traffic.” As discussed above for Grounds 1 and 2, independent claims 1, 9, and 17 recite multiple “policy-based” or “at least one policy” features. These limitations further specify that the system or method “implements *policy-based traffic direction* . . . using said GUI to obtain at least one *policy for direction of network traffic*.” EX1001, 31:24-56, 33:9-34:16. As discussed for Grounds 1 and 2, above, a policy is a course, rule, or principle of action. *See* Section VI.D.1; EX1001, 1:43-2:7.

Petitioner relies on Ben-Shaul’s EdgeDNS servers for allegedly teaching the recited “policy-based” or “at least one policy” for “direction of network traffic.” Pet., 45, 47, 48. In particular, Petitioner alleges that each Ben-Shaul’s EdgeDNS

server receives DNS requests and “is responsible to return the IP address” of the appropriate content server based on “edge server policy.” *Id.* Petitioner further alleges that Ben-Shaul’s front edge tool GUI is for direction of network traffic and supports the setting of policies using a decision tree representing rules. *Id.*

As noted above, the Office already considered this teaching in Ben-Shaul and ultimately allowed the claims of both the ’517 patent’s predecessor patents based on similar distinguishing claimed subject matter found in the ’517 patent claims. *See* EX2002, 784; EX2003, 1331. Accordingly, when the Office considered the claims that issued to become the ’517 patent, it was clearly aware of Ben-Shaul and its relevance to the then pending claims. The argument that Petitioner makes now is very similar to the argument that the Examiner previously made, *see* EX2002, 232–241; EX2003, 1237–1303—and Patent Owner previously overcame, *see* EX2002, 290–291; EX2003, 1315–1319—for two related patents with similar distinguishing claimed subject matter.

Specifically, Petitioner argues that Ben-Shaul’s EdgeDNS servers “provide ... policy-based domain name service.” Each receives DNS requests and “is responsible to return the IP address” of the appropriate content server based on “edge server policy.” This service is allegedly “adaptive” in that requests are handled dynamically based on network conditions. *See* Pet., 45–46. Petitioner argues that Ben-Shaul’s edge server “leaves” “specify one or more answers to be

provided in response to a Domain Name Service (DNS) request” because an IP address for a selected server is provided as an answer to a DNS request. *See id.*, 53. The Petitioner further argues Ben-Shaul discloses a specification of a particular edge server (an answer) for the one or more resource nodes in which the edge server should be returned under particular conditions. *See id.*

Likewise, in the prosecution history of ’497 application, the Examiner argued that Ben-Shaul discloses “the policies are dynamically adjusted and the policies of the edge servers affect the operation of the domain name servers and thus the resolution of a domain name by the domain name server are influenced by these policies.” EX2002, 239–240. The Examiner further argued that Ben-Shaul discloses “EdgeDNS which provides dynamic domain name resolution based on policies.” EX2002, 240. The argument that Petitioner makes significantly overlaps with the Examiner previously made to ’497 application, both of which suggest that operations or DNS requests of the domain name servers are influenced or based on edge server policy. Accordingly, the Office was already aware of—and Patent Owner already overcame—Petitioner’s argument.

Furthermore, in the prosecution history of the ’162 application, the Examiner argued that Ben-Shaul discloses “local server/edge server or another distinct origin site that is selected to provide the resource based on some condition (i.e. policy).” EX2003, 1245. The Examiner further argued that Ben-Shaul

discloses “resolving a client request to resolve a domain name, selecting either an edge server or origin server to provide the content provider resources, wherein such selection is based in part on a policy (i.e. preferences, specified policy, policy of load balancing.” EX2003, 1246. The Examiner also contended that Ben-Shaul discloses “content provider can establish ‘policies’ to control which network element distributes the resource.” EX2003, 1247. The argument that Petitioner makes here essentially repurposes the argument the Examiner previously made in examining the ’162 application, as both compare Ben-Shaul’s edge server functionality to the claimed policies. That the Office did not apply this same rejection—which Patent Owner twice overcame—to the ’517 patent indicates that the Office did not find it compelling.

On the merits, Ben-Shaul does not teach or suggest the recited “policy-based” or “at least one policy” features of the ’517 patent claims, particularly the feature that the claimed policy is implemented for “direction of network traffic.” In Ben-Shaul, the “edge server policy” is an entirely different network functionality than that of the policy recited in the claims. *See* EX1005, ¶¶41, 176–177.

Ben-Shaul’s edge server policy may control which resources zones are directed to the edge servers, *see* EX1005, ¶41, but it does not produce any decision for direction of network traffic. Ben-Shaul’s “edge server policy” that redirects requests to the regional site is only the first step of the request redirection process.

Id., ¶181. Ben-Shaul’s “first step request direction” is not the recited “direction of network traffic.” Ben-Shaul’s first step request direction (redirected by the edge server) takes place *prior to* interactions between origin servers and edge servers, and then merely forwards these requests to certain resource zones. *See id.*, ¶41. Contrastingly, the “network traffic” recited in the ’517 patent is “[an] amount of load share,” and “[t]he load share for a given server represents the amount of traffic that will be sent to that server within the same tier of the server set.” *See* EX1001, 7:22-28, 11:56-58.

As described in the ’517 patent, “[t]he shed fraction for a given server represents the percentage of traffic that should be redirected away from the server. The redirection may be carried out after load share is made based upon load share policies.” EX1001, 22:38-41. The specification thus makes clear that to obtaining the load share “to be directed to each of their server within a defined server set,” the direction of network traffic (load share), requires *interactions* between different servers for making the load share. *See id.*, 7:22-24. Because the “direction of network traffic” with interactions between servers is not the “first step” of Ben-Shaul’s redirection process, Ben-Shaul’s “edge server policy” is not a policy or policy-based features as recited in the ’517 claims.

As another example, “[p]artial failover or tiered failover policies govern the traffic re-direction process when functioning servers in a server group are

overloaded or failed.” EX1001, 8:52-54. Clearly, the recited “direction of network traffic”—which is carried out after load share is made or when functioning servers in a server group are overloaded or failed—is not the Ben-Shaul’s “first step request direction.” As such, Ben-Shaul’s policies—which have implied the “first step request direction”—do not have the teaching or suggestion of the recited “policy-based” or “at least one policy” that can be implemented for “direction of network traffic” in any way.

Hasan does not cure the deficiencies of Ben-Shaul with respect to the above recited features. As discussed above, Hasan discloses a GUI for defining “configuration data and policy information” for servers within a network. EX1006, 7:12-21, 6:59-63. Petitioner relies on Hasan’ GUI for “configuring network objects to be a suitable option for the “highly graphical” tools referenced in Ben-Shaul for policy setting, particularly in view of Ben-Shaul’s directive to utilize GUIs to ease policy construction.” Pet., 43. However, since Ben-Shaul does not disclose the recited “policy-based” or “at least one policy” that can be implemented for “direction of network traffic” as described above, combining Hasan’s GUI does not cure the deficiencies of Ben-Shaul.

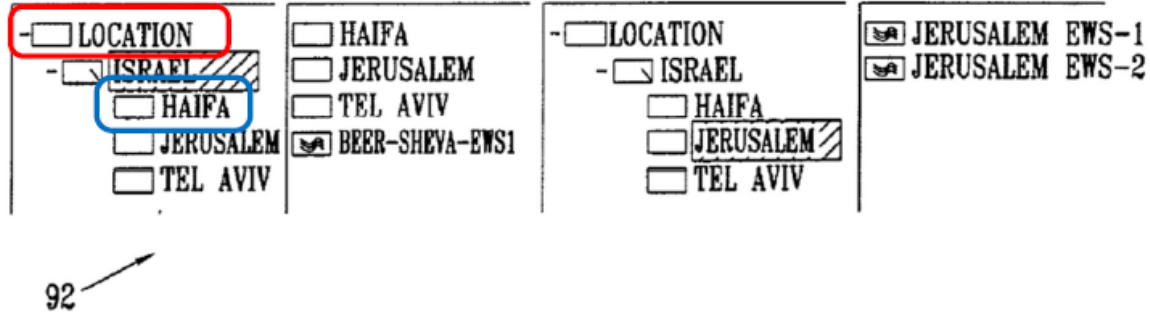
2. Grounds 3A and 3B further fail at least because the cited prior art does not teach or suggest that “the one or more branch nodes specify one or more decision criteria to be applied.”

As discussed above for Grounds 1 and 2, independent claims 1, 9, and 17 recite at least the “one or more branch nodes specify one or more decision criteria to be applied.” This limitation basically has two elements: (1) the decision criteria to be applied, and (2) the one or more branch nodes needed to specify the criteria.

The ’517 patent makes clear that “decision criteria to be applied” are criteria for selecting or grouping different servers. *See* EX1001, 7:37-39 (“It may also alternatively instruct the ATC framework to direct traffic to servers other than the primary servers.”); *see* EX1001, 9:6-8, FIGs. 10(a)-(o). For example, if we look at Figure 10(b) of ’517 patent as below, the recited “decision criteria” is interpreted as “SPLITS ON COUNTRY CODE” and/or “SPLITS ON US TIME ZONE.” Also, in this example, these “decision criteria” need to be specified in the branch node of the decision tree in Figure 10(b).

In Grounds 3A and 3B, Petitioner relies on Ben-Shaul’s GUI (with decision tree structure having internal nodes) for allegedly teaching the recited “branch nodes” that represent logical aggregations of nodes. *See* Pet., 53. Petitioner further alleges that the groups defined by the internal nodes “specify one or more decision criteria to be applied,” because they “represent logical aggregations of nodes” based on a particular decision criteria. *Id.*

FIG. 10



EX1005, FIG. 10 (annotated).

Petitioner misinterprets Ben-Shaul's GUI "internal nodes" (e.g., "LOCATION" in Figure 10) as the claimed branch nodes. Petitioner argues that Ben-Shaul's internal nodes "represent[] logical aggregations of nodes" and further alleges that "[a]dministrators may construct a group based, e.g., on region, as shown in Fig. 10 (Ben-Shaul, [0039], [0309]) such that policies are applied to any edge server within the group (Ben-Shaul, [0285], [0289], [0308], [0309])." Pet., 53. In addition, Petitioner alleges that "[a] DNS request is thus directed to an edge server based on that server's association with the group (Ben-Shaul, [0044])." *Id.*

Petitioner further interprets that the internal nodes "specify one or more decision criteria to be applied," because DNS requests may be routed according to group characteristics of edge servers such as "region, language, interest, organization type, security level, edge server specification and capabilities, communication speeds, subgroups, type of events, etc." *See* Pet., 55. However, the group characteristics of Ben-Shaul's edge servers (*see, e.g., "LOCATIONS"* characteristic in Ben-Shaul's Figure 10) are entirely not the recited "decision

criteria” as described in ’517 patent. *See* EX1001, 9:6-8, FIG. 10(a)-(o). As indicated by the ’517 patent, the “decision criteria for selecting or grouping different servers has to be specified in these internal nodes. *Id.* These group characteristics may, at most, be interpreted as server attributes, which are entirely different from the recited “decision criteria.”

Even if, for sake of argument, Ben-Shaul’s group characteristics were considered to be “decision criteria” as claimed in the ’517 patent, then Ben-Shaul would require these decision criteria to “*construct* a group based, e.g., on region.” *See id.*, EX1005, ¶39, ¶309; Section VI.D.3. In other words, to the extent Ben-Shaul can be interpreted to teach decision criteria at all, Ben-Shaul’s group characteristics would need to group the edge servers with a group, i.e. to “construct a group based, e.g., on region.” *See* Pet., 53. It does not. That is because the criteria for selecting the different servers in Ben-Shaul are not explicitly specified in Ben-Shaul’s internal nodes.

Hasan does not cure the deficiencies of Ben-Shaul with respect to the above recited features. Petitioner alleges that a POSA would have been motivated to combine Hasan’s GUI teachings with Ben-Shaul to provide a GUI for setting policies, and that the combined Ben-Shaul-Hasan GUI includes a decision tree with resource nodes and branch nodes as claimed. *See* Pet., 54. In particular, Petitioner argues that when combined with Ben-Shaul, higher-level branches in the

Hasan's GUI may represent regions or groups, such as Israel, and sub-branches in the Hasan's GUI may represent edge servers. *Id.*

However, neither Ben-Shaul nor Hasan teaches or suggests the “one or more decision criteria”—referring to the above-noted selecting or aggregating instruction—have to be explicitly specified in the “one or more branch nodes” (or in any of the higher-level branches or sub-branches as disclosed by Hasan). Clearly, Hasan's GUI does not have the teaching or suggestion in any way.

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 '517 patent.

Respectfully submitted,

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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 10,475 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.

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

I certify that the above-captioned **PATENT OWNER'S BRIEF ON
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