

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

SANDPIPER CDN, LLC,
Patent Owner

Case IPR2025-00860
U.S. Patent No. 10,924,573

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

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	BACKGROUND	2
III.	OVERVIEW OF THE '573 PATENT	5
IV.	PROSECUTION HISTORY	7
V.	LEGAL STANDARDS	9
VI.	THE BOARD SHOULD EXERCISE DISCRETION TO DENY INSTITUTION UNDER 35 U.S.C. § 314(a)	11
A.	Settled expectations and efficiency favor discretionary denial.	12
B.	The <i>Fintiv</i> Factors favor denial in view of the parallel district court litigation.....	13
C.	The Petition’s weakness on the merits favors denial.	19
1.	Ground 1 relies on a baseless priority-date challenge.....	19
2.	Ground 2 fails at least because the combination of Dilley, Pai, and Wang fails to render obvious at least the feature of “determin[ing] a popularity designation associated with the requested resource” recited in all the independent claims.....	21
D.	Heavy reliance on expert declaration favors denial.	25
E.	Compelling economic and public interest concerns favor denial.	27
VII.	THE BOARD SHOULD EXERCISE DISCRETION TO DENY INSTITUTION UNDER § 325(d).....	28
A.	The Office considered Newton.....	28
B.	The Office considered Dilley.	29
C.	Petitioner’s combination of Dilley and Pai is cumulative of the teachings of Seed.	29
D.	Pai is cumulative of Swildens.	32
VIII.	CONCLUSION	34

TABLE OF AUTHORITIES

Cases

<i>Apple Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020).....	<i>passim</i>
<i>Apple</i> , IPR2020-00019, Paper 15 (PTAB May 13, 2020).....	18
<i>Dabico Airport Sol’ns Inc. v. AXA Power APS</i> , IPR2025-00408, Paper 21	14
<i>EClinicalWorks, LLC v. Decapolis LLC</i> , IPR2022-00229, Paper 10 (PTAB Apr. 13, 2022)	15
<i>Hulu, LLC v. Piranha Media Distribution, LLC</i> , IPR2024-01252, Paper 27, IPR2024-01253, Paper 22 (PTAB April 17, 2025) (designated precedential May 7, 2025).....	15
<i>Hunting Titan, Inc. v. DynaEnergetics Europe GmbH</i> , 28 F.4th 1371 (Fed. Cir. 2022).....	13
<i>In-Depth Geophysical, Inc. v. ConocoPhillips Co.</i> , IPR2019-00850, Paper 56 (PTAB Sept. 3, 2020)	9
<i>iRhythm Techs, Inc., v. Welch Allyn, Inc.</i> , IPR2025-00363, Paper 10 (PTAB June 6, 2025).....	27
<i>In re Johnson</i> , 558 F.2d 1008 (CCPA 1977)	20
<i>In re Magnum Oil Tools Int’l, Ltd.</i> , 829 F.3d 1364 (Fed. Cir. 2016).....	9
<i>Motorola Sol’ns, Inc. v. Stellar, LLC</i> , IPR2024-01205, Paper 19 (PTAB March 28, 2025).....	18
<i>Resmed Corp. v. Cleveland Med. Devices Inc.</i> , IPR2023-00565, Paper 13 (PTAB September 25, 2023)	16
<i>Sandpiper CDN, LLC v. Google LLC</i> , No. 2:24-cv-03951, ECF No. 82 (C.D.Cal. June 24, 2025)	14

<i>Sirona Dental Sys. GmbH v. Institut Straumann AG</i> , 892 F.3d 1349 (Fed. Cir. 2018)	9
---	---

<i>Sotera Wireless, Inc. v. Masimo Corp.</i> , IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020)	13, 17, 18
---	------------

Statutes

35 U.S.C. § 101	1, 14, 16, 17
35 U.S.C. §103	7
35 U.S.C. §312(a)(3)	9
35 U.S.C. § 314(a)	11
35 U.S.C. § 316(a)(11)	15

Other Authorities

37 C.F.R. § 42.100 (2017)	28
77 Fed. Reg. 48,680 (Aug. 14, 2012)	13
MPEP § 2001.06(b)	31
MPEP § 2173.05(i)	20

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	<i>Intentionally Left Blank</i>
2003	<i>Intentionally Left Blank</i>
2004	U.S. Publication No. 2004/0221019 A1 to Swildens et al., published November 4, 2004
2005	<i>Intentionally Left Blank</i>
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 CDN, LLC v. Google LLC</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>Intentionally Left Blank</i>
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)

I. INTRODUCTION

Inter partes review of the '573 patent would be a complete waste of the Board's limited resources. The '573 patent has been in force for many years and will expire two months from now. The inventions disclosed therein are about to be 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 '573 patent, despite waiting 11 months to file this petition, much of the art and arguments Petitioner presents were largely already considered and

rejected by the original Examiner. Those that are nominally new are weak on the merits. 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 ’573 PATENT

U.S. Patent No. 10,924,573 (“the ’573 patent”) is entitled “Handling Long-Tail Content in a Content Delivery Network (CDN),” and it claims priority to U.S. Provisional Patent Application No. 61/042,412, filed on April 4, 2008.

CDN technology generally includes multiple servers used to serve content, which can create problems relating to responding to requests for content. For example, technical issues arise in the context of content delivery using a network and multiple servers, relating to handling requests for resources and timely providing resources to requesting devices.

The inventors of the '573 patent described solutions to these problems in the '573 patent. The '573 patent describes a CDN including a tiered server system. In some embodiments, a first-tier server attempts to respond to a user request for content. If the first-tier server does not have the content, and the content is popular, that server will request the content from higher-tier server and subsequently cache the content for future delivery, for example. The disclosed invention addresses the reality of storage limitations by setting forth a framework that automatically caches only popular content, thus both speeding up content delivery and preserving memory space for popular content, in some cases.

The inventors devised solutions as shown in the embodiments claimed by the '573 patent, for example methods for using tiers of servers and specific processes for obtaining content for a requesting device. The solutions recited in the claims of the '573 patent include particular combinations that were not conventional at the time of the invention of the '573 patent, such as specific

technical improvements to content delivery networks, and the '573 patent describes how the solutions are implemented.

IV. PROSECUTION HISTORY

The '573 patent was examined as U.S. Application No. 16/284,791 ("791 application"), which was filed on February 25, 2019. EX1001, (21), (22).

In a Non-Final Office Action mailed on July 24, 2020, Examiner Winder rejected prosecution claim 11 on the ground of nonstatutory double patenting over claim 8 of U.S. Patent No. 8,930,538 ("Fullagar"), and claims 1-2, 4-7, 11-12, and 14-18 on the ground of nonstatutory double patenting over claims 1-7 and 9-14 of U.S. Patent No. 10,348,848 ("Newton"). EX1007, 60-71. Additionally, claims 1, 3-8, 10-11, and 14-20 were rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 7,552,233 ("Raju") in view of U.S. Publication No. 2004/0221019 ("Swildens"), and claims 9 and 12-13 under 35 U.S.C. §103 as unpatentable over Raju in view of Swildens and further in view of U.S. Patent No. 7,024,466 ("Outten"). EX1007, 71-77.

On September 17, 2020, Applicant filed a terminal disclaimer to overcome the nonstatutory double patenting rejections and responded to the § 103 rejections by filing amendments and remarks. EX1007, 40-50. Specifically, Applicant amended claim 1 to include subject matter disclosed in the originally filed claim 2.

Independent claims 11 and 19 are amended similarly. For example, claims 1 and 2 are amended as follows:

1. (Currently Amended) A method of content delivery in a content delivery network comprising:

receiving, at a first server of a first tier of servers of the content delivery network, a request from a requesting device for a resource available from the content delivery network;

accessing a popularity service associated with the content delivery network to determine a popularity designation associated with the requested resource;

requesting the resource from a second server of the content delivery network;

processing, at the first server of the first tier of servers, a redirect instruction from the second server of the content delivery network to obtain the resource from a content server of the content delivery network;

receiving an instruction to not cache the portion of the resource at the first server of the first tier of servers when the portion of the resource is obtained from the content server of the content delivery network; and

providing the obtained resource to the requesting device.

2. (Currently Amended) The method as recited in claim 1 wherein the popularity designation associated with the requested resource indicates that the requested resource is not popular, ~~the method further comprising: receiving an instruction to not cache the resource at the first server of the first tier of servers when the resource is obtained from the content server of the content delivery network.~~

EX1007, 40-41.

On December 31, 2020, the Examiner issued a Notice of Allowance.

Examiner Winder noted that the closest art (Raju and Swildens) do not teach

“sending an instruction to not cache the content item” as recited in the claims.

EX1007, 17.

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).

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) 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.

Apple, IPR2020-00019, Paper 11 at 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)

Instituting *inter partes* review of the '573 patent would not be a good use of the Board's limited resources. First, the patent has already been in force many years and is about to expire. All that remains is a claim for past damages in the

parallel litigation, which will be resolved by a jury verdict prior to the scheduled date for a Final Written Decision in this proceeding. Additionally, Petitioner waited 11 months after being served with the complaint in the parallel litigation to file this Petition, which is weak on the merits and presents much of the same art and arguments already considered and rejected by the Examiner during a thorough prosecution history. The Petition should be discretionarily denied.

A. Settled expectations and efficiency favor discretionary denial.

The '573 patent claims priority to a long line of patents with similar claim sets, as evidenced by the double-patenting rejections during prosecution, dating back to early 2008. This closely related patent family has been in force over 15 years, with the '573 patent set to expire in 2029. Even though the '573 patent itself issued in 2021, Patent Owner has developed strong settled expectations in its ownership of the underlying subject matter that favor discretionary denial. Contributing to these expectations is Petitioner's choice to wait 11 months after service with a complaint before filing the present Petition.

Furthermore, there is little potential benefit to the industry or the public at large in the PTAB canceling a patent that is set to expire soon after the Final Written Decision. By the time any appeals are resolved, it will likely be only a matter of months before the subject matter of this patent will be available to the public anyway. 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. 48,680 (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”). This factor therefore favors discretionary denial.

B. The *Fintiv* Factors favor 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 CDN, LLC (“Patent Owner”) would agree to a post-institution stay under such circumstances. EX2006, 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’s petitions in IPR2025-00806, IPR2025-00826, and IPR2025-00969 challenge expired patents that have each been in force for over a decade. The Office has recently denied similar petitions. *See, e.g., Dabico Airport Sol’ns Inc. v. AXA Power APS*, IPR2025-00408, Paper 21 at 2 (discretionarily denying review for a patent that had been in force for “almost eight years”). The present Petition challenges a patent that is about to expire. The Office should not decide differently here. 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 IPR2025-00846 and IPR2025-00952 petitions under *Hulu, LLC v. Piranha Media Distribution, LLC*, IPR2024-01252, Paper 27, IPR2024-01253, Paper 22 (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 December 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. 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 invalidity issues—three months *before* the PTAB would render its Final Written Decision here.

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”); *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.

***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 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., 87 and EX1018, 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 co-pending 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* EX1018. 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*, IPR2020-00019, Paper 15 at 15 (PTAB May 13, 2020) ("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 failure to establish a motivation to combine the references that form the basis for the obviousness theories. These weaknesses in the merits of the Petition are discussed in further detail below. Factor 6 favors denial.

C. The Petition’s weakness on the merits favors denial.

The Petition presents a fundamentally flawed challenge on the merits. *First*, Ground 1 presents a theory of anticipation, but relies on a reference that post-dates the priority date of the ’573 patent. Because the originally filed specification in the patent family provides adequate written-description support for the challenged claim language, the patent is entitled to its claimed earliest effective priority date and Ground 1 fails. *Second*, while Ground 2 does not rely on a baseless priority challenge, it fares no better. Ground 2 cobbles together three prior-art references to arrive at the challenged claims, but fails to show the key “popularity designation associated with the requested resource” in Pai, the sole reference relied upon for that limitation.

1. Ground 1 relies on a baseless priority-date challenge.

Petitioner first alleges that the effective priority date for the ’573 patent is February 25, 2019, the filing date of the patent application that lead to the ’573 patent. Petitioner argues that the patent is not entitled to its claimed priority date because new matter, e.g., the “instruction to not cache” limitation was introduced February 2019 and “has no support in any application to which the ’573 Patent claims priority.” Pet., 8. The record clearly establishes the opposite. The limitation has written description support throughout the priority chain.

The instruction to not cache is supported by the written description of the '573 patent, as well as the Provisional Application No. 61/042,412 (“’412 application”) to which the '573 patent claims priority. For example, the '573 patent and the '412 application both disclose:

If the edge server 108 receives a redirect from the popularity service 102 without the “follow me” flag set (cases 1 and 2 above), it simply forwards the redirect to the client 104 (S4a, 522, 524). If the edge server 108 receives a “follow me” redirect, it obtains and caches the resource (at 526) and serves it to the client (at 528).

EX1001, 7:25-30; EX1011, ¶44. Accordingly, the written description of the '573 patent and the '412 application teach two alternate instructions that lead to two corresponding actions. EX1001, 7:25-30; EX1011, ¶44. A redirect from the popularity service without the follow-me tag is an instruction to not cache and to forward the redirect. *Id.* Alternatively, a redirect with the follow-me tag is an instruction to cache the resource and serve it to the client. *Id.* The specification thus discloses both the function of the instruction to not cache (forwarding without caching) and the form the instruction takes (a redirect without the follow-me tag).

The fact that the words “instruction to not cache” are not literally present in the specification does not matter. *In re Johnson*, 558 F.2d 1008, 1019 (CCPA 1977); MPEP § 2173.05(i) (“If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims.”). The specification

presents caching and not caching as alternative options and describes an embodiment that illustrates what instruction to the edge server will implement each option. EX1001, 7:25-30; EX1011, ¶44. That disclosure reasonably conveys to those skilled in the art that Patent Owner had possession of the edge server receiving an instruction to not cache the resource (and instead simply forward the redirect) as of the earliest priority date. *Novartis Pharm. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013, 1020 (Fed. Cir. 2022) (quoting *Ariad Pharm. Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351). That satisfies the written description requirement for priority.

Accordingly, the priority date of the '573 patent should be April 4, 2008, the filing date of the '412 application. Petitioner does not dispute that if the '573 patent is afforded the benefit of this priority date, then the art cited for Ground 1 does not qualify as prior art. Ground 1 therefore fails.

2. Ground 2 fails at least because the combination of Dilley, Pai, and Wang fails to render obvious at least the feature of “determin[ing] a popularity designation associated with the requested resource” recited in all the independent claims.

The proposed combination of Dilley, Pai, and Wang fails to render obvious any of the challenged independent claims at least because the combination fails to teach or suggest “accessing a popularity service associated with the content delivery network to determine a popularity designation associated with the requested resource” as recited in independent claims 1, 11, and 19. Petitioner relies

on Pai alone for this teaching but fails to point to any disclosure in Pai that satisfies the limitation.

Specifically, Petitioner alleges that Pai discloses “accessing a popularity service to determine the popularity associated with the requested resource.” Pet., 45 (citing EX1004, ¶¶39, 47). Petitioner mischaracterizes Pai. Pai only discloses determining popularity values “associated with *currently maintained media content*.” EX1004, ¶¶39, 47 (emphasis added). The popularity-value determination is not determined in association with “the requested resource,” as claimed, because the claimed requested resource is not Pai’s currently maintained media content.

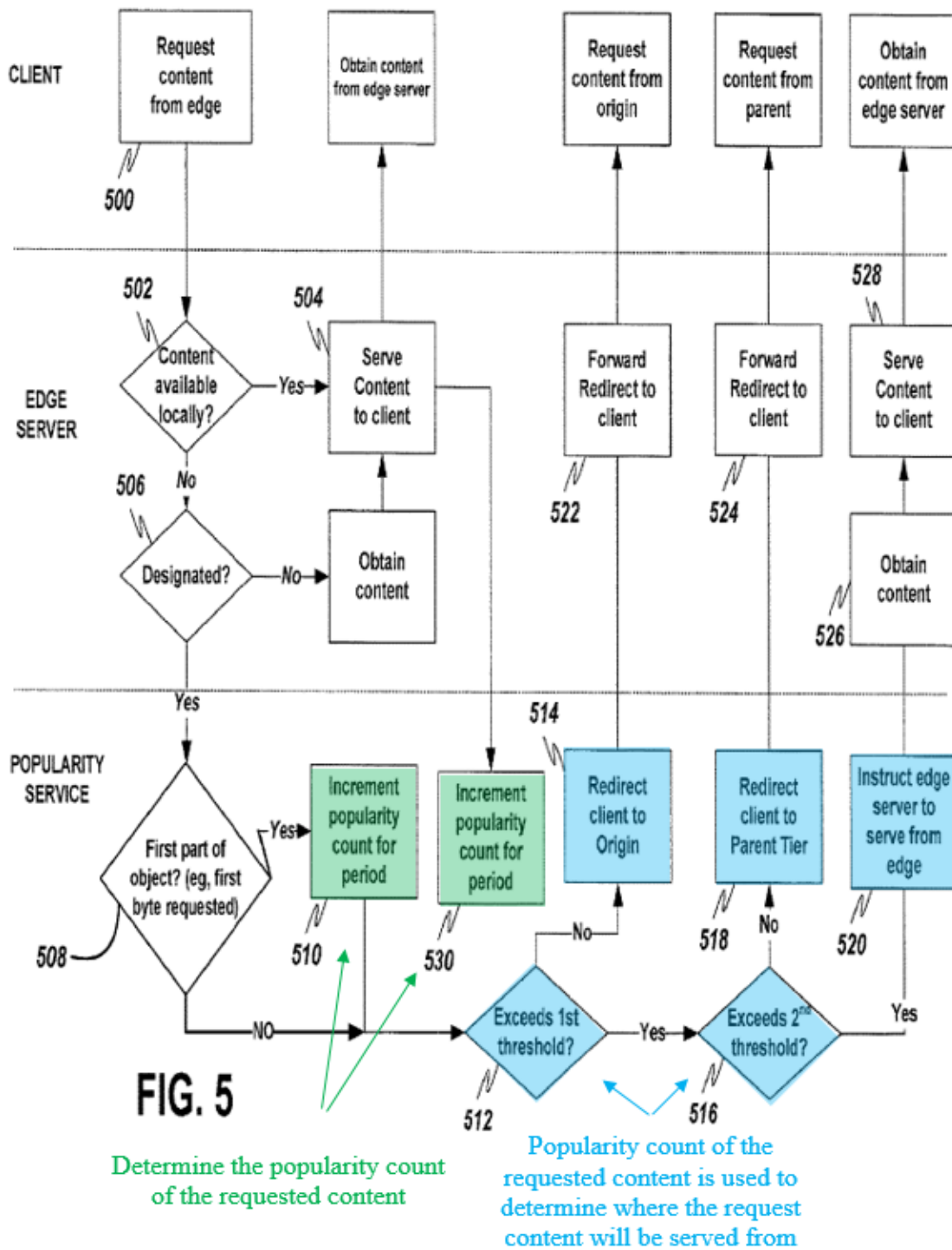
In other words, the claim requires determining a “popularity designation,” which designation can then be used to “determine where [the requested resource] will be served from.” EX1001, 6:27-31; *see also, e.g.*, EX1001, 13:55-64.

Particularly, the popularity of the requested resource (e.g., the resource’s “popularity count”) is compared with different thresholds to determine where to serve the requested resource. EX1001, 6:53-7:24, FIG. 5. Pai, on the other hand, uses a currently known popular value to distribute or redistribute currently maintained media content within an on-demand media system, *before* any of the content is requested by a user. EX1004, ¶13.

Importantly, Pai’s popular values of *currently maintained media content* are not used to determine the claimed where *the requested content* will be served from.

Id. Indeed, Petitioner agrees that Pai’s system retrieves a user request resource “based on content’s current storage location,” and *not* based on the content’s popular value. Pet., 46. Even though the content’s current storage location may be based on the current popularity of the content, identifying the current storage location for retrieving the content is not a determining of the popularity designation. Accordingly, Pai fails to disclose “determin[ing] a popularity designation associated with the requested resource.”

With regards to at least this distinguishing feature, the ’573 patent discloses an exemplary embodiment with a mechanism of delivering content in a multi-tier content delivery network (CDN) with a popularity service. *See* EX1001, 5:25-43, FIG. 3. Figure 5 of the ’573 patent shows an exemplary process of “*determin[ing] a popularity designation associated with the requested resource.*”



Therefore, contrary to Petitioner’s argument, Pai does not disclose
“determin[ing] a popularity designation associated with the requested resource.”

Rather, Pai discloses a mechanism of dynamically distributing/redistributing media content among multiple media sources within an on-demand media system based on currently known popularity of the media content. EX1004, ¶¶13, 20, FIGs. 6, 7. For distribution or redistribution of media content, Pai discloses determining “current popularity values associated with currently maintained media content” and distributing or redistributing the media content to different media sources based on its currently known popularity value. EX1004, ¶¶39- 51, FIGs. 6, 7. Pai discloses determining “current popularity values” associated with “currently maintained media content.” *Id.* In other words, Pai checks popularity values of currently maintained media contents within an on-demand media system (“currently maintained media content”) to determine which server to store each of the content.

Accordingly, Pai does not “determine a popularity designation associated with the requested resource.” The proposed prior-art combination therefore fails to render obvious “accessing a popularity service associated with the content delivery network to determine a popularity designation associated with the requested resource.” Ground 2 therefore fails.

D. Heavy reliance on expert declaration 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 Techs, 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, rather than providing a focused expert declaration addressing the limitations for which expert testimony is necessary. *Contra* EX2008, Q.21.

For Ground 2, for example, the Petition relies relatively heavily on the Declaration to provide the understanding and interpretation of a POSA, especially for motivation to combine and the satisfaction of claim elements 1(c), 1(d), 1(e) and dependent claims 2, 3, 4, 5, 7, and 18-19.

Patent Owner, in its POR, 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 favors thus favors denial of institution. EX2008, Q.21.

E. 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 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, 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. THE BOARD SHOULD EXERCISE DISCRETION TO DENY INSTITUTION UNDER § 325(d).

Petitioner formed two grounds based on four references, namely, Newton, Dilley, Pai, and Wang. However, much of the same art and arguments were already considered and rejected during prosecution. For example, during prosecution of the patent applications that lead to the '573 patent and U.S. Patent No. 8,930,538 ("the '538 Patent"), under which the '573 patent was rejected under double patenting, *see* EX1007, 61-71, similar references, namely, U.S. Publication No. 2007/0055764 ("Dilley764"), U.S. Publication No. 2006/0015574 ("Seed"), and U.S. Publication No. 2004/0221019 ("Swildens"), were considered by the Office. EX1011, 86. The '538 patent is on the priority chain of the '573 patent, and both share a similar claim scope as demonstrated by the double-patenting rejection and terminal disclaimer. As discussed in detail below, Petitioner's cited references are similar and/or cumulative of the teachings of the references already considered by the Office.

A. The Office considered Newton.

Newton was cited during prosecution as part of a double-patenting ground. *See* EX1007, 61-71. The examiner was therefore aware of Newton and its

relationship to the subject matter underlying the claims, and already considered the effect of the claimed priority date on patentability in view of Newton.

B. The Office considered Dilley.

Dilley764 is on the face of the '573 patent. Dilley764 is a continuation of Dilley and shares the same specification as Dilley. Dilley764 was cited during prosecution of the patent application that leads to the '538 patent. *See* EX1021, 2251-2259.

Petitioner relies on Dilley as allegedly teaching a tiered distribution structure of a CDN to provide requested resources. Pet., 41-43, 46-50, 53-55. Similarly, during prosecution of the '538 patent, the Examiner relied on Dilley764 to teach providing requested resources to a client using tiered servers. *See* EX1021, 2251-2259. The Examiner reviewing the application that lead to the '573 patent would have been aware of the references applied in rejections to the parent. *See* MPEP § 2001.06(b). The Office therefore considered the same reference (Dilley764 and Dilley share the same specification) for similar claim limitations (e.g., delivering resources in a CDN with tiered servers).

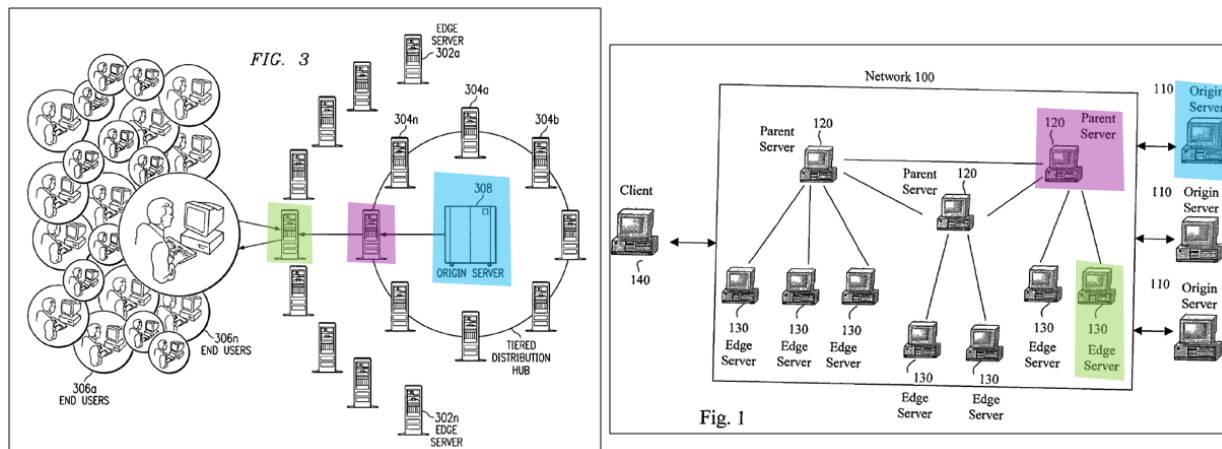
C. Petitioner's combination of Dilley and Pai is cumulative of the teachings of Seed.

Seed was cited during prosecution of the patent application that leads to the '538 patent. *See* EX1021, 2179-2195. Specifically, Seed discloses a method and a

system for “managed object replication and delivery over a network.” EX1013,

¶17. The combination of Dilley and Pai is cumulative of the teachings of Seed.

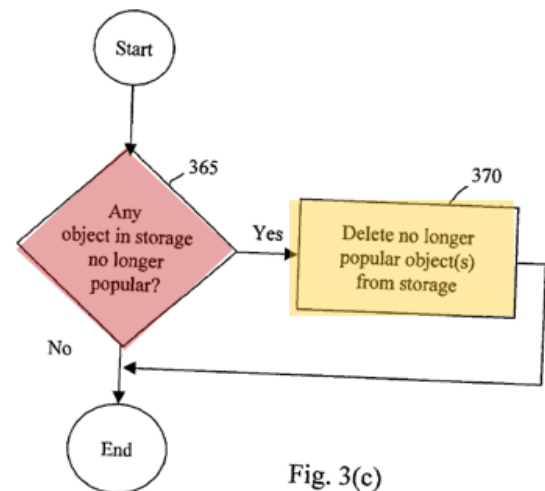
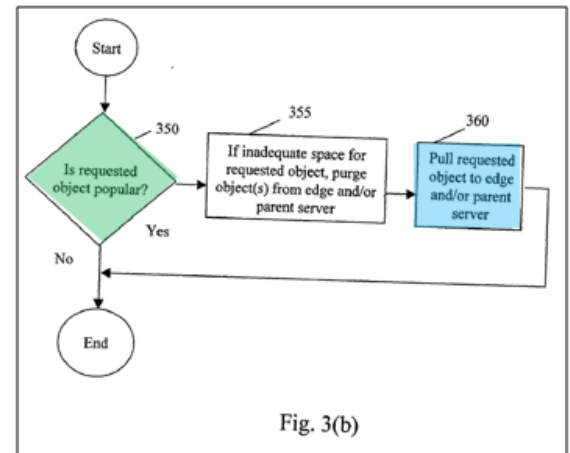
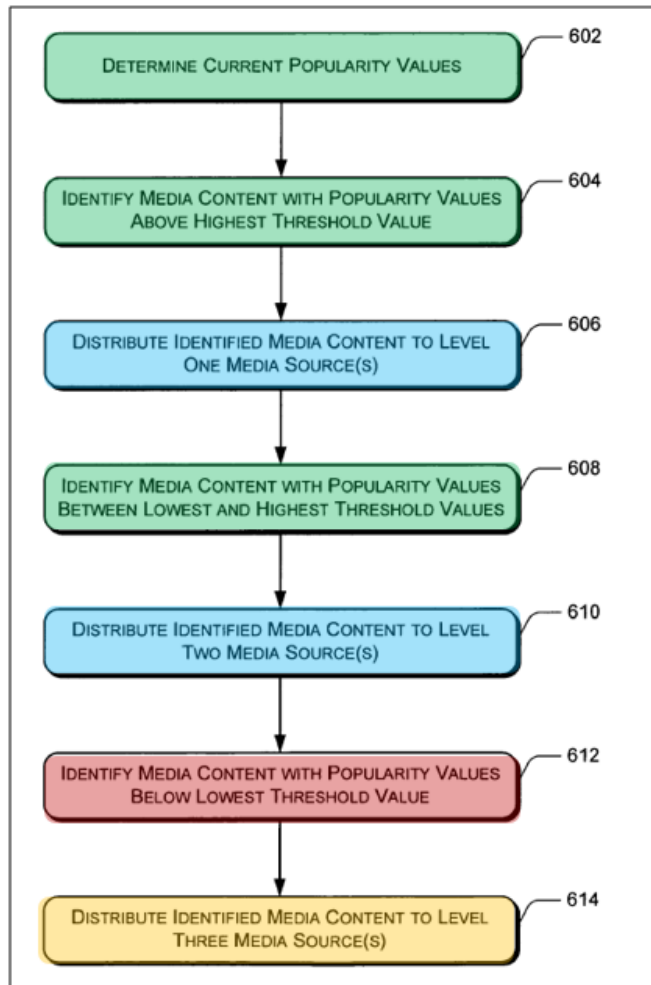
Similar to Dilley, Seed discloses a tiered CDN including parent server sites, edge server sites, and origin server sites. EX1013, ¶20, FIG. 1. Both disclose when a user request resource from an edge server in the network, the edge server serves the object if it has the requested object; otherwise, the edge server redirects the request to a parent server. EX1013, ¶¶24, 27; EX1003, 5:6-21. The annotated figures below show similar tiered CDN structures as disclosed by Seed and Dilley.



EX1003, FIG. 3 (annotated); EX1013, FIG. 1 (annotated).

Pai discloses a system and a method for “media storage and delivery to users by adjusting content storage locations in a network environment based on content popularity.” Pet., 35 (citing EX1004, ¶¶13, 16). “Pai dynamically redistributes content between different storage levels (i.e., level 1, 2, and 3) on the network based on popularity thresholds.” Pet., 35 (citing EX1004, ¶¶18, 38-45).

Similarly, Seed discloses “intelligently replicat[ing] the object to the edge server if the object is popular enough.” EX1013, ¶17. Seed explains, “when an edge and/or parent server determines [] that a requested object is popular (by some measure of popularity),” it “initiates a pull of the object to the edge and/or parent server.” EX1013, ¶32, FIG. 3(b). Seed further discloses that “if an object in a server’s storage is no longer popular,” the server (e.g., an edge server and/or a parent server, similar to Pai’s level 1 and level 2 servers) “may delete the object.” EX1013, ¶34. In other words, the object is only stored in the origin server (similar to Pai’s level 3 server) if it is not popular. In Seed, determining the popularity “can be based on the number of requests.” EX1013, ¶35. The annotated figures below show the similarity between the replication method disclosed by Seed and the distribution method disclosed by Pai.



EX1004, FIG. 6 (annotated); EX1013, FIGs. 3(b), 3(c) (annotated).

D. Pai is cumulative of Swildens.

Swildens was cited during prosecution of the '573 patent. *See* EX1007, 72.

Pai is also cumulative of Swildens.

As already discussed, “Pai dynamically redistributes content between different storage levels (i.e., level 1, 2, and 3) on the network based on popularity thresholds.” Pet., 35 (citing EX1004, ¶¶18, 38-45). Specifically, Petitioner relies on Pai to allege that Pai teaches the limitation of “accessing a popularity service

associated with the content delivery network to determine a popularity designation associated with the requested resource” as recited in claim 1. Pet., 44-46.

Similarly, Swildens was relied on by the Examiner to teach exactly the same limitation during prosecution of the ’573 patent. *See* EX1007, 73 (“Swildens teaches a popularity service tracking a popularity designation associated with the requested resource ...”). Similar to Pai, Swildens discloses a system and a method for “automatic migration of data via a distributed computer network” based on popularity of a content. EX2004, Abstract, ¶41. Swildens further discloses different levels of servers, namely edge server, origin server, and staging server. EX2004, ¶71, FIGs. 1, 2. Origin servers “store all of a customer’s available content files” and “[a]n edge server maintains a dynamic number of popular files in its memory for the customer.” EX2004, ¶¶42- 43. Swildens’ edge server “checks the frequency of requests ... to see if any new files have gained enough popularity to replace another file in the local storage” and if so, “it then requests the file from the origin site.” EX2004, ¶¶68, 140. Swildens also discloses that edge servers can “de-replicate files” if the files “will be unpopular.” EX2004, ¶¶150, 151.

The Examiner therefore considered similar combinations of references and still found the claims patentable. Ground 2 may cite a different combination than the prior art specifically considered and applied in rejections during prosecution,

but the underlying arguments and the content of the prior art is effectively the same.

The Office should therefore exercise discretion to deny institution under § 325(d).

VIII. CONCLUSION

The Board should exercise its discretion to deny institution of *inter partes* review of U.S. Patent No. 10,924,573.

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

Xiaowei Jin, Reg. No. 81,041

Counsel for Patent Owner

Date: August 11, 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 6,645 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: August 11, 2025

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, 2004, 2006-2008, and 2013 were served in their entireties on August 11, 2025, upon the following parties via electronic mail:

Erika H. Arner (Lead Counsel) erika.arner@finnegan.com
Daniel C. Tucker (Back-Up Counsel) daniel.tucker@finnegan.com
Kara A. Specht (Back-Up Counsel) kara.specht@finnegan.com
Cara E. Regan (Back-Up Counsel) cara.regan@finnegan.com
Sydney R. Kestle (Back-Up Counsel) sydney.kestle@finnegan.com
Anthony J. Berlenbach (Back-Up Counsel) anthony.berlenbach@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: August 11, 2025

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