

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner

v.

HEADWATER RESEARCH LLC,
Patent Owner

Case IPR2025-00963
U.S. Patent No. 10,028,144

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

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EXHIBITS

SAMSUNG-1001	U.S. Patent No. 10,028,144 to Gregory G. Raleigh (“the ’144 Patent”)
SAMSUNG-1002	Excerpts from the Prosecution History of the ’144 Patent
SAMSUNG-1003	Declaration and Curriculum Vitae of Dr. Patrick McDaniel
SAMSUNG-1004	Complaint, <i>Headwater Research LLC v. Samsung Electronics Co., Ltd. et al</i> , 2-24-cv-00627, E.D. Tex., filed August 2, 2024
SAMSUNG-1005	U.S. Patent Application No 2008/0052395 A1 (“Wright”)
SAMSUNG-1006	U.S. Patent Application No. 2009/0300450 A1 (“Tzannes”)
SAMSUNG-1007	(Excerpts) Smith, et al., 2005. “Virtual Machines: Versatile Platforms for Systems and Processes,” Elsevier, Inc, 2005, ISBN 1-55860-910-5 (“Smith”)
SAMSUNG-1008	RESERVED
SAMSUNG-1009	U.S. Patent Application No. 2005/0144505 A1 (“Takeuchi”)
SAMSUNG-1010	U.S. Patent Application No. 2009/0254465 A1 (“Oester”)
SAMSUNG-1011	U.S. Patent Application No. 2006/0015749 A1 (“Mittal”)
SAMSUNG-1012	Declaration of June Munford
SAMSUNG-1013	Mallick, M., Mobile and Wireless Design Essentials (2003)
SAMSUNG-1014	Anderson, R., Security Engineering: A Guide to Building Dependable Distributed Systems. (2001)
SAMSUNG-1015	Jaeger, T., Operating System Security (Synthesis Lectures on Information Security, Privacy, and Trust) (2008)

SAMSUNG-1016	Parziale, L., TCP/IP Tutorial and Technical Overview (IBM Redbooks) (2006)
SAMSUNG-1017	McCanne, S. et al., The BSD Packet Filter: A New Architecture for User-level Packet Capture (1992)
SAMSUNG-1018	Horak, R., <i>Webster's New World Telecom Dictionary</i> , (2008)
SAMSUNG-1019	Ganz, A., et al., Multimedia Wireless Networks: Technologies, Standards, and QoS (2003)
SAMSUNG-1020	Kwok, Y., et al., Wireless Internet and Mobile Computing: Interoperability and Performance (2007)
SAMSUNG-1021	Brownlee et al., Traffic Flow Measurement: Architecture (1997)
SAMSUNG-1022	Saltzer, J. H., The Protection of Information in Computer Systems, Proceedings of the IEEE (1975)
SAMSUNG-1023	Tan, et al., An Empirical Study on the Capacity and Performance of 3G Networks (2008)
SAMSUNG-1024	Wang, et al., Shield: Vulnerability-Driven Network Filters for Preventing Known Vulnerability Exploits, ACM SIGCOMM Computer Communication Review (2004)
SAMSUNG-1025	Silberschatz et al., Operating System Concepts (7th ed. 2005)
SAMSUNG-1026	Cheswick et al., Firewalls and Internet Security (2nd ed. 2003)
SAMSUNG-1027	Koren et al., Fault Tolerant Systems (2007)
SAMSUNG-1028	Loscri et al., Voice and Video Telephony Services in Smartphone, EURASIP Journal on Wireless Communications and Networking (2006)
SAMSUNG-1029	Oxford University Press, <i>A Dictionary of Computing</i> , (6th ed. 2008) (defining "Agent")

SAMSUNG-1030	Downing et al., <i>Dictionary of Computer and Internet Terms</i> (9th ed. 2006) (defining “Agent”)
SAMSUNG-1031	Kunie et al., "Low power architecture and design techniques for mobile handset LSI Medity M2," 748-753, 2008 Asia and South Pacific Design Automation Conference (2008).
SAMSUNG-1032	M. Naruse et al., "A 65nm Single-Chip Application and Dual-Mode Baseband Processor with Partial Clock Activation and IP-MMU," 260-612, 2008 IEEE International Solid-State Circuits Conference - Digest of Technical Papers (2008).
SAMSUNG-1033	Gertz et al., <i>Handbook of Database Security: Applications and Trends</i> , Springer (2007).
SAMSUNG-1034	Oney, <i>Programming The Microsoft Windows Driver Model</i> (2nd ed. 2003).
SAMSUNG-1035	Exhibit A, <i>Headwater Research LLC v. Samsung Electronics Co., Ltd. et al</i> , 2-24-cv-00627, E.D. Tex., filed August 2, 2024.
SAMSUNG-1036	Patent Trial and Appeal Board (PTAB) Boardside Chat: Interim processes relating to institution in AIA proceedings, downloaded from https://www.uspto.gov/sites/default/files/documents/boardside_chat_interim_process_for_aia_institution_decisions_.pdf on April 25, 2025
SAMSUNG-1037	Samsung Stipulation Letter
SAMSUNG-1038	Interim Process for PTAB Workload Management
SAMSUNG-1039	RESERVED
SAMSUNG-1040	IEEE 100, <i>The Authoritative Dictionary of IEEE Standards Terms</i> (7th ed. 2000)
SAMSUNG-1041	U.S. Patent No. 7,962,798 to Locasto et al. (“Locasto”)

SAMSUNG-1042	Tanenbaum et al., Modern Operating Systems (2001)
SAMSUNG-1043	U.S. Patent Application No. 2007/0143827 A1 (“Nicode-mus”)
SAMSUNG-1044	U.S. Patent Application No. 2007/0006282 A1 (“Durham”)
SAMSUNG-1045	U.S. Patent No. 7,633,909 B1 (“Jones”)
SAMSUNG-1046	U.S. Patent No. 9,032,192B2 (“Frank”)
SAMSUNG-1047	The Secure Sockets Layer (“SSL”) Protocol, V. 3.0, available at https://web.archive.org/web/19970614041044/http://home.netscape.com/eng/ssl3/ssl-toc.html and https://web.archive.org/web/19970617034012/http://home.netscape.com/eng/ssl3/3-SPEC.HTM#1
SAMSUNG- 1048	U.S. Patent No. 9,198,042 (“the ’042 Patent”)
SAMSUNG-1049	U.S. Patent No. 12,184,700 (“the ’ 700 Patent”)
SAMSUNG- 1050	Excerpts from the Prosecution History of U.S. Patent No. 9,198,042 (“the ’042 Prosecution History”)
SAMSUNG-1051	Excerpts from the Prosecution History of U.S. Patent No. 8,391,834 (“the ’834 Prosecution History”)
SAMSUNG- 1052	Excerpts from the Prosecution History of U.S. Patent No. 8,839,388 (“the ’388 Prosecution History”)
SAMSUNG- 1053	Excerpts from the Prosecution History of U.S. Patent No. 12,184,700 (“the ’700 Prosecution History”)
SAMSUNG- 1054	U.S. Patent Publication No. 2017/0187839 A1 (“Raleigh ‘174”)
SAMSUNG-1055	U.S. Patent Publication No. 8,020,192 B2 (“Wright ’192”)

SAMSUNG- 1056	Guide to the CPC (Cooperative Patent Classification), EPO and USPTO, available at https://www.cooperative-patentclassification.org/sites/default/files/attachments/212f75e9-e9d4-4446-ad7f-b8e943588d1b/Guide+to+the+CPC.pdf (visited Aug. 28, 2025)
SAMSUNG-1057	Application of Cooperative Patent Classification (CPC) in biotechnology areas, USPTO, available at https://www.aipla.org/docs/default-source/committee-documents/bcp-files/2019/cpcforbcp-approved.pdf (visited Aug. 28, 2025)
SAMSUNG-1058	Patent Classification, USPTO, available at https://www.uspto.gov/patents/search/classification-standards-and-development (visited Aug. 28, 2025)
SAMSUNG-1059-1100	[RESERVED]
SAMSUNG-1101	Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings, June 21, 2022, <i>available at</i> https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf
SAMSUNG-1102-1149	[RESERVED]
SAMSUNG-1150	Docket Control Order, CASE NO. 2:22-cv-00422-JRG-RSP
SAMSUNG-1151	Court Order, December 23, 2024, CASE NO. 2:22-cv-00422-JRG-RSP
SAMSUNG-1152	Docket Control Order, CASE NO. 2:23-CV-00103-JRG-RSP
SAMSUNG-1153	Court Order, February 5, 2025, CASE NO. 2:23-CV-00103-JRG-RSP
SAMSUNG-1154	(Excerpts) “Taylor – Samsung Semiconductor USA,” downloaded from https://semiconductor.samsung.com/us/sas/company/taylor/ on May 24, 2025

SAMSUNG-1155	“Samsung Electronics Unveils a US\$200bn Investment Plan in the U.S.,” downloaded from https://www.businesskorea.co.kr/news/articleView.html?idxno=97177 on May 24, 2025
SAMSUNG-1156	“Samsung Electronics to receive up to \$6.4 billion in direct funding under the CHIPS and Science Act, downloaded from https://semiconductor.samsung.com/us/sas/local-news/samsung-electronics-to-receive-up-to-6-4-billion-in-direct-funding-under-thechips-and-science-act/ on May 24, 2025
SAMSUNG-1157	“President Trump Says Samsung Is Planning a _Massive Investment_ In The US, Calls It an Aftermath Of His Tariff Policy,” downloaded from https://wccftech.com/president-trump-says-samsung-is-planning-a-massive-investment-in-the-us/ on May 24, 2025
SAMSUNG-1158	(Excerpts) Docket Navigator Report, downloaded on August 28, 2025 ¹
SAMSUNG-1159	H.R. Rep. 112-98, pt. 1, available at https://www.congress.gov/congressional-report/112th-congress/house-report/98/1 (last accessed on May 27, 2025)
SAMSUNG-1160	Interim Process for PTAB Workload Management
SAMSUNG-1161	FAQs for Interim Processes for PTAB Workload Management
SAMSUNG-1162	U.S. District Court for the Eastern District of Texas Calendar Events Set for 5/4/2026 for Judge Rodney Gilstrap

¹ Litigation Activity Report generated using Docket Navigator, with “Parties” exactly matching “Headwater Partners I LLC,” “Headwater Partners II LLC,” or “Headwater Research LLC.”

SAMSUNG-1163	LegalMetric Individual Judge Report for Judge James Rodney Gilstrap Patent Cases December 2011 to January 2025
SAMSUNG-1164	Order Granting Stay in <i>Maxeon Solar PTE. LTD. v. Hanwha Solutions Corp. et al.</i> , case no. 2:24-CV-00262-JRG (EDTX)
SAMSUNG-1165	Order Granting Stay in <i>Cellspin Soft, Inc. v. Bytedance Ltd., et al.</i> , case no. 2:23-CV-00496-JRG-RSP (EDTX)
SAMSUNG-1166	[RESERVED]
SAMSUNG-1167	Motion Success for Stay Pending IPR (Post-Institution) (EDTX), accessed August 28, 2025
SAMSUNG-1168	Second Amended Complaint for Patent Infringement in <i>Headwater Research LLC v. Samsung Electronics Co., Ltd. et al.</i> , 2-22-cv-00422 (EDTX) (March 13, 2023)
SAMSUNG-1169	Docket Navigator Report of Headwater District Court Litigations, generated August 28, 2025
SAMSUNG-1170	[RESERVED]
SAMSUNG-1171	[RESERVED]
SAMSUNG-1172	Complaint for Patent Infringement in <i>Headwater Research LLC v. Samsung Electronics Co., Ltd. et al.</i> , 2-23-cv-00103 (EDTX) (March 10, 2023)
SAMSUNG-1173	Complaint for Patent Infringement in <i>Headwater Research LLC v. Samsung Electronics Co., Ltd. et al.</i> , 2-23-cv-00641 (EDTX) (December 29, 2023)
SAMSUNG-1174	Federal Court Management Statistics-Profiles, U.S. District Courts—Combined Civil and Criminal (June 2025), accessed from https://www.uscourts.gov/sites/default/files/document/fcms_na_distprofile0630.2025.pdf
SAMSUNG-1175	ArsTechnica, Samsung Finally Gets eSIM Working in the US, available at https://arstechnica.com/gadgets/

2021/04/samsung-finally-has-esim-working-in-theus-
first-on-the-note20/

I. INTRODUCTION

The PTAB is best suited to consider the patentability of the '144 Patent. Numerous factors weigh in favor of using PTAB resources to provide an adjudication of the petition on its merits. To start, the examination that led to allowance of the '144 Patent was not sufficient, nor up to the standards reasonably expected of the U.S. Patent and Trademark Office; indeed, it was devoid of any prior art rejection and the examiner did not even conduct a new prior art search accounting for claims presented by the application in question. Issuance of the '144 Patent was instead the product of material error that should be corrected. *See Anthony Inc. v. ControlTec, Inc.*, IPR2025-00559, Paper 12, 2 (July 16, 2025); *USAA Federal Savings Bank v. PACid Technologies, LLC*, IPR2025-00697, Pap. 9, 2-3 (PTAB Aug. 14, 2025).

Specifically, the Examiner issued no prior art rejection, and nothing in the file history suggests that the Examiner performed a new prior art search for the continuation application that led to allowance of the '144 Patent. *See generally* SAMSUNG-1002. The applications to which the '144 Patent claims priority underwent similarly cursory examination, also with no new prior art searches or keyword searches targeted at the specific technology recited in the claims. *See generally* SAMSUNG-1050; SAMSUNG-1051; SAMSUNG-1052. Notably, as discussed further in §II.A, during examination of the '144 Patent and the patents to which it claims priority, the

Examiner failed to include a single report of “Examiner’s search strategy and results” (i.e., document code “SRNT”) showing any prior art search, including keyword searches or databases searched. *Id.* Such examination is contrary to the requirements of the MPEP. MPEP 719.05; MPEP 2103.

In addition to material error, use of PTAB resources is warranted to review the present petition because, much like the multi-patent litigation at issue in *Tesla, Inc. v. Intellectual Ventures II LLC*, the ’144 Patent here is part of “complex and diverse” multi-patent litigation spanning multiple patent families and numerous diverse technologies. IPR2025-00217, Paper 9 at 2-3 (Jun. 13, 2025). As explained in more detail in §II below, Headwater is a patent assertion entity that has sequentially filed *five* lawsuits against Samsung over the last 3 years asserting **21** patents directed to a broad range of complex wireless and computing technologies. The ’144 Patent is among those 21 asserted patents. SAMSUNG-1158, 3-4.² More, in just the last few weeks, Headwater asserted multiple patents in the ’144 Patent’s family³—along

² This case and patent count does not include *Headwater Research LLC v. Samsung Electronics Co., Ltd. et al.*, 2-22-cv-00467, which was dismissed shortly after filing.

³ For example, Headwater asserted U.S. Patent Nos. 8,639,935, 11,096,055, and 8,666,364, all of which are related to the ’144 Patent through their priority claim to U.S. Provisional Application No. 61/206,354. *See* SAMSUNG-1158, 1-2.

with numerous other Headwater patents—in multiple district courts against multiple defendants, including Apple, Google, Amazon, Comcast Cable Communications, Dish Network, and Charter Communications. SAMSUNG-1158, 1-2. Therefore, efficiency and consistency concerns weigh in favor of not discretionarily denying institution so as to permit the PTAB to resolve the issue of validity rather than leaving validity questions to be resolved by multiple district courts where Headwater has filed suit as part of its aggressive litigation campaign. *See* §II.C.6; SAMSUNG-1155, -1156, -1157.

Additionally, not only is the PTAB well-equipped to address the complex and diverse technologies at issue in the parties' dispute, but the PTAB has already proven to be essential in helping the parties narrow their dispute and conserve resources. *See infra*, §II. For example, after the PTAB instituted IPRs on 6 of 9 patents asserted in Headwater's first litigation, Headwater dropped from that litigation each of the patents that were subject of the instituted IPRs. The parties also later settled the instituted IPRs, thereby conserving Board resources. As a result, the first litigation went to trial on only 1 of the 9 originally asserted patents. Similarly, in Headwater's second litigation, the PTAB instituted Samsung's petitions on 2 of the 3 asserted patents. The parties settled one of the instituted IPRs and Headwater dropped the patent corresponding to the settled IPR from the litigation. In Headwater's third lawsuit, the PTAB initially instituted Samsung's petitions on all 4 asserted patents, and

the parties again reached a resolution in which they have already settled one of the instituted IPRs and Headwater dropped the corresponding patent from the litigation. All told, PTAB institution decisions on the merits have already contributed to resolution and settlement of the parties' disputes on more than half a dozen patents. This history demonstrates that the PTAB is working in this complex, multi-patent litigation, and institution decisions on the merits are likely to help narrow issues in the co-pending litigation, ultimately conserving resources of the parties, the judiciary, and the Board.

Moreover, Samsung diligently prepared and filed petitions requesting IPR of all claims of the '144 Patent more than three months ahead of the statutory deadline. Headwater argues that the District Court in the Eastern District of Texas—where the litigation involving the '144 Patent is pending (“the Texas litigation”)—is best suited to resolve patentability of the claims of the '144 Patent. Headwater's brief, however, ignores the District Court's Order, which confirms that the District Court will not address the patentability of a vast majority of claims of the '144 Patent. *See* EX2002, 4 (“no more than 5 claims”). Upon Headwater's final election of at most five claims for assertion from the '144 Patent, ***at least 13 claims will be left unaddressed by the District Court***—i.e., approximately 70% of the '144 Patent's claims. The interests of efficiency and promoting a strong patent system are best served by maintaining Samsung's challenge at the PTAB so that the patentability of all claims of the '144

Patent can be properly addressed. This is particularly important given that Headwater retains the ability to threaten Samsung with suit based on the ***remaining 13 claims*** in later district court actions, but Samsung would be statutorially barred under 35 U.S.C. § 315(b) from filing any further IPRs on the '144 Patent.

The merits of the Petition are also strong and well-supported by competent expert testimony and contemporaneous third-party evidence, including dozens of patents and printed publications that corroborate the obviousness of the claimed subject matter. Tellingly, Headwater identified ***no substantive deficiency*** in the merits of the Petition's prior art challenges. This is unsurprising in light of plentiful evidence cited in the Petition that well establishes how the claims are directed to conventional features well-known in the field of art long before the '144 Patent. Not only Samsung, but the public broadly, share an interest in ensuring that all claims of the '144 Patent receive proper scrutiny from the PTAB—particularly as Headwater continues to mount an aggressive litigation campaign against multiple defendants through dozens of lawsuits in the last 2-3 years alone.

Finally, to extinguish any concerns of potential overlap between this IPR and the co-pending Texas litigation, Samsung has submitted a strong stipulation that is far more sweeping than a *Sotera* stipulation and that further estops Samsung (if institution is granted) from relying on combinations of the prior art asserted in this

proceeding with unpublished system prior art (or any other type of prior art). SAMSUNG-1037; *see Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, IPR2024-01206, IPR2024-01207 & IPR2024-01208, Paper 19 (PTAB Mar. 28, 2025)).

Thus, under the facts of this case and given the present record, Samsung respectfully requests that the Director decline Headwater's request to discretionarily deny institution of this IPR and refer Samsung's Petition for a determination on the merits.

II. THE PETITION SHOULD NOT BE DENIED ON DISCRETIONARY GROUNDS

Headwater seeks to shield the '144 Patent from an adjudication on the merits by requesting discretionary denial of this IPR proceeding. Headwater purports that an assessment of the considerations recited in Director Stewart's Memorandum of March 26, 2025 and the *Fintiv* factors counsels in favor of discretionary denial.⁴

⁴ Headwater does not address any considerations or argue for discretionary denial under *General Plastic, Advanced Bionics*, or parallel Petition guidelines. *See generally* DB. Samsung in turn generally does not address such considerations in this paper but reserves the right to do so if Headwater later raises such issues.

SAMSUNG-1160; Discretion Briefing (DB), 6-26. Contrary to Headwater’s contentions, however, and as explained below, a holistic evaluation of several considerations, including those recited in the Stewart Memorandum and the *Fintiv* factors confirm that discretionary denial of the Petition is not warranted here.

A. Referral Is Warranted in View of the Examiner’s Material Error During Prosecution of the Application for the ’144 Patent

The material errors and oversights during prosecution warrant Office scrutiny to correct those mistakes. The Office’s material errors during prosecution counsel heavily against discretionary denial. *See, e.g., Tesla, Inc. v. Charge Fusion Techs., LLC*, IPR2025-00152, Paper 11, 2 (June 12, 2025) (referring to the panel) (“Petitioner provides persuasive evidence that the Office erred in a manner material to the patentability of the challenged claims by overlooking the teachings of [a reference during prosecution].”); *Anthony Inc. v. ControlTec, Inc.*, IPR2025-00559, Paper 12, 2 (July 16, 2025) (referring to the panel and finding that petitioner’s showing of material error favored referring to panel for 17- and 18-year old patents). Indeed, when a petitioner “show[s] a material error by the office,” the Director has found that “it is an appropriate use of Office resources to review the potential error”—***even if the trial date in the copending litigation precedes the FWD date. Microsoft Corp. v. Partec Cluster Competence Ctr. GmbH***, IPR2025-00318, Paper 9, 3 (June 12, 2025) (referring to the panel, despite a later trial date, because “Petitioner appears to

show a material error by the Office and it is an appropriate use of Office resources to review the potential error”).

1. The Examiner issued no prior art rejections and performed no new prior art search during examination of the '144 Patent

The Office committed material error by allowing the application for the '144 Patent despite ***not issuing a single prior art rejection*** during prosecution and ***performing no prior art searches***⁵ during examination of the '144 Patent. *See generally* SAMSUNG-1002; *see also* SAMSUNG-1050; SAMSUNG-1051; SAMSUNG-1052. Indeed, in allowing the claims of the '144 Patent, the Examiner simply concluded that “all the cited prior art, either alone or in combination, does not disclose Applicant’s inventive claim language.” SAMSUNG-1002, 12. The Examiner’s allowance included no detailed explanation as to what the “inventive claim language” is. *Id.* The allowance was further issued notwithstanding the ***13 pages of “References Cited”*** in the '144 Patent. SAMSUNG-1001, 1-13. And while Applicant cited

⁵ According to the file history of the '144 Patent, during examination, the “scope of the search” was limited to “Continuity data reviewed,” “Inventor name search,” and “bibliographic data” within listed classifications (e.g., H04L 63/20, H04L 63/102, G06F 21/6218, etc.). SAMSUNG-1002, 15. No new prior art search was conducted.

art in IDS forms, the extraordinary volume of cited art—roughly 1,670 prior art references—calls into question what, if anything, the examiner considered and/or applied to the claims at issue in the application for the '144 Patent. Certainly, there is no indication in the record that the Examiner performed any targeted searches against any of the cited references.⁶ Finally, the Notice of Allowance included no commentary on the closest prior art identified or what precise features of the '144 Patent's claims led to allowance. SAMSUNG-1002, 7-14.

The file history of the '144 Patent includes a single instance of “Search Notes,”⁷ excerpted below. SAMSUNG-1002, 49. As shown, the Examiner identified a number of relevant classes (e.g., H04L 63/20, H04L 63/102, G06F 21/6218, U.S. classes 726, 1, 3-6, 455/405, etc.). *Id.* The “scope of the [classification] search,” as indicated by the Examiner’s “Search Notes,” was limited to “Continuity data reviewed,” “Inventor name search,” and “Bibliographic data updated.” *Id.* The file

⁶ To the extent that the Examiner even searched through the 1,674 prior art references, that type of assessment is highly prejudicial because it omits any independent review of objectively-identified prior art.

⁷ The “Search Notes” have a document code “SRFW” and a full document description “Search information including classification, databases and other search related notes.”

history confirms that the Examiner did not conduct any prior art search, such as, e.g., any keyword search or search of any other prior art database. *See generally* SAM-SUNG-1002.

Search Notes 	Application/Control No. 14948065	Applicant(s)/Patent Under Reexamination RALEIGH, GREGORY G.	
	Examiner ANDREW J RUDY	Art Unit 3687	

CPC- SEARCHED		
Symbol	Date	Examiner
H04L 63/20; 63/102; 63/0227; G06F 21/6218; 604	2/7/18	AJR

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
726	1,3-6	2/7/18	AJR
455	405,406,411,414.1;432.1	2/7/18	AJR
370	228,235,241,242,252,254,331,338	2/7/18	AJR
705	28,30	2/7/18	AJR

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES		
Search Notes	Date	Examiner
Continuity data reviewed	2/7/18	AJR
Inventor name search	2/7/18	AJR
Bibliographic data updated	2/7/18	AJR

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
726	1,3-6	2/7/18	AJR

SAMSUNG-1002, 49.

2. *The Examiner of the '144 Patent performed similarly cursory examinations of the applications to which the '144 Patent claims priority*

To the extent that the Examiner reviewed the prosecution history of the applications to which the '144 Patent claims priority, those applications received similarly cursory examinations. Namely, the non-provisional patents to which the '144 Patent claims priority had the same examiner and experienced the same or similar superficial review. For instance, the '144 Patent is a continuation of U.S. Patent No. 9,198,042 (“the '042 Patent”), which received an allowance *without a single rejection*. See generally SAMSUNG-1050.

Perhaps most notably, neither the '144 Patent nor the patents to which the '144 Patent claims priority include, in their prosecution history, an “Examiner’s search strategy and results.” Rather, the prosecution histories for these patents include only “Search Notes” devoid of any keyword search queries or databases that the Examiner employed during examination of the respective patent applications. For instance, the '144 Patent’s file history includes only a single instance of “Search Notes,” as shown in the previous section. SAMSUNG-1002, 15. The same is true of the prosecution history of the '042 Patent, which also included just one instance of “Search Notes” and no “Examiner’s search strategy and results.” See generally SAMSUNG-1050; see also SAMSUNG-1051, 78, 289; SAMSUNG-1052, 101, 328, 409.

Search Notes 		Application/Control No. 13/737,748 Examiner ANDREW JOSEPH RUDY		Applicant(s)/Patent under Reexamination RALEIGH, GREGORY G. Art Unit 3687	
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SEARCHED			
Class	Subclass	Date	Examiner
455	405,406, 411,414.1, 417,432.1	9/29/2015	AJR
370	352,354	9/29/2015	AJR
709	203,217	9/29/2015	AJR
709	219,223	9/29/2015	AJR
726	1,26	9/29/2015	AJR
705	28,30	9/29/2015	AJR
H04M	2215/32	9/29/2015	AJR
H04L	63/20	9/29/2015	AJR

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
726	1	9/29/2015	AJR
455	405,414.1	9/29/2015	AJR

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
Continuity data reviewed.	9/24/2015	AJR

U.S. Patent and Trademark Office
Part of Paper No. 20150929

SAMSUNG-1050, 208.

This review is in stark contrast to a later-filed continuation application in the '144 Patent's family, which issued as U.S. Patent No.12,184,700 —notably assigned

to a different examiner than the previously-allowed cases. There, the file history included *eight* entries of “Examiner’s search strategy and results,”⁸ and those entries included specific keyword search queries that examiner used to identify prior art from multiple sources. SAMSUNG-1053, 147-168, 580-611, 654-673, 885-886, 901-912, 920-921. For instance, the different examiner assigned to the ’700 Patent performed Google Patent searches using various search strings, as shown below.

⁸ The “Examiner’s search strategy and results” have a document code “SRNT.”

Web Search History

date, time	web site	search string
8/6/2024 2:45:08 AM	Google Patents	Search Term 1 ((saved saving save stored storing store) near10 ((device sensor) near2 (credential)) near10 (handheld (mobile ADJ device) (user ADJ terminal) (user ADJ equipment) cellphone smartphone (mobile ADJ terminal) ue) near10 (network) near10 (activate))
8/6/2024 2:45:40 AM	Google Patents	Search Term 1 ((saved saving save stored storing store) ((device sensor) (credential)) (handheld (mobile device) (user terminal) (user equipment) cellphone smartphone (mobile terminal) ue) (network) (activate))
8/6/2024 2:45:43 AM	Google Patents	Search Term 1 ((saved saving stored storing store) ((device sensor) (credential)) (handheld (mobile device) (user terminal) (user equipment) cellphone smartphone (mobile terminal) ue) (network) (activate))
8/6/2024 2:47:05 AM	Google Patents	Search Term 1 ((saved saving stored storing store) ((device sensor) (credential)) ((mobile device) (user terminal) (user equipment) cellphone smartphone (mobile terminal) ue) (network) (activate))
8/6/2024 2:47:08 AM	Google Patents	Search Term 1 ((saved stored storing store) ((device sensor) (credential)) ((mobile device) (user terminal) (user equipment) cellphone smartphone (mobile terminal) ue) (network) (activate))
8/6/2024 2:47:13 AM	Google Patents	Search Term 1 ((saved stored storing store) ((device sensor) (credential)) ((mobile device) (user terminal) cellphone smartphone (mobile terminal) ue) (network) (activate))
8/6/2024 2:47:23 AM	Google Patents	Search Term 1 ((saved stored storing store) ((device sensor) (credential)) (cellphone smartphone (mobile terminal) ue) (network) (activate))
8/6/2024 2:47:31 AM	Google Patents	Search Term 1 ((saved stored storing store) ((device sensor) (credential)) (cellphone smartphone) (network) (activate))

SAMSUNG-1053, 610.

Web Search History		
date, time	web site	search string
6/25/2024 3:19:53 AM	Google Patents	Search Term 1 ((secure) near2(internet)) same (app application) same ((communication ADJ device) (user ADJ terminal) (user ADJ equipment) (user ADJ device) (electronic ADJ terminal) (electronic ADJ device) handheld cellphone smartphone ue (mobile ADJ terminal) (mobile ADJ device)) same (id identifier identification identifying) same (wireless wirelessly) same (data)
6/25/2024 3:20:49 AM	Google Patents	Search Term 1 ((secure) (internet)) (app application) ((communication device) (user terminal) (user equipment) (user device) (electronic terminal) (electronic device) handheld cellphone smartphone ue (mobile terminal) (mobile device)) (id identifier identification identifying) (wireless wirelessly) (data)
6/25/2024 3:21:12 AM	Google Patents	Search Term 1 ((secure)) (app application) ((communication device) (user terminal) (user equipment) (user device) (electronic terminal) (electronic device) handheld cellphone smartphone ue (mobile terminal) (mobile device)) (id identifier identification identifying) (wireless wirelessly) (data)
6/25/2024 3:21:20 AM	Google Patents	Search Term 1 ((secure)) (app application) ((communication device) (user equipment) (user device) (electronic terminal) (electronic device) handheld cellphone smartphone ue (mobile terminal) (mobile device)) (id identifier identification identifying) (wireless wirelessly) (data)
6/25/2024 3:21:25 AM	Google Patents	Search Term 1 ((secure)) (app application) ((communication device) (electronic terminal) (electronic device) handheld cellphone smartphone ue (mobile terminal) (mobile device)) (id identifier identification identifying) (wireless wirelessly) (data)
6/25/2024 3:21:31 AM	Google Patents	Search Term 1 ((secure)) (app application) ((communication device) (electronic device) handheld cellphone smartphone ue (mobile terminal) (mobile device)) (id identifier identification identifying) (wireless wirelessly) (data)

SAMSUNG-1053, 654.

The different examiner assigned to the '700 Patent also performed Patents End to End (PE2E) searches using various search queries of databases from different jurisdictions, an example of which is excerpted below.

PE2E SEARCH - Search History (Prior Art)							
Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	1	"17577237"	(US-PGPUB; USPAT)	OR	ON	ON	2024/03/09 06:06 AM
L2	633	((("RALEIGH") near3 ("Gregory"))).INV.	(US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT)	OR	ON	ON	2024/03/09 06:10 AM
L3	1	((US-20220279021-A1).did. AND PGPB.dbnm.)	(US-PGPUB)	OR	ON	ON	2024/03/09 06:19 PM
L4	3098	(store) WITH ((device) near2 (credential))	(US-PGPUB; USPAT)	OR	ON	ON	2024/03/09 06:36 PM
L5	2	(store) WITH ((device) near2 (credential)) WITH (mobile ADJ terminal)	(US-PGPUB; USPAT)	OR	ON	ON	2024/03/09 06:37 PM
L6	0	(store) WITH ((device) near2 (credential)) WITH (mobile ADJ terminal) WITH (activate)	(US-PGPUB; USPAT)	OR	ON	ON	2024/03/09 06:37 PM
L7	30	("6178511" "6243816" "7249182" "7296036" "7310515" "7346855" "7353462" "8472874" "8606854" "20040009750"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2024/03/09 06:38 PM

SAMSUNG-1053, 589; *see also id.*, 656.

And, where the examiner of the application that issued as the '700 Patent—i.e., a different examiner than the one assigned to the '144 Patent or its predecessors—performed prior art searches, the search yielded prior art references relied on and cited by the examiner during prosecution. SAMSUNG- 1053, 887; SAMSUNG-1049, 1-8. In stark contrast, little evidence exists—in the file history for the '144 Patent or the earlier patents to which it claims priority—of prior art searches that correspond to the specific features recited in the respective patents' claims. *See generally* SAMSUNG-1002; SAMSUNG-1050; SAMSUNG-1051; SAMSUNG- 1052.

Finally, even if the applications to which the '144 Patent had received adequate prior art searches—which they had not—the claims of the '144 Patent are different enough in scope from its predecessors that additional search and consideration was required. For instance, claim 1 of the most immediate parent of the '144 Patent, the ' 042 Patent, recites various features that do not overlap with the '144 Patent, as illustrated by a table comparison of the claims below:

'144 Patent (SAMSUNG-1001)	'700 Patent (SAMSUNG-1048)
1. A wireless end-user device comprising:	1. A method, comprising:
a wireless wide area network (WWAN) modem to receive and transmit Internet data between the device and at least one WWAN when configured for and connected to the at least one WWAN; and	receiving, over a service control link, a report from a wireless end-user device, the report comprising information about a device service state;
one or more processors configured to execute one or more processes in a kernel execution partition, one or more processes in an application execution partition, and one or more processes in a protected execution partition,	receive a request to transmit application data, the received request corresponding to a first application of the plurality of applications;
the one or more processes executed in the kernel execution partition including an operating system packet network stack to pass Internet data packet traffic between the WWAN modem and one or more applications executing in the application execution partition,	generate an Internet data message based on the received request, the generated Internet data message including the application data and a first application identifier identifying the first application; and
the one or more processes executed in the kernel execution partition including ... an application identification agent to classify individual flows of the Internet data packet traffic passing through the	transmit, over the Internet data connection, the generated Internet data message to the mobile end-user device for mapping the first application identifier included in the transmitted Internet

stack according to which of the one or more applications is associated with a particular individual flow,	data message to the first application corresponding to the first application identifier, and for forwarding the application data in the transmitted Internet data message to the first application mapped by the mobile end-user device to the first application identifier.
the one or more processes executed in the kernel execution partition including ... a service measurement agent to measure, for classified individual flows, an amount of the Internet data packet traffic associated with each of the one or more applications, and	determining, based on the report, that a particular service policy setting of the wireless end-user device needs to be modified, the particular service policy setting being stored in a protected partition of the wireless end-user device,
] the one or more processes executed in the kernel execution partition including ... a policy control agent to apply application-specific traffic policy controls to classified individual flows,	the protected partition configured to deter or prevent unauthorized modifications to the particular service policy setting, the particular service policy setting being associated with a service profile that provides for access by the wireless end-user device to a network data service over a wireless access network,
the one or more processes executed in the protected execution partition including one or more device agents with limited privileges to access processes executing in the kernel execution partition, including	the particular service policy setting configured to assist in controlling one or more communications associated with the wireless end-user device over the wireless access network; and
one or more device agents ... including a privilege to configure the application-specific traffic policy controls of the policy control agent, and	in response to determining that the particular service policy setting needs to be modified, sending configuration information to the wireless end-user device over the service control link, the configuration information configured to assist in modifying or allowing modifications to the particular service policy setting.

one or more device agents ... including ... a privilege to receive at least one of Internet data packet traffic passing between the operating system packet network stack and the WWAN modem, and traffic information including the measured amount of the Internet data packet traffic associated with each of the one or more applications.	
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Moreover, and as an example, while independent claim 1 of the '042 Patent recites a “protected partition,” there is no evidence that the examiner searched for prior art directed to that term during prosecution of the '042 Patent. *See generally* SAM-SUNG-1053. Moreover, the different scope of the independent claim demanded a new prior art search for the '144 Patent claims. Indeed, the Acting Director has previously referred petitions where “the patent examiner allowed the claims of the challenged patents over the same prior art,” “[d]espite the claims [of the later case] being directed to different technologies than the ancestor patent’s claims.” *USAA Federal Savings Bank v. PACid Technologies, LLC*, IPR2025-00697, Pap. 9, 2-3 (PTAB Aug. 14, 2025).

3. *The Examiner’s examination is contrary to the search and examination requirements of the MPEP*

The incomplete examination of the '144 Patent and the patents to which the '144 Patent claims priority is contrary to MPEP 719.05, which dictates that searches during examination “should include the appropriate databases and the search queries

and classifications employed in the original search.” MPEP 719.05; *see also* MPEP 904. In particular, MPEP 719.05 states that “[g]reat care should be taken so as to clearly indicate the places searched and the date(s) on which the search was conducted and/or updated.” *Id.* MPEP 719.05 further outlines the purpose of providing records of the examiner’s search and what records should be maintained in the file history:

*In order to provide a complete, accurate, and uniform record of what has been searched and considered by the examiner for each application, the U.S. Patent and Trademark Office has established procedures for recording search data in the application file. **Such a record is of importance to anyone evaluating the strength and validity of a patent, particularly if the patent is involved in litigation.***

...

*The absence of entries in the “SEARCH NOTES” box for the other classification symbols searched indicates that all documents having those symbols were reviewed or there is a search history printout in the file indicating how the search of those symbols was limited. As provided in subsection II.B below, **a complete search history in the form of a printout must be included in the application file any time a limited electronic search was performed.***

Id. MPEP 719.05 additionally describes the various types of searches an examiner can perform and how those searches are required to be recorded in the file history. MPEP 719.05, §II.A. For instance, classification searches, text searches in particular databases, searches made within the International Patent Classification System,

searches performed by the Scientific and Technical Information Center, consultation with other examiners, searches of electronic journals and electronic books, searches of other media databases, Internet searches, nonelectronic publication searches, review of art cited in a parent application, and review of documents cited in a related trial before the PTAB. *Id.*

None of that was done during the '144 Patent's prosecution. In particular, despite the various sources of potential prior art, the file history of the '144 Patent offers no evidence that any search was performed and only that classifications, "continuity data," "inventor name," and "bibliographic data" were reviewed, considered, or updated. *See, e.g.,* SAMSUNG-1002, 15; SAMSUNG- 1050, 208; SAMSUNG-1051, 78, 289; SAMSUNG-1052, 101, 328, 409. The file history of the '144 Patent further offers no evidence that the examiner performed any search of the roughly 1,670 prior art references that the applicant cited in IDS forms. *See generally* SAMSUNG-1002.

This lack of prior art searches during examination of the '144 Patent is sharply distinguished from the examination of the application that eventually issued as the '700 Patent (the latter having claims of generally different scope than that encapsulated by the '144 claims). There, where a different examiner was assigned to examine the application that eventually issued as the '700 Patent, the file history appears to show some compliance with the MPEP in the form of "the appropriate databases

and the search queries and classifications employed in the original search.” SAMSUNG-1053, 147-168, 580-611, 654-673, 885-886, 901-912, 920-921; *see* MPEP 719.05.

4. *A proper search would have identified relevant prior art, including prior art relied upon in the Petition*

The MPEP dictates that the examiner should have performed a prior art search during examination of the '144 Patent. MPEP 2103, §I (“After obtaining an understanding of the invention, the examiner will conduct a search of the prior art”), §II (“Prior to evaluating the claimed invention for patentability, examiners are expected to conduct a thorough search of the prior art.”). That did not occur here. And to the extent that the Examiner relied on the examination of the earlier applications to which the '144 Patent claims priority, that reliance is improper because prior art searches did not occur there either. As illustrated below, had a proper prior art search been conducted on relevant features of the '144 Patent's claims, relevant references relied upon in the Petition would have likely been identified.

As a starting point, the Office classifies patent applications and issued patents into classes and subclasses related to the technology described or claimed within the documents. The Cooperative Patent Classification (CPC) is one such classification scheme. SAMSUNG-1056, 4. CPC classification uses a string of letters and numbers

to classify patent applications by section, class, subclass, and group. *See* SAMSUNG-1056, 4. Classifications are based on the entire disclosure, including the abstract, specification, drawings, and claims. *See* SAMSUNG-1057, 14.

The CPC's classes, subclasses, and groups permit the Office to efficiently organize and retrieve relevant patent documents that are grouped into specific technical areas using a structured coding system. *See generally* SAMSUNG-1056, 5-7; *see, e.g.*, SAMSUNG-1057, 7-13. Documents classified in the same class or subclass therefore are in shared technical areas. *See, e.g.*, SAMSUNG-1058 ("all U.S. patent documents and other technical documents [are organized] into specific technology groupings based on common subject matter."). The examples below illustrate how a prior art search within the relevant classes, subclasses, and groups in which the '144 Patent and its published application were classified, if conducted, would have likely yielded prior art references (or their related issued patents) relied on in the Petition. These examples further illustrate the Examiner's material error.

(a) Class H04L 29/06 – Wright '192 / Wright

The Office classified the '144 Patent and its application publication (U.S. Patent Publication No. US 2016/0212174 A1, "Raleigh '174") (SAMSUNG-1054) in class H04L 29/06, as evidenced by the cover pages of both documents. SAMSUNG-1001, cover page; SAMSUNG-1054, cover page.

(19) United States	
(12) Patent Application Publication Raleigh	(10) Pub. No.: US 2016/0212174 A1 (43) Pub. Date: Jul. 21, 2016
(54) SECURITY TECHNIQUES FOR DEVICE ASSISTED SERVICES	filed on Feb. 4, 2009, provisional application No. 61/207,393, filed on Feb. 10, 2009, provisional application No. 61/207,739, filed on Feb. 13, 2009.
(71) Applicant: Headwater Partners I LLC , Redwood City, CA (US)	Publication Classification
(72) Inventor: Gregory G. Raleigh , Woodside, CA (US)	(51) Int. Cl. H04L 29/06 (2006.01) H04W 12/08 (2006.01)
(21) Appl. No.: 14/948,065	(52) U.S. Cl. CPC H04L 63/20 (2013.01); H04L 63/04 (2013.01); H04W 12/08 (2013.01)
(22) Filed: Nov. 20, 2015	

SAMSUNG-1054, cover page (annotated)

(12) United States Patent Raleigh	(10) Patent No.: US 10,028,144 B2 (45) Date of Patent: Jul. 17, 2018
(54) SECURITY TECHNIQUES FOR DEVICE ASSISTED SERVICES	(56) References Cited
(71) Applicant: Headwater Partners I LLC , Redwood City, CA (US)	U.S. PATENT DOCUMENTS
(72) Inventor: Gregory G. Raleigh , Woodside, CA (US)	5,131,020 A 7/1992 Liebesny et al. 5,283,904 A 2/1994 Carson et al. (Continued)
(73) Assignee: Headwater Research LLC , Tyler, TX (US)	FOREIGN PATENT DOCUMENTS
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 398 days.	CA 2688553 12/2008 CN 1310401 A 2/2000 (Continued)
(21) Appl. No.: 14/948,065	OTHER PUBLICATIONS
(22) Filed: Nov. 20, 2015	Dixon et al., Triple Play Digital Services: Comcast and Verizon (Digital Phone, Television, and Internet), Aug. 2007. (Continued)
(65) Prior Publication Data US 2016/0212174 A1 Jul. 21, 2016	<i>Primary Examiner</i> — Andrew Joseph Rudy (74) <i>Attorney, Agent, or Firm</i> — James E. Harris
Related U.S. Application Data	(57) ABSTRACT
(63) Continuation of application No. 13/737,748, filed on Jan. 9, 2013, now Pat. No. 9,198,042, which is a (Continued)	A wireless end-user device has a wireless wide-area network (WWAN) modem and multiple execution environments. Applications execute in an application execution partition. A kernel execution partition executes processes for classifying, by application, traffic passing between the WWAN modem and the applications, measuring per-application traffic, and applying per-application traffic policies to the traffic. A separate protected execution partition contains agents to receive the traffic measurements, configure the traffic policies, and securely communicate with a network service controller. Low-level traffic measurement and control is advantageously and efficiently performed in the kernel, while the traffic-management processes that interface with the kernel are separately secured to resist hacking.
(51) Int. Cl. G06F 17/00 (2006.01) H04W 12/08 (2009.01) (Continued)	18 Claims, 11 Drawing Sheets
(52) U.S. Cl. CPC H04W 12/08 (2013.01); G06F 15/177 (2013.01); G06Q 10/06315 (2013.01); (Continued)	
(58) Field of Classification Search CPC ... H04L 63/20; H04L 63/102; H04L 63/0227; G06F 21/6218; G06F 21/604 (Continued)	

SAMSUNG-1001, cover page (annotated)

Given that the '144 Patent and its application were classified in H04L 29/06, one would have naturally expected that the Examiner would have performed a prior art search of other patents and applications in that class/subclass/group. Notably, U.S. Patent No. 8,020,192 ("Wright '192") (SAMSUNG-1055), the issued patent of the Wright reference (SAMSUNG-1005) relied upon in the Petition, was also classified in H04L 29/06. SAMSUNG-1055, cover page. Their classification in the same class, subclass, group, and subgroup are an indication of the similarity in their respective disclosures. *See, e.g.*, SAMSUNG-1058; *see also* SAMSUNG-1056, 5-7; SAMSUNG-1057, 7-13.

(12) United States Patent Wright et al.	(10) Patent No.: US 8,020,192 B2 (45) Date of Patent: Sep. 13, 2011																																							
(54) ADMINISTRATION OF PROTECTION OF DATA ACCESSIBLE BY A MOBILE DEVICE (76) Inventors: Michael Wright, Sandy, UT (US); Peter Boucher, Orem, UT (US); Gabe Nault, Draper, UT (US); Merrill Smith, Riverton, UT (US); Sterling K. Jacobson, Saratoga Springs, UT (US); Jonathan Wood, Orem, UT (US); Robert Mims, West Valley City, UT (US) (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 988 days. (21) Appl. No.: 11/926,454 (22) Filed: Oct. 29, 2007 (65) Prior Publication Data US 2008/0052395 A1 Feb. 28, 2008 Related U.S. Application Data (60) Division of application No. 10/897,060, filed on Jul. 21, 2004, now Pat. No. 7,526,800, and a continuation-in-part of application No. 10/413,443, filed on Apr. 11, 2003, now Pat. No. 7,353,533, and a continuation-in-part of application No. 10/377,265, filed on Feb. 28, 2003, now Pat. No. 7,308,703. (51) Int. Cl. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">H04L 29/06</td> <td style="width: 40%;">(2006.01)</td> </tr> <tr> <td>G06F 7/04</td> <td>(2006.01)</td> </tr> <tr> <td>G06F 17/00</td> <td>(2006.01)</td> </tr> </table> (52) U.S. Cl. 726/1; 726/11; 726/23; 380/258; 709/221; 709/229; 713/154 (58) Field of Classification Search 380/258; 713/154; 726/1, 11, 23; 709/221, 229 See application file for complete search history.	H04L 29/06	(2006.01)	G06F 7/04	(2006.01)	G06F 17/00	(2006.01)	(56) References Cited U.S. PATENT DOCUMENTS <table style="width: 100%;"> <tr> <td style="width: 30%;">5,237,677 A</td> <td style="width: 10%;">8/1993</td> <td style="width: 60%;">Hirosawa et al.</td> </tr> <tr> <td>5,335,346 A</td> <td>8/1994</td> <td>Fabbio</td> </tr> <tr> <td>5,671,351 A</td> <td>9/1997</td> <td>Wild et al.</td> </tr> <tr> <td>5,922,073 A</td> <td>7/1999</td> <td>Shimada</td> </tr> <tr> <td>6,357,019 B1</td> <td>3/2002</td> <td>Blaisdell et al.</td> </tr> <tr> <td>6,580,914 B1</td> <td>6/2003</td> <td>Smith</td> </tr> <tr> <td>6,892,317 B1</td> <td>5/2005</td> <td>Sampath et al.</td> </tr> <tr> <td>7,353,533 B2</td> <td>4/2008</td> <td>Wright et al.</td> </tr> <tr> <td>7,478,420 B2</td> <td>1/2009</td> <td>Wright et al.</td> </tr> <tr> <td>7,519,974 B2</td> <td>4/2009</td> <td>Newport et al.</td> </tr> <tr> <td>7,519,984 B2</td> <td>4/2009</td> <td>Bhogal et al.</td> </tr> </table> (Continued) OTHER PUBLICATIONS Office Action issued Dec. 3, 2009 in U.S. Appl. No. 11/926,371. (Continued) <i>Primary Examiner</i> — Michael J Simitoski (57) ABSTRACT The protection of data on a client mobile computing device by a server computer system such as within an enterprise network or on a separate mobile computing device is described. Security tools are described that provide different security policies to be enforced based on a location associated with a network environment in which a mobile device is operating. Methods for detecting the location of the mobile device are described. Additionally, the security tools may also provide for enforcing different policies based on security features. Examples of security features include the type of connection, wired or wireless, over which data is being transferred, the operation of anti-virus software, or the type of network adapter card. The different security policies provide enforcement mechanisms that may be tailored based upon the detected location and/or active security features associated with the mobile device. Examples of enforcement mechanisms are adaptive port blocking, file hiding and file encryption. 6 Claims, 24 Drawing Sheets	5,237,677 A	8/1993	Hirosawa et al.	5,335,346 A	8/1994	Fabbio	5,671,351 A	9/1997	Wild et al.	5,922,073 A	7/1999	Shimada	6,357,019 B1	3/2002	Blaisdell et al.	6,580,914 B1	6/2003	Smith	6,892,317 B1	5/2005	Sampath et al.	7,353,533 B2	4/2008	Wright et al.	7,478,420 B2	1/2009	Wright et al.	7,519,974 B2	4/2009	Newport et al.	7,519,984 B2	4/2009	Bhogal et al.
H04L 29/06	(2006.01)																																							
G06F 7/04	(2006.01)																																							
G06F 17/00	(2006.01)																																							
5,237,677 A	8/1993	Hirosawa et al.																																						
5,335,346 A	8/1994	Fabbio																																						
5,671,351 A	9/1997	Wild et al.																																						
5,922,073 A	7/1999	Shimada																																						
6,357,019 B1	3/2002	Blaisdell et al.																																						
6,580,914 B1	6/2003	Smith																																						
6,892,317 B1	5/2005	Sampath et al.																																						
7,353,533 B2	4/2008	Wright et al.																																						
7,478,420 B2	1/2009	Wright et al.																																						
7,519,974 B2	4/2009	Newport et al.																																						
7,519,984 B2	4/2009	Bhogal et al.																																						

SAMSUNG-1055, cover page (annotated)

Therefore, had the Examiner performed a prior art search in this class/sub-class/group, Wright '192 would have been among the corpus of prior art identified in that class/subclass/group, and the search results would likely have included at

least Wright, or equivalent prior art. As shown below, Wright contains several key words that are also recited in claim 1 of the '144 Patent. *See, e.g.,* SAMSUNG-1005, ¶¶295, 297; *see also* SAMSUNG-1055, 21:38-62.

SAMSUNG-1005 (Wright)	SAMSUNG-1001, claim 1
[0295] The type of network service being used may be monitored. An example of a type of network service is a service protocol for transferring data over a network. In the event 1002 that a request is received 1014 for processing data using a network service (e.g. File Transfer Protocol (FTP), Post Office Protocol (POP), Internet Mail Access Protocol (IMAP), Virtual Private Network (VPN), HTTP, HTTPS, SMTP, Telnet, etc.), the policy engine 832 determines 1016 whether the current policy allows this network service or a specific version of it, to execute. Responsive to a determination that the current policy, as defined in the embodiment of FIG. 8 above in the packet rules 810, allows this network service, the packet filter engine 818 allows network traffic embodied in packets using this network service to be transferred 1018. Responsive to a determination that the current policy, as defined in the embodiment of FIG. 8 above in the packet rules 810, does not allow or prohibits this network service, the packet filter engine 818 blocks 1020 all network traffic embodied in the example in packets for this network service. [0297] In the event 1002 that a request is received 1054 for processing data for an application (e.g. a browser, e-mail, NetMeeting, Remote Desktop, File Sharing or games), the policy engine 832 determines 1056 whether the current policy allows this application or a specific version of it, to execute. Responsive to a determination that the current policy, as defined in the embodiment of FIG. 8 above in the packet rules 810, allows this application, the packet filter engine 818 allows 1060 network traffic embodied in packets using this application to be transferred. Furthermore, the TDI filter 822 also monitors application parameters and allows the traffic associated with this application to be forwarded for further processing by the mobile device. Responsive to a determination that the current policy, as defined in the embodiment of FIG. 8 above in the packet rules 810, does not allow or prohibits this application, the packet filter engine 818 blocks 1058 all network traffic embodied in the example in packets for this application. Furthermore, in the embodiment of FIG. 8, the TDI filter 822 also monitors application parameters to block any network traffic at the upper layers for the prohibited application that may have bypassed the packet filter engine 818.	1. A wireless end-user device, comprising: a wireless wide area network (WWAN) modem to receive 30 and transmit Internet data between the device and at least one WWAN when configured for and connected to the at least one WWAN; and one or more processors configured to execute one or more processes in a kernel execution partition, one or more 35 processes in an application execution partition, and one or more processes in a protected execution partition, the one or more processes executed in the kernel execution partition including an operating system packet network stack to pass Internet data packet 40 traffic between the WWAN modem and one or more applications executing in the application execution partition, an application identification agent to clas- sify individual flows of the Internet data packet traffic passing through the stack according to which 45 of the one or more applications is associated with a particular individual flow, a service measurement agent to measure, for classified individual flows, an amount of the Internet data packet traffic associated with each of the one or more applications, and a 50 policy control agent to apply application-specific traffic policy controls to classified individual flows, the one or more processes executed in the protected execution partition including one or more device agents with limited privileges to access processes 55 executing in the kernel execution partition, including a privilege to configure the application-specific traf- fic policy controls of the policy control agent, and a privilege to receive at least one of Internet data packet traffic passing between the operating system 60 packet network stack and the WWAN modem, and traffic information including the measured amount of the Internet data packet traffic associated with each of the one or more applications

For example, as shown above, claim 1 of the '144 Patent and Wright contain such shared words such as “network,” “internet,” “application(s),” “packet,” “traffic,” and “policy.” *Compare* SAMSUNG-1005, ¶¶295, 297, *with* SAMSUNG-1001, claim 1. Thus, even a minimal prior art search of various claim terms, within the relevant classes, subclasses, and groups would have uncovered Wright '192 and/or Wright.

(b) Class G06F 15 and G06F 17/00 – Wright '192 / Wright

The Office also classified the '144 Patent in G06F 15/177 and G06F 17/00. SAMSUNG-1001, cover page. Significantly, Wright '192, the issued patent of Wright (SAMSUNG-1005), was classified in G06F 17/00. SAMSUNG-1055, cover page. Wright also was classified in G06F 15/173. SAMSUNG-1005, cover page. Despite the '144 Patent's classification in the same or similar classes/subclasses as Wright/Wright '192G06F 17/00 and G06F 15/177, the record provides no indication that the Examiner conducted a prior art search in these classes/subclasses/groups. *See generally* SAMSUNG-1002. CPC classifications indicate similarity in the disclosed subject matter and the Examiner should have searched in the relevant classes/subclasses/groups. *See, e.g.*, SAMSUNG-1058; *see also* SAMSUNG-1056, 5-7; SAMSUNG-1057, 7-13.

(19) United States	
(12) Patent Application Publication	
Wright et al.	
(10) Pub. No.: US 2008/0052395 A1	
(43) Pub. Date: Feb. 28, 2008	
(54) ADMINISTRATION OF PROTECTION OF DATA ACCESSIBLE BY A MOBILE DEVICE	Publication Classification
(76) Inventors: Michael Wright , Sandy, UT (US); Peter Boucher , Orem, UT (US); Gabe Nault , Draper, UT (US); Merrill Smith , Riverton, UT (US); Sterling K. Jacobson , Saratoga Springs, UT (US); Jonathan Wood , Orem, UT (US); Robert Mims , West Valley City, UT (US)	(51) Int. Cl. G06F 15/173 (2006.01)
	(52) U.S. Cl. 709/224
	(57) ABSTRACT
Correspondence Address: Michael T. Sanderson, Esq. King & Schickli, PLLC 247 North Broadway Lexington, KY 40507 (US)	The protection of data on a client mobile computing device by a server computer system such as within an enterprise network or on a separate mobile computing device is described. Security tools are described that provide different security policies to be enforced based on a location associated with a network environment in which a mobile device is operating. Methods for detecting the location of the mobile device are described. Additionally, the security tools may also provide for enforcing different policies based on security features. Examples of security features include the type of connection, wired or wireless, over which data is being transferred, the operation of anti-virus software, or the type of network adapter card. The different security policies provide enforcement mechanisms that may be tailored based upon the detected location and/or active security features associated with the mobile device. Examples of enforcement mechanisms are adaptive port blocking, file hiding and file encryption.
(21) Appl. No.: 11/926,454	
(22) Filed: Oct. 29, 2007	
Related U.S. Application Data	
(60) Division of application No. 10/897,060, filed on Jul. 21, 2004. Continuation-in-part of application No. 10/377,265, filed on Feb. 28, 2003, now Pat. No. 7,308,703. Continuation-in-part of application No. 10/413,443, filed on Apr. 11, 2003.	

SAMSUNG-1005, cover page (annotated)

(12) United States Patent Wright et al.		(10) Patent No.: US 8,020,192 B2
		(45) Date of Patent: Sep. 13, 2011
(54) ADMINISTRATION OF PROTECTION OF DATA ACCESSIBLE BY A MOBILE DEVICE	(56) References Cited	
	U.S. PATENT DOCUMENTS	
(76) Inventors: Michael Wright , Sandy, UT (US); Peter Boucher , Orem, UT (US); Gabe Nault , Draper, UT (US); Merrill Smith , Riverton, UT (US); Sterling K. Jacobson , Saratoga Springs, UT (US); Jonathan Wood , Orem, UT (US); Robert Mims , West Valley City, UT (US)	5,237,677 A 8/1993 Hirose et al. 5,335,346 A 8/1994 Fabbio 5,671,351 A 9/1997 Wild et al. 5,922,073 A 7/1999 Shimada 6,357,019 B1 3/2002 Blaisdell et al. 6,580,914 B1 6/2003 Smith 6,892,317 B1 5/2005 Sampath et al. 7,353,533 B2 4/2008 Wright et al. 7,478,420 B2 1/2009 Wright et al. 7,519,974 B2 4/2009 Newport et al. 7,519,984 B2 4/2009 Bhogal et al.	
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 988 days.	(Continued)	
(21) Appl. No.: 11/926,454	OTHER PUBLICATIONS	
(22) Filed: Oct. 29, 2007	Office Action issued Dec. 3, 2009 in U.S. Appl. No. 11/926,371.	
(65) Prior Publication Data	(Continued)	
US 2008/0052395 A1 Feb. 28, 2008	Primary Examiner — Michael J Simitoski	
Related U.S. Application Data	(57) ABSTRACT	
(60) Division of application No. 10/897,060, filed on Jul. 21, 2004, now Pat. No. 7,526,800, and a continuation-in-part of application No. 10/413,443, filed on Apr. 11, 2003, now Pat. No. 7,353,533, and a continuation-in-part of application No. 10/377,265, filed on Feb. 28, 2003, now Pat. No. 7,308,703.	The protection of data on a client mobile computing device by a server computer system such as within an enterprise network or on a separate mobile computing device is described. Security tools are described that provide different security policies to be enforced based on a location associated with a network environment in which a mobile device is operating. Methods for detecting the location of the mobile device are described. Additionally, the security tools may also provide for enforcing different policies based on security features. Examples of security features include the type of connection, wired or wireless, over which data is being transferred, the operation of anti-virus software, or the type of network adapter card. The different security policies provide enforcement mechanisms that may be tailored based upon the detected location and/or active security features associated with the mobile device. Examples of enforcement mechanisms are adaptive port blocking, file hiding and file encryption.	
(51) Int. Cl.		
H04L 29/06 (2006.01)		
G06F 7/04 (2006.01)		
G06F 17/00 (2006.01)		
(52) U.S. Cl. 726/1 ; 726/11; 726/23; 380/258; 709/221; 709/229; 713/154		
(58) Field of Classification Search 380/258; 713/154; 726/1, 11, 23; 709/221, 229		
See application file for complete search history.		
	6 Claims, 24 Drawing Sheets	

SAMSUNG-1055, cover page (annotated)

If the Examiner had searched class/subclass G06F 15/177, Wright would likely have been in the corpus of prior art identified in that search. Similarly, if the Examiner searched class/subclass/group G06F 17/00, Wright '192 would have been among the

corpus of documents in that prior art search—particularly given the common terminology used in Wright '192 and the claims of the '144 Patent (as illustrated in § II.A.4.(a) above). *Compare* SAMSUNG-1055, 42:6-42; 42:46-67, *with* SAMSUNG-1001, claim 1. However, as noted above, the file history indicates that the Examiner's search was limited to "Continuity data," "Inventor name," and "bibliographic data." *See* SAMSUNG-1002, 15. The record contains no evidence that highly relevant prior art, such as Wright '192, was considered. *See generally* SAMSUNG-1002.

In summary, the Examiner's failure to conduct a prior art search is a material oversight. Failure to observe the high relevance of Wright or Wright '192, or related prior art, is further evidence of material error. Denying institution would therefore be unwarranted, unjust, and would continue to burden the public with a patent that the Patent Office should have never issued in the first instance—and would never have issued absent the material error during prosecution.

B. The Complexity and Diverse Technology of the Asserted Patents Favors Institution

Headwater's assertion of a "large number and vast scope of [] patents" directed toward "a diverse range of subject matter" in the parallel district court proceeding is the precise situation for which "the Board is better suited to review" issues of validity, just as was the case in *Tesla, Inc. v. Intellectual Ventures II LLC* IPR2025-00217, Paper 9 at 2-3 (Jun. 13, 2025). The '144 Patent challenged in this

proceeding is but one of 21 patents that Headwater has asserted against Samsung across five litigations in the last 3 years alone. SAMSUNG-1158, 2-4. Against this barrage of lawsuits, Samsung has asked the Office to apply much-needed scrutiny to Headwater's patents and has filed 26 IPR petitions on the same. *Id.* While the proceedings inspired by some of these petitions have since terminated, eleven petitions remain pending, of which two are already instituted, two await decisions on discretion or institution (including this case), and seven await decisions on Requests for Rehearing or Director Review.⁹ Samsung's pending petitions alone seek review of 10 different patents and span a broad range of technologies and claim scope in the general areas of computing devices and wireless networks, including:

⁹ Samsung's petitions in IPR2025-00426 (U.S. Patent No. 9,094,868) and IPR2024-01337 (U.S. Patent No. 8,588,110) are currently instituted. An additional petition in IPR2025-00932 (U.S. Patent No. 10,080,250) is pending decision on discretion. Samsung has filed Requests for Rehearing for petitions IPR2024-01396 (U.S. Patent No. 9,647,918) and IPR2024-01407 (U.S. Patent No. 9,179,359) and Director Review requests in IPR2025-00482 (U.S. Patent No. 11,405,429), IPR2025-00483, -00484 (U.S. Patent No. 9,609,510), and IPR2025-00481 (U.S. Patent No. 11,096,055). Headwater has filed a Director Review request in IPR2024-00341 (U.S. Patent No. 8,406,733).

- “Systems, methods, and apparatuses for estimating a user equipment link quality based on a positioning of user equipment are provided. One method includes determining a plurality of link qualities (LQs) of the user equipment (UE) for a plurality of positionings of the UE, wherein at least one of the plurality of positionings includes at least a location or an orientation of the UE, storing information associated with the plurality of LQs for the plurality of positionings, estimating at least one future positioning of the UE, and estimating a future link quality (LQ) of the UE at the at least one future positioning of the UE based on the stored information associated with the plurality of LQs at the plurality of positionings of the UE.” (U.S. Patent No. 9,094,868, Abstract) (IPR2025-00426)
- “Enterprise and consumer billing allocation for wireless communication device service usage activities is provided. In some embodiments, enterprise and consumer billing allocation for wireless communication device service usage activities includes monitoring a service usage activity of a wireless communication device, and determining an enterprise and consumer billing allocation for the monitored service usage activity.” (U.S. Patent No. 10,080,250, Abstract) (IPR2025-00932)

- “A wireless end-user device has a wireless wide-area network (WWAN) modem and multiple execution environments. Applications execute in an application execution partition. A kernel execution partition executes processes for classifying, by application, traffic passing between the WWAN modem and the applications, measuring per-application traffic, and applying per-application traffic policies to the traffic.” (U.S. Patent No. 10,028,144, Abstract) (IPR2025-00963)
- “[A] communications device implements a service policy for assisting billing for the communications device use of a service on a network; and monitors use of the service based on the service policy, in which a local service usage is synchronized with a network based service usage.” (U.S. Patent No. 8,588,110, Abstract) (IPR2024-01337)
- “A wireless end-user device has a wireless modem, a network stack configurable to receive and transmit data via the modem and a wireless network, and two Application Programming Interfaces (APIs) available to device applications. The first API allows applications to open and use data flows via the network stack. The second API allows applications to make data transfer requests for media objects associated with network resource identifiers.” (U.S. Patent No. 9,647,918, Abstract) (IPR2024-01396)

- “A wireless end-user device has wireless wide-area network (WWAN) and wireless local-area network (WLAN) modems. One or more processors apply a WWAN-specific differential traffic control policy to Internet data service provided using the WWAN modem.” (U.S. Patent No. 9,179,359, Abstract) (IPR2024-01407)
- “Security techniques for device assisted services are provided. In some embodiments, secure service measurement and/or control execution partition is provided. In some embodiments, implementing a service profile executed at least in part in a secure execution environment of a processor of a communications device for assisting control of the communications device use of a service on a wireless network, in which the service profile includes a plurality of service policy settings, and wherein the service profile is associated with a service plan that provides for access to the service on the wireless network; monitoring use of the service based on the service profile; and verifying the use of the service based on the monitored use of the service.” (U.S. Patent No. 11,405,429, Abstract) (IPR2025-00482)
- “Devices, systems, and non-transitory computer-readable storage media for updating wireless device credentials, the wireless device comprising: a user interface, memory configured to store one or more credentials for ena-

bling the wireless device to obtain one or more services over a wireless access network, and one or more processors configured to execute one or more machine-executable instructions that, when executed by the one or more processors, cause the one or more processors to obtain an indication of a user request to replace a particular credential with a target credential, detect a network-provisioning state change, determine that the particular credential does not match the target credential, initiate a programming session with a network element over a wireless access network, obtain an updated credential from the network element, and assist in storing the updated credential in memory.” (U.S. Patent No. 9,609,510, Abstract) (IPR2025-00483, IPR2025-00484)

- “Various embodiments are disclosed for a services policy communication system and method. In some embodiments, a communications device stores a set of device credentials for activating the communications device for a service on a network; and sends an access request to the network, the access request including the set of device credentials.” (U.S. Patent No. 11,096,055, Abstract) (IPR2025-00481).

- “Devices and methods for receiving control-plane communications from a network element over a secure service control link are disclosed. The

network element includes a service control server link element that is communicatively coupled to a plurality of servers. The device includes a plurality of device agents communicatively coupled to a service control device link agent through an agent communication bus. The service control device link agent receives an encrypted agent message from the service control server link element over the secure service control link, uses an encryption key to obtain a decrypted agent message comprising a particular agent identifier and message content for delivery to the particular device agent, and, based on the particular agent identifier, delivers the message content to the particular device agent over the agent communication bus.” (U.S. Patent No. 8,406,733, Abstract) (IPR2024-00341).

As illustrated by the examples above, even just the subset of Headwater’s asserted patents that are the subject of pending IPRs cover a broad array of complex subject matter including wireless link quality estimation, enterprise and consumer billing allocation, wireless modem architectures, traffic monitoring and measurement, application programming interfaces (APIs), and traffic control policies. Such diverse technology strongly favors institution—as was the case in *Tesla*, where the Director determined that “the Board is better suited to review a large number of patents involving diverse subject matter.” *Tesla*, IPR2025-00217, Paper 9 at 2-3. Interests of efficiency, justice, and the promotion of a strong patent system favor

continued PTAB review of Headwater's patents, including referring the present Petition for adjudication on the merits.

As noted above, the PTAB has also proven to be essential in helping the parties narrow their dispute and conserve resources. For example, after the PTAB instituted IPRs on 6 of 9 patents asserted in Headwater's first litigation against Samsung, Headwater dropped from that litigation each of the patents that were subject of the instituted IPRs. SAMSUNG-1168; IPR2023-1157, -1226, -1250, -1336, -1337, -1360. The parties also later settled the instituted IPRs thereby conserving Board resources and the first litigation *went to trial on only 1 of the 9 originally asserted patents*. Similarly, in Headwater's second litigation, the PTAB instituted Samsung's petitions on 2 of the 3 asserted patents. SAMSUNG-1172; IPR2024-00010, -00341. The parties settled one of the instituted IPRs and Headwater dropped the patent corresponding to the settled IPR from the litigation. In Headwater's third lawsuit, the PTAB initially instituted Samsung's petitions on all 4 asserted patents,¹⁰ and the parties again reached a resolution in which they have already settled one of the instituted IPRs and Headwater dropped the corresponding

¹⁰ Two of Samsung's petitions (IPR2024-01396, IPR2024-01407) that originated from Headwater's third lawsuit currently await decisions on Requests for Rehearing.

patent from the litigation. SAMSUNG-1173; IPR2024-01051, -01337, -01407, -01396.

All told, PTAB institution decisions on the merits have already contributed to resolution and settlement of the parties' disputes for more than half a dozen patents. This history demonstrates that the PTAB has been effective in this complex, multi-patent litigation, and institution decisions on the merits are likely to help narrow issues in the co-pending litigation, ultimately conserving resources of the parties, the judiciary, and the Board.

C. Considerations in the Stewart Memorandum Counsel Against Discretionary Denial

The Stewart Memorandum dated March 26, 2025, titled "Interim Process for PTAB Workload Management," identified additional considerations that may be evaluated when addressing discretionary issues. SAMSUNG-1160. These considerations include:

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;
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.

Headwater's briefing only addresses considerations numbered 2, 4, and 5 above. *See* DB, 25-26. As explained below, however, a proper consideration of these considerations confirms that discretionary denial is not warranted, and that conclusion is only reinforced by the other considerations recited in the Stewart Memorandum that Headwater omitted from its analysis.

1. Whether the PTAB or another forum has already adjudicated the validity or patentability of the challenged patent claims

No other forum has already adjudicated the validity of the challenged claims. And, as explained in §II.D *supra*, the District Court will not consider overlapping prior art if institution is granted, leaving the PTAB as the only forum to resolve these issues.

2. Whether there have been changes in the law or new judicial precedent issued since issuance of the claims that may affect patentability

There has been no change in law or judicial precedent, particularly as it relates to obviousness under § 103, that would alter a determination of unpatentability of these claims. Headwater identifies nothing to the contrary.

3. *The strength of the unpatentability challenge*

The Petition presents straightforward, two- or three-reference obviousness grounds that are especially strong on the merits. As noted below (*infra*, §II.D (Factor 6)), Headwater's discretionary denial brief identifies no substantive deficiency in the obviousness ground at all. Moreover, as discussed above (*supra*, §II.A) the '144 Patent received little to no scrutiny during original examination, having been allowed without a single prior art rejection. SAMSUNG-1001, 1-13; Pet., 4; *generally* SAMSUNG-1002. Wright was not among the references cited during prosecution, and indeed, there is no indication in the file history that the Examiner ever considered Wright, Tzannes, or Smith, or the combinations of Wright-Tzannes, or Wright-Smith combinations that form the basis of the Petition's obviousness challenges. *See* SAMSUNG-1159, 30-40, 47-48 (explaining that post grant proceedings were designed to serve the goal of improving patent quality by enabling efficient challenges to patents that should not have been issued in the first instance).

4. *The extent of the Petition's reliance on expert testimony*

The Petition is supported by the expert declaration of Dr. Patrick McDaniel. *See* SAMSUNG-1003. Dr. McDaniel's declaration includes testimony, which is not only guided by years of education and experience, but is further corroborated by ample documentary evidence including dozens of additional exhibits that confirm and amplify the positions and unpatentability arguments advanced in the Petition.

While identifying no instance where the expert declaration relied on bare testimony to fill a gap in the art, Patent Owner nonetheless points to the fact that the expert declaration exhibit (SAMSUNG-1003) is over 150 pages long. DB, 25.

As the PTAB further clarified in its “FAQs for Interim Processes for PTAB Workload Management,” “[i]t is most helpful if an expert is providing focused testimony, for example to provide helpful context or to explain terms of art.” SAMSUNG-1161, 6. Consistent with this guidance, Dr. McDaniel’s expert declaration provides such context and explanations. For example, Dr. McDaniel provides corroborated testimony describing the state of the art of policy-based management by the Critical Date of the ’144 Patent (SAMSUNG-1003, ¶¶49-59 (citing corroborating exhibits SAMSUNG-1009-1034, SAMSUNG-1040-1047)); corroborated testimony regarding virtualization and virtual machines by the Critical Date of the ’144 Patent (SAMSUNG-1003, ¶¶29-31, 33-34, 59-14 (citing corroborating exhibits SAMSUNG-1007, SAMSUNG-1015, SAMSUNG-1012)); corroborated testimony regarding execution environments as of the Critical Date of the ’144 Patent (SAMSUNG-1003, ¶151 (citing corroborating exhibit SAMSUNG-1011)); corroborated testimony regarding software and hardware partitions as of the Critical Date (SAMSUNG-1003, ¶50-58 (citing corroborating exhibit SAMSUNG-1012)); and corroborated testimony regarding virtual private networks as of the Critical Date (SAM-

SUNG-1003, ¶¶172 and 179 (citing corroborating exhibit SAMSUNG-1014)). Additionally, Dr. McDaniel provides detailed technical explanations supporting the Petition's proposed obviousness combinations and motivations to combine. SAMSUNG-1003, ¶¶80-87, 94-109, 121-253. Dr. McDaniel's robust testimony is confirmed and corroborated by numerous third-party references. *See generally* SAMSUNG-1009 to -1034, SAMSUNG-1040 to -1047.

In short, the Petition advances strong and meritorious grounds that are supported by Dr. McDaniel's focused and corroborated expert testimony. This factor favors institution.

5. *Settled expectations of the parties, such as the length of time the claims have been in force*

Samsung's settled expectations far outweigh Headwater's in this case. First, as discussed above in §II.A, given the cursory examination of the '144 Patent—including no prior art rejection and no new prior art search—Headwater's expectation as to the validity of '144 Patent should be far from settled. *See Anthony Inc. v. ControlTec, Inc.*, IPR2025-00559, Paper 12, 2 (July 16, 2025) (referring to the panel and finding that petitioner's showing of material error favored referring to panel despite allegedly settled expectations for patents that had been in force for 17- and 18-years).

Additionally, the patentability of the '144 Patent was challenged less than

seven years after its issuance (issued July 18, 2018), and Headwater submitted no evidence that the claimed technology was ever previously “commercialized, asserted, marked, licensed, or otherwise applied in a petitioner’s particular technology space.” *Intel Corp. v. Proxense LLC*, IPR2025-00327, Paper 12, pp. 2-3. This is unsurprising as Headwater is a patent assertion entity that does not produce any real products. Indeed, the ’144 Patent is but one of twenty-one different patents that Headwater has asserted against Samsung across multiple litigations in recent years. This fact alone counsels against discretionary denial. *Id.*

Moreover, Headwater has only recently become litigious. Its first patent lawsuit was not brought until October 2022—years after the ’144 Patent issued in 2018. *See generally* SAMSUNG-1158; SAMSUNG-1168; SAMSUNG-1169. Since 2022, Headwater has filed some 62 district court complaints against defendants across the industry including not just Samsung but also Apple, Verizon Wireless, T-Mobile, AT&T, Amazon, Google, Sprint, and Motorola. *See* SAMSUNG-1169. The parallel litigation at issue here was the first suit involving the ’144 Patent. Samsung could not have been expected to challenge the ’144 Patent even earlier under these circumstances.

Further, Headwater provided no notice to Samsung about the ’144 Patent before it launched its litigation action in the Eastern District of Texas in August 2024. There was no reason to expect that Headwater would assert the ’144 Patent at that

time—given that nearly two years had already passed since Headwater had initiated its first suit against Samsung in October 2022.

If anything, Headwater intentionally delayed asserting the '144 Patent to maximize litigation pressure on Samsung. Indeed, *four separate actions* were filed and *19 separate patents* asserted by Headwater against Samsung before the '144 Patent was ultimately asserted—each action an opportunity to assert the '144 Patent. *See* SAMSUNG-1158, SAMSUNG-1169, SAMSUNG-1168, SAMSUNG-1172, SAMSUNG-1173. Despite multiple opportunities, Headwater inexplicably waited to assert the '144 Patent, timing the suit to maximize litigation costs and pressure on Samsung. This reeks of gamesmanship—tactics that should not be rewarded with discretionary denial at the PTAB.

The PTAB's very "purpose and design," as reiterated by the Supreme Court, is fulfilled by addressing the merits of the prior art here, not by shunning this much-needed review before it starts. *Thryv, Inc. v. Click-To-Call Techs., LP*, 590 U.S. 45, 54 (2020) ("By providing for *inter partes* review, Congress, concerned about over-patenting and its diminishment of competition, sought to weed out bad patent claims efficiently"); *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 279-80 (2016) (describing the PTAB's basic "purpose" and the public's "paramount interest in seeing that patent monopolies ... are kept within their legitimate scope"). Headwater's attempt to evade review based solely on the (still relatively young) age of the patent

should not be condoned, especially where this age is the result of Headwater’s own actions in (i) delaying assertion of the ’144 Patent for years after issuance (and even delaying for nearly two years after Headwater filed its first suit against Samsung in October 2022), and (ii) delaying assertion of the ’144 Patent as part of a litigation strategy. Moreover, as was the case in *Tesla*, the “complex and diverse litigation” between the parties—involving Headwater’s assertion of 21 patents against Samsung over the last 2.5 years and Samsung’s six pending IPRs—further “tip[s] the balance against discretionary denial” even if the age of the patent were a concern. *See Tesla*, IPR2025-00219, -00222, 00339, Paper 9 (PTAB June 13, 2025) (denying requests for discretionary denial based on patents aged 8, 9, and 14 years, respectively); *supra*, §II.A.

6. *Compelling economic, public health, or national security interests*

Samsung is responsible for substantial and sustained investments and economic activity in the United States. For example, Samsung’s investment in the U.S. totals **\$47 billion** since 1978 (SAMSUNG-1154), and Samsung proposes **\$191 billion** in further investment, largely in Texas. SAMSUNG-1155. Further, “[s]ince 1996, Samsung Semiconductor has invested **\$18 billion** in operating two fabs at its Austin, Texas, campus—making it **one of the largest direct foreign investments in**

United States history.” SAMSUNG-1156 (emphasis added). Additionally, Samsung’s investment is ongoing, with “President Trump Say[ing] Samsung Is Planning a ‘Massive Investment’ In The US.” SAMSUNG-1157. Thus, Samsung’s massive and ongoing investment presents a compelling economic interest, and Samsung’s investment (e.g., in U.S.-made semiconductors) supports the U.S.’s national security interests.

Such considerations weigh heavily against discretionary denial, and Samsung respectfully requests an opportunity for the strong grounds presented in its Petitions on the ’144 Patent to be considered at the PTAB. In this regard, Samsung seeks efficient resolution at the PTAB of the patentability of the challenged claims of yet another patent asserted against it by a highly-litigious and non-practicing entity that is actively pursuing multi-patent litigation campaigns against Samsung, and other entities. *See* SAMSUNG-1158 2-4 (over 5 different suits, Headwater has asserted 21 patents against Samsung); SAMSUNG-1158, 1-4 (Headwater has sued multiple other entities, including Apple, Motorola, Verizon, T-Mobile, Google, Comcast, Disk Network, Comcast Cable, Charter Communications, Amazon, and AT&T, over claims of infringement of approximately 70 patents).

D. Discretionary Denial is Not Warranted Under *Fintiv*

Headwater urges discretionary denial based on incomplete facts about the co-pending District Court litigation and a misguided application of the *Fintiv* factors.

As explained below, a majority of the *Fintiv* factors weigh strongly against discretionary denial. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5-6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”).

1. Factor 1: No Stay Has Been Requested

Fintiv Factor 1 looks to “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” This factor is neutral given that no litigation stay has been requested and no evidence has been proffered that clearly establishes how the district court would resolve such a request even if a stay were requested upon institution.

As a starting point, neither party has requested a stay of the litigation. Headwater does not dispute this fact. *See* DB, 7-12. Still, attempting to tilt this factor in its favor, Headwater starts by citing various cases from the Eastern District of Texas where a motion to stay was filed in the co-pending litigation *prior to institution in the IPR* and the motion was denied. However, the critical inquiry under this factor is whether “evidence exists” that a stay will be “granted *if a proceeding is instituted.*” *See Luminati Networks Ltd. v. Teso LT, UAB*, No. 2:19-CV-00395-JRG, 2020 WL 6803255, at *1 (E.D. Tex. Oct. 30, 2020); *Trover Grp., Inc. v. Dedicated Micros USA*, No. 2:13-CV1047-WCB, 2015 WL 1069179, at *6 (E.D. Tex. Mar. 11, 2015) (Bryson, J.); *Viavi Sols. Inc. v. Zhejiang Crystal-Optech Co.*, No. 2:21-CV-00378-JRG, 2022 WL 16856099, at *5 (E.D. Tex. Nov. 10, 2022).

Headwater cites no case that precludes the possibility of a stay being granted in the Eastern District of Texas *after institution*. On the contrary, Headwater acknowledges, as it must, that EDTX does not automatically deny stays *after institution*, although Headwater still paints a misleading picture that the outcome of any stay requested after institution here would almost certainly be denied. Indeed, Headwater omits the fact that Judge Gilstrap and Magistrate Judge Payne have granted post-institution motions for stay where the defendant/petitioner has made a strong stipulation to be bound by IPR estoppel—exactly as Samsung has done here with a stipulation (SAMSUNG-1037) that is far broader than even the IPR estoppel provisions. *See, e.g.*, SAMSUNG-1164; SAMSUNG-1165. Magistrate Judge Payne has also explained that stays in patent cases do not unduly prejudice plaintiffs that do not produce a product (e.g., litigation entities like Headwater) because a “mere delay in collecting ... damages does not constitute undue prejudice.” SAMSUNG-1165 (citing *Uniloc USA, Inc. v. Acronis, Inc.*, No. 615-cv-1001-RWS-KNM, 2017 WL 2899690, at *2 (E.D. Tex. Feb. 9, 2017)). Headwater’s own data likewise shows an *increase* in the number of stays granted in the district over the last three years with

at least twenty percent of cases stayed last year alone.¹¹ DB, 9; EX2001.

Despite its denials, Headwater’s brief ultimately wades into impermissible speculation on how “likely” it is for the District Court to grant a stay of the co-pending litigation. DB, 7-12. But motions to stay invoke fact- and case-specific considerations, and it would be highly prejudicial to Samsung for adverse inferences to be drawn from rulings on stay motions being denied in different and unrelated cases. Indeed, for these reasons, the Board has repeatedly refused to “attempt to predict” how a District Court will rule on such stay motions. *See, e.g., Hulu, LLC v. SITO Mobile R&D IP, LLC*, IPR2021-00298, Paper 11 at 10-11 (May 19, 2021) (because “neither party has produced evidence that a stay has been requested[,]” “[w]e decline to infer, based on actions taken in a different case with different facts, how the District Court would rule should a stay be requested by the parties in the parallel case here.”) (partially quoting *Fintiv*); *Sand Revolution II, LLC v. Continental Intermodal*

¹¹ The Docket Navigator statistics presented in Headwater’s EX-2001 are also misleading insofar as they do not distinguish between stays requested before and after IPR institution. Among decisions made in EDTX last year on motions to stay that were brought *after institution*, an even higher 28 percentage of these motions were granted (i.e., 7 of 25 cases). SAMSUNG-1167. To date in 2025, EDTX has granted 39 percent of post-institution motions to stay (i.e., 7 of 18 cases). *Id.*

Group-Trucking LLC, IPR2019-01393, Paper 24 at 7 (June 16, 2020) (informative).

2. *Factor 2: The Court's Trial Date is Speculative and the Trial will Not Address Patentability of a Majority of Claims Challenged in Samsung's Diligently Filed Petition*

Fintiv Factor 2 looks to “proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision” as part of a holistic evaluation of fairness and efficiency, which includes considering which forum will assess the patentability of the challenged claims. *See Fintiv I*, at 5-6; *see also Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 7-17 (PTAB May 13, 2020) (informative) (“*Fintiv II*”) (explaining that, in evaluating the *Fintiv* factors, the Board “takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review”); *Illumina, Inc. v. Natera, Inc.*, IPR2019-01201, Paper 19 at 6 (PTAB Dec. 18, 2019) (“We have considered the positions of the parties and find that, on this record, considerations of efficiency, fairness, and the merits of the grounds in the Petition do not weigh in favor of denying the Petition.”). This factor weighs against discretionary denial, or at worst, is neutral.

As a starting point, trial dates routinely change, as Headwater concedes. DB, 13-14. Further, such trial date changes are common in the Eastern District of Texas. Indeed, in two prior Headwater suits filed against Samsung, the actual trial occurred **3-5 months** after the originally-scheduled trial date. SAMSUNG-1150; SAMSUNG-1151; SAMSUNG-1152; SAMSUNG-1153. The Office has likewise recognized that

“scheduled trial dates are unreliable and often change.” SAMSUNG-1101, 8. Thus, while the District Court trial is currently scheduled (May 4, 2026) to occur before the Board’s expected deadline (November 30, 2026) to issue a Final Written Decision, that time difference is likely to be reduced significantly if history is a guide. Moreover, the median time-to-trial for civil cases in EDTX is 25.1 months according to current statistics, which would project trial to begin September 2026—months after the currently scheduled date. SAMSUNG-1174, 35.

To be sure, the prospect of the currently scheduled trial date being delayed is significant given that Judge Gilstrap currently has *ten* trials simultaneously scheduled to start jury selection on May 4, 2026, only one of which is the Headwater litigation. SAMSUNG-1162, 1-6. Seven of the ten cases involve complex patent disputes. *Id.* By advocating for discretionary denial based on the scheduled jury selection date, Headwater assumes without basis that Judge Gilstrap will prioritize Headwater’s litigation over the *nine other* cases scheduled to begin jury selection on the same day. Even if none of the nine cases were favored over the others, the likelihood that Headwater’s litigation would be the one selected to start jury selection on May 4, 2026 is small—10% (i.e., 1/10).

Headwater also fails to acknowledge the significant amount of time required to reach a final judgment ripe for any appeal—after the resolution of post-trial motions. A recent analysis of cases before Judge Gilstrap shows that post-trial motions

are not resolved on average for **6.9 months** after a jury trial. SAMSUNG-1163, 2. Even if jury selection for trial in the Headwater litigation did begin on May 4, 2026, the “final resolution” (if it occurs at all) would likely not occur until sometime after December 2026. In the more likely event that trial in EDTX is delayed such that jury selection does not begin until well after May 4, 2026, ***the final resolution of the EDTX proceeding likely will not occur until after the Board’s Final Written Decision*** that is expected to issue by November 30, 2026.

Contrary to Headwater’s assertion, Samsung was diligent in filing petitions in this proceeding more than three months before the statutory deadline—despite the fact that Samsung was simultaneously managing multiple district court cases and at least eleven other IPRs on various patents asserted by Headwater. *See* IPR2025-00963, IPR2025-00483, IPR2025-00481, IPR2025-00482, IPR2025-00483, IPR2025-00426, IPR2024-01396, IPR2024-01407, IPR2024-01337, IPR2024-01051, IPR2024-00341.

Headwater also argues, incorrectly, that an earlier District Court trial date (even assuming *arguendo* that date does not change) means “the question of patentability of [*sic*] will already be resolved by the District Court” prior to the Final Written Decision. DB, 14. Not true. The District Court will never resolve the patentability of a vast majority of the claims of the ’144 Patent in the current EDTX litigation. Indeed, as Headwater is aware, the District Court has required Headwater

to limit its election of asserted claims to just **five** claims per patent. In other words, while Headwater initially asserted all 18 claims of the '144 Patent against Samsung, the District Court's trial will at most address the validity of only the selected five or fewer claims.

October 28, 2025	N/A	Secondary Election of Asserted Claims Plaintiff shall serve a Secondary Election of Asserted Claims, identifying no more than 5 claims per asserted patent.
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EX2002, 4. What's more, the above-referenced order does not foreclose Headwater from asserting the other claims in a future litigation against Samsung (at which time, Samsung will no longer have the ability to file an IPR). Thus, efficiency and fairness dictate a resolution of the patentability as to all claims, which is only possible at the PTAB through consideration of Samsung's petitions.

What's more, when "[p]etitioner appears to show a material error by the office," the Director has found that "it is an appropriate use of Office resources to review the potential"—***even if the trial date in the copending litigation precedes the FWD date.*** *Microsoft Corp. v. Partec Cluster Competence Ctr. GmbH*, IPR2025-00318, Paper 9, 3 (June 12, 2025) (referring to the panel, despite a later trial date, because "Petitioner appears to show a material error by the Office and it is an appropriate use of Office resources to review the potential error"). So, the trial timing

relative to FWD timing is outweighed here where the material error during prosecution warrants use of Office resources to remedy an error—and render unpatentable a patent that should never have issued in the first place.

In summary, *Fintiv* factor 2 weighs against discretionary denial because the District Court’s trial date is speculative and because Samsung diligently filed its petition nearly more than 3 months ahead of the one-year statutory deadline.

3. *Factor 3: Limited Resources Would Have Been Expended by the Time of the Decision on Institution*

Fintiv factor 3—which considers the “amount and type of work already completed in the parallel litigation by the court and the parties at the time of the institution decision”—also favors institution.

As of the Petition’s filing, the parties had only exchanged infringement and invalidity contentions. *See* EX2002. As of the filing of this paper, while the parties have filed their Joint Claim Construction and Prehearing Statement, the case has not otherwise advanced much since the filing of the Petition, e.g., no depositions have been scheduled or have occurred. Moreover, Headwater’s assertions of the “significant resources” that would be invested in the District Court as of the Decision on Institution are misleading. *See* DB, 15-17. For example, while the claim construction hearing will likely have occurred before the decision on institution (expected around late November), expert discovery and dispositive motion briefing will not yet have

concluded, and a claim construction order is unlikely to have issued by the time of the institution decision. *See* EX2002, 3-5.

By the time a Decision on Institution is entered in this proceeding, far more work (and corresponding investment) will remain in the litigation, including close of both fact and expert discovery. EX1002, 1-4. This further counsels against discretionary denial, or at worst, renders Factor 3 neutral.

4. *Factor 4: No Overlap Between This IPR and the District Court Proceeding*

Fintiv factor 4—which considers overlap between issues raised in the Petition and in the parallel proceeding—strongly favors institution. Samsung’s broad stipulation—even more sweeping than *Sotera*—eliminates any potential overlap between the proceedings relating to the claims that Headwater may assert at trial. *See* SAMSUNG-1037.

Specifically, to eliminate any possible perception of overlap between the PTAB and District Court, Samsung filed a stipulation (SAMSUNG-1037) providing that, if the PTAB institutes review, Samsung will not pursue in District Court litigation:

- the specific grounds asserted in *inter partes* review in IPR2025-00963, or any other ground that could have been reasonably raised in this proceeding (i.e., any ground that could have been raised under §§102 or

103 on the basis of prior art patents or printed publications) (*see Sotera Wireless, Inc. v. Masimo Corporation*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020)); and

- combinations of the prior art asserted in this proceeding with unpublished system prior art (or any other type of prior art) (*see Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, IPR2024-01206, IPR2024-01207 & IPR2024-01208, Paper 19 (PTAB Mar. 28, 2025)).

Headwater’s attempt to dismiss Samsung’s stipulation as a “standard *Sotera* stipulation” that “is no longer sufficient to determine that *Fintiv* Factor 4 weighs in favor of institution” misrepresents the scope of Samsung’s stipulation. DB, 20-21. Samsung’s stipulation here is far ***more sweeping*** than a traditional *Sotera* stipulation and goes further to allay the concerns raised in the Director’s *Motorola* decision (*see id.*) by additionally precluding Samsung’s reliance (upon institution) on combinations of art asserted in the proceeding with unpublished system art or any other type of prior art for that matter.¹²

¹² Headwater also argues that Samsung’s stipulation permits a subsequent *ex parte* reexamination on grounds that could have been raised in the Petition. DB, 22-23.

This argument is speculative and also incorrect because, if an IPR is instituted here

To be clear, Samsung’s stipulation here is likewise more robust than the *Sotera* stipulation addressed in *Motorola*. Samsung’s stipulation guarantees that, if instituted, none of the prior art asserted in the Petition will be used in the District Court proceeding—even in combination with unpublished system art. For example, Samsung’s Petition relies on Wright (SAMSUNG-1005), Tzannes (SAMSUNG-1006), and Smith (SAMSUNG-1007) as the prior art references to address the Challenged Claims of the ’144 Patent. If the Petition is instituted, Samsung has agreed through its stipulation to forego reliance on Wright, Tzannes, and Smith in the EDTX litigation altogether, whether on its own, in combination with other patents or printed publications that were raised or could have been reasonably raised in IPR, or even in combination with unpublished system art that could not have been raised in IPR in the first instance. Samsung’s stipulation thus addresses the specific concern expressed in *Motorola* that “Petitioner’s invalidity arguments in the district court ... include combinations of the prior art asserted in these proceedings with unpublished system art.” *Motorola*, 4.

Headwater’s brief also glosses over a significant fact, namely that Samsung has *never included Wright (SAMSUNG-1005), Tzannes (SAMSUNG-1006), and*

and proceeds to a Final Written Decision, Samsung would be estopped from using the grounds used in the Petition in a subsequently-filed *ex parte* reexamination.

Smith (SAMSUNG-1007) in its invalidity contentions in District Court. *See* EX2005. Yet, Samsung relies on these references Wright in the challenged grounds as to all claims of the '144 Patent. Pet., 1-2. There is thus no possibility of Samsung raising the same set of prior art or the same grounds in District Court as those raised in the IPR petition, whether the IPR petition is instituted or not. Accordingly, even from the earliest stages of the litigation and the IPR, Samsung has pursued alternative and non-overlapping invalidity grounds in each forum. Headwater's citation to the *SAP America* case is thus inapt because, unlike the situation in *SAP America*, it is not true that the same "work that would be done [in the IPR] will also be required in the litigation regardless of whether we institute review."¹³ *SAP America, Inc. v. Cyandia, Inc.*, IPR2024-01496, ID at 6; DB, 21-22.

Finally, Headwater's argument that the Director should exercise discretion to deny institution because "Petitioner's stipulation still permits subsequent *ex parte* reexamination petitions on grounds that could have been raised in the Petition" has no merit. DB, 22. To begin, Factor 4 concerns overlap between the IPR and *a parallel proceeding*, but no parallel *ex parte* reexamination exists in this case. This is because Samsung has never filed a request for *ex parte* reexamination on the '144

¹³ Samsung's stipulation in this IPR is also stronger than the *Sotera* stipulation that the Board found deficient in *SAP America*.

Patent. Headwater’s objection is thus speculative at best. Headwater’s concerns are also drastically overplayed because if IPR is instituted and proceeds to a Final Written Decision, Samsung would be estopped from using the Petition grounds, or any other grounds that could have been reasonably raised in an IPR, in a subsequently-filed *ex parte* reexamination. 35 U.S.C. § 315(e)(1). Moreover, the Office already enforces various other policies to protect patent owners against abusive reexamination filings. For example, if another proceeding is filed at the Office during pendency of an IPR, the Director (or the Board by delegation) “determine[s] the manner in which the [IPR] or other proceeding or matter may proceed, including providing for stay, transfer, consolidation, or termination of any such matter or proceeding.” 35 U.S.C. § 315(d). The Office has also dismissed *ex parte* reexamination requests that were deemed abusive or that were otherwise based on substantially the same prior art or arguments previously presented to the Office under § 325(d). *See* 35 U.S.C. § 325(d); *In re Vivint, Inc.*, 14 F.4th 1342 (Fed. Cir. 2021).

In sum, there will be virtually no overlap between this proceeding and the parallel District Court litigation if IPR is instituted. Samsung’s petitions are based on prior art combinations that have never even been raised in District Court, and Samsung’s stipulation is even more expansive than *Sotera*—thus ensuring that the Office’s goals of “efficiency and integrity” will be achieved by “not duplicating efforts” and “resolving materially different patentability issues.” *Apple, Inc. v. SEVEN*

Networks, LLC, IPR2020-00156, Paper 10, 19 (June 15, 2020); *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24, 12 (June 16, 2020); *Google LLC v. Flypsi, Inc.*, IPR2023-00360, Paper 9, 36-39 (August 2, 2023). Therefore, *Fintiv* factor 4 strongly favors institution.

5. *Factor 5: The Same Parties are in the Co-Pending Litigation*

The parties in this IPR are also parties in the co-pending Texas litigation.

6. *Factor 6: Headwater's Identified "Other Circumstances" Lack Merit and Do Not Weigh in Favor of Discretionary Denial*

As explained below, Headwater's arguments regarding "other circumstances that impact the Board's exercise of discretion" lack merit and do not counsel in favor of discretionary denial.

First, Headwater asserts that "Petitioner waited nearly nine months to file its Petition, all but ensuring that the validity of the '144 Patent claims would be decided in the District Court litigation months prior to any Final Written Decision in these proceedings." DB, 24. This assertion fails because the Petition was filed more than three months ahead of the one-year statutory deadline, not "nearly nine months," as Headwater contends.

Second, Headwater makes a baseless assertion that "the Petition fails to present any compelling merits of unpatentability." DB, 24. Tellingly, however, Headwater failed to identify, let alone allege, even a single deficiency in the Petition's

analysis of the prior art grounds or their relevance to the '144 Patent claims. Headwater's argument is entirely superficial and based on a meaningless observation that the Petition does not present any anticipation grounds, which supposedly "serves to highlight the novelty of the challenged claims.." See DB, 24-25. Headwater's assertion ignores that obviousness has long been recognized as a basis for unpatentability and was expressly identified by Congress as a statutory basis for IPRs. See *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 3-4 (1966) (obviousness "was intended to codify judicial precedents embracing the principle long ago announced by this Court in *Hotchkiss v. Greenwood*, 52 U.S. 248 (1850)"); 35 U.S.C. §311(b). The Board has consistently instituted IPRs on obviousness grounds, and Headwater has failed to identify a single instance in which the Board found that reliance on obviousness alone undermined the merits of a Petition. Headwater also cannot seriously urge discretionary denial based on merits considerations when Headwater either could not or would not identify any substantive deficiency in the Petition at all.

Third, Headwater asserts that "additional conditions" weigh in favor of discretionary denial, "including the length of time the challenged claims have been in effect" and "that the Petition relies extensively [sic] well over 150 pages of expert testimony (Ex. 1003) to explain the relevance of the prior art, even though witness credibility is better evaluated by a District Court than the PTAB." DB, 25-26. This argument also lacks merit. Headwater offers no reason to question the credibility of

Petitioner's expert. Moreover, the cited expert testimony is not used to gap-fill holes in the prior art, and Headwater did not identify even a single example of gap filling.

See generally DB.

In summary, a holistic evaluation of the *Fintiv* factors strongly counsel against discretionary denial at least because this PTAB proceeding will allow a just and efficient resolution of the patentability of the claims of the '144 Patent (unlike the District Court litigation), while significantly ameliorating overlapping or duplicative functions being performed in the co-pending litigation.

III. CONCLUSION

For the foregoing reasons, a holistic evaluation of the complex and diverse litigation between the parties, the *Fintiv* factors and the additional considerations laid out in the Stewart Memorandum strongly weigh against discretionary denial. Petitioner therefore respectfully requests that this case proceed to an institution determination on the merits.

Respectfully submitted,

Dated 9/10/2025

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CERTIFICATION UNDER 37 CFR §42.24

Under 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petitioner's Opposition to Patent Owner's Request for Discretionary Denial totals 11,786 words, which is less than the 14,000 words allowed under 37 CFR § 42.24.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4) and 42.205(b), the undersigned certifies that on September 10, 2025, a complete and entire copy of this Petitioner's Opposition to Patent Owner's Request for Discretionary Denial and Accompanying Exhibits were provided by email to the Patent Owner by serving the correspondence email address of record as follows:

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