

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION,

Petitioner,

v.

ADVANCED CLUSTER SYSTEMS, INC.,

Patent Owner.

Case IPR2025-00916

U.S. Patent No. 11,811,582

PATENT OWNER'S SUR-REPLY

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I. PETITIONER'S OWN "PEER-TO-PEER ARCHITECTURE" CONSTRUCTION FORECLOSES RELIANCE ON TREFETHEN FOR CLAIM 15

Claim 15 of the '582 Patent recites "wherein the communications network interface employs a peer-to-peer architecture." Ex. 1001, claim 15. The Petition adopted, as the operative claim construction, the requirement that the architecture be one "in which each node can communicate tasks and data with other nodes without the tasks and data being required to go through a central server or master node." Pet. 13.¹ The Petition expressly states: "For purposes of this proceeding, Petitioners and its expert used this construction." Pet. 13. Petitioner is bound by the construction it adopted. *VidStream LLC v. Twitter, Inc.*, 981 F.3d 1060, 1067 (Fed. Cir. 2020); *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1331 (Fed. Cir. 2019) ("[a]n IPR petitioner may not raise in reply an entirely new rationale for its challenge").

Petitioner itself acknowledged at the Petition stage that Trefethen alone does not satisfy that construction. The Petition's claim 15 analysis distinguishes Menon's "point to point ... communication" paradigm from a "master/slave paradigm" — the very architecture the construction excludes — and relies on Menon's distinction to bridge the gap to peer-to-peer. Pet. 99 (citing Ex. 1005, 9). That distinction concedes

¹ The district court in the underlying parallel proceeding construed the term in a similar manner. Ex. 1085 14.

the structural problem: under Petitioner's adopted construction, an architecture in which results pass through a central master process does not satisfy claim 15.

Trefethen's MultiMATLAB is precisely that excluded architecture. Trefethen describes a system in which a single "master process" launches and controls the other MATLAB processes, and each MATLAB process's "output is sent to the master process as soon as it is ready." Ex. 1006, 4. Petitioner and Bajaj have repeatedly relied on that very language in this proceeding. Ex. 1003, ¶¶348-352 (Bajaj's original declaration quoting Trefethen that output is "sent to the master process as soon as it is ready," i.e., without order or synchronicity between the MATLAB processes"); Ex. 1163, ¶22 (Bajaj's supplemental declaration repeating the verbatim quotation). Routing every node's output through a central master process is the architectural feature the Petition's adopted construction excludes. Under the construction Petitioner chose, Trefethen's master-controlled MultiMATLAB architecture does not satisfy claim 15.

The Reply's reliance on Menon's "point-to-point" Send/Recv commands (Pet. 99-100; Reply 6-7) does not save the mapping. Menon's SPMD/Message Passing paradigm is a distinct architectural feature from Trefethen's MultiMATLAB. The Petition cannot satisfy claim 15 by relying on Menon's point-to-point paradigm while resting the underlying disclosure on Trefethen's master-controlled architecture. The communications-network-interface limitation must be satisfied by

the architecture as a whole, and Petitioner's own acknowledgments confirm that Trefethen's architecture routes through the master process. Under Petitioner's adopted construction, claim 15 is not obvious over Menon and Trefethen as Petitioner mapped them.

II. TREFETHEN'S CYCLE.M TERMINAL OUTPUT IS NOT THE PROGRAMMATIC RETURN OF EVALUATION RESULTS THE CLAIMS REQUIRE

A. The Claim Requires Programmatic Passing Through Cluster Architecture, Not Display to a Screen

The '582 Patent's claims recite a cluster-node-module architecture in which results are returned through the cluster's communication architecture to a designated component. Ex. 1001, claims 1, 4, 13. The specification confirms that the "return" element refers to programmatic return through the kernel-dispatch architecture — communication of computed values back through the cluster-node software to the receiving component, not display of values to a user terminal. Ex. 1001, 24:43-57.

B. Trefethen's Cycle.m Shows Terminal Output, Not the Claimed Inter-Node Communication Return Mechanism

Trefethen's cycle.m example uses Send() and Recv() to transfer the MATLAB variable "a" between processes. Ex. 1006, 5-6. The displayed output ("a = 1", "a = 2", "a = 4", and so on) confirms the values computed by the processes; the script does not establish a programmatic return path back through the cluster-node architecture. The on-screen display is presented to the user; it is not the claimed

inter-node return mechanism. Bajaj's testimony that "the displayed output confirms the values computed by the processes" (Ex. 1163 ¶23) at most shows confirmation by display; it does not show the claimed programmatic return through the cluster's communication architecture.

C. The Specification Distinguishes Programmatic Return from Display Output

The '582 Patent specification's separate descriptions of (i) the cluster-node module's communication functions and (ii) presentation of results to the user demonstrate that the patentee understood and distinguished these two operations. Ex. 1001, 23:15-32; 24:43-57. Reading the claim to equate display output with programmatic return collapses two architectural elements that the specification keeps separate. *Phillips v. AWH Corp.* directs that claim language is read in light of the specification, not stretched to fit prior-art disclosures. 415 F.3d 1303, 1315-17 (Fed. Cir. 2005) (en banc).

D. Claim 14 Requires Return to the Claim-Recited User Interface, Not Mere Terminal Display

Bajaj invokes claim 14 to argue that "a returned result may be returned to a user interface" because "[a] user interface is the component that presents information to the user." Ex. 1163 ¶29; *see also id.* ¶27. That does not address the relevant claim language. Claim 14 recites that the first cluster node module returns the final result "to the user interface," referring back to the same claim 1 user-interface from which

the first cluster node module “receive[s] commands.” Ex. 1001, claims 1, 14. The issue is therefore not whether a user interface may ultimately present information to a user; it is whether Trefethen discloses the claimed first cluster node module returning the final result to that claim-recited user-interface.

The specification confirms the distinction. It describes packets from the user interface module being accepted by the cluster node module as user commands, and separately explains that output is forwarded back to the user interface module “for display to a user.” Ex. 1001, 11:19-27. Display to a user may follow a return to the user-interface, but the display event itself is not the return required by claim 14. Bajaj’s reliance on terminal output therefore does not supply the complete elements of 14.

E. Bajaj’s Disagreement with Patent Owner’s Construction Is Conclusory *Ipsa Dixit* Entitled to Little Weight

Bajaj’s responsive opinion that “I disagree with that interpretation from a technical perspective” (Ex. 1163 ¶21) is not a technical opinion. Bajaj does not identify any technical feature of Menon, Trefethen, or the ’582 Patent’s specification that supports his interpretation. He does not explain why a POSITA would read “return” as encompassing terminal display rather than programmatic communication through the cluster-node architecture. Conclusory expert testimony that does no more than restate counsel’s claim-construction position is entitled to little weight. *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9, 15 (Aug. 24, 2022)

(precedential); 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”). The same rule applies to Bajaj’s parallel *ipse dixit* at ¶25 (no “particular further use” required after return) and ¶26 (no “meaningful technical distinction” between computed value returned for display and a “final result”). Each of these opinions fails to explain the technical basis for treating Trefethen’s terminal display as the claimed cluster-node-module programmatic return. Rather, each simply repeats the legal conclusion Petitioner wants the Board to reach. The Board should give those opinions little weight and resolve the merits on the architectural evidence the specification, Petition, and prior art actually present.

**III. THE ’582 PATENT’S SPECIFICATION CONFIRMS THAT
“CLUSTER CONFIGURATION MODULE” IS A DESIGNED
SOFTWARE INITIALIZATION COMPONENT, NOT POEREF’S
OPERATING-SYSTEM-LEVEL PARTITION MANAGER**

**A. The Specification Establishes the Cluster Configuration Module
as an Internal Component That Initializes the Claimed Cluster
Node Modules**

Claim 4 recites “a cluster configuration module that initializes at least one of the first cluster node module, the second cluster node module, or the third cluster node module.” Ex. 1001, claim 4. As Patent Owner explained in the POR, the claim distinguishes between (i) external environment or operating-system functionality and (ii) “internal system modules configured to initialize cluster node modules as part of the claimed architecture.” POR 19; *see also* Ex. 1001, 11:36-44, 22:4-25

(describing the cluster configuration module as part of the system's architecture that communicates with cluster node modules to initialize them and enable cluster computing support). The operative word in claim 4 is "initializes" — the architectural step that establishes the claimed cluster node modules and their inter-node software relationships — not the launching, allocating, or program-loading of an operating-system facility.

B. POEref's Partition Manager Performs an Operating-System-Level Resource-Allocation and Program-Loading Function Distinct From the Claim-Recited Initialization

POEref describes its own mechanism in its own terms. When a user invokes the "poe" command, "the Partition Manager allocates processor nodes for each task and initializes the local environment," and POE then "loads your program, and reproduces your local environment, on each processor node." Ex. 1008, 28. That is the description Petitioner relies on. Reply 9-10; Ex. 1163 ¶¶32-33. The function POEref describes is operating-system-level: allocating processor nodes (hardware resource allocation), initializing the local environment (OS-level environment setup), and loading the user's program onto each processor (program loading). The cluster configuration module recited in claim 4 is something different — an internal architectural component that **initializes the cluster node modules** so that the claimed cluster node modules can communicate and operate together. POR 19; Ex. 1001, 22:4-25.

C. Bajaj's Reply Conflation Does Not Bridge the Architectural Gap

Bajaj concedes in his supplemental declaration that “POE is not merely a bare hardware-allocation mechanism” and argues that, because POE loads the user’s program and the program in Menon’s MultiMATLAB happens to include “the MATLAB process and its MultiMATLAB interface/module functionality,” POE’s program-loading should be deemed to initialize the cluster node modules. Ex. 1163 ¶33. The argument conflates two distinct operations: (1) loading a program from disk into a process’s address space, and (2) initializing the cluster node modules. The loading of a program from an operating system is not the architectural initialization of the cluster node modules that the ’582 Patent specification describes, and it is improper to equate them to one another. The cluster node modules are not initialized by the act of loading their executable image — they are initialized by the cluster configuration module’s setup of inter-node communication relationships, identifier assignment, and the cluster-internal connection state the specification describes. Ex. 1001, 11:36-44, 22:4-25. POEref’s Partition Manager does none of those things; nothing in Ex. 1008 page 28 describes POE establishing inter-cluster-node-module relationships. Bajaj’s parallel between POEref’s program-loading and the claim-required cluster-node-module initialization is conclusory and entitled to little weight. *Xerox Corp.*, IPR2022-00624, Paper 9, at 15 (Aug. 24, 2022) (precedential); 37 C.F.R. § 42.65(a).

**IV. PETITIONER FAILED TO CARRY ITS BURDEN ON
MOTIVATION TO COMBINE BECAUSE MENON REDESIGNED
AWAY FROM THE TREFETHEN ARCHITECTURE PETITIONER
SEEKS TO RECONSTRUCT**

**A. Menon's Redesign Rationale Identifies the Trefethen Architecture
as Architecturally Limited**

Menon describes the Trefethen MultiMATLAB architecture and identifies limitations: tight coupling to MPICH, lack of extensibility, and performance constraints. Ex. 1005, 14. Menon then describes a redesigned architecture using vendor-specific MPI implementations and parallel MEX routines, with the explicit purpose of overcoming those fundamental limitations. Ex. 1005, 2, 14. A POSITA reading Menon would adopt the redesigned architecture — not return to the Trefethen architecture Menon redesigned away from. The Reply's framing that "Menon builds on Trefethen" (Reply 12-13) describes the conceptual lineage but ignores Menon's specific architectural changes. A reference that identifies particular features of a prior design as limitations — and then replaces them — does not invite a POSITA to put those limitations back. *See Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1068-69 (Fed. Cir. 2018) (PTAB cannot disregard prior-art teachings that an alternative is undesirable by characterizing them as "subjective preferences"); *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550-51 (Fed. Cir. 1983) (reference statements identifying specific defects in a prior design are properly considered in the teach-away analysis). Menon's statements that the

first MultiMATLAB architecture is “more tightly coupled” to MPICH/P4 and not extensible via parallel MEX routines (Ex. 1005, 14) are not stylistic preferences; they are the identified defects that drove Menon’s redesign.

B. Petitioner’s Common-Authorship and “MEX Routines” Arguments Are Not Articulated Motivation

The Reply argues that Menon and Trefethen share two authors, both papers describe “aspects of the same system,” and “Menon explicitly cites Trefethen.” Reply 12-13; Ex. 1163 ¶¶36-42. Common authorship and shared subject matter are not articulated motivation. The burden of persuasion on motivation to combine always lies with the patent challenger. *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1375 (Fed. Cir. 2016). Motivation cannot rest on “mere conclusory statements”; it requires “articulated reasoning with some rational underpinning.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). The Board cannot adopt expert testimony that announces a motivation without explaining it. *In re NuVasive, Inc.*, 842 F.3d 1376, 1383-85 (Fed. Cir. 2016). Two authors writing two papers about the same general system does not establish that a POSITA reading either paper would be motivated to combine the references in the specific way Petitioner now proposes — a chained evaluation-flow architecture in which the cluster node module returns results programmatically through the kernel-dispatch architecture rather than via display output to a user terminal.

Petitioner's invocation of "MEX routines" proves the opposite of what Petitioner claims. Reply 14; Ex. 1163 ¶36. Menon's MEX-routines extension was Menon's response to limitations Menon expressly identified in Trefethen's architecture: "more tightly coupled" to MPICH and lack of "extensibility." Ex. 1005, 14. MEX routines are not the architectural change Petitioner needs to bridge the obviousness gap. Bajaj's testimony that "the authors of the Menon paper actually implemented the modification" of adding MEX routines does not address the architectural shift Petitioner now relies on. That kind of conclusory expert testimony, which substitutes a different modification for the architectural change Petitioner needs, is entitled to little weight. *Xerox*, IPR2022-00624, Paper 9, 15 (Aug. 24, 2022) (precedential); 37 C.F.R. § 42.65(a). The Federal Circuit has been clear that an expert's say-so that a POSITA "could" implement a modification is not the same as articulated reasoning that a POSITA "would" be motivated to do so. *Polaris*, 882 F.3d at 1069.

Menon does not supply motivation to preserve Trefethen's earlier architecture; it supplies the reason to move past it. Menon expressly presents a "new MultiMATLAB architecture redesigned" for performance and extensibility, then identifies the "first MultiMATLAB architecture" as more tightly coupled to MPICH/P4, unable to use vendor-specific MPI implementations, unable to support extensions via parallel MEX routines, and subject to performance limitations. Ex.

1005, 2, 14. A reference that “criticize[s], discredit[s], or otherwise discourage[s]” the proposed path is properly considered as teaching away, and a reference that discourages the proposed path or undercuts the rationale for pursuing it defeats motivation and reasonable expectation of success, *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1327 (Fed. Cir. 2009). Menon does both: it identifies the Trefethen architecture by name as the design Menon redesigned to avoid.

C. Reconstructing the Trefethen Architecture Would Change Menon’s Principle of Operation and Defeat Reasonable Expectation of Success

Petitioner’s motivation theory rests on Menon’s reported performance results on the SP2/IBM platform. Ex. 1005, 13. Petitioner cannot rely on those results while reverting to the architectural premise Menon abandoned to obtain them. A combination that would “require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate” is not obvious. *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959). Menon’s principle of operation is the redesigned architecture using vendor-specific MPI and parallel MEX routines (Ex. 1005, 2, 14); Petitioner’s combination requires un-doing that redesign and restoring the very coupling and extensibility limits Menon identified as limitations. *KSR* permits combining known elements to yield predictable results,

KSR, 550 U.S. at 418-21, but it does not authorize the Board to fill an evidentiary gap with hindsight or to credit reported performance numbers that depend on a different architecture than the one Petitioner proposes. *DePuy Spine* confirms the point: a reference teaches away — and undercuts reasonable expectation of success — when it suggests the path urged “would not be productive of the result sought by the applicant.” 567 F.3d at 1327. Menon’s redesign rationale and reported performance results do not support Petitioner’s proposed reconstruction of the Trefethen architecture — particularly the structural substitution Petitioner now relies on to satisfy the cluster configuration module and evaluation flow limitations.

V. PETITIONER DID NOT ESTABLISH THAT THE FIVE REFERENCES ARE PRINTED PUBLICATIONS

The issue is not whether Menon, Trefethen, RS6000, POEref, and MPIref could in some abstract sense qualify as prior art. The issue is whether the Petition — not theories added in Reply — meets the preponderance-of-the-evidence standard on public accessibility. It does not. The Petition’s printed-publication showing relied on facial indicia of the references (cover pages, conference designations, IBM library listings) and a small set of Petition-stage exhibits. Pet. 14-16. The Reply now relies on Ex. 1086 (Hsieh-Yee declaration) and dozens of supporting exhibits to establish public accessibility through library cataloging records, MARC records, WorldCat records, Academia Sinica records, and Internet Archive captures. Reply 17-21. Petitioner has not disputed the insufficiency of the Petition’s original

showing; instead, Petitioner has added new theories. That confirms the Board must evaluate whether the Reply's new evidence merely corroborates the Petition-stage theories or supplies missing public-access channels. Ex. 1086 may corroborate public-access theories the Petition identified; it should not supply new theories as substitutes for theories the Petition omitted. And on the link-chain theory Petitioner does carry forward from the Petition, the record contains no evidence — only assumption — that the hyperlink chain Petitioner asks the Board to walk actually existed in the form Petitioner needs.

A. *Hulu* Requires Petition-Stage Identification of Public-Access Evidence with Particularity

Printed-publication status is not presumed. The petitioner must identify, with particularity, evidence sufficient to establish a reasonable likelihood that an asserted reference was publicly accessible before the critical date. *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29, at 13-16 (Dec. 20, 2019) (precedential). Reply evidence may corroborate that showing; it may not establish a public-access channel the Petition never identified. *VidStream LLC v. Twitter, Inc.*, 981 F.3d 1060, 1064-67 (Fed. Cir. 2020). The statutory and regulatory framework reinforces the same line. 35 U.S.C. § 312(a)(3); 37 C.F.R. § 42.104(b)(2), (b)(5). Public accessibility is the touchstone. *In re Hall*, 781 F.2d 897, 898-99 (Fed. Cir. 1986); *In re Lister*, 583 F.3d 1307, 1311-17 (Fed. Cir. 2009); *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1348-50 (Fed. Cir. 2016).

B. The Petition Relied on Facial Indicia; Ex. 1086 Improperly Adds New Channels

For each of the five references, the Petition relied on the references' facial indicia and a small set of ACM/Internet-Archive exhibits. Pet. 14-16. Ex. 1086 introduces library cataloging records and expands the public-accessibility theory beyond what the Petition presented.

The reference-by-reference picture is consistent. For Menon, the Petition cited Ex. 1005 (the reference itself), Exs. 1026 and 1027 (SC97 proceedings), Ex. 1028 (citation count), and Exs. 1023 and 1029 (Cornell webpages and Internet Archive affidavit). Pet. 14. Hsieh-Yee's declaration adds WorldCat records (Ex. 1090) and Academia Sinica MARC records (Ex. 1091) — library cataloging records the Petition did not cite. Ex. 1086, ¶¶28-70. Internet Archive captures of Menon (Ex. 1092) corroborate the same kind of evidence the Petition already relied on (Ex. 1029); the WorldCat and Sinica records, by contrast, supply a new evidentiary channel. For Trefethen, the Petition cited Ex. 1023 (Cornell), Ex. 1029 (Internet Archive affidavit), and Ex. 1035 (ACM citations). Pet. 14-15. Hsieh-Yee adds Washington State University MARC records (Ex. 1101) — again, library cataloging records the Petition did not cite. Ex. 1086, ¶¶71-104. The same pattern repeats for RS6000, POEref, and MPIref. Reply 15, 17, 19-21; Ex. 1086, ¶¶105-180. The targeted objection is to the new library-cataloging-records theory that the Petition

never identified, not to corroboration of the Internet Archive evidence the Petition already presented.

The relevant question is reference-specific: for each reference, does Ex. 1086 corroborate a public-access channel the Petition identified, or does it supply a new channel? The Petition identified facial indicia and ACM citations. Ex. 1086 supplies library cataloging records and Internet Archive captures as the public-access basis. That is a new evidentiary theory, not corroboration.

C. *VidStream* Permits Reply Corroboration of the Same Theory; It Does Not Permit Substitution

VidStream addressed reply evidence that corroborated the publication date of the same asserted reference after the patent owner challenged the publication date. 981 F.3d at 1064-67. The Federal Circuit approved that use because the petition had identified the publication and the reply evidence supported the same publication theory. *VidStream* did not authorize a petitioner to use a reply declaration as the first identification of a distinct public-access channel.

The objection here is targeted. Patent Owner does not ask the Board to exclude Ex. 1086 wholesale. Ex. 1086 may corroborate Petition-stage identifications. It should not become the first source of theories that the Petition was required to identify with particularity. As applied to each reference, the Board should rely on Ex. 1086 only for corroboration of public-access channels the Petition presented.

D. Petitioner's "Link Chain" Theory Rests on an Assumption That No Wayback Capture Establishes

Petitioner's preponderance burden on public accessibility cannot be carried by assumption of a missing predicate fact. *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d at 1380 (the Board "must base its decision on arguments . . . advanced by a party," and may not "fill in" the petition's gaps); *Hulu*, IPR2018-01039, Paper 29 at 13 (petitioner must "identify with particularity" evidence of public accessibility, with no presumption in its favor); *In re Lister*, 583 F.3d at 1316-17 (mere existence of a record is not evidence that a POSITA could reach the underlying reference).

Petitioner's printed-publication theory for Menon, Trefethen, RS6000, POEref, and MPIref rests on a chain of hyperlinks. Petitioner asks the Board to find that a POSITA, exercising reasonable diligence, could have started at a root webpage and clicked through one or more intermediate pages to arrive at the prior-art reference. See Pet. 14-16; Ex. 1086 ¶¶46-53 (Menon), ¶¶76-77 (Trefethen), ¶¶112-118 (RS6000), ¶¶128-136 (POEref), ¶¶153-180 (MPIref). Each step in the chain is authenticated only by a separate Wayback Machine capture — and each capture bears its own archival date.

A hyperlink does not traverse time. A Wayback Machine capture proves only what content existed at one URL on one date. That a 2003 capture of a Cornell index page (Ex. 1023, capture 20031118185911) contains a string formatted as a link to Trefethen says nothing about what content sat at the linked URL in 2001 or in 1996

— the dates on which Petitioner asserts public accessibility. The same gap pervades the RS6000 chain: the entry-point Product Documentation Library was archived April 10, 2001 (capture 20010410025356); the Volume 1 landing page was not archived until June 17, 2001 (20010617011337); the section pages Petitioner actually offers as RS6000 (Ex. 1007) were not archived until July 26, 2001 (20010726184202; 20010726183314) and August 2001 (Ex. 1038, 1-5); and the parallel pSeries entry path runs from October 24, 2001 (20011024235023) to December 4, 2001 (20011204190353). The chain spans ten months. For POEref the chain is worse: Petitioner's own expert concedes "Internet Archive . . . has not archived POE-2001." Ex. 1086 ¶128. The chain never reaches the document at any date.

The Board cannot supply the missing link. To prove a POSITA could have actually navigated the chain on the asserted critical date, Petitioner needed to tie the separately dated captures together into a navigable public-access path at the relevant date — either through contemporaneous evidence or testimony establishing that each intermediate page existed and contained the same link in the relevant state. Petitioner has neither. Asking the Board to assume that all linked pages existed identically on a single date is precisely the gap-filling *In re Magnum Oil* forbids. 829 F.3d at 1380. The preponderance burden on each reference's public accessibility is therefore unmet.

Additionally, with respect to RS6000, the Hsieh-Yee links the Reply relies on for accessibility of RS6000 differ from the evidence presented in the Petition. And Bajaj's declarations do not state that he actually traversed any of these pages in a reasonably diligent manner to locate the alleged RS6000 reference. Hsieh-Yee's declaration does not corroborate the pages relied upon in the Petition by Bajaj, but rather cites different pages accessed after the fact in 2026. Ex. 1086 ¶¶112-119. Neither Bajaj nor Hsieh-Yee provides evidence that RS6000 was viewed or downloaded from the IBM website prior to the critical date. *Blue Calypso*, 815 F.3d at 1349. It is Petitioner's burden to clearly and consistently present its evidence in the Petition that a POSITA could have located the documents exercising reasonable diligence. The record lacks sufficient evidence from Bajaj that this was the case, and Hsieh-Yee's declaration cannot fill that gap: Hsieh-Yee may authenticate cataloging and archival records, but her expertise does not extend to the technical-diligence inference about how a cluster-computing POSITA would have located IBM/Cornell materials through the asserted path at the relevant time. *Compare* Pet. 12 with Ex. 1086 ¶7. The Board should not condone Petitioner's hindsight do-over analysis.

Finally, the Hsieh-Yee usage-record case for RS6000, Ex. 1086 ¶¶120-123, is also unavailing. The URL contained in the bibliography of Ex. 1112 (<http://publibfp.boulder.ibm.com/epubs/pdf/da70bmst.pdf>) is a "dead link." The contents of that link, at a URL entirely different from what Bajaj identified, are

unknown, and it is speculative to assume the link's contents are the same as RS6000 solely based on the title, especially given the ease with which web pages could be edited in the relevant time period.

E. *Suffolk Techs.* Required Contemporaneous Access Evidence; Petitioner Has None

Petitioner's reliance on *Suffolk Techs. v. AOL, Inc.*, 752 F.3d 1358, 1365 (Fed. Cir. 2014), for the proposition that subsequent citation establishes accessibility (Reply 15, 17, 19-21), misreads the case. *Suffolk Techs.* addressed a Usenet post where access was established by replies posted to the same Usenet group during the critical period; the court relied on contemporaneous evidence that interested researchers actually accessed the post in the forum where it was published. *Id.* at 1361, 1365. Here, Petitioner offers no contemporaneous evidence that any skilled person actually accessed Menon, Trefethen, RS6000, POEref, or MPIref through the cataloging records or citation chains the Reply now invokes. Citations in later publications by other authors prove only that those authors had heard of the references, not that the references were publicly accessible to a POSITA on the priority date. Mere proof of subsequent awareness is the very "mere existence" theory *In re Lister* rejected. 583 F.3d at 1316-17.

The Reply's citation-counts theory — that Menon, Trefethen, RS6000, and MPIref are publicly accessible because they were later cited by other publications (Reply 15, 17, 19-21, citing Exs. 1028, 1035, and the Hsieh-Yee declaration) — fails

on the same logic. Citation counts establish that some authors knew of the references after the priority date; they do not establish that the references were publicly accessible to a POSITA on the priority date. The Reply identifies no contemporaneous evidence — testimony, library records dated before the priority date, or cataloging entries timestamped before the critical date — connecting the later-cited references to a publicly navigable channel on the priority date. *Blue Calypso*, 815 F.3d at 1350 (public accessibility “must be assessed on a case-by-case basis”); *In re Lister*, 583 F.3d at 1314 (“mere existence” is insufficient).

VI. CONCLUSION

Petitioner has not proven by a preponderance of the evidence that claims 1-20 are unpatentable. Patent Owner respectfully requests that the Board confirm the patentability of all challenged claims.

Dated: May 29, 2026

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION

Pursuant to 37 C.F.R. § 42.24(d), Patent Owner certifies that this Sur-Reply complies with the type-volume limits of 37 C.F.R. § 42.24 because, according to the word count provided by the word-processing system used to prepare this paper, it contains 4,581 words, excluding the parts of the document exempted by 37 C.F.R. § 42.24.

Dated: May 29, 2026

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that a true and correct copy of the foregoing Patent Owner's Sur-Reply was served in its entirety on May 29, 2026 by filing this document through the Patent Trial and Appeal Board End to End (PTACTS) System, and by causing true and correct copies to be served by electronic mail on Petitioner's lead and back-up counsel of record at the following email addresses:

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