

Filed on behalf of:

AMAZON WEB SERVICES, INC.
AND AMAZON.COM SERVICES LLC,

By:

J. DAVID HADDEN, Reg. No. 40,629
SAINA SHAMILOV, Reg. No. 48,266
DARGAYE CHURNET, Reg. No. 71,288
FENWICK & WEST LLP
801 California Street
Mountain View, CA 94041
Telephone: 650.988.8500
Facsimile: 650.938.5200

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMAZON WEB SERVICES, INC.
AND AMAZON.COM SERVICES LLC,
Petitioners,

v.

ZENTIAN LIMITED
Patent Owner.

Case No. IPR2023-01195
Patent No. 10,839,789

**PETITIONERS' REPLY¹ TO PATENT OWNER'S PRELIMINARY
RESPONSE AND CONTINGENT JOINDER OPPOSITION**

¹ The Board authorized Petitioners to file this Reply in an email sent November 1, 2023.

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EXHIBIT LIST (37 C.F.R. § 42.63(E))

Exhibit	Description
1001	U.S. Patent No. 10,839,789 (“’789 Patent”)
1002	Prosecution History for the ’789 Patent (“’789 File History”)
1003	Declaration of Christopher Schmandt (“Dec.”)
1004	U.S. Patent No. 6,374,219 to Jiang (“Jiang”)
1005	U.S. Patent No. 5,819,222 to Smyth et al. (“Smyth”)
1006	U.S. Patent No. 6,959,376 to Boike et al. (“Boike”)
1007	[RESERVED]
1008	Harry Newton, <i>Newton’s Telecom Dictionary</i> , 19 th Edition, CMP Books, March 2003 (“Newton”)
1009	Kevin L. Kloker, “The Motorola DSP56000 Digital Signal Processor,” IEEE Micro, Vol. 6, Issue 6, pp. 29-48, December 1986 (“Kloker”)
1010	Christopher Schmandt, <i>Voice Communication with Computers</i> . Van Nostrand Reinhold, 1994 (“Schmandt”)
1011	U.S. Patent No. 6,499,012 to Peters et al. (“Peters”)
1012	Ph.D. Thesis of Mosur Ravishankar (“Ravishankar”)
1013	J. Mariani, <i>Recent Advances in Speech Processing</i> , IEEE. International Conference on Acoustics, Speech, and Signal Processing, pp. 429-440. May 1989 (“Mariani”)
1014	Zentian, Ltd. v Apple Inc., WDTX Waco (6:22-cv-122) Complaint (“Complaint”)
1015	Lawrence Rabiner, <i>Fundamentals of Speech Recognition</i> , Pearson Education, 1993 (“Rabiner”)
1016	Richard L. Klevans, <i>Voice Recognition</i> , Artech House Inc., 1997 (“Klevans”)

Exhibit	Description
1017	U.S. Patent No. 7,120,582 to Young et al. (" <i>Young</i> ")
1018	John Holmes, <i>Speech Synthesis and Recognition</i> , 2 nd Edition, Taylor & Francis, 2001 (" <i>Holmes</i> ")
1019	U.S. Patent No. 4,926,488 to Nadas et al. (" <i>Nadas</i> ")
1020	Frederick Jelinek, <i>Statistical Methods for Speech Recognition</i> , The MIT Press, 1997 (" <i>Jelinek</i> ")
1021	Shigeru Katagiri, <i>Handbook of Neural Networks for Speech Processing</i> , Artech House Inc., 2000 (" <i>Katagiri</i> ")
1022	Lawrence R. Rabiner, <i>A Tutorial on Hidden Markov Models and Selected Applications in Speech Recognition</i> , Proceedings of the IEEE, VOL. 77, NO. 2, pp. 257-286, February 1989 (" <i>Rabiner89</i> ")
1023	U.S. Patent No. 6,182,037 to Maes (" <i>Maes</i> ")
1024	U.S. Patent Application Publication No. 2003/0220796 to Aoyama et al. (" <i>Aoyama</i> ")
1025	U.S. Patent No. 5,895,447 to Ittycheriah et al. (" <i>Ittycheriah '447</i> ")
1026	U.S. Patent No. 6,092,045 to Stubley et al. (" <i>Stubley</i> ")
1027	U.S. Patent No. 6,151,574 to Lee et al. (" <i>Lee</i> ")
1028	U.S. Patent No. 6,580,814 to Ittycheriah et al. (" <i>Ittycheriah</i> ")
1029	U.S. Patent No. 6,452,348 to Toyoda (" <i>Toyoda</i> ")
1030	U.S. Patent No. 6,195,634 to Dudemaine et al. (" <i>Dudemaine</i> ")
1031	U.S. Patent No. 5,893,058 to Kosaka (" <i>Kosaka</i> ")
1032	U.S. Patent Application Publication No. 2001/0010039 to Yang (" <i>Yang</i> ")
1033	U.S. Patent No. 5,754,878 to Asghar et al. (" <i>Asghar</i> ")
1034	U.S. Patent No. 6,041,400 to Ozcelik et al. (" <i>Ozcelik</i> ")
1035	Declaration of June Ann Munford (" <i>Munford</i> ")

Exhibit	Description
1036	U.S. Patent No. 5,699,456 to Brown et al. (" <i>Brown</i> ")
1037	[RESERVED]
1038	U.S. Patent No. 4,567,606 to Vensko et al. (" <i>Vensko</i> ")
1039	U.S. Patent No. 6,182,203 to Simar, Jr. et al. (" <i>Simar</i> ")
1040	U.S. Patent No. 5,774,859 to Houser et al. (" <i>Houser</i> ")
1041	U.S. Patent No. 7,171,358 to Whittaker et al. (" <i>Whittaker</i> ")
1042	U.S. Patent No. 7,478,041 to Ichikawa et al. (" <i>Ichikawa</i> ")
1043	U.S. Patent No. 7,587,318 to Seshadri (" <i>Seshadri</i> ")
1044	U.S. Patent Application Publication No. 2002/0091826 to Comeau et al. (" <i>Comeau</i> ")
1045	U.S. Patent Application Publication No. 2003/0012347 to Steinbiss et al. (" <i>Steinbiss</i> ")
1046	U.S. Patent No. 6,832,194 to Mozer et al. (" <i>Mozer</i> ")
1047	U.S. Patent No. 6,879,954 to Nguyen et al. (" <i>Nguyen</i> ")
1048	U.S. Patent No. 5,150,330 to Hag (" <i>Hag</i> ")
1049	U.S. Patent No. 5,724,587 to Carmon et al. (" <i>Carmon</i> ")
1050	[RESERVED]
1051	[RESERVED]
1052	[RESERVED]
1053	Hermann Ney et al., " <i>Dynamic Programming Search Strategies: From Digit Strings To Large Vocabulary Word Graphs</i> " C.-H. Lee et al. (eds.), Automatic Speech and Speaker Recognition (" <i>Ney</i> ")
1054	U.S. Patent No. 7,058,678 to Luick et al. (" <i>Luick</i> ")
1055	[RESERVED]

Exhibit	Description
1056	<i>[RESERVED]</i>
1057	<i>[RESERVED]</i>
1058	Abdulmesih Aktas et al., <i>Multi-DSP and VQ-ASIC Based Acoustic Front-End for Real-Time Speech Processing Tasks</i> , First European Conference on Speech Communication and Technology EUROSPEECH '89, Paris, France, September 1989 (<i>Atkas 1989</i>)
1059	Abdulmesih Aktas et al., <i>Speaker Independent Continuous Hmm-Based Recognition of Isolated Words on A Real-Time Multi-Dsp System</i> , Second European Conference on Speech Communication and Technology EUROSPEECH '91, Genova, Italy, September 1991 (<i>Atkas 1991</i>)
1060	U.S. Patent No. 6,029,221 to Wu et al. (" <i>Wu</i> ")
1061	Zentian, Ltd. v Apple Inc., WDTX Waco (6:22-cv-122) Scheduling Order (" <i>Scheduling Order</i> ")
1062	U.S. Patent No. 5,734,604 to Akamatsu et al. (" <i>Akamatsu</i> ")
1063	U.S. Patent No. 6,130,462 to Yang et al. (" <i>Yang 462</i> ")
1064	U.S. Patent No. 6,128,311 to Poulis et al. (" <i>Poulis</i> ")
1065	U.S. Patent No. 6,185,634 to Wilcox (" <i>Wilcox</i> ")
1066	U.S. Patent No. 6,567,953 to Pomerantz (" <i>Pomerantz</i> ")
1067	Declaration of Les Atlas, Ph.D.
1068	<i>Zentian Ltd. v. Amazon.com Services LLC, et al.</i> , No. 6:22-cv-123 (W.D. Tex.) Mar. 22, 2023 Amended Scheduling Order

I. *FINTIV* FACTORS 1-5 FAVOR INSTITUTION UNDER THE DISTRICT COURT'S NEW CASE SCHEDULE

Patent Owner argues that the Board should deny institution and joinder under *Fintiv* because the district court case is not stayed, there is overlapping prior art asserted, and expert reports (not trial) are due before a final written decision is expected. (POPR at 1-2.) But the *Fintiv* factors weigh in favor of institution.

Fintiv factor 2 weighs against discretionary denial because trial in the parallel district court proceeding is now set for September 23, 2024, more than three months *after* the expected date of the final written decision. (*See* Ex. 2002.)

Fintiv Factor 3, investment in the parallel proceeding *as of the institution decision*, also favors institution. *Apple Inc. v. Fintiv Inc.*, IPR2020-00019, Paper 11 at 9-10 (March 20, 2020). Under the new schedule, deadlines for final invalidity contentions (February 22, 2024), prior art narrowing (March 14, 2024), close of fact discovery (April 4, 2024), expert reports (May 2, 2024), and dispositive motions (June 27, 2024) all occur well after the January 2024 institution decision. (Ex. 2002.) Thus, there will have been minimal investment in the validity of the patents at time of institution.

Factor 4, regarding overlap of the issues, also favors institution. The final written decision is scheduled to issue *months before* trial. Therefore, there is little risk of overlap or conflicting decisions because Petitioners will be subject to

estoppel well before trial. 35 U.S.C. § 315(e)(2); *Network-1 Techs., Inc. v. Hewlett-Packard Co.*, 981 F.3d 1015, 1027 (Fed. Cir. 2020).

Factors 1 (neutral because no stay requested) and 5 (slightly against institution because same parties) do not tip the scales against institution. *See, e.g., Lifecore Fitness, Inc. v. Woodway USA, Inc.*, IPR2023-0084, Paper 6 at 17 (Oct. 25, 2023) (“we determine that factor 1 is neutral, factors 2–4 weigh against denial of institution, and factor 5, which is the lone factor favoring denial of institution, does not outweigh factors 1–4”); *STMicroelectronics, Inc. v. Ocean Semiconductor LLC*, IPR 2021-01349, Paper 13 at 13 (Mar. 4, 2022). Thus, the *Fintiv* factors 1-5 on balance weigh against discretionary denial.

II. ***FINTIV* FACTOR 6: REQUIRING A *SOTERA* STIPULATION IS “INAPPROPRIATE” AND PREJUDICIAL TO PETITIONERS**

Patent Owner's other argument—that institution must be denied unless Petitioners as joining parties agree to enter the same *Sotera* stipulation as Petitioner Apple entered—also fails. (POPR at 3.) Patent Owner's baseless argument runs contrary to the Board's previous holdings: “a *Sotera*-style stipulation [is not] a prerequisite for institution” and denying institution “merely because Petitioner has not entered a *Sotera*-style stipulation would be inappropriate.” *Zhuhai Cosmox Battery Co., Ltd. v. Maxell, Ltd.*, IPR2022-00984, Paper 8 at 4 (Sept. 29, 2022).

Apple chose to enter its *Sotera* stipulation under distinguishable circumstances. When Apple did so, the operative trial date in its case was two

months *before* the expected written decision date. (*See* Exhibit 1061.) Here, Petitioners' trial date is three months *after* the Board is expected to render its final written decisions. (*See* Exhibit 2002.) That Apple's petition was not evaluated under the "compelling merits" standard is irrelevant (*See* POPR at 2-3), where, as here, the *Fintiv* factors on balance do not favor discretionary denial. *Commscope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4 (Feb. 27, 2023) (precedential) (only when *Fintiv* factors favor discretionary denial should the Board reach the compelling merits question). Moreover, Apple, as the original petitioner, is subject to a different level of statutory estoppel than Amazon would be. *Network-1 Techs.*, 981 F.3d at 1027. Forcing Amazon to enter "the same *Sotera* stipulation as Apple" that would bar Amazon from "pursu[ing] in the parallel district court proceeding the same grounds as in the Petition *or any grounds that could have reasonably been raised in the pending Petition*" (IPR2023-00036, Paper 9 at 1 (emphasis added)) would be unfair and prejudicial to Petitioners, not Patent Owner.

Patent Owner provides no other reason it would be unfair or prejudicial to institute trial. Indeed, is not unfair or prejudicial to institute trial based on a meritorious petition, particularly where the Board already instituted IPR based on Apple's identical petition. The Board should therefore reject Patent Owner's request to deny institution under *Fintiv* Factor 6 absent a *Sotera* stipulation.

IPR2023-01195

Petitioners' Reply to Patent Owner's Preliminary Response

Dated: November 8, 2023

Respectfully submitted,

FENWICK & WEST LLP

/J. David Hadden/

J. David Hadden

Reg. No. 40,629

Attorneys for Petitioners

Amazon Web Services, Inc. and

Amazon.com Services LLC

CERTIFICATION OF SERVICE ON PATENT OWNER

The undersigned hereby certifies that the foregoing **Petitioners' Reply to Patent Owner's Preliminary Response and Contingent Joinder Opposition** was served on Patent Owner's lead and back-up counsel in its entirety by electronic service at the email addresses provided below:

Peter C. Knops
Noroozi PC
11601 Wilshire Boulevard, Suite 2170
Los Angeles, CA 90025
peter@noroozipc.com

Katherine E. Rhoades
Bartlit Beck LLP
54 West Hubbard Street, Suite 300
Chicago, IL 60654
katherine.rhoades@bartlitbeck.com

Kayvan B. Noroozi
Noroozi PC
11601 Wilshire Boulevard, Suite 2170
Los Angeles, CA 90025
kayvan@noroozipc.com

Nevin M. Gewertz
Bartlit Beck LLP
54 West Hubbard Street, Suite 300
Chicago, IL 60654
nevin.gewertz@bartlitbeck.com

FENWICK & WEST LLP

/J. David Hadden/
J. David Hadden
Reg. No. 40,629

Attorneys for Petitioners
Amazon Web Services, Inc. and
Amazon.com Services LLC

Dated: November 8, 2023