UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DOCKER INC.,
Petitioner,
v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

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Case No. IPR2025-00840

U.S. Patent No. 8,332,844

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**Petitioner's Opposition to Patent Owner's Request for Discretionary Denial**

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## PETITIONERS' EXHIBIT LIST

| Exhibit No. | Description |
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| 1001 | U.S. Patent No. 8,332,844 |
| 1002 | File History for U.S. Patent No. 8,332,844 |
| 1003 | Declaration of Erez Zadok, Ph.D. |
| 1004 | U.S. Patent No. 6,618,736 |
| 1005 | U.S. Patent No. 7,395,324 |
| 1006 | U.S. Patent No. 7,089,300 |
| 1007 | U.S. Patent No. 7,398,382 |
| 1008 | File History for U.S. Patent Appl. No. 11/395,816 |
| 1009 | A. Silberschatz & P.B. Galvin, *Operating System Concepts* (4th ed. 1994) |
| 1010 | D.P. Bovet & M. Cesati, *Understanding the Linux Kernel* (1st ed. 2000) |
| 1011 | U.S. Patent No. 5,313,646 |
| 1012 | File History for U.S. Patent Appl. No. 11/026,622 |
| 1013 | Excerpts from Microsoft Computer Dictionary (3rd ed. 1997) |
| 1014 | Internet Small Computer Systems Interface (iSCSI), RFC 3720, IETF (April 2004), https://www.rfc-editor.org/rfc/pdfrfc/rfc3720.txt.pdf |
| 1015 | Dave Hitz *et al.*, Network Appliance Inc., *File System Design for an NFS File Server Appliance*, USENIX 1994 |
| 1016 | U.S. Patent No. 7,334,095 |
| 1017 | Hugo Patterson *et al.*, Network Appliance Inc., *File System Based Asynchronous Mirroring for Disaster Recovery*, USENIX 2002 |
| 1018 | U.S. Patent No. 6,668,264 |
| 1019 | PANTA Systems – Oracle Based Data Warehouse Appliances (2008), *archived by* Internet Archive (July 19, 2008), https://web.archive.org/web/20080719170856/ http:/www.pantasys.com/products/overview.html |

| Exhibit No. | Description |
|---|---|
| 1020 | Affidavit of Foreclosure and Assignment, USPTO Assignment Database, Reel/frame 018975/0285 (executed May 17, 2012; recorded June 5, 2012), http://legacy-assignments.uspto.gov/assignments/assignment-pat-28324-627.pdf |
| 1021 | PANTA Systems – Crunchbase Company Profile & Funding (last accessed Aug. 27, 2025), https://www.crunchbase.com/organization/panta-systems |
| 1022 | Petition for *Inter Partes* Review of U.S. Patent No. 8,332,844, *Liberty Mut. Ins. Co. v. Intellectual Ventures II LLC*, IPR2025-00202, Paper 3 (P.T.A.B. Nov. 20, 2024) |
| 1023 | Expert Declaration of Dr. Erez Zadok, Ph.D., *Liberty Mut.*, IPR2025-00202, Exhibit 1003 (P.T.A.B. Nov. 20, 2024) |
| 1024 | Decision – Settlement Prior to Institution of Trial, *Liberty Mut.*, IPR2025-00202, Paper 9 (P.T.A.B. Apr. 23, 2025) |
| 1025 | Invention Investment Fund has reshaped patent licensing \| Intellectual Ventures (last accessed Aug. 27, 2025), https://www.intellectualventures.com/what-we-do/invention-investment-fund/ |
| 1026 | Unified Patents Real Party-in-Interest (RPI) Decisions (May 20, 2019; updated May 10, 2022), https://www.unifiedpatents.com/rpi |
| 1027 | FAQ – Unified Patents (last accessed Aug. 27, 2025), https://www.unifiedpatents.com/faq |

## TABLE OF ABBREVIATIONS

| Abbreviation | Term |
|---|---|
| ’477 application | U.S. Patent Appl. No. 11/709,477 |
| ’816 application | U.S. Patent Appl. No. 11/395,816 |
| ’622 application | U.S. Patent Appl. No. 11/026,622 |
| ’844 patent | U.S. Patent No. 8,332,844 (EX1001) |
| AIA | America Invents Act |
| Birse | U.S. Patent No. 7,089,300 (EX1006) |
| Challenged Claims | Claims 1–27 of U.S. Patent No. 8,332,844 |
| Fig. | Figure |
| IPR | *inter partes* review |
| Menage | U.S. Patent No. 6,618,736 (EX1004) |
| Murphy | U.S. Patent No. 7,395,324 (EX1005) |
| Patent Owner | Intellectual Ventures II LLC |
| Petitioner | Docker Inc. |
| POSITA | Person[s] of ordinary skill in the art |
| Rothman | U.S. Patent No. 7,398,382 (EX1007) |

## I. INTRODUCTION

Discretionary denial is unwarranted here. Although the ’844 patent issued 12 years ago, there are no settled expectations because the current owner never used the patent and there is no evidence that its predecessor did either. The prior owner was not a competitor to Petitioner Docker Inc. (“Docker”) and never notified Docker about the patent’s existence. Moreover, Docker has not been sued for patent infringement on the ’844 patent. Rather, the current patent owner Intellectual Ventures (“IV”) began suing companies on the ’844 patent in 2023, based on their use of Docker’s software but has not sued Docker directly. As a result, there is no pending district court action in which Docker has an opportunity to challenge the invalidity of this ’844 patent to stop IV from suing Docker customers for infringement. The IPR system was created to enable companies like Docker to challenge invalid patents that are being asserted against its customers.

Patent Owner’s fictional allegations of a “coordinated campaign” to “harass” Patent Owner has no factual support. The commonalities between the three pending post-grant challenges to the ’844 patent stem from an earlier petition for *inter partes* review filed by Liberty Mutual that was terminated prior to institution. Patent Owner conspicuously fails to mention the Liberty Mutual IPR, likely because the earlier IPR presented the *exact same four grounds* that are now set forth in both the American/Southwest IPR and Unified Patent’s request for reexamination. Similarly

missing from Patent Owner's request is an acknowledgement that Dr. Erez Zadok was originally retained to support the Liberty Mutual IPR and had submitted a declaration regarding the invalidity of the '844 patent.

Patent Owner's remaining arguments for discretionary denial fare no better. For example, Patent Owner's contention that the "well-settled expectations" of the parties favors discretionary denial is completely undermined by the fact that the '844 patent lay dormant for 10 of the 12 years that it has been in force under assignment to Patent Owner, who is not a competitor of Petitioner. Rather than offering actual evidence of commercialization, assertion, or licensing of the '844 patent that would support its argument for settled expectations, Patent Owner improperly blames *Docker* for failing to challenge a patent that Docker had no reason to know of prior to Patent Owner's current litigation campaign. This complete lack of use of the '844 patent for the decade preceding Patent Owner's litigation campaign (which started in 2023) outweighs any claim of settled expectations based solely on the length of time the patent has been in force. *See Intel Corp. v. Proxense LLC*, IPR2025-00327, -00328, -00329, Paper 12 at 2–3 (P.T.A.B. June 26, 2025).

Patent Owner's arguments as to the merits of Docker's Petition are similarly unavailing. Regarding Ground 1, Patent Owner essentially argues that it would not have been obvious to use a computer cache—a concept that has been around since the 1960s—in the most basic manner that caches are used: storing information that

has been recently accessed in the cache under the assumption that there is a high probability that it will be needed again. Regarding Ground 2, Patent Owner asserts that "programmed to provide indexing results to another compute node" requires the indexing results to be provided *directly* to the other compute nodes. But this narrow interpretation reads out other embodiments contemplated in the specification, which states that "providing the indexing results to other compute nodes . . . may be done in a number of ways," such as where "the indexing results may be stored *on a shared storage unit . . . and then provided to the compute nodes via the shared storage unit*," which is exactly what is described in the prior art Murphy reference.

The merits of Docker's Petition are strong. The Petition presents four unique grounds of invalidity, none of which have been previously considered by the Patent Office or any district court. Grounds 1 and 2 are based on the Menage reference, alone and in combination with the Murphy patent for Murphy's disclosure of indexing techniques. The only overlap with the American/Southwest IPR and the Unified Patents reexamination request is the Birse reference. However, the present Petition uses Birse in combination with Rothman and Murphy, which are not used in any of the other patent office challenges to the '844 patent.

Accordingly, Petitioner hereby respectfully requests that the Director reject Patent Owner's request for discretionary denial.

## II. FACTUAL BACKGROUND

### A. The ’844 Patent

The application for the ’844 patent was filed on February 21, 2007, by Panta Systems, Inc. (“Panta”), a developer of data warehouse appliances that use Oracle’s database engine. EX1002, 1; EX1019. Panta’s rights to the ’844 patent were acquired by Venture Lending & Leasing IV, Inc., a commercial finance company managed by Western Technology Investment, on July 21, 2008, because of Panta’s default on two promissory notes. *See* EX1020. Panta went defunct in 2009. EX1021, 1. On May 18, 2012, Venture Lending & Leasing IV assigned the ’844 patent to Emendable Assets Limited Liability Company, LLC, which is owned and controlled by Intellectual Ventures’ Invention Investment Fund II, LLC (“IIF II”). Request at 19 n.1. The ’844 patent issued on December 11, 2012. Ultimately, the ’844 patent was assigned to Patent Owner Intellectual Ventures II LLC on November 2, 2023.

### B. Patent Owner’s Current Litigation Campaign and the Liberty Mutual Petition for *Inter Partes* Review

The ’844 patent was first asserted by Patent Owner in three cases filed on November 15, 2023, nearly *12 years* following the ’844 patent’s issuance. *See Intellectual Ventures I LLC v. JP Morgan Chase Bank, N. Assoc’n*, No. 2:23-cv-00523 (E.D. Tex.); *Intellectual Ventures I LLC v. Comerica Inc.*, No. 2:23-cv-00524 (E.D. Tex.); *Intellectual Ventures I LLC v. Liberty Mut. Holding Co. Inc.*, No. 2:23-cv-00525 (E.D. Tex.).

On November 20, 2024, Liberty Mutual and Comerica (the defendants in two of the above-mentioned cases) filed a petition for *inter partes* review of the '844 patent ("the LiMu IPR"). *See* EX1022. The LiMu IPR presented four grounds of invalidity:

| Ground | Challenged Claims | Basis for Rejection |
|---|---|---|
| 1A | 1–13 | Obviousness over Sapuntzakis and Holzmann (U.S. Pat. Appl. Pub. No. 2005/0283597) |
| 1B | 14–27 | Obviousness over Sapuntzakis and Federwisch (U.S. 2003/0182313) |
| 2A | 1–13 | Obviousness over Birse (U.S. Patent No. 7,089,300) and Holzmann |
| 2B | 14–27 | Obviousness over Birse and Federwisch |

*Id.*, 13–14. The LiMu IPR was supported by the declaration of Dr. Erez Zadok. *See* EX1023. The LiMu IPR was accorded a filing date on Dec. 12, 2024. The Board authorized the filing of a joint motion to terminate the proceeding on January 28, 2025, and the IPR was subsequently terminated on April 23, 2025. *See* EX1024.

### C. The Southwest Litigation, the American Litigation, and the Patent Office Challenges to the '844 Patent

Patent Owner's second round of litigation on the '844 patent began on November 2, 2024, with complaints filed against American Airlines and Southwest Airlines. *See Intellectual Ventures I LLC v. Am. Airlines, Inc.*, No. 4:24-cv-00980 (E.D. Tex.); *Intellectual Ventures I LLC v. Southwest Airlines Co.*, No. 7:24-cv-00277 (W.D. Tex.). Southwest's invalidity contentions were served on April 8, 2025. EX2009. Southwest's invalidity contentions *do not include* the Menage

reference presented in Grounds 1 and 2 of Docker's Petition. Southwest's invalidity contentions likewise *do not include* the Murphy reference used in Grounds 2 and 4 of Docker's Petition.

On April 30, 2025, American and Southwest filed a petition for *inter partes* review of the '844 patent, IPR2025-00931 ("the Airline IPR"). *See* EX2001. The Airline IPR presents *the exact same invalidity grounds* as the LiMu IPR. Likewise, the Airline IPR is supported by a declaration by Dr. Erez Zadok, the same expert who supported the LiMu IPR.

On the same day, Unified Patents filed a request for *ex parte* reexamination of the '844 patent ("the Unified Reexam"). *See* EX2002. The Unified Reexam presents four substantial new questions of patentability that are *identical to the invalidity grounds* in the LiMu IPR. The Unified Reexam is similarly supported by a declaration of Dr. Erez Zadok. Indeed, Exhibit 1003 to the Unified Reexam "is a copy of the Declaration of Dr. Erez Zadok that was filed in [the LiMu IPR], IPR2025-00202," and "references to Grounds 1A and 1B correspond to SNQ1 and SNQ2," while "references to Grounds 2A and 2B correspond to SNQ3 and SNQ4, respectively." EX2002, 6.

On May 1, 2025, Docker filed the instant Petition for *inter partes* review of the '844 patent. Docker's Petition presents *four unique invalidity grounds*:

| Ground | Challenged Claims | Basis for Rejection |
|---|---|---|
| 1 | 1–13 | Obviousness over Menage (U.S. Patent No. 6,618,736) |
| 2 | 14–27 | Obviousness over Menage and Murphy (U.S. Pat. No. 7,395,324) |
| 3 | 1–13 | Obviousness over Birse and Rothman (U.S. Pat. No. 7,398,382) |
| 4 | 14–27 | Obviousness over Birse and Murphy |

American Airlines served its invalidity contentions on June 20, 2025. EX2003. American's contentions *do not include* the Murphy reference used in Grounds 2 and 4 of Docker's Petition.

## III. DISCRETIONARY DENIAL IS UNWARRANTED

For the reasons below, none of Patent Owner's arguments compel discretionary denial here. To the contrary, the strength of the merits of Docker's Petition, which are not duplicative of any of the other Patent Office challenges or district court invalidity positions, along with Patent Owner's complete failure to commercialize, license, or otherwise use the '844 patent, weigh in favor of rejecting Patent Owner's request for discretionary denial.

### A. Settled Expectations

Patent Owner asserts that "strong settled expectations" warrant discretionary denial, because the '844 patent has been in force for over 12 years. Paper 6, 15–16. However, the length of time that the patent has been in force is not the end of the inquiry. As the Director recently noted, the "settled expectations" doctrine may be less likely to support denial where the patent owner has "not commercialized,

asserted, marked, licensed, or otherwise applied" the patent in the "particular technology space," or at all. *Intel Corp.*, IPR2025-00327, Paper 12 at 2–3.

Here, there is no evidence that Patent Owner exploited its rights in the '844 patent in any way prior to the start of its litigation campaign against Docker's customers in November 2023. Nor is there any evidence that Patent Owner's predecessors-in-interest ever used the '844 patent. Panta Systems, the original assignee of the '844 patent, went out of business approximately three years before the patent issued and was forced to assign the patent to Venture Lending & Leasing IV due to insolvency. Venture Lending & Leasing IV is not a competitor of Docker and never notified Docker about the '844 patent's existence during its period of ownership.

Patent Owner is not a competitor of Docker and does not make or sell commercial products that practice the patents in its expansive portfolio. Rather, Patent Owner describes itself as "a pioneer in patent licensing." EX1025, 1. Yet, Patent Owner presented no evidence in its request that would demonstrate utilization of the '844 patent prior to its assertion against Docker's customers in late 2023. Indeed, Patent Owner has never directly notified Docker of the patent's existence, attempted to license the patent to Docker, or asserted the patent in litigation against Docker.

Instead, Patent Owner attempts to invert the "settled expectations" analysis by asserting that the onus was on *Docker* to have searched for, identified, and challenged the '844 patent, despite the complete lack of commercialization or licensing efforts by Patent Owner until its litigation against Docker's customers beginning in November 2023. Even if Patent Owner's approach was proper—and it is not—Patent Owner offers no cogent argument as to *why* Docker (or any potential patent challenger) should be required to find dormant patents (such as the '844 patent) and launch preemptive invalidity challenges, even where there is no commercialization or licensing activity. Accordingly, any "settled expectations" with respect to the '844 patent do not justify discretionary denial here.

**B. The Unsubstantiated "Campaign to Harass" Patent Owner**

Having no legitimate argument as to settled expectations, Patent Owner instead resorts to smears, dedicating nearly half of its request to the unfounded accusation that Docker, American, Southwest, and Unified Patents "are engaging in a campaign to harass the patent owner with multiple coordinated challenges to the IPR." Paper 6 at 1. Patent Owner relies on three purported pieces of "circumstantial evidence" in its claim of coordination: (1) the three post-grant challenges were filed at "virtually the same time;" (2) all three challenges rely on the testimony of Dr. Zadok; and (3) the grounds of each challenge "are duplicative of grounds being

advanced by another challenger before either the Office or in the district courts." Paper 6 at 10–11.

Tellingly, Patent Owner makes no mention of the LiMu IPR, the existence of which easily explains the identity between the grounds of the Airline IPR and the substantial new questions of patentability of Unified Reexam. Likewise, Patent Owner makes no mention of Dr. Zadok's work on the LiMu IPR, nor his considerable academic and industry experience with data storage devices, file systems, and copy-on-write storage systems, including his work on UnionFS, a precursor to the OverlayFS union filesystem used by Docker.

**1. Filing Dates of the Challenges**

The fact that the three challenges were filed within a day of each other is nothing more than a coincidence. Like Docker, each of American, Southwest, and Unified Patents were aware of the LiMu IPR before the challenges were filed, as indicated in their respective challenges. *See* EX2001, 9; EX2002, 6 n.1. Likewise, Docker—and presumably, the other challengers—were aware that the district court cases between Patent Owner and the petitioners in the LiMu IPR were voluntarily dismissed on January 17, 2025. *See Intellectual Ventures I LLC v. JP Morgan Chase & Co.*, No. 2:23-CV-00523-JRG, Dkt. 110 (E.D. Tex. Jan. 17, 2025). The simplest explanation of the proximate filing dates is that the challengers each recognized that the LiMu IPR would not reach the institution decision phase and decided to pursue

independent challenges to the ’844 patent over the following three-and-a-half months.

**2. Retention of Dr. Zadok**

Moreover, each challenger’s reliance on testimony from Dr. Zadok is wholly unsurprising considering his prior work on the LiMu IPR. By relying on Dr. Zadok, Docker—and presumably, the other challengers—sought the efficiency of an eminently qualified expert who was already familiar with the ’844 patent, and in the case of the Airline IPR and the Unified Reexam, the exact invalidity grounds presented.

**3. Alleged “Duplication” of Grounds**

Finally, the existence of allegedly “duplicative” grounds does not “indicate[] that the challengers are sharing work product,” as Patent Owner contends. Paper 6 at 11. Rather, the glaringly obvious explanation for the duplicated grounds between the Airline IPR and the Unified Reexam is that those grounds had already been prepared for the LiMu IPR. Thus, they were repackaged and independently submitted by American/Southwest and Unified Patents.

Regarding Docker’s Petition, Patent Owner is simply incorrect regarding the alleged “duplication” between the Petition’s grounds and the airline’s invalidity contentions in the district court. As explained above, Southwest’s invalidity contentions, which were served prior to the filing of Docker’s Petition, *do not*

*include* the Menage reference. Southwest's invalidity contentions also *do not include* the Murphy reference used in Grounds 2 and 4 of the Docker Petition. If Docker and Southwest were "coordinating," as Patent Owner alleges, it makes no sense for Southwest to have omitted those prior art references from its invalidity contentions, which were served just a few weeks (April 8, 2025) prior to the filing of Docker's Petition (May 1, 2025). Moreover, although the Birse and Rothman references are identified in Southwest's invalidity contentions, there is no indication that Southwest is advancing or will advance the specific combination of Birse and Rothman (*i.e.*, Ground 3 of Docker's Petition). Put simply, there is no "duplication" of grounds between the Docker Petition and Southwest's invalidity contentions.

American's invalidity contentions were not served until *two months following* the filing of Docker's Petition, on June 20, 2025. The simplest explanation for the inclusion of the Menage reference in American's contentions is that American learned of that reference from the public filing of Docker's Petition—*not* from "coordinated effort" or "shar[ed] work product." Paper 6 at 11.

The imagined "campaign to harass the patent owner" also defies common sense. Given that the Airline IPR and the Unified Reexam present identical invalidity grounds, they are potentially subject to consolidation. Although the four grounds of the Docker Petition are distinct from the grounds of the other challenges, they likewise may be considered sufficiently similar, and therefore subject to

consolidation with the Airline IPR. Had the challengers "coordinated" to harass the Patent Owner, they presumably would have filed challenges with dramatically different invalidity arguments between them, increasing the burden on the Patent Owner to respond. Further, given the similarities and potential for consolidation, the three challenges do not waste PTAB resources.

### C. American Airlines, Southwest Airlines, and Unified Patents Are Not Real Parties in Interest with Docker

Patent Owner incorrectly contends that American, Southwest, and Unified Patents are real parties in interest to this proceeding. *See* Paper 6 at 12–14. Specifically, Patent Owner argues that "one or both of" American and/or Southwest are real parties in interest with Unified Patents due to: (1) alleged membership of Unified Patents; (2) payment of membership fees to Unified Patents; and (3) the alleged coordination "to launch duplicative challenges to the '844 patent." *Id.*, 13. As to the airlines and Docker, Patent Owner asserts that: (1) the airlines have a vendor relationship with Docker; and (2) have allegedly "coordinated with Docker to launch duplicative challenges to the '844 patent." *Id.*

As an initial matter, "it best serves the Office's interests in cost and efficiency to not resolve an RPI issue when 'it would not create a time bar or estoppel under 35 U.S.C. § 315' in that proceeding." *Unified Patents, LLC v. MemoryWeb, LLC*, No. IPR2021-01413, Paper 76 at 4–5 (P.T.A.B. May 22, 2023) (quoting *SharkNinja Operating LLC v. iRobot Corp.*, IPR2020-00734, Paper 11, 18 (P.T.A.B. Oct. 6,

2020)). Patent Owner has not identified any potential time bar or estoppel, because neither Unified nor the airlines implicate the statutory time bar or estoppel provisions. Nor has Patent Owner explained why an RPI analysis should be considered at the discretionary denial phase, when it would be entirely irrelevant to the institution of this IPR.

Even if an RPI analysis were appropriate here, Patent Owner has not presented evidence sufficient to overcome the presumption that Petitioners have "identif[ied] accurately all RPIs." *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1343 (Fed. Cir. 2018). To overcome this presumption, Patent Owner "must produce some evidence that tends to show that a particular third party should be named a real party in interest." *Worlds Inc. v. Bungie, Inc.*, 903 F.3d 1237, 1244 (Fed. Cir. 2018).

For the reasons explained above in Section III.A, Patent Owner's "evidence" of coordination between the challengers is more readily explained by the parties' reliance on the arguments set forth in the earlier LiMu petition, which was terminated prior to an institution decision.

With respect to Unified, membership of and payment of membership fees to Unified Patents have never been found by the Board to be sufficient to confer real party in interest status to Unified's members. *See, e.g.*, *Unified Patents, Inc. v. Realtime Adaptive Streaming*, IPR2018-00883, Paper 29, 14–15 (P.T.A.B. Oct. 11,

2018); EX1026 (discussing Unified's history of success with RPI challenges); EX1027, 2 ("Unified's activities are not based on the interests of any particular member or members."); *id.*, 4 ("Unified . . . does not discuss details with its members concerning the preparation and prosecution of post-grant review challenges before the USPTO, including whether Unified will (or will not) file.").

With respect to the airlines, the vendor relationship with Docker is "insufficient to establish the requisite 'close relationship' required to find that a party is a real party in interest." *Toshiba Memory Corp. v. Anza Tech., Inc.*, IPR2018-01597, Paper 56 at 15 (P.T.A.B. Mar. 12, 2020); *see also Samsung Elecs. Co., v. Seven Networks, LLC*, No. IPR2018-01108, Paper 22 at 11 (P.T.A.B. Nov. 28, 2018) (refusing to deny institution based on failure to name supplier Google as an RPI); *Merck Sharp & Dohme Corp. v. GlaxoSmithKline Biologicals SA*, IPR2018-01229, Paper 13 at 10–13 (P.T.A.B. Dec. 18, 2018) (finding that a company licensing technology to Merck for development of Merck's vaccine was not an RPI because the company merely licensed its technology to Merck). As noted in the Petition, no entity other than Docker is "funding, controlling, or directing this Petition, or otherwise has had an opportunity to control or direct this Petition or Petitioner's participation in any resulting *inter partes* review (IPR)." Pet., viii. Patent Owner has offered no evidence to the contrary.

### D. The Strength of Docker's Unpatentability Challenge Favors Institution

Finally, Patent Owner attacks the merits of two of the four grounds of invalidity, but neither purported "deficiency" is compelling.

#### 1. Ground 1

Regarding Ground 1, Patent Owner argues that Docker failed to demonstrate that the recitation of "a cache *configured to* cache blocks of said root image previously accessed by at least one of said compute nodes" is rendered obvious by Menage's disclosure of a cache for its "shared storage units 302." Paper 6 at 20–23 (emphasis in original). Specifically, Patent Owner asserts that Menage's teaches that its cache is used for "caching *all* information in shared storage units," and that Petitioner "glosses over the claim requirement that the cached information have been '*previously accessed* by at least one of said compute nodes.'" *Id.*, 21 (emphasis in original).

Patent Owner's argument fails, because the Petition, as supported by Dr. Zadok, makes clear that in the basic operation of a cache memory, data is admitted into the cache upon a read request (*i.e.*, upon "access") for a data item. *See* Pet., 27 ("[I]t would have been obvious to a POSITA that blocks of the root image stored in the shared storage units 302 would have been cached, as described by Menage, upon read access by one of the virtual processes (*i.e.*, "one of said compute

nodes"), in accordance with *well-known caching techniques*."). In support of this statement, the Petition cites paragraph 321 of Dr. Zadok's declaration, which states:

> A POSITA would have recognized that blocks of the root image (the initial file system stored on the shared storage devices 204) would be cached upon access by at least one of the compute nodes (virtual processes), *because this is in accordance with the basic operation of a cache memory, wherein data is admitted into the cache upon a read request for the data item*. *See* §VII.D above.

EX1003, ¶321 (emphasis added). Dr. Zadok additionally references Section VII.D of his declaration, which is an overview of caching technologies. This section quotes from a computer operating systems textbook, which explains that "[i]nformation is normally kept in some storage system (such as main memory)," and that as the information "is used"—that is, accessed—"it is copied into [a] faster storage system, the cache, on a temporary basis." *Id.*, ¶89 (quoting EX1009, 43). Further, when a particular piece of information is needed, "we first check whether it is in the cache," and if it is, "we use the information directly from the cache; if it is not, we use the information from the main storage system, *putting a copy in the cache under the assumption that there is a high probability that it will be needed again*." *Id.* (emphasis added). Dr. Zadok's overview of caching also quotes from the Microsoft Computer Dictionary, which indicates that a "disk cache is used to hold information

that either has *recently been requested from disk* or has previously been written to disk." *Id.*, ¶92 (quoting EX1013, 151) (emphasis added).

**2. Ground 2**

Regarding Ground 2, Patent Owner argues that Docker failed to demonstrate that Murphy renders obvious the limitation that "at least one of said *compute nodes is configured to* index said root image and *provide the indexing results to another of said compute nodes*." Paper 6, 23–25 (emphasis in original). Specifically, Patent Owner asserts that "in Murphy[,] the alleged indexing results are not provided from one compute node (client computer 202) to another compute node (client computer 202)," but rather "from the server 206 to the alleged compute nodes (client computers 202)," and that "[t]he Petition fails to explain how Murphy's forwarding of indexing results from server 206 to client computers 202 equates to *one compute node* being programmed to provide indexing results to *another compute node*." *Id.*, 24–25 (emphasis in original).

Patent Owner's argument rests on an improperly narrow construction of "provid[ing] the indexing results to another of said compute nodes" that excludes embodiments described in the specification. *CUPP Computing AS v. Trend Micro Inc.*, 53 F.4th 1376, 1381 (Fed. Cir. 2022) ("Indeed, 'a claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct.'" (quoting *Accent Packaging, Inc. v. Leggett & Platt, Inc.*, 707 F.3d 1318,

1326 (Fed. Cir. 2013))). The '844 patent explains that "[i]t is appreciated that the indexing results can be *provided to the other compute nodes* in a number of ways," for example, "the results *may be stored on a shared storage unit*," or "the results may be provided directly to the other compute nodes, etc." EX1001, 7:37–41 (emphasis added).

The Petition makes clear that Murphy teaches "the ability to provide the indexing results to another client computer by storing an 'index file' on a server." Pet., 45 (citing EX1003, ¶¶388–90). Under a proper construction that encompasses the preferred embodiments, Murphy renders obvious "provid[ing] the indexing results to another of said compute nodes" by storing an index file on the server.

## IV. CONCLUSION

For the foregoing reasons, Petitioner respectfully submits that the Director should deny the request for discretionary denial of institution.

DATED: August 28, 2025

Respectfully Submitted,

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**CERTIFICATION UNDER 37 C.F.R. § 42.24(d)**

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned attorney hereby certifies that the word count of the foregoing Opposition to Patent Owner's Request for Discretionary Denial is 4,298, according to the word count tool in Microsoft Word, in compliance with the type-volume limits set forth in Director Stewart's March 26, 2025 Memorandum regarding Interim Processes for PTAB Workload Management.

DATED: August 28, 2025

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**CERTIFICATE OF SERVICE**

Pursuant to 37 C.F.R. § 42.6, the undersigned certifies that on August 28, 2025, true and correct copies of the foregoing Opposition to Patent Owner's Request for Discretionary Denial and Exhibits EX1019 through EX1027 were served electronically on Petitioner's lead and backup counsel at the following addresses:

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