UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION,
Petitioner,

v.

TOUTVIRTUAL, INC.,
Patent Owner

Case IPR2026-00297
Patent 12,079,667

PETITIONER'S PRELIMINARY REPLY

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EXHIBITS

MS-1001	U.S. Patent No. 12,079,667 to Vipul Pabari ("the '667 Patent")
MS-1002	Excerpts from the Prosecution History of the '667 Patent ("the Prosecution History")
MS-1003	Declaration and Curriculum Vitae of Dr. Michael D. Mitzenmacher
MS-1004	Complaint, *ToutVirtual, Inc. v. Microsoft Corporation*, 2-25-cv-00943 (EDTX) filed September 8, 2025
MS-1005	U.S. Pub. No. 2006/0174087 to Akiyoshi Hashimoto *et al.* ("Hashimoto")
MS-1006	U.S. Pub. No. 2003/0084241 to Clark E. Lubbers *et al.* ("Lubbers")
MS-1007	U.S. Pub. No. 2003/0051021 to Robert A. Hirschfeld *et al.* ("Hirschfeld")
MS-1008	U.S. Pat. No. 8,799,431 to Vipul Pabari ('431 Patent).
MS-1009	U.S. Appl. No. 11/503,090, Non-Final Office Action dated Sep. 12, 2013
MS-1010	Internet Archive Capture of *https://en.wikipedia.org/wiki/Middleware* from Jul. 29, 2005 (available at https://web.archive.org/web/20050729234922/https://en.wikipedia.org/wiki/Middleware)
MS-1011	U.S. Pub. No. 2006/0294519 to Naoya Hattori *et al.*
MS-1012	U.S. Pat. No. 7,577,722 to Dilip Khandekar et al. ("Khandekar")
MS-1013	U.S. Pat. No. 8,335,794 to John Goodson *et al.* ("Goodson")
MS-1014	U.S. Pub. No. 2006/0136667 to Steven Shultz *et al.* ("Shultz")
MS-1015	U.S. Pub. No. 2003/0225801 to Murthy Devarakonda *et al.* ("Devarakonda")

MS-1016	Petitioner's Stipulation
MS-1017	MPEP Chapter 900: Prior Art, Classification, and Search (Rev. 08.2017) (January 2018), available at https://www.uspto.gov/web/offices/pac/mpep/old/e9r082017/mpep-0900.pdf
MS-1018	[RESERVED]
MS-1019	U.S. Appl. No. 14/450,765, Non-Final Office Action dated Jul. 2, 2015
MS-1020	Office Actions Issued During Prosecution of U.S. Appl. No. 15/201, 087
MS-1021	Office Actions Issued During Prosecution of U.S. Appl. No. 17/074,500
MS-1022	Docket Navigator webpage, Time to Trial Statistics for the Eastern District of Texas, dated January 1, 2023 through June 11, 2026
MS-1023	Docket Navigator webpage, Time to Trial Statistics for the Judge Robert W. Schroeder III, dated January 1, 2023 through June 11, 2026
MS-1024	Microsoft Corporation, "Form 10-Q for the Quarterly Period Ended March 31, 2026," United States Securities and Exchange Commission, 29 Apr. 2026, Commission File No. 001-37845
MS-1025	Microsoft Corporation, "Microsoft FY25 Second Quarter Earnings Conference Call," Microsoft Investor Relations, 29 Jan. 2025
MS-1026	General Services Administration, "Multi-Billion Dollar GSA OneGov Agreement with Microsoft Brings Steep Discounts for Microsoft 365, Copilot, and Azure Cloud Services" (Sep. 2, 2025)

MS-1027	Smith, Brad, "The Golden Opportunity for American AI. Microsoft On the Issues," Microsoft Corporation, 3 Jan. 2025, https://blogs.microsoft.com/on-the-issues/2025/01/03/the-golden-opportunity-for-american-ai/
MS-1028	Nielson et al., "Microsoft FY25 Fourth Quarter Earnings Conference Call," July 30, 2025, https://www.microsoft.com/en-us/investor/events/fy-2025/earnings-fy-2025-q4
MS-1029	"What is Azure Government," Last updated May 18, 2026, https://learn.microsoft.com/en-us/azure/azure-government/documentation-government-welcome
MS-1030	"Datacenter Investments Drive Economic Growth in Central Washington," Microsoft Local, Microsoft, https://local.microsoft.com/blog/datacenter-investments-drive-economic-growth-in-central-washington/
MS-1031	"CVE-2009-4849 Detail," National Vulnerability Database, National Institute of Standards and Technology, 7 May 2010, https://nvd.nist.gov/vuln/detail/CVE-2009-4849
MS-1032	"Toutvirtual Virtualiq 3.2 Security Vulnerabilities, CVEs." CVE Details, SecurityScorecard, https://www.cvedetails.com/vulnerability-list/vendor_id-10821/product_id-19348/version_id-451232/Toutvirtual-Virtualiq-3.2.html
MS-1033 to MS-1065	RESERVED
MS-1066	Petitioner's Email to Patent Owner Regarding Unconditional Withdrawal of Preliminary Indefiniteness Contentions

For the reasons noted below, Patent Owner's argument that Petitioner is taking inconsistent claim construction positions is not only incorrect, but is also moot in view of the latest developments in the District Court proceeding (hereinafter "the Litigation").

I. Petitioner Is Not Taking Inconsistent Claim Construction Positions

After the IPR petition was filed, Petitioner submitted *preliminary* invalidity contentions in the Litigation identifying certain claim phrases as being indefinite. Petitioner's understanding of these phrases was that that the prior art satisfied the plain and ordinary meaning but that the outer bounds of these phrases were unclear for purposes of addressing Patent Owner's infringement assertions. For example, with reference to feature [1.3], the Petition explains that a POSITA would have found obvious how the Hashimoto-Lubbers system selects one or more RStores (the virtual assets) for storage of the set of data based on an allocation of data on the virtual storage assets. Paper 2 (Petition), 32-38. While Petitioner believes such a mapping would satisfy feature [1.3], the outer bounds for the "based on an allocation of data" to establish infringement were unclear (e.g., whether "an allocation of data" encompasses parameters beyond application critical rules). Paper 2, 4-5. Other terms identified in Petitioner's contentions have similar issues and were therefore preliminarily included.

As the Director recognized in *Tesla, Inc. v. Intellectual Ventures II LLC*,

IPR2025-00340, Paper 18, 3-4, (Nov. 5, 2025), there are instances in which "notwithstanding the alleged indefiniteness of the claim term, an ordinarily skilled artisan would understand that the asserted art satisfies the claim limitation (such as if the limitation prescribed a range and only the outer bounds of the range were unclear)." Here, similarly, Petitioner believes that the asserted art satisfies the noted claim terms, while the outer bounds were unclear. Thus, there was no inconsistency in Petitioner's construction positions. That ***Patent Owner cited to the invalidity contentions in its Discretionary Denial brief*** (*see* Paper 8, iv and EX2007) ***yet did not argue any inconsistency in its Discretionary Denial brief*** validated Petitioner's belief.

II. Petitioner Has Withdrawn the Preliminary Indefiniteness Contentions in the District Court

Belatedly, Patent Owner raised the alleged inconsistent construction arguments in its Patent Owner Preliminary Response (POPR). Paper 12, 15-17. While Petitioner does not concur with Patent Owner's assertion, to avoid any doubt of inconsistency, Petitioner's Litigation Counsel subsequently sent an email to Patent Owner's litigation counsel explicitly stating that "Microsoft is withdrawing its preliminary indefiniteness contentions and will not pursue them in this case." MS-1066. To reinforce and avoid any lack of clarity regarding Petitioner's intentions, Petitioner stipulates to using the same constructions according to the plain and ordinary meaning standard in this IPR proceeding and the Litigation. Importantly,

Petitioner's withdrawal of preliminary indefiniteness contentions and the above stipulation is ***not*** conditional upon institution, and is already being implemented. In this manner, Petitioner's actions are in furtherance of the Office's goals of increasing efficiency and minimizing potential for inconsistent outcomes.

Petitioner's actions are similar to actions in other cases in which the Director has not found an initial alleged inconsistent claim construction position sufficient to deny institution. For example, in *Caption Health, Inc. v. The University of British Columbia*, IPR2025-01422, Paper 15, 3 (P.T.A.B. Dec. 18, 2025), the Director noted that Petitioner's stipulation to use the same constructions in the district court and IPR proceedings "resolves any potential inconsistency in claim construction positions between forums and does not require further explanation under *Revvo*."

III. Other Discretionary Denial Factors including Material Examiner Error Outweigh Any Alleged Inconsistent Constructions

In *Wybotics, Co. Ltd. v. Zodiac Pool Systems LLC*, IPR2026-00158, Paper 12, 2 (P.T.A.B. May 6, 2026), despite concerns regarding constructions and a narrower stipulation than present in this case, the Director found that "it is an appropriate use of Office resources to review the potential [Examiner] error." And in *Tesla, Inc. v. Bulletproof Property Management, LLC*, IPR2026-00204, Paper 14, 2-5 (P.T.A.B. Jun. 15, 2026), the Director reemphasized that discretionary denial decisions involve a multi-factor analysis, and that a persuasive showing of material Examiner error and a lack of settled expectations do not favor discretionary denial of a petition.

Here, to the extent the Director finds that the Petitioner also advanced inconsistent constructions, Petitioner submits that other discretionary denial factors weigh heavily against discretionary denial and merit referral of this IPR. For example, as described in Petitioner's Opposition (Paper 11), the examination record of the '667 patent reflects the Examiner's material errors for failing to properly consider all claims (e.g., independent claim 9 does not recite the allowable subject matter; and the Examiner continued to misapply the Vasilevsky reference through multiple applications in the family despite changes in claim language). Paper 11, 5-9.

ToutVirtual also lacks settled expectations at least because the '667 patent issued less than six years before the filing of Microsoft's petition. Paper 11, 15-20. Microsoft's accused Azure cloud computing products contributed to ***billions*** of dollars of investments in the US economy and American manufacturing operations, whereas ToutVirtual's product, allegedly associated with the ' 667 patent, faltered with publicly-known security vulnerabilities. Paper 11, 3-5, 15-20.

Accordingly, even if Petitioner's preliminary indefiniteness contentions were understood to be inconsistent with Petitioner's IPR construction positions, Petitioner has taken steps to explain, clarify, and ensure that no alleged inconsistencies remain, rendering Patent Owner's argument moot.

IV. Patent Owner Mischaracterizes the Prior Art and Petition to Distinguish Grounds 1 and 2

With respect to Ground 1, Patent Owner argues that Hashimoto and Lubbers

do not teach or suggest claim feature [1.3], because "partitioning techniques control how data is stored in physical resources based on data protection rules." Paper 8, 14-15. However, Lubbers teaches that "[a] plurality of RStores make up a logical disk that is presented to a user." Paper 2, 32 (quoting MS-1006, [0019]) (emphasis added). The Petition explains that "[a]n RSEG is an atomic logical unit that is roughly analogous to a PSEG in the physical domain—akin to a logical disk partition of an RStore." Paper 2, 32-33 (emphasis added). That is, the Petition focused on Lubber's selection of logical partitions, not physical partitions, as Patent Owner mistakenly alleges.

With respect to Ground 2, Patent Owner argues that the Hashimoto and Hirschfeld combination fails because their "architectures are fundamentally incompatible." Paper 8, 20-22. However, Patent Owner mistakenly assumes that the combination is "a plug and play of Hirschfeld's SCM/portal architecture into Hashimoto's control terminal." Paper 8, 22. Not so. The Petition turned to Hirschfeld with respect to its disclosure of "a mechanism by which an end user would interface with its system," not to adopt the complete functionality of Hirschfeld's SCM. Paper 2, 50-55. Thus, Patent Owner's argument fails to address the Petition's actual combination. *Axonics, Inc. v. Medtronic, Inc.*, 73 F. 4th 950, 958 (Fed. Cir. 20233).

V. Conclusion

Thus, ToutVirtual's Request for Discretionary Denial should be denied.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e)(4)(i) *et seq.* and 42.105(b), the undersigned certifies that the captioned PETITIONER'S PRELIMINARY REPLY, and all supporting exhibits were provided electronically via e-mail, on July 14, 2026, to the Patent Owner by serving the correspondence addresses of record as follows:

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