

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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

Petitioner

v.

B.S.D. CROWN, LTD.,

Patent Owner.

IPR2025-00057

U.S. Patent No. 8,934,887

**PETITIONERS' REPLY TO PATENT OWNER'S
PRELIMINARY RESPONSE**

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Patent Trial and Appeal Board
U.S. Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

EXHIBIT LIST

Exhibit	Reference
1001	U.S. Patent No. 8,934,887 (“’887 Patent” or “’887Pat.”)
1002	File History of the ’887 Patent (“’887FH”)
1003	Declaration of Dr. Paul Martin (“Martin”)
1004	Dr. Paul Martin CV
1005	Korean Patent Application Publication No. 10-2012-0046807 (“Yoon”)
1006	U.S. Patent No. 9,424,052 (“Overton”)
1007	U.S. Patent Application Publication No. 2009/0305790 A1 (“Lu”)
1008	M. Lubonski, V. Gay and A. Simmonds, “An adaptation architecture to improve QoS of multimedia services for enterprise remote desktop protocols,” Next Generation Internet Networks, 2005, Rome, Italy, 2005, pp. 149-156 (“Lubonski”)
1009	Richardson, Iain E., The H.264 Advanced Video Compression Standard (2nd ed.), 2010, Wiley Publishing (“Richardson”)
1010	U.S. Patent Application Publication No. 2006/0098619 A1 (“Nix”)
1011	Declaration of June Ann Munford
1012	Complaint, <i>BSD Crown, Ltd. f/k/a Emblaze, Ltd. v. Amazon.com Inc.</i> , NDCA-3-24-cv-03503
1013	Plaintiff’s Infringement Contentions in <i>BSD Crown, Ltd. f/k/a Emblaze, Ltd. v. Amazon.com Inc.</i> , NDCA-3-24-cv-03503
1014	Excerpts from Federal Court Management Statistics, June 2024
1015	U.S. Patent Application Publication No. 2001/0052012 A1 (“Rinne”)
1016	M. A. Talaat, M. A. Koutb, H. M. Kelash and R. H. Aboelez, “Content-aware adaptive video streaming system,” 2005 International Conference on Information and Communication Technology, Cairo, 2005, pp. 265-276 (“Talaat”)
1017	A Few More Reasons Why RDP is Insecure. https://thehack-ernews.com/2023/07/a-few-more-reasons-why-rdp-is-insecure.html

Exhibit	Reference
1018	Understanding the Remote Desktop Protocol (RDP). https://learn.microsoft.com/en-us/troubleshoot/windows-server/remote/understanding-remote-desktop-protocol
1019	Remote Desktop Services overview in Windows Server. https://learn.microsoft.com/en-us/windows-server/remote/remote-desktop-services/remote-desktop-services-overview
1020	Remote Desktop clients for Remote Desktop Services and remote PCs. https://learn.microsoft.com/en-us/windows-server/remote/remote-desktop-services/clients/remote-desktop-clients
1021	Remote takeover: How RealVNC conquered the world. https://www.cam.ac.uk/research/features/remote-takeover-how-realvnc-conquered-the-world
1022	Download VNC Server by RealVNC. https://www.realvnc.com/en/connect/download/vnc/
1023	Download VNC Viewer by RealVNC. https://www.realvnc.com/en/connect/download/viewer/
1024	Robert. P. Goldberg. Survey of virtual machine research. IEEE Computer Magazine, 7(6):34-45, 1974. https://web.eecs.umich.edu/~prabal/teaching/eecs582-w11/readings/Gol74.pdf
1025	R. J. Creasy. The Origin of the VM/370 Time-Sharing System. IBM Journal of Research and Development, 25(5):483-490, September 1981. https://pages.cs.wisc.edu/~stjones/proj/vm_reading/ibmrd2505M.pdf
1026	VMware Celebrates Seven Years of Continual Innovation and Execution. https://news.broadcom.com/releases/7year
1027	[Xen-devel] [ANNOUNCE] Xen high-performance x86 virtualization. https://sourceforge.net/p/xen/mailman/message/5533663/
1028	News (older entries). https://www.virtual-box.org/wiki/News_pre_4_3
1029	Ten years of KVM. https://lwn.net/Articles/705160/
1030	Hyper-V Made Available. https://adtmag.com/articles/2008/06/26/hyperv-made-available.aspx

Exhibit	Reference
1031	Amazon EC2 beta. https://aws.amazon.com/blogs/aws/amazon_ec2_beta/
1032	Microsoft launches Windows Azure. https://news.microsoft.com/announcement/microsoft-launches-windows-azure/
1033	Reflecting on our ten year App Engine journey. https://cloud.google.com/blog/products/gcp/reflecting-on-our-ten-year-app-engine-journey/
1034	Guide to Security for Full Virtualization Technologies. https://doi.org/10.6028/NIST.SP.800-125
1035	Review: OnLive -- The What, Why and Who of Gaming in the Cloud. https://www.wired.com/2011/06/review-onlive-the-what-why-and-who-of-gaming-in-the-cloud/
1036	Gaikai is Live! https://dperry.com/2011/02/06/gaikai_is_live/
1037	Qi, H., & Gani, A. (2012, May). Research on mobile cloud computing: Review, trend and perspectives. In 2012 second international conference on digital information and communication technology and it's applications (DICTAP) (pp. 195-202). iee. https://arxiv.org/pdf/1206.1118
1038	Kumar, Karthik, and Yung-Hsiang Lu. Cloud computing for mobile users: Can offloading computation save energy?. Computer 43, no. 4 (2010): 51-56. https://www.cs.purdue.edu/homes/bb/cs590/handouts/computer.pdf
1039	Dinh, H.T., Lee, C., Niyato, D. and Wang, P. (2013), A survey of mobile cloud computing: architecture, applications, and approaches. Wirel. Commun. Mob. Comput., 13: 1587-1611. https://doi.org/10.1002/wcm.1203
1040	Email from Board authorizing Petitioner's Reply
1041	Amazon's <i>Sotera</i> stipulation
1042	DocketNavigator stay statistics for Judge Donato in NDCA
1043	CAP Co., Ltd. v. McAfee, Inc. Powered by TCPDF (www.tcpdf.org) 3-14-cv-05068 (CAND), 4/11/2017, docket entry 81

Exhibit	Reference
1044	DocketNavigator time to milestones statistics for Judge Donato in NDCA
1045	District Court Docket as of April 3, 2025

I. DISCRETIONARY DENIAL IS NOT WARRANTED

As authorized by the Board on March 24, 2025 (EX1040), Petitioners respectfully submit this reply addressing the *Fintiv* factors. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (Mar. 20, 2020) (precedential) (“*Fintiv*”). This case is distinguishable in numerous, important ways from the recent, non-precedential Director Review decision in *Motorola Solutions, Inc. v. Stellar, LLC*, IPR2024-01205, Paper 19 (Mar. 28, 2025) (denying institution where the district court’s set trial date was eleven months before projected FWD, opening and rebuttal expert reports had been served in district court, the district court had issued a *Markman* order, and *Fintiv* factors 1, 2, and 5 weighed in favor of denial). Such facts are not present here; instead, the Board is presented with much less district court investment and diligent Petitioners providing a *Sotera* stipulation early in litigation. A holistic balancing of the *Fintiv* factors shows discretionary denial is not warranted.

Factor 1: Although no party has moved to stay in district court, Petitioners intend to do so post-institution. Judge Donato, the assigned N.D. Cal. judge, routinely grants motions for stays where all asserted claims are under PTAB review.¹ EX1042. This factor should weigh against discretionary denial, or at worst be neutral.

Factor 2: This factor weighs against discretionary denial, or is at worst neutral.

¹ Judge Donato denied only one stay and instead closed the case. EX1043.

Although trial is currently set for April 6, 2026 (only two months before expected FWD) (EX2006), time-to-trial statistics for both the relevant district and judge show the trial date may well change. PO makes much of the fact that the median time-to-trial statistics decreased from 48.9 months when the Petition was filed to 34.5 months in December 2024. *Compare* EX1014, *with* EX2003. But even the current statistics show an April 2027 expected trial date, ten months *after* FWD.² Further, Judge Donato’s median time to trial of 27.2 months puts trial in September 2026—three months *after* FWD. EX1044. These facts show the FWD is likely to come first. *See Dish Network L.L.C. v. Broadband iTV, Inc.*, IPR2020-01280, Paper 17, 16 (Feb. 4, 2021). Factor 2 should weigh against discretionary denial, or at worst be neutral.

Factor 3: This factor should weigh against denial. PO argues “the district court will be in the best position to resolve all of the validity issues relating to the ’887 patent” because Petitioners raise §101 and §112 arguments in the parallel proceeding. POPR, 31-32. But Petitioners cannot raise §101 and §112 challenges in IPR. Moreover, the submitted *Sotera* stipulation prevents overlap, ensuring this IPR will be a true alternative to district court litigation. *Sand Revolution II, LLC v. Cont’l*

² March 24, 2025, Memorandum (“Boalick Memo”), https://www.uspto.gov/sites/default/files/documents/guidance_memo_on_interim_procedure_recission_20250324.pdf (Board still considers time-to-trial statistics).

Intermodal Grp.–Trucking LLC, IPR2019-01393, Paper 24, 12 n.5 (June 16, 2020); Boalick Memo, 2-3 (“a timely-filed Sotera stipulation... is highly relevant”).

Moreover, Petitioners diligently filed their Petition four months after being served with the district court complaint (Pet. 83), less than a month after receiving PO’s infringement contentions (EX2006), and more than a month before district court invalidity contentions (*id.*). The Board has considered a petitioner’s diligence as weighing against discretionary denial. *See, e.g., Fintiv*, Paper 15, 11 (May 13, 2020); *id.*, Paper 11, 10 (Mar. 20, 2020); *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, 17 (§II.A precedential) (Dec. 1, 2020); *Corning Optical Comm’ns LLC v. Dali Wireless, Inc.*, IPR2021-00762, Paper 8, 9-10 (Oct. 13, 2021).

Further, the district court’s investment is minimal. The court has not issued any substantive orders and is unlikely to have done so at institution.³ *Fintiv*, Paper 11, 10 (Mar. 20, 2020) (no substantive district court orders weighed against discretionary denial). Furthermore, as of institution, fact discovery will remain open and expert discovery will still be ongoing. EX2006. Indeed, the currently-set deadlines in the district court scheduling order are likely to be delayed because, for example, Judge Donato has set a May 8 hearing on Amazon’s motion to strike PO’s

³ Median time for Judge Donato to issue a *Markman* order is 16.5 months (EX1044), i.e., late October 2025, several months after the institution decision.

infringement contentions. EX1045. Petitioner's diligence in filing its Petition and the district court's minimal investment thus far tip this factor in favor of institution. *Zynga Inc. v. IGT*, IPR2022-00199, Paper 11, 14-16 (June 14, 2022).

Factor 4: This factor strongly weighs against discretionary denial. Petitioners challenge more claims than are at issue in district court, but to eliminate any doubt as to the absence of meaningful overlap between litigation and IPR, Petitioners have submitted a *Sotera* stipulation. EX1041. Petitioners' stipulation guarantees the IPR grounds, or any that could have been brought in this IPR, will not be litigated in district court. Such a stipulation "mitigates any concerns of duplicative efforts between the district court and the Board, as well as concerns of potentially conflicting decisions"; thus Factor 4 "weighs strongly in favor of not exercising discretion to deny institution under 35 U.S.C. § 314(a)." *Sotera*, Paper 12, 19.

Factor 5: As here, where the parties are the same and an FWD "is likely to issue before the district court trial [the Board] weigh[s] this factor against exercising discretion." *BMW of N. Am., LLC v. Michigan Motor Techs. LLC*, IPR2023-01234, Paper 11, 14-15 (Jan. 26, 2024) (collecting cases). All available data shows that the Board is likely to issue an FWD before the district court trial.

Factor 6: This factor weighs against denial. Contrary to PO's argument (POPR 37), the Petition presents a strong case of unpatentability. *Fintiv*, Paper 11, 14-15 ("if the merits of a ground raised in the petition seem particularly strong...institution of a

trial may serve...overall system efficiency and integrity”). Although compelling merits alone are not dispositive, “the factors considered in the exercise of discretion are part of a balanced assessment of all the relevant circumstances in the case, including the strength of the merits.” Boalick Memo, 3.

The POPR’s contrary argument rests on an overly narrow claim construction of “the at least one of” portion of 1[b] which Petitioners’ art teaches in any event. Specifically, after institution, Petitioner will address how PO’s construction of this limitation is incorrect. The Board has previously found “[c]ourts have not [] interpreted *SuperGuide* [which PO relies, POPR 8] as setting forth a *per se* rule that the use of ‘at least one of’ followed by ‘and’ connotes a conjunctive list.” *Apple, Inc. v. CPC Patent Tech. PTY, Ltd.*, IPR2022-00601, Paper 31, 27-28 (collecting cases). In addition and as one example, even under PO’s incorrect construction, Overton (Grounds 2A-C, all challenged claims) teaches the limitation. *E.g.*, EX1006, 11:13-24 (“force feedback...to the input devices [incorporating haptic technologies] 142 within the application output data 123 [data sent from Overton’s server to mobile devices]” (describing Fig. 1, which is reproduced at Pet. 37, 43 and teaching a “HW action”)). PO’s merits arguments do not support discretionary denial.

II. CONCLUSION

When weighing the factors holistically (with all factors weighing against denial or as neutral), the Board should not discretionarily deny institution.

Dated: April 7, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on April 7, 2025 true and correct copies of the foregoing
PETITIONERS' PRELIMINARY REPLY and **EXHIBITS 1040-1045** were
served via electronic mail upon the following counsel of record for Patent Owner:

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