

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

SANDPIPER CDN, LLC,
Patent Owner.

IPR2026-00180

Patent No. 10,701,173

**PETITIONER'S OPPOSITION TO PATENT OWNER'S REQUEST FOR
DISCRETIONARY DENIAL**

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EXHIBIT LIST

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1001	U.S. Patent No. 10,701,173 (“’173 Patent” or “’173Pat.”)
1002	File History of the ’173 Patent (“’173FH”)
1003	Declaration of Mark Lanning (“Lanning”)
1004	Curriculum Vitae of Mark Lanning
1005	U.S. Patent No. 7,912,921 (“O’Rourke”)
1006	U.S. Patent Publication No. 2011/0060812 (“Middleton”)
1007	U.S. Patent Publication No. 2012/0096106 (“Blumofe”)
1008	[MS-MSSO]: Media Streaming Server System Overview (Microsoft Corporation, 2009), available at https://web.archive.org/web/20100130235412/http://download.microsoft.com/download/9/5/e/95ef66af-9026-4bb0-a41da4f81802d92c/Windows_communication_protocols.zip (“MS-MSSO”)
1009	Reserved
1010	Rajkumar Buyya, Lecture Notes in Electrical Engineering (Volume 9): Content Delivery Networks (Springer-Verlag Berlin Heidelberg, 2008) (“Buyya”)
1011	Abraham Silberschatz, Henry F. Korth, S. Sudarshan, <i>Database System Concepts - Sixth Edition</i> (McGraw-Hill, 2011) (“Silberschatz”)
1012	Kalapatapu Kalyani, <i>Internet Programming and Web Design</i> (Vikas Publishing House Pvt. Ltd., 2013) (“Kalyani”)
1013	John Dilley, et al., <i>Globally Distributed Content Delivery</i> , IEEE Internet Computing, September-October 2002, pp. 50-58 (“Dilley”)
1014	Jianliang Xu, et al., <i>Caching and Prefetching for Web Content Distribution</i> , in Computing in Science & Engineering, IEEE CS and the AIP, July/August 2004, pp. 54-59 (“CiSE”)
1015	U.S. Patent No. 7,024,466 (“Outten”)
1016	Declaration of June Ann Munford (“Munford”)
1017	Akamai White Paper: Turbo-Charging Dynamic Web Sites with Akamai EdgeSuite (Akamai Technologies, Inc., 2001), available at https://www.andrew.cmu.edu/course/15749/READINGS/optional/Akamai_EdgeSuite_Turbocharging_Websites.pdf (“Akamai EdgeSuite”)
1018	U.S. Patent No. 7,240,100 (“Wein”)

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1019	David Gourley & Brian Totty, HTTP The Definitive Guide, O'Reilly (Sept. 2002) ("Gourley")
1020	U.S. Patent Publication No. 2002/0065899 ("Smith")
1021	U.S. Patent No. 8,180,720 ("Kovacs")
1022	Stipulation letter, dated February 4, 2026
1023	EPO Form 1703 01.91 for European Patent Application No. 15870782.8
1024	Sandpiper CDN, LLC, Division of Corporations - Filing
1025	Assignment from Level 3 Communications to Sandpiper CDN, LLC
1026	<i>Sandpiper CDN, LLC v. Google LLC</i> , No. 2:24-cv-03951, Dkt. 1 (C.D. Cal.)
1027	<i>Sandpiper CDN, LLC v. Google LLC</i> , No. 2:24-cv-03951, Dkt. 28 (C.D. Cal.)
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1029	<i>Sandpiper CDN, LLC v. Google LLC</i> , No. 2:24-cv-03951, Dkt. 93 (C.D. Cal.)
1030	<i>Sandpiper CDN, LLC v. Comcast Cable Commc'ns LLC</i> , No. 2:24-cv-00886, Dkt. 1 (E.D. Tex.)
1031	<i>Sandpiper CDN, LLC v. Comcast Cable Commc'ns LLC</i> , No. 2:24-cv-00886, Dkt. 62 (E.D. Tex.)
1032	<i>Sandpiper CDN, LLC v. Microsoft Corp.</i> , No. 2:25-cv-00664, Dkt. 1 (E.D. Tex.)
1033	<i>Sandpiper CDN, LLC v. Microsoft Corp.</i> , No. 2:25-cv-00664, Dkt. 41 (E.D. Tex.)
1034	<i>Google LLC v. Sandpiper CDN, LLC</i> , IPR2025-00806, -00826, Paper 13 (Sept. 12, 2025) (referring petitions)
1035	<i>Google LLC v. Sandpiper CDN, LLC</i> , IPR2025-00860, -00969, -01010, Paper 14 (Oct. 10, 2025) (referring petitions)
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1037	<i>Google LLC v. Sandpiper CDN, LLC</i> , IPR2025-00806, Paper 14 (Nov. 10, 2025) (Institution Decision)
1038	<i>Google LLC v. Sandpiper CDN, LLC</i> , IPR2025-00860, Paper 15 (Nov. 25, 2025) (Institution Decision)
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I. INTRODUCTION

The Office should reach the merits of this IPR challenging U.S. Patent No. 10,701,173 (“’173pat,” EX1001). First, this IPR is an important use of Office resources because it will allow the Office to correct material errors in issuing the challenged claims. Second, this IPR is also an important use of Office resources both because the Office is best positioned to review the 8 PO patents on which Google/Microsoft has requested IPR and because a FWD of unpatentability would estop Sandpiper CDN, LLC (“PO”) from obtaining patentably indistinct claims in a pending application. Third, the *Fintiv* factors weigh against denial.

II. BACKGROUND

A. Sandpiper CDN, LLC

PO is a Delaware entity incorporated in 2024 for the apparent purpose of acquiring the ’173pat and other patents from Level 3 Communications, LLC. EX1024 (3/2024 incorporation); EX1025 (5/2024 assignment). PO alleges a “predecessor” developed content-delivery network technology described in the ’173pat. Paper 8 (“DD”), 2. However, PO did not exist until 2024, and it has no connection to the technology apart from its recent patent purchases.

B. The Google, Comcast, and Microsoft Litigations

Shortly after PO began acquiring Level 3 patents, it began a litigation campaign. On 5/10/2024, PO sued Google in C.D. Cal. EX1026. In the Google

litigation, PO currently alleges infringement of 5 patents.¹ That case is stayed pending instituted IPRs. EX1029. On 11/1/2024, nearly 6 months after PO filed the Google litigation, PO sued Comcast in E.D. Tex. EX1030. PO alleges infringement of 4 patents.² The Comcast litigation is currently stayed until May 4, 2026 pending settlement. EX1043. On 6/26/2025, nearly 8 months after suing Comcast and more than a year after suing Google, PO sued Microsoft in E.D. Tex. EX1032. Complicating the litigations further, PO alleges infringement of 6 patents, only 2 of which overlap³ with the earlier cases (U.S. 8,478,903 (“’903pat”) asserted against Google/Comcast and U.S. 9,762,692 (“’692pat”) asserted against Comcast). EX1032-33.

¹ PO’s complaint alleged infringement of 6 patents. EX1026. The district court determined 2 of those patents are invalid under §101. EX1027, 11, 15-16. PO amended its complaint to assert an additional patent. EX1028.

² PO asserted 5 patents and dropped 1 patent. EX1030-31.

³ PO filed mandatory notices in this IPR in Jan. 2026 identifying only the Microsoft litigation as a related matter. Paper 3, 1. PO then filed a discretion brief in Mar. 2026 incorrectly arguing it asserted the ’173pat against Comcast. Microsoft brought this issue to PO’s attention (EX3101), and PO filed a corrected brief.

C. Google and Microsoft IPRs

Google filed IPRs challenging all 5 patents currently asserted against it, all of which have been instituted.⁴ EX1034-40. Microsoft filed IPRs challenging 4 patents asserted against it in late 2025, including this IPR, IPR2026-00095 ('903pat; requesting joinder with Google's IPR2025-00969), IPR2026-00174 ('692pat), and IPR2026-00190 (U.S. 9,456,053). The Office declined PO's request for discretionary denial in IPR2026-00095. IPR2026-00095, Paper 13. The institution decisions are due in May through July 2026.

III. THE OFFICE SHOULD REJECT PO'S DISCRETIONARY REQUEST

A. This IPR Will Allow the Office to Correct Material Errors During Prosecution

This IPR challenges, *inter alia*, the only independent claims of the '173pat (claims 1/8) based on two single-reference obviousness grounds: (1) U.S. 7,912,921 (EX1005) ("O'Rourke") (Ground 1A); and (2) U.S. 2011/0060812 (EX1006) ("Middleton") (Ground 2A). Paper 1, 1-2. As explained below, the Office committed material errors by allowing these claims to issue without applying either reference. As to Ground 1A, O'Rourke was before the Examiner, and *Advanced Bionics* prong

⁴ The Office discretionarily denied IPRs as to the 2 previously-asserted patents determined invalid under §101. *Google LLC v. Sandpiper CDN, LLC*, IPR2025-00846, -00952, Paper 10 (Oct. 10, 2025).

1 is met. But the Examiner materially erred by overlooking O'Rourke's teachings. As to Ground 2A, Middleton was not before the Examiner, and *Advanced Bionics* prong 1 is not met. Nevertheless, for the reasons explained below, the Examiner's failure to apply Middleton to reject claims 1 and 8 was a separate material error. Thus, contrary to PO's argument otherwise (DD, 13-18), the Office's material errors demonstrate this IPR is an important use of Office resources. The discussion below describes the prosecution history and then explains how the Office materially erred.

1. '173Pat Prosecution History

(a) The Examiner Allowed Claims 1 and 8 to Issue After the Applicant Amended the Claims to Require a "Late Binding" Cache Policy

The application that issued as the '173pat was filed 5/8/2017 with 14 claims and originally assigned to Level 3 Communications LLC ("Level 3"). EX1001, Cover; EX1002, 326-28, 337. The issued and original claim numbers are the same. As filed claims 1 and 8 were similar to the issued claims, but they did not include language requiring that "after determining that the content is cached locally" (1[b]/8[b]), the node then determines a current cache policy "wherein determining the current cache policy comprises determining a time period for expiration of content in the cache" (1[b][i]/8[b][i]). The images below reproduce claims 1 and 8 as allowed, with amendments added during prosecution underlined and the relevant limitations labeled.

1[pre] 1. (Currently Amended) A computer-implemented method, operable with a content delivery network (CDN), the method comprising: 1[a] (A) in response to a request for content, determining, by a node in the CDN, if the content is cached locally <u>at the node</u>; 1[b] (B) when it is determined by the node that said content is cached locally, then <u>after determining that the content is cached locally</u>: 1[b][i] (B)(1) determining, by the node, a current cache policy associated with the content, <u>wherein determining the current cache policy comprises determining a time period for expiration of content in the cache</u>; and then 1[b][iii] (B)(2) determining, by the node and based on said current cache policy associated with the content, whether it is acceptable to serve the content that is cached locally; 1[b][iii] (B)(3) based on said determining in (B)(2), 1[b][iii][A] (i) when it is not acceptable to serve the content that is cached locally, obtaining, by the node, a new version of the content and then serving, by the node, the new version of the content, and 1[b][iii][B] (ii) when it is acceptable to serve the content that is cached locally, serving, by the node, the content that is cached locally.	8[pre] 8. (Currently Amended) A computer program product having computer readable instructions stored on non-transitory computer readable media, the computer readable instructions including instructions for implementing a computer-implemented method, said method operable on a device comprising hardware including memory and at least one processor and running a service on said hardware, said method operable in a content delivery service (CDN), said method comprising: 8[a] (A) in response to a request for content, determining, by a node of the CDN, if the content is cached locally <u>at the node</u>; 8[b] (B) when it is determined that said content is cached locally, then <u>after determining that the content is cached locally</u>: 8[b][i] (B)(1) determining, by the node, a current cache policy associated with the content, <u>wherein determining the current cache policy comprises determining a time period for expiration of content in the cache</u>; and then 8[b][iii] (B)(2) determining, by the node and based on said current cache policy associated with the content, whether it is acceptable to serve the content that is cached locally; 8[b][iii] (B)(3) based on said determining in (B)(2), 8[b][iii][A] (i) when it is not acceptable to serve the content that is cached locally, obtaining, by the node, a new version of the content and then serving, by the node, the new version of the content, and 8[b][iii][B] (ii) when it is acceptable to serve the content that is cached locally, serving, by the node, the content that is cached locally.
EX1002, 112 (annotations added).	EX1002, 113-14 (annotations added).

The Examiner rejected claims 1 and 8 over U.S. 9,984,166 (“Graham-Cumming”) multiple times. EX1002, 262-69, 238-47, 186-92, 160-68. The applicant ultimately amended the claims to require the underlined language of 1[b]/8[b] and 1[b][i]/8[b][i], describing these amendments as requiring “late binding” of a current cache policy and distinguishing Graham-Cumming. *Id.*, 112-14, 118-20. The Examiner allowed the claims based on these arguments without separate reasons for allowance. *Id.*, 23.

(b) O’Rourke Was Before the Examiner, But the Examiner Did Not Discuss or Apply It

During prosecution, O’Rourke and the publication of its application (U.S. 2006/0095532) were presented to the Examiner in an information disclosure

statement (IDS). EX1002, 304. The publication of O'Rourke's parent application (U.S. 2002/0198953) was also before the Examiner. *Id.*, 53. A Written Opinion of the International Searching Authority for a PCT counterpart was also presented to the Examiner, as was a report relating to an EPO counterpart. EX1002, 304 (IDS identifying 2/10/2016 Written Opinion of the International Searching Authority), 280-84 (ISA Written Opinion), 221 (IDS identifying Extended European Search Report for European Patent Application No. 15870782.8). Both the ISA and the EPO determined that the publication of O'Rourke's application—U.S. 2006/0095532—rendered counterpart claims unpatentable. EX1002, 283-84 (ISA); EX1023, 2 (EPO).

Despite this, the Examiner never discussed or applied O'Rourke or the related applications in a rejection. Instead, the Examiner signed IDS forms to indicate the documents were considered. EX1002, 196 (EPO report), 272 (O'Rourke, U.S. 2006/0095532, and ISA Written Opinion), 45 (U.S. 2002/0198953).

(c) The Examiner Did Not Consider Middleton During Prosecution

Middleton was not considered despite being assigned to Level 3. Middleton, Cover; '173pat, Cover. Middleton was published 3/10/2011—years before the 2014 filing of the '173 priority application. *Id.*; '173pat, Cover.

2. The Office Materially Erred in Allowing Claims 1 and 8 to Issue

(a) The Examiner Materially Erred By Overlooking O’Rourke’s Relevant Teachings as to Claims 1 and 8

As explained, the Examiner allowed claims 1 and 8 based on the applicant’s argument that Graham-Cumming failed to disclose “late binding” of a current cache policy. EX1002, 119-24. Under the applicant’s “late binding” theory, Graham-Cumming allegedly failed to disclose the following related limitations of claim 1 (and the analogous claim 8 limitations): (1[b]) after determining that content is cached locally, then (1[b][i]) determining a current cache policy (which comprises determining a time period for expiration), and then (1[b][ii]) determining based on that policy whether it is acceptable to serve the cached content. *Id.*, 119-24 (applicant arguments), 23 (Examiner notice of allowance).

As the Petition demonstrates (“Pet.,” Paper 1), however, the Examiner overlooked that O’Rourke teaches the “late binding” concept and these related limitations. Pet., 18-29. In O’Rourke, upon receiving a request for content, the cache server identifies current cache policies (O’Rourke, Fig. 5, block 504), determines whether the content is stored locally (*id.*, Fig. 5, block 505), and then applies those policies to determine whether the cached version is acceptable (*id.*, Fig. 5, blocks below line 501A). Pet., 27-28 (citing O’Rourke, Fig. 5, 6:1-10, 6:20-22, 6:31-34; EX1003, ¶120).

As to determining the cache policy after determining that the content is cached locally (1[b]/1[b][i]), the Petition explains that O’Rourke teaches this in two ways. Pet., 20-23, 25-28; EX1003, ¶¶118-121. First, O’Rourke teaches that after it is determined that the content is cached locally, O’Rourke decides to apply an identified cache policy to determine whether cached content is acceptable. Pet., 28. In other words, the decision to apply the cache policy after the cache check is determining a current cache policy after determining content is cached locally. Second, even if “determining...a current cache policy” requires identifying which policy applies (and is not satisfied by determining to apply an identified policy), the Petition explains it would have been obvious to swap steps 504 and 505 so that the cache server identifies the applicable policy after determining that content is cached locally. Pet., 12-13 (citing EX1003 ¶¶79-80), 22-23, 28-29 (citing EX1003, ¶121). Indeed, the EPO reached the same conclusion regarding the O’Rourke publication with the same relevant disclosures, finding that “effectively swapping” steps 504 and 505 “is merely one of several straightforward possibilities which the skilled person would select, depending on the circumstances, without exercising inventive skill, in order to save processing resources...” EX1023, 3; EX1046, Fig. 5.

As to the cache policy determination comprising determining a time period for expiration (1[b][i]), the Petition explains that, after determining that content is cached locally, O’Rourke teaches determining—i.e., either deciding to apply or

identifying—a cache policy that includes a time-based staleness threshold. Pet., 24 (citing O’Rourke, 6:34-37, 7:64-67; EX1003, ¶117). Specifically, the Petition explains that O’Rourke’s cache policy includes a 30-minute staleness threshold for determining whether content is acceptable, which a POSITA would have understood is a time period for expiration. Pet., 24; EX1003, ¶117.

As to determining acceptability (1[b][ii]), the Petition explains O’Rourke teaches determining whether it is acceptable to serve cached content based on the current cache policy. Pet., 29 (citing O’Rourke, 6:31-34, 6:37-40; EX1003, ¶123). Indeed, the EPO and the ISA concluded the O’Rourke publication with the same relevant disclosures teaches the claimed acceptability determination. EX1023, 2-3 (EPO); EX1002, 283 (ISA); EX1046, ¶41.

PO argues that Microsoft “implies the Office got it wrong by omission, but it does not identify a concrete misapprehension of law or fact.” DD, 16. To the contrary, the Petition demonstrates—and the EPO in particular corroborates—that the Examiner materially erred by failing to appreciate O’Rourke’s relevant teachings as to the same limitations that allegedly distinguished claims 1/8 over the prior art. The Office’s material error in allowing the challenged claims supports reaching this IPR’s merits. *See, e.g., Eunsung Glob. Corp. v. HydraFacial LLC*, IPR2025-00445 et al., Paper 14, 2-3 (July 10, 2025) (referring petition where the petitioner demonstrated that the examiner “overlooked certain teachings” in a cited reference);

Anthony Inc. v. ControlTec LLC, IPR2025-00559 et al., Paper 12, 2 (July 16, 2025)

(referring petitions based on material error).

**(b) The Examiner Materially Erred by Failing to Apply
Middleton to Reject Claims 1 and 8**

Middleton renders claims 1 and 8 unpatentable. Pet., 56-79. However, the Examiner did not evaluate Middleton's teachings because (1) applicant did not disclose the commonly-assigned Middleton reference; and (2) regardless, the Examiner did not perform a thorough and complete search, which would have located Middleton. The Office therefore issued the '173pat in error and should consider this IPR's merits. *See, e.g., Microsoft Corp. v. ParTec Cluster Competence Ctr. GmbH*, IPR2025-00318, Paper 9, 2-3 (June 12, 2025).

As to (1), Level 3 did not disclose Middleton to the Office during prosecution even though both applications list Level 3 as their assignee on their face, were pending around the same time, and were related to the same CDN technology. EX1041 (Middleton FH), 3-8 (rejecting Middleton claims less than 1 month after the 5/8/2017 filing of the '173 application); EX1001, Cover. The Petition discussed Level 3's failure to disclose Middleton (Petition, 7), which PO has failed to address. This alone demonstrates a material error occurred during prosecution and warrants considering this IPR's merits.

As to (2), the Examiner erred by failing to supplement applicant's submissions with a "thorough and complete search of the prior art." MPEP §904.02. Indeed, the

prosecution history demonstrates that the Examiner's search lacked rigor. For example, the Examiner's double patenting search should have included a search for commonly-owned applications/patents. MPEP §804(I)(A). Yet, there is no record of the Examiner searching for applications/patents assigned to Level 3. EX1002, 26-27, 31-44, 46-51, 169, 194, 197-98, 249, 273, 275-76. In addition, the Examiner's search appears not to have covered at least some classes to which the '173pat was assigned in the "Issue Classification" sheet. The "Issue Classification" sheet the Examiner signed included five CPC codes (H04L 67/2852, H04L 67/2842, H04L 67/02, H04L 29/06, and H04L 67/34), one International Classification code (G06F 15/16), and US Classification 709 subclass 220, with cross references to subclasses 206, 220, 224, 226, and 228. EX1002, 28-30. According to the Examiner's final search notes and the search records, however, the Examiner searched at most two of these CPC codes⁵—H04L 29/06 and H04L 67/34. *Id.*, 26 (final search notes); *id.*, 46-47, 197, 275-76 (records of Examiner searches). It is unclear whether the Examiner searched International code G06F 15/16. And although the Examiner's final search notes identify US Classification 709 as searched (*id.*, 26), the keyword-

⁵ The Examiner appears to have searched other unassigned CPC codes, including one with a typographical error (H04L 29/08072), calling into question whether that search yielded the correct results. *Id.*, 46-47, 197, 275-76.

based searches in the file history do not include that classification (*id.*, 46-47, 197-98, 275-76). At a minimum, these discrepancies call into question the thoroughness of the search. MPEP §904.02(a) (“A search areas [sic] included in a proper field of search normally include the classification locations in which the claimed subject matter...would be properly classified at the time of the application’s classification or grant of a patent...The field of search should extend to all probable areas relevant to the claimed subject matter and should cover the disclosed features which might reasonably be expected to be claimed.”).⁶

The MPEP also instructs “[s]ome combination of text search with other search criteria (e.g., classification...) would be a normal expectation in most technologies.” MPEP §904.02. Following these guideposts, a thorough and complete search here should have included, e.g., a search for applications/patents assigned to Level 3 with appropriate restrictions based on the assigned classes and claim terms/related terms.⁷ And it is likely the Examiner would have found Middleton had such a search been

⁶ MPEP §1302.10 indicates that “it is possible that an issue classification will include classification group/subgroup symbols that were not searched by the examiner.”

That does not mean a search excluding the classifications was complete.

⁷ For example, the claims recite “expiration,” which is closely related to “time to live” or “TTL” in a content delivery network.

conducted. For example, the following searches for U.S. applications/patents filed before 12/15/2014 (the earliest claimed priority date of the '173pat) return a manageable number of results with Middleton ranked near the top.

Search (1) (date+assignee+keywords): references assigned to “Level 3” and further limited by claim terms/related terms.

Terms (EX1051): APD/1/1/2001->12/15/2014 *and an/“Level 3” and (“CDN” or “content delivery network”) same “node” and (cache same polic*) and (“TTL” or “time to live” or (“time” same “expiration”))*

Results (EX1052): **170 results, Middleton ranked 10th**

Search (2) (date+classifications+keywords): references classified in US 709 and one of the CPC classes the Examiner assigned (G06F15*, H04L29*, H04L67*) and further limited by claim terms/related terms.

Terms (EX1053): APD/1/1/2001->12/15/2014 *and CCL/709* and ((IPC/G06F15* or IPCR/G06F15*) or (IPC/H04L29* or IPCR/H04L29*) or (IPC/H04L67* or IPCR/H04L67*)) and (“CDN” or “content delivery network”) same “node” and (cache same polic*) and (“TTL” or “time to live” or (“time” same “expiration”))*

Results (EX1054): **208 results, Middleton ranked 43rd**

Search (3) (date+assignee+classifications+keywords): combines search (1) and search (2).

Terms (EX1055): APD/1/1/2001->12/15/2014 *and* CCL/709* *and* ((IPC/G06F15* *or* IPCR/G06F15*) *or* (IPC/H04L29* *or* IPCR/H04L29*) *or* (IPC/H04L67* *or* IPCR/H04L67*)) *and* an/“Level 3” *and* (“CDN” *or* “content delivery network”) *same* “node” *and* (cache *same* polic*) *and* (“TTL” *or* “time to live” *or* (“time” *same* “expiration”))

Results (EX1056): 67 results, with Middleton ranked 3rd

B. This IPR Promotes Efficiency

1. The Office’s Institution of IPRs Regarding Other PO Patents Makes the Office a More Efficient Forum to Address Unpatentability

The large number of patents at issue in litigation further demonstrates that this IPR is an important use of Office resources. PO currently asserts 10 unique patents in the Google and Microsoft litigations. *See* EX1026-28; EX1032-33; EX1042. Google and Microsoft have filed 9 IPRs (including this one) challenging 8 of those patents, and the Office has instituted all 5 Google IPRs regarding patents currently asserted against it. §II.C. The Office declined PO’s request for discretionary denial in Microsoft’s IPR2026-00095, which requests joinder with Google’s IPR2025-00969. *Id.* The discretionary denial decisions remain pending in the other 3 Microsoft IPRs (including this one), and institution decisions remain pending in all 4 Microsoft IPRs. The Board’s investment demonstrates that it is in a better position than the district courts to address the unpatentability of this large number of patents

consistently and efficiently. *See, e.g., Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217 et al., Paper 9, 2-3 (June 13, 2025) (informative).

2. A FWD of Unpatentability Would Estop PO From Obtaining Patentably Indistinct Claims in a Pending Application

Discretionarily denying this IPR may result in the Office issuing yet another patent in error. PO has filed an application claiming priority to the '173 application that remains pending. EX1057 (application data for US 19/263,989); EX1058, Cover, ¶1 (stating US 19/263,989 claims priority to App. 15/588,935, which is the '173 application). If the challenged claims are held unpatentable, PO would be estopped from obtaining patentably indistinct claims, thus avoiding the need to relitigate invalidity. 37 C.F.R. §42.73(d)(3)(i); *SoftView LLC v. Apple Inc.*, 108 F.4th 1366 (Fed. Cir. 2024).

C. The Office Should Reject PO's "Settled Expectations" Arguments

PO argues it has settled expectations because (1) the '173pat "has been in force for over five years, as part of a family of patents in force over ten years" (DD, 12); and (2) Microsoft was allegedly aware of it because of Microsoft's business relationships with a prior owner. Neither argument has merit.

As threshold matters, any alleged PO "settled expectations" based on patent age or alleged prior knowledge are outweighed by material errors during prosecution and the efficiencies gained by the Office considering the unpatentability of PO's patents. *See* §§III.A-III.B. PO also fails to acknowledge that it could not have

developed “settled expectations” based on events before 2024 because PO did not exist before 2024 and has no relationship with the original “Sandpiper” or Level 3.

Setting these issues aside, PO’s “settled expectations” arguments are weak. As to (1), the ’173pat issued 6/30/2020 and will have been in force ~5.9 years by the time a discretion decision is expected. The Office has found that patents of similar age do not support settled expectations. *Cambridge Indus. USA, Inc. v. Applied Optoelectronics, Inc.*, IPR2025-00434 et al., Paper 11, 2-3 (June 26, 2025) (no strong settled expectations in patents in force ~5.9, 6.1, and 4.7 years); *Berkshire Hathaway Energy Co. v. Birchtech Corp.*, IPR2025-00274 et al., Paper 23, 3 (July 2, 2025) (no strong settled expectations in patents issued in 2019/2020). As to (2), PO’s argument as to Microsoft’s prior knowledge fares no better. PO relies solely on complaint allegations—not evidence. DD, 12 (citing EX2005). Moreover, these allegations do not identify facts demonstrating Microsoft was aware of the ’173pat before PO’s 2025 complaint, let alone that PO or Level 3 ever discussed it with Microsoft. EX1044, 3; EX1045, 2-4. And Level 3 held the patent from its issuance through May 2024 and did not allege infringement despite alleged prior business relationships. Rather than supporting PO’s alleged settled expectations, this created settled expectations for Microsoft that the ’173pat would not be asserted against it.

D. The *Fintiv* Factors Weigh Against Denial

1. Factor 1: The Likelihood of a Stay is Neutral

Microsoft has not yet filed a motion to stay the parallel litigation, and the district court has not indicated whether a stay would be granted. Thus, this factor is neutral. *Sand Revolution II, LLC v. Cont'l Intermodal Grp.-Trucking LLC*, IPR2019-01393, Paper 24, 7 (June 16, 2020) (informative). PO cites stay statistics (DD, 7), but those statistics are not “specific evidence” indicating this factor supports denial. *See Sand Revolution II*, IPR2019-01393, Paper 24, 7.

2. Factor 2: The Trial Date Is at Worst Neutral

The FWD in this IPR would be due by July 6, 2027. The scheduled trial in the Microsoft litigation is in April 2027 (EX1049, 1), but statistics suggest trial will begin 24 months after the complaint, i.e., in the last week of June 2027. EX1050, 35. This factor is at worst neutral. *See, e.g., Caption Health, Inc. v. Univ. of British Columbia*, IPR2025-01066, Paper 13, 2 (Oct. 10, 2025) (determining trial date “neither favor[ed] nor counsel[ed] against discretionary denial” where FWD was due in Dec. 2026 and statistics suggested trial could occur in close proximity to FWD). But even if the trial date favored denial, the material errors during prosecution override the trial date. *See, e.g., Padagis US LLC v. Neurelis, Inc.*, IPR2025-00464-466, Paper 12, 3 (July 16, 2025) (informative). PO argues this factor strongly favors denial (DD, 8), but PO ignores the material errors and statistics suggesting the FWD will issue in close proximity to trial.

3. Factor 3: Investment in the Parallel Litigation Weighs Against Denial Because the Litigation Is in Its Early Stages

This factor weighs against denial. The parties have invested minimal resources in parallel litigation. The *Markman* hearing is not scheduled until Oct. 2026, the deadlines for close of fact discovery/opening expert reports are not until Nov. 2026, and dispositive motions are not due until Dec. 2026. EX1049, 3-4; *see, e.g., All. Laundry Sys., LLC v. PayRange LLC*, PGR2025-00027, Paper 11, 2 (July 17, 2025) (referring petitions and noting “there has been relatively little investment”). PO argues “significant work will have been done” by the time of the institution decision. DD, 8. But PO only identifies exchange of infringement/invalidity contentions, unexplained “extensive fact discovery” (which is inconsistent with the actual schedule), and claim construction exchanges. *Id.*, 8-9. The fact is that most work will remain to be done.

4. Factor 4: The Lack of Overlap Between Issues Raised in the Petition and the Parallel Litigation Weighs Against Denial

This factor weighs against denial. Microsoft submitted a *Sotera* stipulation, agreeing to be “bound by the full scope of estoppel under 35 U.S.C. §315(e)(2).” EX1022. This covers the full breadth of statutory estoppel (*see* 35 U.S.C. §§311(b) and 315(e)(2)) and weighs strongly against denial. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, 19 (Dec. 1, 2020) (precedential as to §II.A); *see also, e.g., Apple Inc. v. Vampire Labs, LLC*, IPR2025-01215, Paper 8, 8-9 (Oct. 17,

2025) (referencing *Sotera* stipulation), Paper 9, 2 (Nov. 20, 2025) (referring for merits review); *Google LLC v. Sandpiper CDN, LLC*, IPR2025-00969, Paper 8, 2 (Sept. 18, 2025) (referencing *Sotera* stipulation), Paper 13, 2 (Oct. 10, 2025) (referring for merits review), Paper 19, 2 (Jan. 12, 2026) (denying Director review).

PO incorrectly argues this factor favors denial. DD, 9-10. First, PO contends that Microsoft’s invalidity contentions “completely overlap with its IPR challenges.” *Id.*, 9. This ignores that Microsoft’s *Sotera* stipulation removes the alleged “overlap” if IPR is instituted. Second, PO contends Microsoft’s stipulation does not preclude combining Petition art with system art. *Id.*, 9-10. In support, PO cites *Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19, 3-4 (Mar. 28, 2025). *Motorola* is distinguishable. There, the parties had “served opening and rebuttal expert reports, filed claim construction briefs, and conducted several depositions” by the time of the POPR. *Id.*, 3. “The court also had held a claim construction hearing and construed the disputed claim terms.” *Id.* There is no comparable investment here, and *Motorola* does not support denial. Third, PO contends Microsoft’s stipulation does not prevent §§101/112 arguments. DD, 10. PO cites no authority requiring forgoing invalidity arguments that are unavailable in IPR proceedings.

5. Factor 5: The Parties Factor Is at Worst Neutral

The FWD is projected by July 6, 2027, trial is scheduled in April 2027, and trial is projected to begin around the last week of June 2027. This factor is at worst

neutral. *E.g.*, *Shenzhen Root Tech. Co. v. Chiaro Tech. Ltd.*, IPR2024-01296, Paper 9, 14, 19-20 (Feb. 25, 2025) (factor neutral even though patent owner speculated that trial in litigation involving the petitioner would occur two months before the FWD).

6. Factor 6: Other Circumstances Weigh Heavily Against Denial

There are compelling reasons for the Office to decline to discretionarily deny this IPR. §§III.A-III.D.5. This factor thus strongly weighs against denial. PO contends otherwise because the Petition allegedly does not establish invalidity. DD, 11. However, PO only points to its forthcoming POPR without explanation. *Id.* PO also argues the Petition relies on expert gap filling for limitation 1[b][i] (O'Rourke). *Id.*, 11, 18-19. But the Petition cites O'Rourke's express disclosure of a cache policy that determines whether cached content is acceptable based on whether it is within 30 minutes of the origin's version (i.e., a *time period for expiration*). Pet., 24 (citing O'Rourke, 6:34-37, 7:64-67). Petitioner's expert Mr. Lanning then explains how a POSITA would have understood these express disclosures. Pet., 24 (citing EX1003, ¶117). That is not gap filling—it is expert testimony that appropriately opines as to “what [a prior art]'s teachings would indicate to a skilled artisan.” *Yealink (USA) Network Tech. Co. v. Barco N.V.*, IPR2025-00491, Paper 20, 28 (July 29, 2025).

IV. CONCLUSION

There are persuasive reasons to reach the merits of this IPR, and PO's request for discretionary denial should be denied.

IPR2026-00180

U.S. Patent No. 10,701,173

Dated: April 6, 2026

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that true copies of Petitioner's Opposition to Patent Owner's Request for Discretionary Denial and EXHIBITS 1023 – 1046 and EXHIBITS 1049 – 1058 were served upon the below listed counsel by electronic mail:

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