

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
Petitioner,

v.

HEADWATER RESEARCH LLC,  
Patent Owner.

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Case No. IPR2026-00203  
Patent No. 9,232,403

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**PETITIONER'S OPPOSITION TO PATENT OWNER'S  
DISCRETIONARY DENIAL BRIEF**

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<b>Exhibit</b>	<b>Description</b>
1001	U.S. Patent No. 9,232,403 (“the ’403 Patent”)
1002	Prosecution History of U.S. Patent No. 9,232,403 (“the ’403 FH”)
1003	Declaration and Curriculum Vitae of Patrick Traynor
1004	3GPP TS 23.140 v6.9.0 (2005-03); 3rd Generation Partnership Project; Technical Specification Group Terminals; Multimedia Messaging Service (MMS); Functional Description; Stage 2 (“TS-23.140”)
1005	U.S. Patent No. 8,195,961 (“Ogawa”)
1006	U.S. Patent App. Pub. No. 2008/0080458 (“Cole”)
1007	U.S. Patent App. Pub. No. 2004/0111476 (“Trossen”)
1008	PCT Pub. No. 2008/048075 (“Lee”)
1009	U.S. Patent No. 7,975,147 (“Qumei”)
1010	U.S. Patent No. 9,032,192 (“Frank”)
1011	Open Mobile Alliance; OMA-ERELD-MMS-v1_2-20030923-C, Enabler Release Definition for MMS Version 1.2,” available at <a href="https://www.openmobilealliance.org/release/MMS/V1_2-20030923-C/OMA-ERELD-MMS-V1_2-20030923-C.pdf">https://www.openmobilealliance.org/release/MMS/V1_2-20030923-C/OMA-ERELD-MMS-V1_2-20030923-C.pdf</a>
1012	“Open Mobile Alliance; Multimedia Messaging Service Architecture Overview” (MMSARCH) specification, available at <a href="https://www.openmobilealliance.org/release/MMS/V1_2-20030923-C/OMA-MMS-ARCH-V1_2-20030920-C.pdf">https://www.openmobilealliance.org/release/MMS/V1_2-20030923-C/OMA-MMS-ARCH-V1_2-20030920-C.pdf</a>
1013	The Secure Sockets Layer (“SSL”) Protocol, V. 3.0, available at <a href="https://web.archive.org/web/19970614041044/http://home.netscape.com/eng/ssl3/ssl-toc.html">https://web.archive.org/web/19970614041044/http://home.netscape.com/eng/ssl3/ssl-toc.html</a> and <a href="https://web.archive.org/web/19970617034012/http://home.netscape.com/eng/ssl3/3-SPEC.HTM#1">https://web.archive.org/web/19970617034012/http://home.netscape.com/eng/ssl3/3-SPEC.HTM#1</a>
1014	The Transport Layer Security (“TLS”) Protocol, V. 1.1, available at <a href="https://datatracker.ietf.org/doc/html/rfc4346.html">https://datatracker.ietf.org/doc/html/rfc4346.html</a>
1015	U.S. Patent App. Pub. No. 2003/0096625 (“Mi-Su Lee”)
1016	3GPP TS-23.234 v8.0.0 (2008-12); 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; 3GPP system to Wireless Local Area Network (WLAN) interworking; System description (Release 8) (“TS-23.234”)
1017	U.S. Patent No. 7,779,408 (“Papineau”)

1018	Liaison Statement, European Telecommunications Standards Institute AT-F Rapporteur Meeting, 4 to 6 February 2003 (ETSI / AT-F TD18), available at <a href="https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_19/Docs/PDF/SP-030167.pdf">https://www.3gpp.org/ftp/tsg_sa/TSG_SA/TSGS_19/Docs/PDF/SP-030167.pdf</a>
1019	U.S. Patent No. 7,082,615 (“Ellison”)
1020	3GPP TS-26.140 v6.2.0 (2005-03); 3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Multimedia Messaging Service(MMS); Media formats and codecs
1021	Multimedia Messaging Service Encapsulation Protocol, available at <a href="http://www.openmobilealliance.org/release/MMS/V1_2-20050301-A/OMA-MMS-ENC-V1_2-20050301-A.pdf">www.openmobilealliance.org/release/MMS/V1_2-20050301-A/OMA-MMS-ENC-V1_2-20050301-A.pdf</a>
1022	<i>Samsung Elecs. et al. v. Headwater Research LLC</i> , IPR2024-00341, Paper 28 (July 23, 2025)
1023	Stewart, C.M., Memorandum Re: PTAB Consideration of Prior Findings of Fact and Conclusions of Law (September 16, 2025), <a href="https://www.uspto.gov/sites/default/files/documents/Memo_re_prior_findings_of_fact_and_conclusions_of_law_9_16_25.pdf">https://www.uspto.gov/sites/default/files/documents/Memo_re_prior_findings_of_fact_and_conclusions_of_law_9_16_25.pdf</a> .
1024	Declaration of Friedhelm Rodermund
1025	Mobile Information Device Profile for Java™ 2 Micro Edition Version 2.0 (Nov. 5, 2002) (“MIDP-Specification”)
1026	U.S. Patent App. Pub. No. 2005/0108571 (“Lu”)
1027	U.S. Patent App. Pub. No. 2005/0207379 (“Shen”)
1028	Transporting data between wireless applications using a messaging system—MMS, Miraj E Mostafa, <i>Wireless Communications and Mobile Computing</i> (2007) (“Mostafa”)
1029	<i>Dictionary of Computer Science, Engineering, and Technology</i> , CRC Press LLC, 2001
1030	Needham et al., “Using Encryption for Authentication in Large Networks of Computers” ( <i>ACM</i> , Vol. 21, No. 12, Dec. 1978) (“Needham”)
1031	U.S. Patent No. 8,010,669 (“Sathish”)
1032	Saltzer et al., “The Protection of Information in Computer Systems” ( <i>IEEE Proceedings</i> , Vol. 63, No. 9, Sept. 1975) (“Saltzer”)
1033	Li et al., “Symbian OS platform security model,” available at <a href="https://www.usenix.org/system/files/login/articles/73507-li.pdf">https://www.usenix.org/system/files/login/articles/73507-li.pdf</a> ( <i>Login Magazine</i> , Aug. 2010)

1034	Philip Zimmermann, “Pretty Good Privacy: RSA Public Key Cryptography for the Masses” PGP User’s Guide. Version 1.0, June 1991, available at <a href="https://www.techinsider.org/free-software/research/acrobat/910605.pdf">https://www.techinsider.org/free-software/research/acrobat/910605.pdf</a> (“Zimmerman”)
1035	B. Ramsdell, S/MIME Version 3 Message Specification, IETF RFC 2633, June 1999, available at <a href="https://datatracker.ietf.org/doc/html/rfc2633">https://datatracker.ietf.org/doc/html/rfc2633</a> (“Ramsdell”)
1036	Schroeder et al., “A Hardware Architecture for Implementing Protection Rings” (ACM, Vol. 15, No. 3, Mar. 1972) (“Schroeder”)
1037	Nokia E71 review: Nokia E71, available at <a href="https://www.cnet.com/reviews/nokia-e71-review/">https://www.cnet.com/reviews/nokia-e71-review/</a>
1038	<i>Samsung Elecs. et al. v. Headwater Research LLC</i> , IPR2024-00341, Paper 4 (January 23, 2024)
1039	U.S. Patent App. Pub. No. 2007/0283170 (“Yami”)
1040	U.S. Patent App. Pub. No. 2008/0215883 (“Fok”)
1041	U.S. Patent App. Pub. No. 2003/0220835 (“Barnes”)
1042	U.S. Patent App. Pub. No. 2006/0154699 (“Ko”)
1043	U.S. Patent App. Pub. No. 2005/0207379 (“Shen”)
1044	U.S. Patent App. Pub. No. 2006/0025133 (“Shaheen”)
1045	Dictionary of Computing, S.M.H. Collin, Fifth Edition, Bloomsbury (2004)
1046	IEEE 100 The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition (2000)
1047	U.S. Patent No. 7,962,798 (“Locasto”)
1048	U.S. Patent App. Pub. No. 2004/0002974 (“Kravitz”)
1049	Computer Desktop Encyclopedia, Alan Freedman, Ninth Edition, Osborne/McGraw-Hill (2001)
1050	U.S. Patent No. 5,612,866 (“Savanyo”)
1051	3GPP TS 25.321 v6.5.0 (2005-06); 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Medium Access Control (MAC) protocol specification; (“TS-25.321”)
1052	3GPP TS 25.322 v6.4.0 (2005-06); 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Radio Link Control (RLC) protocol specification; (“TS-25.322”)

1053	3GPP TS 25.323 v5.4.0 (2005-06); 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Packet Data Convergence Protocol (PDCP) specification; (“TS-25.323”)
1054	Lu et al., Heading for Multimedia Message Service in 3G, 6th IEE International Conference on 3G and Beyond, Washington, D.C., USA, Nov. 7-9, 2005
1055	RFC 4355, IANA Registration for Enumservices Email, Fax, MMS, EMS, and SMS (Jan. 2006)
1056	Rodermund, A Picture Speaks a Thousand Words – From SMS to MMS, in <i>Business Briefing: Wireless Technology</i> (2003)
1057	RFC 3164, The BSD syslog Protocol (Aug. 2001)
1058	Headwater ’403 patent assertion search (DocketNavigator results)
1059	Headwater active patent assertions search (DocketNavigator results)
1060	<i>Samsung Elecs. et al. v. Headwater Research LLC</i> , IPR2024-00341, SAMSUNG-1044, Letter providing stipulation (July 1, 2024)
1061	<i>Samsung Elecs. et al. v. Headwater Research LLC</i> , IPR2024-00341, Paper 30, Patent Owner’s Request for Director Review (August 22, 2025)
1062	<i>Samsung Elecs. et al. v. Headwater Research LLC</i> , IPR2024-00341, Paper 31, Petitioner’s Authorized Response to Director Review Request (September 2, 2025)
1063	<i>Samsung Elecs. et al. v. Headwater Research LLC</i> , IPR2024-00341, Paper 12, Institution Decision (July 26, 2024)
1064	<i>Samsung Elecs. v. Headwater Research LLC</i> , IPR2024-00010, Paper 2, Petition for <i>Inter Partes</i> Review (Nov. 17, 2023)
1065	<i>Samsung Elecs. v. Headwater Research LLC</i> , IPR2024-00010, Paper 7, Institution Decision (May 23, 2024)
1066	<i>Samsung Elecs. v. Headwater Research LLC</i> , IPR2024-00010, Paper 25, Joint Motion to Terminate (May 8, 2025)
1067	<i>Samsung Elecs. v. Headwater Research LLC</i> , IPR2024-00010, Paper 27, Termination Order (May 13, 2025)
1068	<i>Amazon v. Headwater Research LLC</i> , IPR2026-00088, Paper 1, Petition for <i>Inter Partes</i> Review (Nov. 10, 2025)
1069	Definition of CPC class H04W, available at <a href="https://www.uspto.gov/web/patents/classification/cpc/pdf/cpc-definition-H04W.pdf">https://www.uspto.gov/web/patents/classification/cpc/pdf/cpc-definition-H04W.pdf</a>

1070	MMS Architecture - Wikipedia, the free encyclopedia (Wayback Machine 9-9-2016), <i>available at</i> <a href="https://web.archive.org/web/20160909010104/https://en.wikipedia.org/wiki/MMS_Architecture">https://web.archive.org/web/20160909010104/https://en.wikipedia.org/wiki/MMS_Architecture</a>
1071	U.S. Patent No. 8,406,733 (“the ’733 patent”)
1072	U.S. Patent No. 9,615,192 (“the ’192 patent”)
1073	<i>Amazon v. Headwater Research LLC</i> , IPR2026-00088, Paper 11, Notice of Decisions on Institution (April 6, 2026)
1074	Headwater IPR Search (PTACTS results)
1075	<i>Headwater Research LLC v. Google LLC</i> , NO. 7:25-cv-00231-DC-DTG, Western District of Texas, Dkt. 38, Google’s Motion to Transfer Venue
1076	Definition of USPC class 713, <i>available at</i> <a href="https://www.uspto.gov/web/patents/classification/uspc713/defs713.pdf">https://www.uspto.gov/web/patents/classification/uspc713/defs713.pdf</a>
1077	<i>Google v. Headwater Research LLC</i> , IPR2024-00942, -943, Paper 20, Final Written Decision (Oct. 1, 2025)
1078	<i>Verizon v. Headwater Research LLC</i> , IPR2024-00809, Paper 21, Final Written Decision (Oct. 14, 2025)
1079	Federal Court Management Statistics, U.S. District Courts, December 2025
1080	<i>Amazon v. Headwater Research LLC</i> , IPR2026-00106, Paper 1, Petition for <i>Inter Partes</i> Review (Nov. 10, 2025)
1081	<i>Headwater Research LLC v. Google LLC</i> , NO. 7:25-cv-00231-DC-DTG, Western District of Texas, Dkt. 86, Order Granting Google’s Motion to Transfer Venue
1082	<i>Headwater Research LLC v. Google LLC</i> , NO. 3:26-cv-01460-AMO, Northern District of California, Dkt. 99, Google’s Motion for Leave to Amend
1083	<i>Headwater Research LLC v. Google LLC</i> , NO. 3:26-cv-01460-AMO, Northern District of California, Dkt. 112, Joint Case Management Statement
1084	<i>Headwater Research LLC v. Google LLC</i> , NO. 3:26-cv-01460-AMO, Northern District of California, Dkt. 113, Clerk’s Notice Continuing Initial Case Management Conference and Motion Hearing
1085	<i>Amazon v. Headwater Research LLC</i> , IPR2026-00106, Paper 10, Notice of Decisions on Institution (Mar. 10, 2026)

## I. INTRODUCTION

The Board should reach the merits of this IPR challenging U.S. Pat. No. 9,232,403 (“the ’403 Patent,” EX-1001). In a prior proceeding, IPR2024-00341, the Board cancelled substantially similar claims with several *identical* limitations in related U.S. Pat. No. 8,406,733 (“the ’733 Patent”), which shares a specification with the ’403 Patent. Petition (Paper 2, “Pet.”), 1; EX-1022, 51. The FWD in IPR2024-00341 (EX-1022) found unpatentability over the “MMS-Ogawa” combination, using the *same* prior art references relied upon here: TS-23.140 (EX-1004) and Ogawa (EX-1005). EX-1022, at 6. Due to the overlap in issues between this proceeding and IPR2024-00341, Petitioner Google LLC (“Petitioner” or “Google”) identified numerous applicable findings of fact and conclusions of law from the Board’s prior adjudication. *E.g.*, Pet., 1, 8-9, 12, 15, 18, 20-22, 26-27, 29, 31-33, 37-38, 40-41.

TS-23.140 has also served as the basis for unpatentability grounds in IPR2024-00010 and IPR2026-00088, challenging similar claims from related U.S. Pat. No. 9,615,192 (“the ’192 Patent”), and IPR2026-00106, challenging similar claims from related U.S. Pat. No. 10,321,320 (“the ’320 Patent”)—both of which share the ’403 Patent’s specification. EX-1064; EX-1068; EX-1080. The Board instituted IPR in IPR2024-00010 and IPR2026-00088. EX-1065; EX-1073. An institution decision is still pending in IPR2026-00106.

Patent Owner Headwater Research LLC (“PO” or “Headwater”) has also unsuccessfully attempted to avoid the Board’s prior adjudications regarding TS-23.140 through discretionary denial, including in IPR2026-00088 and IPR2026-00106.<sup>1</sup> As in those cases, PO’s attempt to do so here should be rejected. This IPR proceeding is an appropriate use of Office resources and should be referred because: (1) it will allow correction of the examiner’s material errors in failing to locate and apply TS-23.140 and Ogawa, (2) Petitioner’s expectations outweigh those of PO in view of, e.g., the Board’s prior findings that substantially similar claims were unpatentable over TS-23.140 and Ogawa, and (3) an evaluation of the ’403 Patent can be completed efficiently because the Board can leverage work it previously completed using TS-23.140 and Ogawa against substantially similar

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<sup>1</sup> PO also attempted to overturn the FWD in IPR2024-00341 in view of a jury verdict regarding the ’733 Patent. EX-1061, at 4. PO cites that same verdict here in support of its purported settled expectations. Paper 6, at 2-3. As discussed *infra* § II.B.3, PO’s suggestion that the verdict somehow reflects a settled expectation of validity of the ’403 Patent over TS-23.140 and Ogawa is disingenuous. Because the Office instituted IPR2024-00341, the jury was not allowed to consider TS-23.140, Ogawa, ***or any IPR-eligible prior art***, and was not presented with any of the unpatentability grounds presented in IPR2024-00341. EX-1060.

claims that find their support from a shared specification. Further, (4) Petitioner’s significant domestic investments far outweigh PO’s (there are none), and (5) the *Fintiv* factors weigh against denial (including because there is no trial date).

## **II. THIS IPR IS AN APPROPRIATE USE OF OFFICE RESOURCES**

### **A. This IPR Will Allow the Office to Correct Multiple Material Errors Made by the Examiner During Prosecution, Overriding Any PO Settled Expectations**

The ’403 Patent’s prosecution history confirms there were material errors in allowing the challenged claims because the Examiner failed to locate references that render the challenged claims unpatentable.

For example, the Examiner failed to locate and apply TS-23.140, a functional description of the Multimedia Messaging Service (“MMS”) published by 3GPP. This error was *material*, as confirmed by the Board’s decisions in IPR2024-00341 (EX-1022, FWD),<sup>2</sup> IPR2024-00010 (EX-1065, ID),<sup>3</sup> and

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<sup>2</sup> Petitioner filed (with Samsung) IPR2024-00341, challenging claims of the ’733 Patent in January 2024. EX-1038. The Board instituted in July 2024 (EX-1063) and issued its FWD cancelling all challenged claims in July 2025. EX-1022.

<sup>3</sup> Samsung filed IPR2024-00010 challenging claims of the ’192 Patent in November 2023. EX-1064. The Board instituted in May 2024. EX-1065. The Board terminated IPR2024-00010 ten days before the FWD due date (May 13,

IPR2026-00088 (EX-1073, ID),<sup>4</sup> which found (or found reasonably likely) that TS-23.140 teaches limitations substantially similar to those in '403 Patent claim 1.

The Examiner also failed to locate and apply Ogawa. This failure was likewise *material* error because the MMS-Ogawa combination renders most of the challenged claims obvious, as explained by the Petition *and* as confirmed by the Board's findings in IPR2024-00341 that MMS-Ogawa rendered substantially similar claims of the '733 Patent obvious. Pet., 1, 21-63; EX-1022, at 49-51.

PO suggests that failure to identify a reference due to failure to conduct a reasonable search cannot constitute material error because “constructing the appropriate search strategy *without* knowing what the landscape of prior art looks like in its entirety... is what... examiners are tasked with doing[.]” Paper 6, at 4-5 (emphasis in original). But the MPEP does not describe the Examiner as someone constructing search strategies in a vacuum. Rather, Examiners are expected to determine relevant categories of prior art to search based on the application being examined and based on scientific competence in the field of the application. *See*

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2025), when Samsung and Headwater settled their dispute. EX-1066; EX-1067.

<sup>4</sup> Amazon filed IPR2026-00088, challenging claims of the '192 Patent in November 2025, which was referred over PO's discretionary denial arguments and instituted. EX-1073.

MPEP §§ 904.02, 2141. Here, as discussed below, there is no evidence that the Examiner conducted the searches that one of ordinary skill in the art would have conducted, which would have uncovered TS-23.140 and Ogawa.

**1. The Examiner Failed to Locate and Apply TS-23.140**

MPEP § 904.02 requires a thorough search for non-patent literature (NPL)—especially in high-tech, active fields, “where patent documents may seriously lag behind invention and, consequently, represent a reference source of limited value.” Examiners are also presumed to be “persons of scientific competence in the fields in which they work” who are “familiar from their work with the level of skill in the art.” MPEP § 2141 (quotation marks omitted). Despite these duties, there is no evidence the Examiner searched for any NPL at all, much less the 3GPP specifications. EX-1002, at 722, 1050 (searching patent classification categories).

A reasonable search of NPL as required would have uncovered 3GPP publications<sup>5</sup> describing conventional wireless messaging systems and located TS-

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<sup>5</sup> Even if the Examiner was not aware of 3GPP before, PO submitted two 3GPP specifications in an IDS. EX-1002, at 414. Although the Applicant submitted these and over one thousand other references during prosecution, the Applicant also did not submit TS-23.140. EX-1002, at 383-483, 537-543, 739-752, 1068-1071.

23.140. The '403 Patent is classified in CPC H04W (wireless communication networks) (EX-1001, item (52); EX-1069), its specification discusses 3G/GSM cellular networks (among others) (EX-1001, 12:61-13:23), and the claims are generally directed to a mobile device that communicates via a wireless modem with a network side of a system for transmitting messages. EX-1001, cl. 1. Standardized cellular messaging services are squarely related to the claimed subject matter, and 3GPP specifications should have been considered because they are published by the “world’s leading organization for developing and maintaining cellular telecommunications standards.” EX-1024, ¶27.

Further, the 3GPP 23-series relates to 3G/GSM systems described in the '403 Patent (*e.g.*, EX-1001, 12:61-13:23), and TS-23.140 provides a description of MMS—a message storage/delivery service that, as explained further *infra* § II.A.3, the Office has determined to be relevant to the unpatentability of substantially similar claims. MMS was a well-known messaging service, and the TS-23.140 specification describing it was publicly accessible and would not have been difficult to find either on the 3GPP website or through Internet searches. EX-1024, ¶33, ¶¶44-70; EX-1070, at 2 (2016 “MMS Architecture” webpage mentioning TS-23.140). Thus, a reasonable Examiner search would have located TS-23.140.

## **2. The Examiner Also Failed to Locate and Apply Ogawa**

A reasonable search in accordance with the MPEP would also have located

Ogawa. The MPEP states that “[e]very... class/subclass of the U.S. Patent Classification... pertinent to each type of invention claimed should be included” in a search. MPEP § 904.02(a). Ogawa is in USPC class 713/193, which relates to “stored data protection” to prevent “unauthorized access to information held in static memory elements.” Ogawa, item (52); EX-1076, at 14. This field is “pertinent” to the claims of the ’403 patent, which include limitations related to, e.g., secured data on a device that is forwarded to an application via a secure communication service. *See, e.g.,* Pet., 26-33, 41-44 (discussing Limitations [1B1] and [1C2]). Yet 713/193 was not included in Examiner’s list of USPC classes. *See* EX-1002, at 722, 1050. A reasonable search would have located Ogawa.

### **3. The Board’s Prior Adjudications Confirm that the Examiner’s Errors Were Material**

The Board’s prior adjudications confirm that the Examiner’s errors in failing to locate TS-23.140 and Ogawa were material. The Examiner allowed independent claim 1 without issuing any prior art rejections, stating only that the art did “not disclose Applicant’s inventive claim language.” EX-1002, at 1047. But as shown below, the Board’s determinations in IPR2024-00341 (at FWD), IPR2024-00010 (at institution), and IPR2026-00088 (at institution) show that TS-23.140 and Ogawa (which Examiner failed to locate) disclose substantially similar limitations.

Claim 1 of the ’403 Patent is directed to a device that communicates with a network side of a system for transmitting messages. In particular, claim 1 recites a

“mobile end-user device” [1PRE] including a “device messaging agent” that (i) securely receives messages from “network application server[s]” that are routed through a “network message server” ([1B1]-[1B2]), and (ii) delivers the messages to identified “applications” on the device over a “secure interprocess communication service” ([1C1]-[1C2]). EX-1001, cl. 1.

’403 Patent claim 1’s limitations are materially similar to limitations of claim 1 of the ’733 Patent. ’733 Patent, claim 1 recites an “end-user device” with a “service control device link agent” performing materially similar functions as the ’403 patent’s “device messaging agent”: securely receiving messages from “a plurality of servers” (encompassed by the ’403 Patent’s “network application server[s]”) that are routed through a “service control server link element” (encompassed by the ’403 Patent’s “network message server”), and delivering the messages to application-level “device agents” (encompassed by the ’403 Patent’s “applications”) over an “agent communication bus” (encompassed by the ’403 Patent’s “interprocess communication service”). EX-1071, cl. 1. Claim 27 of the ’733 Patent adds the requirement that the communication over the bus be encrypted, encompassed by the ’403 Patent’s requirement that the “interprocess communication service” be “secure.” EX-1071, cl. 27.

In IPR2024-00341 (challenging the ’733 Patent), the Board determined at FWD that a POSITA “would have combined TS-23.140 and Ogawa in the manner

asserted by Petitioner with a reasonable expectation of success” and the combination of TS-23.140 and Ogawa “teach, suggest, or would have been understood to disclose the limitations of” the challenged claims, including ’733 Patent claims 1 and 27. EX-1022, at 49-50, 40-49 (discussing each aspect of the combination), 26-40 (discussing claim 1), 50 (discussing the challenged dependent claims). The Board thus determined that the combination of TS-23.140 and Ogawa taught limitations substantially similar to each limitation of ’403 Patent claim 1.

’403 Patent claim 1’s limitations are also materially similar to limitations of claim 1 of the ’192 Patent. ’192 Patent, claim 1 recites a “message link server” with components performing materially similar functions as the ’403 Patent’s “network message server”: i.e., securely delivering messages from “network elements” (encompassed by the ’403 Patent’s “network application server[s]”) to “components” (encompassed by the ’403 Patent’s “applications”) on a “wireless end-user device” (encompassed by the ’403 Patent’s “mobile end-user device”) via a “device link agent” (encompassed by the ’403 Patent’s “device messaging agent”) on that device. EX-1072, cl. 1.

In IPR2024-00010 and IPR2026-00088, Samsung and Amazon respectively challenged claim 1 of the ’192 Patent based on TS-23.140; at institution in both, the Board determined there was a reasonable likelihood that the petitioners would prevail. EX-1065, at 11-27; EX-1073. Thus, the Board determined there was a

reasonable likelihood that TS-23.140 taught limitations materially similar to the “network message server,” “network application server[s],” “applications,” “mobile end-user device,” and “device messaging agent” of ’403 Patent claim 1.

Taken together, the Board’s determinations in IPR2024-00341, IPR2024-00010, and IPR2026-00088 confirm that TS-23.140 and Ogawa are material to the patentability of the ’403 Patent claims. This shows that the Examiner’s failure to locate and apply TS-23.140 and Ogawa were material errors during prosecution of the ’403 Patent, which this Petition will allow the Office to correct.

Moreover, the existence of material errors overcome any settled expectations PO may have had based on the ’403 Patent’s age. *See, e.g., Anthony Inc. v. Controltec, LLC*, IPR2025-00559, Paper 12, at 2 (July 16, 2025) (referring petitions based on a material error even though challenged patents were in force several years); *Skullcandy, Inc. v. Earin AB*, IPR2025-00690, Paper 9, at 2 (July 31, 2025) (referring petition based on material error despite “settled expectations”); *Yealink (USA) Network Tech. Co. v. Barco N.V.*, IPR2025-00491, Paper 18, at 2-3 (June 25, 2025) (referring petition where Examiner failed to appreciate that claim referred to services “well known in the art”); *Microsoft Corp. v. Partec Cluster Competence Ctr. GmbH*, IPR2025-00318, Paper 9, at 2-3 (June 12, 2025) (referring petition and finding it was material error to overlook teachings of cited

reference combined with teachings of references not previously presented).<sup>6</sup>

**B. Petitioner’s Expectations Outweigh Any PO Settled Expectations**

Even if the Office determines there was no material error during prosecution, Petitioner’s expectations outweigh any PO settled expectations. Petitioner Google had the expectations that (1) the ’403 Patent would not be asserted against its products/services (including in lawsuits against Petitioner’s customers); and (2) even if it was asserted, that Petitioner would be able to challenge it based on references that the Office considered for related patents in IPR2024-00341, IPR2024-00010, and IPR2026-00088.

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<sup>6</sup> While the Office’s material error decisions often focus on art that was before the Examiner, here the Examiner’s material error was failing to locate and apply TS-23.140 and Ogawa in the first place (similar to the Examiner’s failures in *Yealink* and *Partec*, discussed above). The Office should assess material error based on the obviousness legal standard—*i.e.*, whether the claims would have been obvious to a POSITA presumed aware of all pertinent prior art. *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 454 (Fed. Cir. 1985) (obviousness is “determined entirely with reference” to a hypothetical POSITA); *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986) (a POSITA “is presumed to be aware of all the pertinent prior art.”).

**1. Petitioner Had No Expectation that PO Would Target Petitioner’s Customers Using the ’403 Patent**

PO appears to have first asserted the ’403 Patent in July 2025, nine-and-a-half years after its listed issue date, against Petitioner’s customers Verizon, T-Mobile, and AT&T. EX-1058. PO had never previously asserted the ’403 Patent against Petitioner, or any of its customers, or apparently *anyone else*. *Id.* There was no basis for Petitioner to expect that it or its customers would be sued on a never-before-asserted, nine-plus-year-old patent. Once Google became aware of PO’s assertion of the ’403 Patent, Google diligently defended itself and its customers by filing an action for declaratory judgment (“DJ”) of noninfringement (September 2025) and filing this IPR (January 2026). *See Pet.*, xii, 1.

**2. PO Has No Settled Expectations of the Validity of Claims in the ’403 Patent**

Even if PO were able to explain how its near-decade delay did not create settled expectations *for Petitioner* instead of PO, the Board’s adjudications confirming that substantially similar claims of relatives of the ’403 Patent are unpatentable (or reasonably likely to be found unpatentable) has certainly unsettled any expectations PO claims to have had regarding the ’403 Patent.

As discussed in § II.A.3, claim 1 of the ’403 Patent is substantially similar to claims 1 and 27 of the ’733 Patent (challenged in IPR2024-00341), and claim 1 of the ’192 Patent (challenged in IPR2024-00010). PO cannot plausibly assert that it

had settled expectations in the validity of the '403 Patent prior to asserting it when the Board had already determined in IPR2024-00341 and IPR2024-00010—in 2024, well *before* PO ever asserted the '403 Patent—that there was a reasonable likelihood that substantially similar claims issuing from the same specification were unpatentable over TS-23.140. EX-1063; EX-1065. These institutions were not isolated—before PO asserted the '403 patent, the Board had instituted at least eighteen petitions<sup>7</sup> challenging PO's related patents. EX-1074.

Furthermore, shortly after PO first asserted the '403 Patent (in July 2025), the Board issued the IPR2024-00341 FWD (based on a combination of the *same* references relied on in this IPR, *see* EX-1022) and two other FWDs cancelling claims of PO's related patents (EX-1077; EX-1078<sup>8</sup>). Moreover, relying on TS-23.140, the Board also instituted IPR in IPR2026-00088 against PO's related '192 Patent, and declined to discretionarily deny IPR in IPR2026-00106 against PO's related '320 Patent. EX-1073; EX-1085. These decisions further demonstrate that PO has no settled expectations as to the validity of the '403 Patent, especially over TS-23.140 (and Ogawa). *See, e.g., Mercedes-Benz Grp. AG v. The Phelan Grp.*,

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<sup>7</sup> PO has avoided FWDs for most of these petitions by—as it did in IPR2024-00010—settling fourteen of the IPRs before an FWD issued. EX-1074.

<sup>8</sup> These FWDs cancelled claims of related U.S. Pat. Nos. 8,589,541 and 9,198,042.

*LLC*, IPR2025-00413, Paper 13, at 2 (June 25, 2025) (referring petition where “claims of a related patent were recently found unpatentable”).

Separately, PO has not demonstrated “significant licensing success” (Paper 6, at 2), or that any of its licensing supports settled expectations. PO produced *one* license and provided no detail regarding any others. Paper, 6 at 2 n.1. PO does not explain how this license plausibly led PO to expect that the ’403 Patent was valid over TS-23.140 and Ogawa, or that Google would not challenge validity, especially after the Board, as discussed above: (1) cancelled (at Google’s request) similar claims from the related ’733 Patent (in view of TS-23.140 and Ogawa), (2) instituted IPR for similar claims from the related ’192 Patent (in view of TS-23.140), and (3) declined to discretionarily deny IPR for similar claims from the related ’320 Patent (also in view of TS-23.140). EX-1022; EX-1073; EX-1085.

### **3. PO’s Disingenuous Reliance on a Jury Verdict, Which Did Not Consider IPR-Eligible Prior Art, Should Be Rejected**

PO tries to sweep away the Office’s prior adjudication in IPR2024-00341 by arguing that a jury in a trial against Samsung found that the ’733 Patent was not invalid. Paper 6, at 2-3. According to PO, because an employee from Petitioner testified at a trial against Samsung (not Petitioner), Petitioner does not deserve a “second bite at the apple.” *Id.* at 3.

PO’s reliance on the jury trial is *extremely* deceptive. When Petitioner filed IPR2024-00341 with Samsung, the USPTO’s policy was that “the PTAB will not

discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.”<sup>9</sup> Relying on this guidance, Samsung filed a *Sotera* stipulation (EX-1060) and, with the understanding that the Board in IPR2024-00341 would rule on the merits of the Petition’s grounds in the already-instituted IPR, Samsung ***did not proceed before the jury with any IPR-eligible prior art***. EX-1060, at 1. In other words, the jury that PO relies upon ***was not presented with any of the unpatentability grounds presented in IPR2024-00341***. EX-1062, at 13-14. The jury ***did not consider TS-23.140 or Ogawa***. *Id.* Such a verdict certainly has no bearing on whether PO has settled expectations regarding the validity of the ’403 Patent over a combination of TS-23.140 and Ogawa, at issue in this proceeding.

**C. Given the Board’s Prior Adjudications, This IPR Is an Efficient Use of the Office’s Resources**

This IPR is also an efficient use of Office resources. As discussed *supra* §§ II.A.3, II.B.2, the Office previously evaluated the same primary references and claims that collectively include materially similar limitations to ’403 patent claim 1

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<sup>9</sup> June 21, 2022 Interim Procedure for Discretionary Denials, *available at* [www.uspto.gov/sites/default/files/documents/interim\\_proc\\_discretionary\\_denials\\_aia\\_parallel\\_district\\_court\\_litigation\\_memo\\_20220621\\_.pdf](http://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf) (now rescinded).

in IPR2024-00341 (presenting TS-23.140 and Ogawa) and IPR2024-00010 (presenting TS-23.140). And the Office will evaluate the materially similar '192 claims in view of TS-23.140 in IPR2026-00088, which was recently instituted.

Thus, the Office can leverage work it has already done and will continue to do. Moreover, considering the merits of this IPR and the co-pending IPR2026-00088 at the same time will lead to additional efficiencies, as the patents share specifications, have similar claims, and the petitions in both IPRs rely on TS-23.140 to disclose the vast majority of the limitations. *See, e.g., Embody, Inc. v. Lifenet Health*, IPR2025-00248, -249, Paper 13, at 3 (June 26, 2025) (determining it was efficient to refer a second patent related to a first patent for which discretionary denial was inappropriate).

IPR in this case will also be more efficient for the district courts and the parties. PO currently appears to be asserting twenty-five patents across thirty-two active cases. EX-1059. The Office is better positioned than the district courts to address unpatentability of PO's patents consistently, and doing so would be an efficient use of resources given the Office's prior investment. *See* §§ II.A.3, II.B.2. Such facts weigh in favor of reaching this IPR's merits. *See, e.g., Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217 et al., Paper 9, at 2-3 (June 13, 2025) (informative) ("The large number and vast scope of the patents asserted in the district court litigation...weighs against discretionary denial...").

### III. UNLIKE PO, PETITIONER GOOGLE HAS MADE SIGNIFICANT INVESTMENTS IN THE UNITED STATES

Petitioner Google is an American company that has made significant investments in U.S.-based infrastructure and product development. Indeed, Google primarily designed and developed the accused instrumentalities in the parties' litigation—Android functionality—in the United States. EX-1075, at 8-10. PO, on the other hand, is a nonpracticing entity that makes no products. Notably absent from PO's request for discretionary denial is any discussion of its own investments in the U.S.—it has none. *See* Paper 6, at 6-8. For these reasons, the Director should find Google's domestic product development supports institution in this case, or at most the Director should find this factor is neutral.

### IV. THE *FINTIV* FACTORS WEIGH HEAVILY AGAINST DENIAL

Despite asking the Office to discretionarily deny the Petition, PO provides no analysis of the *Fintiv* factors other than to argue that Petitioner has not provided a “stipulation regarding invalidity defenses in its declaratory judgment action involving the '403 patent.” Paper 6, at 9. As PO admits, Petitioner “has not yet raised invalidity defenses” in any litigation involving the '403 patent. *Id.* And in fact, currently, ***no litigation involving the '403 patent exists.*** PO's lawsuits asserting the '403 Patent against Google customers Verizon, T-Mobile, and AT&T (EX-1058) have all settled. And after PO's litigation against Petitioner (asserting the '192 and '320 Patents) was transferred to the Northern District of California

(EX-1081), Petitioner (1) voluntarily dismissed its action for declaratory judgment of noninfringement of the '403 Patent<sup>10</sup> and (2) filed a motion seeking to add its declaratory judgment action to the transferred case, *which PO opposes*. EX-1082; EX-1083, at 5. The *Fintiv* factors thus weigh heavily against denial. PO was unable to dispute this, and did not expressly discuss *Fintiv* at all, despite using less than half of the pages it was allocated in its discretionary denial brief. Paper 6.

**A. Factor 1: The Likelihood of a Stay Is Neutral**

This factor is neutral, as it is uncertain where issues regarding the validity of the '403 Patent will be litigated, if at all. “In the absence of specific evidence,” the Board “will not attempt to predict” how the parallel litigation will proceed, and this factor is neutral. *Sand Revolution II, LLC v. Cont’l Intermodal Grp.-Trucking LLC*, IPR2019-01393, Paper 24, at 7 (June 16, 2020) (informative).

**B. Factor 2: The Lack of a Trial Date Weighs Against Denial**

The only date that is certain is the expected FWD if IPR is instituted: July 23, 2027. Even if the Board were to speculate as to what district court case, if any, was going to consider validity of the claims in the '403 Patent, trial is unlikely to occur before the FWD. In Petitioner’s now-dismissed action for DJ of noninfringement of the '403 Patent, the parties proposed a December 6, 2027 trial

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<sup>10</sup> As PO admits, Petitioner never pled invalidity in this action. *See* Paper 6, at 9.

date—over four months after the expected FWD. No new trial date has been set in PO’s litigation against Petitioner (asserting the ’192 and ’320 Patents) since it was transferred—nor will one be scheduled until after the initial case management conference on July 16, 2026. EX-1084. Even if the ’403 Patent were added (which PO opposes, EX-1082; EX-1083, at 5), trial there is unlikely to occur before July 23, 2027 (i.e., in just a year). EX-1079, at 66. Factor 2 weighs against denial.

**C. Factor 3: The Investment in Parallel Litigation Weighs Against Denial Because the Dismissed Litigation Was in Its Early Stages**

During the pendency of Petitioner’s now-dismissed action for declaratory judgment of noninfringement of the ’403 Patent, Petitioner and PO only engaged in Rule 12 motion briefing. The parties did not exchange infringement or invalidity contentions or claim construction disclosures, or take any discovery. This factor weighs against denial. *See, e.g., Berkshire Hathaway Energy Co. v. Birchtech Corp.*, IPR2025-00274 et al., Paper 23, at 2-3 (July 2, 2025).

**D. Factor 4: The Lack of Overlap Between Issues in the Petition and Any Parallel Litigation Weighs Heavily Against Denial**

The only parallel litigation has been dismissed, and PO acknowledges that “Google ha[d] not yet raised invalidity defenses” in Petitioner’s now-dismissed action for declaratory judgment of noninfringement of the ’403 Patent. Paper 6, at 9. Presently, there is no litigation to which a *Sotera* stipulation (removing overlap of issues related to the validity of the ’403 Patent) would apply.

If an opportunity to file such a stipulation arises, Petitioner intends to stipulate that if this IPR is instituted, Petitioner will not pursue in that litigation an invalidity defense based on any ground that was raised or reasonably could have been raised in this IPR with respect to the '403 Patent. *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, at 18-19 (PTAB Dec. 1, 2020) (precedential as to §II.A). This factor weighs against denial.

**E. Factor 5: The Parties Factor Weighs Against Denial Because the FWD Is Likely to Precede the Trial**

When the FWD “is likely to issue before the district court trial,” the Board has “weigh[ed] this factor against exercising discretion.” *BMW of N. Am., LLC v. Mich. Motor Techs. LLC*, IPR2023-01234, Paper 11, at 14-15 (Jan. 26, 2024) (collecting cases). As discussed *supra* § IV.B, there is no trial date as no litigation involving the '403 Patent currently exists, and any trial would potentially include the '403 Patent will occur after the expected FWD. Factor 5 weighs against denial.

**F. Factor 6: Other Circumstances Weigh Heavily Against Denial**

The Board’s prior adjudications, Google’s expectations, and PO’s lack of settled expectations all weigh heavily against denial and in favor of the Board efficiently using its resources (by leveraging its review of similar claims over TS-23.140 and Ogawa) to find the challenged claims unpatentable. *Supra* §§ II-III.

Date: April 27, 2026

/Anant Saraswat/

Anant Saraswat, Reg. No. 76,050

**CERTIFICATE OF SERVICE UNDER 37 C.F.R. § 42.6 (e)(4)**

I certify that on April 27, 2026, a copy of the foregoing document, including any exhibits filed therewith, is being served via electronic mail, as previously consented to by Patent Owner, upon the following:

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