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Paper 11
Entered: July 6, 2018

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HULU, LLC,
Petitioner,

v.

SOUND VIEW INNOVATIONS, LLC,
Patent Owner.

Case IPR2018-00366
Patent 6,125,371

Before DEBRA K. STEPHENS, DANIEL J. GALLIGAN, and JOHN A. HUDALLA, *Administrative Patent Judges.*

Opinion for the Board filed by *Administrative Patent Judge* DANIEL J. GALLIGAN.

Opinion Dissenting filed by *Administrative Patent Judge* DEBRA K. STEPHENS.

GALLIGAN, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background

Hulu, LLC ("Hulu" or "Petitioner") filed a Petition to institute *inter partes* review of claims 1–3 and 8–10 of U.S. Patent No. 6,125,371 (Ex. 1201, "the '371 patent"). Paper 1 ("Pet."). Sound View Innovations, LLC ("Patent Owner") filed a Preliminary Response. Paper 8 ("Prelim. Resp.").

Petitioner also filed a Motion for District Court-Type Claim Construction under 37 C.F.R. § 42.100(b). Paper 3. As discussed below, we grant this Motion.

Pursuant to 37 C.F.R. § 42.4(a), we have authority to determine whether to institute review. The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless the information presented in the Petition and the Preliminary Response shows "there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

After considering the Petition, the Preliminary Response, and associated evidence, we institute an *inter partes* review as to claims 1–3 and 8–10 of the '371 patent.

B. Real Parties in Interest

Petitioner states: "Hulu, LLC, is the real party-in-interest. The following entities own ten percent or more of the stock of Petitioner, and may also be considered real parties-in-interest: The Walt Disney Company, 21st Century Fox, Comcast Corporation, and Time Warner Inc." Pet. 5. As real parties in interest, Patent Owner identifies itself and Sound View

Innovation Holdings, LLC. Paper 10, 1.

C. Related Matters

The parties identify various district court litigations involving the '371 patent. Pet. 5–6; Paper 10, 1–2. The '371 patent was at issue in IPR2017-00985, which we terminated at the request of the parties to that proceeding. The '371 patent is also at issue in IPR2018-00017 and IPR2018-00096.

D. The '371 Patent

The '371 patent, entitled "System and Method for Aging Versions of Data in a Main Memory Database," generally describes systems and methods for managing versions of data records in a database to increase data capacity. Ex. 1201, Abstract, 2:55–62. The Background of the '371 patent explains that "[d]atabase systems typically include a database manager ('DBM') and a database (i.e., a data repository)." *Id.* at 1:13–15. "A DBM is a control application that supervises or manages interactions between application tasks and the database." *Id.* at 1:15–17.

Figure 1 of the ’371 patent is reproduced below.

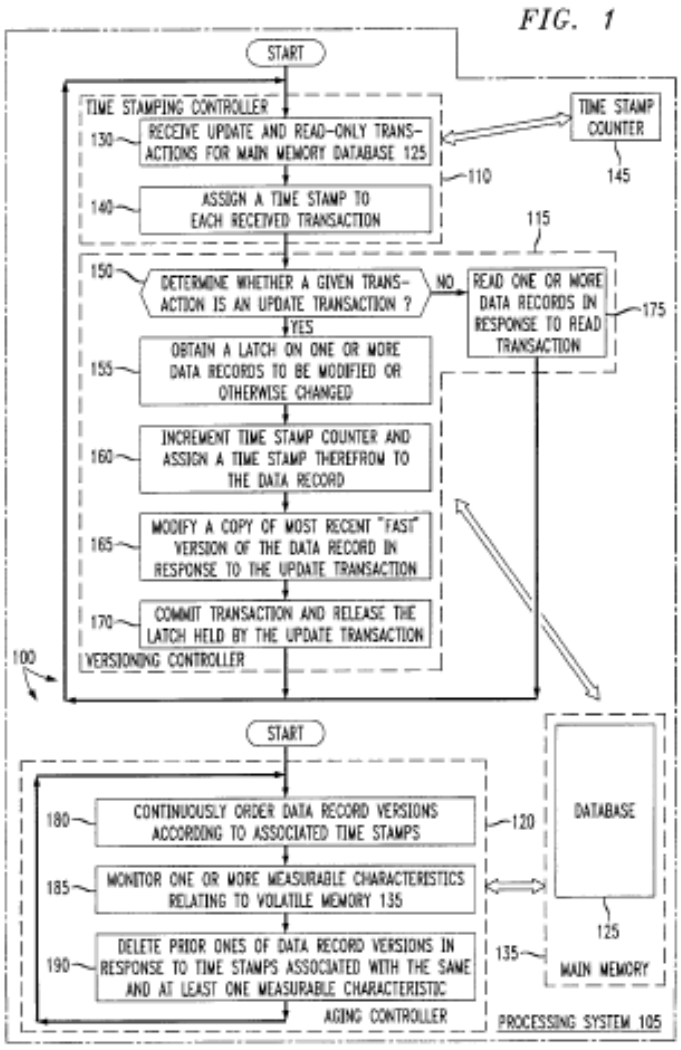

Figure 1 depicts a flow diagram of an exemplary method for controlling multi-versioned data records. Ex. 1201, 3:36–38.

> Version manager 100 may be software-based and executable by any suitably arranged processing system 105 (e.g., a computer, communications switch, etc.). Version manager 100 includes three controllers, namely, a time stamping controller 110, a versioning controller 115 and an aging controller 120. Those skilled in the art should be familiar with the use of controllers in processing environments generally and, more specifically, with main memory databases. Controllers may be implemented

> in software, firmware, hardware, or some suitable combination of at least two of the three.

Id. at 4:47–57. Time stamping controller 110 receives update and read-only transactions for main memory database 125 (step 130). *Id.* at 4:58–60. "In response, time stamping controller 110 assigns a time stamp to each received transaction, step 140." *Id.* at 4:62–64. "[V]ersioning controller 115 determines whether a given transaction is an update transaction, decisional step 150." *Id.* at 5:5–7.

> If the transaction is an update transaction, . . . versioning controller 115 (1) obtains a "X" lock on one or more data records to be modified (or otherwise changed), step 155, (2) modifies a copy of the most recent "past" version of the data record in response to the update transaction, creating a new "current" or "successor" version, step 165 and (3) commits the transaction, at which time it increments time stamp counter 145, assigns a time stamp therefrom to the new "successor" versions of the updated data records and releases the "X" lock held by the update transaction, step 170.

Ex. 1201, 5:7–18. Aging controller 120 "monitors main memory database 125 to (1) continuously order (e.g., sort, arrange, etc.) multiple versions of ones of the data records according to their associated time stamps, step 180 and (2) monitor one or more measurable characteristics describing, relating to, or otherwise associated with a utilization or capacity of main memory 135, step 185." *Id.* at 5:36–44. Aging controller 120 also deletes earlier versions of data records in response to the time stamp associated with those versions and at least one measurable main memory characteristic (step 190). *Id.* at 5:44–48.

E. Illustrative Claims

Of the claims at issue, claims 1 and 8 are independent claims. Claim 1, which is reproduced below and is illustrative of the subject matter, is a system claim reciting various "controller[s]" for performing particular operations, and claim 8 is a method claim reciting steps that correspond to the operations recited in claim 1. Claims 2 and 3 depend from claim 1, and claims 9 and 10 depend from claim 8.

> 1. A processing system for use with a database of data records, said database stored in a memory, comprising:
>
> a time stamping controller that assigns a time stamp to transactions to be performed on said database;
>
> a versioning controller that creates multiple versions of ones of said data records affected by said transactions that are update transactions; and
>
> an aging controller that monitors a measurable characteristic of said memory and deletes ones of said multiple versions of said ones of said data records in response to said time stamp and said measurable characteristic thereby to increase a capacity of said memory.

F. Applied References and Declaration

Petitioner relies on the following references and declaration in support of its asserted grounds of unpatentability.

Exhibit No.	Reference
1202	Declaration of Phillips B. Gibbons, Ph.D.
1203	Excerpts from Philip A. Bernstein et al., *Concurrency Control and Recovery in Database Systems* (1987) ("Bernstein")
1219	Russ Blake, *Optimizing Windows NT*, Microsoft Windows NT Resource Kit: For Windows NT Workstation and Windows NT Server Version 3.51 ("Blake")

Pet. 7.

G. Asserted Ground of Unpatentability

Petitioner contends that claims 1–3 and 8–10 of the ’371 patent are unpatentable under 35 U.S.C. § 103(a)[1] based on the combined teachings of Bernstein and Blake. Pet. 7.

II. ANALYSIS

A. Discretionary Denial

Patent Owner argues that the Board should exercise discretion under 35 U.S.C. §§ 314(a) and 325(d) to deny the Petition. Prelim. Resp. 3–32. Petitioner argues against discretionary denial. Pet. 1–5. We provide the following brief overview of earlier petitions involving the ’371 patent to give context to our discussion of discretionary denial.

On February 28, 2017, Facebook, Inc. (“Facebook”) filed a petition for *inter partes* review of claims 1–3 and 8–10 of the ’371 patent on the ground of obviousness over Bernstein and Rubin. IPR2017-00985 (“Facebook IPR”), Paper 2 (“Facebook Pet.”). In its petition, Facebook argued that, under the broadest reasonable interpretation standard, the “controller” limitations of claims 1–3 are not means-plus-function limitations subject to 35 U.S.C. § 112, ¶ 6. Facebook Pet. 5–7. Facebook further asserted, however, that, “[u]nder the narrower *Phillips* claim construction standard applicable in litigation, the ‘controller’ terms would be subject to § 112, ¶ 6 treatment and are indefinite.” *Id.* at 7 n.1. In the

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102, 103, and 112. Because the challenged claims of the ’371 patent have an effective filing date before the effective date of the applicable AIA amendments, we refer to the pre-AIA versions of 35 U.S.C. §§ 102, 103, and 112.

Facebook IPR, Patent Owner filed a motion pursuant to 37 C.F.R. § 42.100(b) requesting district court-type claim construction. Facebook IPR, Paper 6. Facebook did not oppose the motion, and the Board granted the motion. Facebook IPR, Paper 8. The Board applied the *Phillips* claim construction standard in deciding whether to institute trial and noted that Facebook failed to provide means-plus-function claim constructions as required by the Board's Rules. Facebook IPR, Paper 17, 10–14; *see* 37 C.F.R. § 42.104(b)(3). The Board stated that it could not "evaluate Petitioner's asserted ground with respect to claims 1–3 in the absence of" the required means-plus-function constructions and, therefore, denied institution as to claims 1–3. Facebook IPR, Paper 17, 14, 27. The Board, however, determined that Facebook established a reasonable likelihood of prevailing with respect to claims 8–10 based on obviousness over the combination of Bernstein and Rubin and instituted *inter partes* review on these claims. *Id.* at 26–27.

On October 5, 2017, Petitioner filed a petition for *inter partes* review of claims 8–10 of the '371 patent and a motion to join the Facebook IPR. IPR2018-00017 ("First Hulu IPR"), Papers 5 ("First Hulu Pet."), 4 ("Joinder Motion"). In its petition, Petitioner asserted that, "[w]ith respect to the grounds that the Board instituted in the Facebook IPR, Petitioner's presently submitted petition is identical to the Facebook IPR in all substantive respects, and includes identical exhibits to the Facebook IPR." First Hulu Pet. 1. On January 26, 2018, we dismissed Hulu's Joinder Motion as moot because we terminated the Facebook IPR pursuant to 35 U.S.C. § 317(a) at the request of the parties to that proceeding. First Hulu IPR, Paper 13. On

April 16, 2018, we instituted trial in the First Hulu IPR. First Hulu IPR, Paper 14.

On October 20, 2017, Unified Patents Inc. ("Unified") filed a petition for *inter partes* review of claims 1–3 and 8–10 of the '371 patent. IPR2018-00096 ("Unified IPR"), Paper 1 ("Unified Pet."). On April 18, 2018, we instituted trial in the Unified IPR.

With that procedural background in mind, we turn first to Patent Owner's § 314(a) arguments.

1. Discretion under 35 U.S.C. § 314(a)

Patent Owner argues that we should exercise our discretion to deny the Petition under 35 U.S.C. § 314(a). Prelim. Resp. 20–32; *see Gen. Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR2016-01357, (PTAB Sept. 6, 2017) (Paper 19) (precedential[2]) (hereinafter "*General Plastic*"). *General Plastic* provides the following "non-exhaustive list of factors . . . in evaluating follow-on petitions":

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;

2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;

3. whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition;

4. the length of time that elapsed between the time the petitioner

[2] Section II.B.4.i. of *General Plastic* was designated precedential on October 18, 2017.

learned of the prior art asserted in the second petition and the filing of the second petition;

5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;

6. the finite resources of the Board; and

7. the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

General Plastic, slip op. at 16 (citations omitted).

Patent Owner argues that the *General Plastic* factors "uniformly support denial of institution of this second Petition by Hulu." Prelim. Resp. 20. With respect to the first factor (whether the same petitioner previously filed a petition directed to the same claims of the same patent), Patent Owner asserts that "[t]he answer to this question is yes as to claims 8-10, and effectively yes as to claims 1-3." Prelim. Resp. 20. According to Patent Owner, the fact that the First Hulu IPR challenges claims 8–10 "supports denial of institution as to, at the very least, claims 8-10." Prelim. Resp. 20. Denying as to only some challenged claims while instituting on others, however, is not an option. *See SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018) (holding that a decision to institute under 35 U.S.C. § 314 may not institute on fewer than all claims challenged in the petition); *see also* "Guidance on the impact of SAS on AIA trial proceedings"[3] (stating that, "if the PTAB institutes a trial, the PTAB will institute on all challenges

[3] https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials/guidance-impact-sas-aia-trial.

raised in the petition").

Patent Owner also argues:

> Hulu might attempt to distinguish the present Petition from other serial petitions by arguing that the present Petition challenges a few Claims (1–3) that were denied institution in the Facebook case, and that Hulu purposefully did not challenge in its First Petition. As explained above, however, this difference is not an appropriate reason to exercise discretion to institute review in this case. The Patent Owner already faced a challenge by Facebook to Claims 1–3 on exactly the same ground, and defeated it by pointing out that Facebook failed to sufficiently specify how the Claims should be construed. There is no reason the Patent Owner should have to defeat the same ground over substantially the same art and arguments again with the same arguments improperly bolstered.

Prelim. Resp. 25.

We do not agree that a different petitioner's failure to provide claim constructions for terms it contended were means-plus-function limitations should prejudice Hulu and impede its ability to file a petition for *inter partes* review. As noted above, in the Facebook IPR, Facebook asserted that the "controller" limitations of claims 1–3 were subject to § 112, ¶ 6 under the *Phillips* claim construction standard. Facebook IPR, Paper 2, 7 n.1. In this case, Petitioner does not take this position, although it still offers means-plus-function constructions in the event the terms are subject to § 112, ¶ 6. *See* Pet. 11–12.

Furthermore, Patent Owner argues:

> Unified's prior 00096 petition (at least) should be considered along with Hulu's two petitions for purposes of this *General Plastic* factor. As noted above, § II-C, Hulu and Unified stand in a close relationship in this respect because (i) the lead attorney in both of Hulu's petitions is actively working, and has long worked closely, with attorneys for Unified and with

> Unified itself in Unified IPR proceedings; and (ii) Hulu and Unified have both filed IPR challenges against multiple patents (including this Patent) that Sound View is asserting against Hulu.

Prelim. Resp. 20–21 (footnote omitted). Patent Owner further argues:

> Hulu can hardly claim its attorneys in Hulu's Petitions are not privy to both Hulu's and Unified's strategy and confidences. As noted above, § II-C, they are *personally* representing both Hulu and Unified in IPR proceedings, and collaborating with Unified's 00096 counsel in other cases. Therefore, they can hardly claim to be hiding behind ethical walls to prevent sharing of this information; they are personally privy to both Hulu's and Unified's information.

Prelim. Resp. 21 n.3. Patent Owner, therefore, asserts that we "should consider Hulu's and Unified's follow-on challenges to the Patent together for the purposes of determining that Unified should not be considered as a separate entity from Hulu for purposes of the Board's exercise of discretion to deny institution." Prelim. Resp. 23.

To be sure, there are statutory provisions that bar actions by privies of petitioners. *See*, *e.g.*, 35 U.S.C. § 315(b), (e)(1). Even if we were to accept Patent Owner's implicit argument that Unified and Hulu are privies, however, Patent Owner does not assert that any of these bars apply. With respect to the first *General Plastic* factor, Hulu is unquestionably not "the same petitioner" as Unified, which challenges claims 1–3 and 8–10, and Hulu is not challenging the same claims that it challenges in the First Hulu IPR. Therefore, we do not agree that the first *General Plastic* factor supports denial of the Petition.

We have considered Patent Owner's arguments with respect to the remaining *General Plastic* factors (Prelim. Resp. 25–32), but we are not persuaded that we should exercise discretion to deny the petition under

35 U.S.C. § 314(a). For example, Patent Owner faults Petitioner for having "waited until December 28, 2017 to file the present petition." Prelim. Resp. 30. Elsewhere, however, Patent Owner notes that, "[o]n June 6, 2017, Hulu was served with Patent Owner's June 2, 2017 Complaint for infringement." Prelim. Resp. 7. Thus, Petitioner filed this Petition within seven months of being served with a complaint alleging infringement of the '371 patent, well within the one year period required by statute. *See* 35 U.S.C. § 315(b) ("An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent.").

Patent Owner also faults Petitioner for not having found Blake earlier in a prior art search, asserting that "[t]here is no apparent reason why a reasonably diligent search should not have been able to locate Blake before" October 5, 2017, when Petitioner filed its petition in the First Hulu IPR and its Motion for Joinder. Prelim. Resp. 26. For its part, Petitioner states that, "although Petitioner's searches had been in progress at the time the Facebook IPR was instituted, Petitioner did not locate Blake until after the one-month deadline for joinder had passed." Pet. 4. Patent Owner calls this "unsupported attorney argument" (Prelim. Resp. 25), but we have no evidence contradicting Petitioner's representation. According to Patent Owner, Petitioner "has failed to offer any basis to believe that a reasonably diligent search should not have uncovered Blake" earlier. Prelim. Resp. 26. On the record before us, however, it is not clear why Petitioner should have known about Blake earlier.

As noted above, Petitioner filed this Petition well within the one year

time frame permitted by 35 U.S.C. § 315(b). This is not a situation in which Petitioner waited around until the eve of the expiration of the permissible filing period in order to gather as much information from the Board and Patent Owner as possible. Indeed, Petitioner chose to file this Petition months before the one year time bar and weeks before Patent Owner filed its preliminary responses in IPR2018-00017 (Paper 11, filed Jan. 18, 2018) and IPR2018-00096 (Paper 9, filed February 1, 2018). Although this Petition was filed after the Decision on Institution in the Facebook IPR and after the one month period after which joinder may not be requested (37 C.F.R. § 42.122(b)), the Facebook IPR was simply farther along procedurally. Facebook filed its petition on February 28, 2017, over three months before Hulu was even served with a complaint for infringement of the '371 patent. *See* Prelim. Resp. 7.

Having considered the factors outlined above in light of the particular circumstances of this case, we decline to exercise discretion to deny the Petition under 35 U.S.C § 314(a).

2. Discretion under 35 U.S.C. § 325(d)

35 U.S.C. § 325(d) provides, in relevant part: "In determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office."

Patent Owner argues we should deny the Petition under § 325(d), asserting specifically that "the new Blake reference does nothing more than raise substantially the same arguments." Prelim. Resp. 17; *see id.* at 14–19. Although Blake is relied upon for the same teaching as Rubin (U.S. Patent

No. 5,155,842) in the other cases, namely "monitor[ing] a measurable characteristic of said memory," Petitioner asserts Blake differs from Rubin.

> Blake is similar to Rubin in that it also discloses techniques or systems that generate notifications when a disk is full or is approaching a threshold full level. However, whereas Rubin teaches a system that monitors devices on a network, Blake's Performance Monitor can be used to monitor system resources on both a single local computer (*see, e.g.*, Blake, p. 22 ("Each time you select a counter you must provide the name of the computer you want to measure. By default, this is your local computer.")), as well as resources on multiple remote computers over a network (*see id.* ("If you don't want to look at an object on your local computer, you can enter the name of another computer. You must have the Access This Computer From Network right on that other computer, or you will be unable to monitor it.")).

Pet. 42–43.

Therefore, in the present case, Petitioner relies on a prior art reference (Blake) that was not raised in the other cases, and, although Blake is relied upon for teaching the same subject matter as Rubin, Petitioner presents arguments as to why Blake's disclosure differs from Rubin with respect to the claimed subject matter. We, therefore, decline to exercise discretion under § 325(d) to deny the Petition.

B. Claim Construction

1. Standard of Construction

Our Rules provide:

> A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. A party may request a district court-type claim construction approach to be applied if a party certifies that the involved patent will expire within 18 months

> from the entry of the Notice of Filing Date Accorded to Petition. The request, accompanied by a party's certification, must be made in the form of a motion under § 42.20, within 30 days from the filing of the petition.

37 C.F.R. § 42.100(b).

In this proceeding, Petitioner timely filed a motion pursuant to 37 C.F.R. § 42.100(b) (1) certifying that the '371 patent "expired no later than August 19, 2017" and (2) requesting district court-type claim construction. Paper 3, 1–2. Patent Owner does not oppose the motion and acknowledges that the '371 patent expired on August 19, 2017. Prelim. Resp. 7. Consequently, we grant Petitioner's unopposed motion requesting district court-type claim construction.

In applying district court-type construction, we are guided by the principle that the words of a claim "are generally given their ordinary and customary meaning," as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (citation omitted). "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). There is a "heavy presumption," however, that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citation omitted).

2. Petitioner's Proposed Constructions

Petitioner argues that the terms "update transactions" and "data record" are defined in the Specification of the '371 patent. Pet. 10–11 (citing Ex. 1201, 1:51–54, 3:57–60). We agree with Petitioner that these terms are defined in the Specification of the '371 patent. In particular, the '371 patent states that "conventional main memory DBMs delay the processing of *transactions that modify portions of the database* (termed 'update transactions')." Ex. 1201, 1:52–54 (Petitioner's proposed construction emphasized). The '371 patent further states that "the phrase 'data record,' as used herein, is defined broadly to mean *any file, entry, record, field, item and other data associated with at least one database* (or any suitable data repository for that matter)." Ex. 1201, 3:57–60 (Petitioner's proposed construction emphasized). Patent Owner does not provide an alternative construction for either term. *See generally* Prelim. Resp.

Given that Petitioner's proposed constructions for the terms "update transactions" and "data record" are taken directly from the Specification of the '371 patent, we adopt Petitioner's proposed constructions of these terms to the extent necessary for purposes of this Decision. *See* Pet. 10–11.

Petitioner also argues that the limitations reciting "time stamping controller," "versioning controller," and "aging controller" are not means-plus-function limitations. Pet. 11–12. Petitioner notes that, in litigation involving the '371 patent, the district court determined that these limitations are not subject to section 112, paragraph 6. *Id.* at 12 (citing Ex. 1213 (*Sound View Innovations, LLC v. Facebook, Inc.*, No. 16-116-RGA (D. Del.), Dkt. No. 100 (Memorandum Opinion, entered May 19, 2017)), 10–12). In this

proceeding, Patent Owner does not address whether these limitations are means-plus-function limitations. *See generally* Prelim. Resp.[4]

The Court of Appeals for the Federal Circuit has held that, "[w]hen a claim term lacks the word 'means,' the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015) (*en banc* in relevant part) (internal quotations and citation omitted). In this case, these claim limitations lack the word "means," and neither party advances arguments that § 112, paragraph 6 should apply to these limitations. On this record, we determine that the limitations reciting "time stamping controller," "versioning controller," and "aging controller" are not means-plus-function limitations.

Petitioner provides alternative constructions for the "controller" limitations of claim 1 "in the event the Board determines that the term 'controller' invokes means-plus-function interpretation." Pet. 11–14. Because we determine these limitations are not means-plus-function limitations, we need not address Petitioner's alternative constructions.

3. Patent Owner's Arguments

Patent Owner contends "Petitioner fails to offer any construction of the 'measurable characteristic of said memory' terms in the monitoring step

[4] In IPR2017-00985, Patent Owner asserted that these limitations are not means-plus-function limitations. IPR2017-00985, Paper 7, 16 ("Patent Owner does not agree with Petitioner's position that these Claims are means-plus-function or indefinite.").

and deleting step." Prelim. Resp. 46. According to Patent Owner, therefore, Petitioner did not satisfy 37 C.F.R. § 42.104(b)(3), which requires a petition to identify "[h]ow the challenged claim is to be construed." Prelim. Resp. 46.

Although it may be necessary, in certain circumstances, for a petitioner to set forth express claim construction proposals for certain terms, our Rules do not require a petitioner to set forth express constructions for every term of a claim challenged in the petition. As discussed further below, Petitioner identifies the disclosure in the prior art that it contends teaches a "measurable characteristic of said memory." *See* Pet. 36–43, 49. On this record, we determine that Petitioner's contentions are sufficient to satisfy 37 C.F.R. § 42.104(b)(3).

4. Remaining Terms

We determine no other terms require express construction for purposes of this Decision.

C. Asserted Ground

1. Overview

Petitioner argues claims 1–3 and 8–10 of the '371 patent would have been obvious over the combined teachings of Bernstein and Blake and relies upon the Declaration of Dr. Phillip B. Gibbons (Ex. 1202) to support its arguments. Pet. 7, 15–50. For the reasons set forth below, we grant institution of *inter partes* review of these claims on this ground.

2. Legal Principles

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art;[5] and (4) any secondary considerations, if in evidence.[6] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

3. Obviousness of Claims 1–3 and 8–10 over the Combined Teachings of Bernstein and Blake

a. Overview of the References

i. Bernstein (Ex. 1203)

Exhibit 1203 contains excerpts from a 1987 textbook on database systems, entitled *Concurrency Control and Recovery in Database Systems*.[7] Petitioner asserts that "Bernstein qualifies as prior art to the claims of the '371 patent under 35 U.S.C. § 102(b) (pre-AIA)." Pet. 15. Petitioner

[5] Petitioner proposes an assessment of the level of ordinary skill in the art. Pet. 8; *see* Ex. 1202 ¶ 11. At this time, neither Patent Owner nor its declarant, Dr. Mark T. Jones, proposes an alternative assessment. Ex. 2004 ¶ 19 ("assum[ing] for purposes of the present declaration" that Petitioner's position regarding the level of ordinary skill in the art "reflects the level of ordinary in the art of the '371 Patent, to the extent it is relevant to my testimony"). For purposes of this Decision, and to the extent necessary, we adopt Petitioner's assessment.

[6] Patent Owner does not present arguments or evidence of such secondary considerations in the Preliminary Response.

[7] In this Decision, we refer to Exhibit 1203 as "Bernstein," and we refer to the full textbook as "the Bernstein textbook."

introduces additional evidence that the Bernstein textbook was published in 1987. *See* Exs. 1206 (Bernstein textbook excerpts, including title page and date stamp from Library of Congress), 1207 (Bernstein textbook excerpts, including stamp from the University of Michigan Libraries and date annotation).

Patent Owner contends Petitioner has not put forth sufficient evidence to establish Bernstein was publicly accessible as prior art. Prelim. Resp. 57–59. Patent Owner asserts that the date stamps and copyright pages introduced by Petitioner "are hearsay, unsupported by any testimony or other competent evidence," and Patent Owner further asserts that, "even if they were not hearsay, these dates and stamps are insufficient to establish public accessibility." Prelim. Resp. 58. Patent Owner's hearsay objections, however, are objections to evidence, which may be raised during the trial. In particular, our Rules provide:

> Any objection to evidence submitted during a preliminary proceeding must be filed within ten business days of the institution of the trial. Once a trial has been instituted, any objection must be filed within five business days of service of evidence to which the objection is directed. The objection must identify the grounds for the objection with sufficient particularity to allow correction in the form of supplemental evidence.

37 C.F.R. § 42.64(b)(1). Furthermore, on the current record, we are persuaded Petitioner has set forth a threshold amount of evidence for institution under § 314(a) establishing that the Bernstein textbook was publicly accessible more than one year before the filing of the application for the '371 patent. *See* Exs. 1203, 1206, and 1207.

The statute governing *inter partes* reviews provides, in part:

A petition filed under section 311 may be considered only if . . .

> (3) the petition identifies, in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim, including . . . copies of patents and printed publications that the petitioner relies upon in support of the petition; and . . .
>
> (5) the petitioner provides copies of any of the documents required under paragraphs (2), (3), and (4) to the patent owner or, if applicable, the designated representative of the patent owner.

35 U.S.C. § 312(a).

Patent Owner argues the Petition is deficient because Petitioner submitted only a portion of the Bernstein textbook rather than a complete copy of the textbook, which Patent Owner asserts is required by statute. *See generally* Prelim. Resp. 50–57. As such, Patent Owner contends that "Petitioner's lone proposed ground should be denied as incomplete as a matter of law." Prelim. Resp. 51. Although Petitioner provided only particular excerpts from a textbook (as noted by Petitioner (Pet. 15)), we do not agree that this alone warrants denial of institution. As noted above, the statute requires a petitioner to provide the patent owner with "copies of patents and printed publications that the petitioner relies upon in support of the petition." 35 U.S.C. § 312(a). In this case, Petitioner relies on the portions of the Bernstein textbook that it filed as Exhibit 1203, and, therefore, Petitioner has provided copies of the prior art that it "relies upon in support of the petition."

As explained in detail below, we determine that the "reasonable likelihood" standard has been satisfied by the evidence currently of record, including Bernstein. In particular, although the entire Bernstein textbook is not currently of record, we are persuaded that the portions of the Bernstein

textbook upon which Petitioner relies (Exhibit 1203) in combination with Blake are sufficient evidence to satisfy the threshold for institution.[8] To ensure completeness of the record, however, Petitioner shall file, as a new exhibit, a complete, text-searchable copy of the Bernstein textbook within five business days of the entry of this Decision.

Bernstein explains that "[a] *database* consists of a set of named *data items*." Ex. 1203, 2.[9] "Each data item has a *value*." *Id.* "A *database system* (*DBS*) is a collection of hardware and software modules that support commands to access the database, called *database operations* (or simply *operations*)." *Id.* (footnote omitted). For example, a "Read(*x*)" operation "returns the value stored in data item *x*," and a "Write(*x*, *val*)" operation "changes the value of *x* to *val*." *Id.*

Bernstein teaches a number of techniques for addressing concurrent access problems. *Id.* at 1. In particular, Bernstein explains that "[w]hen two or more transactions execute concurrently, their database operations execute in an *interleaved* fashion. That is, operations from one program may execute in between two operations from another program. This interleaving can cause programs to behave incorrectly, or *interfere*, thereby leading to an

[8] Patent Owner introduced the declaration of Dr. Mark T. Jones from IPR2018-00017 with its Preliminary Response. Ex. 2004. This evidence primarily concerns two subjects: (1) the technology of the '371 patent (*id.* ¶¶ 21–35) and (2) the incompleteness of Bernstein (*id.* ¶¶ 36–50). In deciding to institute trial, we have reviewed and considered Dr. Jones's testimony. As Patent Owner notes, however, "[n]one of Dr. Jones' declaration is directed to contesting factual assertions in the Petition or its accompanying declaration." Prelim. Resp. 35 n.5.

[9] Our citations are to the page numbers of the Bernstein reference itself, rather than to the page numbers of Exhibit 1203.

inconsistent database." *Id.* at 11. One of the techniques described in Bernstein to provide concurrency control is referred to as "multiversion concurrency control." *Id.* at 143. "In a multiversion concurrency control algorithm, each Write on a data item *x* produces a new copy (or *version*) of *x*." *Id.* Thus, when a database operation modifies the value of a data item, the system creates a new version of that item.

"The benefit of multiple versions for concurrency control is to help the scheduler avoid rejecting operations that arrive too late." *Id.* Bernstein explains that, with multiversion concurrency control, "each transaction has a unique timestamp" and that "[e]ach operation carries the timestamp of its corresponding transaction." *Id.* at 153; *see also id.* at 5 ("transactions that write into the database (called *update transactions* or *updaters*.)"). For example, as noted above, each Write operation produces a new copy or version of *x* (*id.* at 143), and the new version is "labeled by the timestamp of the transaction that wrote it." *Id*. at 153.

Bernstein acknowledges that "[a]n obvious cost of maintaining multiple versions is storage space. To control this storage requirement, versions must periodically be purged or archived." *Id.* at 143–44. Bernstein explains that versions may be purged or archived when the system has run out of storage space. In particular, Bernstein teaches that:

> Eventually, the scheduler will run out of space for storing intervals, or the [data manager] will run out of space for storing versions. At this point, old versions and their corresponding intervals must be deleted. To avoid incorrect behavior, it is essential that versions be deleted from oldest to newest.

Id. at 154.

ii. Blake (Ex. 1219)

Blake is entitled *Optimizing Windows NT*. Ex. 1219. Petitioner asserts:

> Blake qualifies as prior art under 35 U.S.C. § 102(b) (pre-AIA) because it was published on March 1, 1995, more than one year before the earliest patent application filing date on the face of the '371 patent. Blake was received and archived at the Library of Congress on October 23, 1996, as evidenced by the date stamp on page iii.

Pet. 18. As with Bernstein, Patent Owner argues Petitioner has not put forth sufficient evidence to establish Blake was publicly accessible as prior art and also argues that the dates are hearsay. Prelim. Resp. 57–59. As noted above, objections to the admissibility of evidence, such as hearsay objections, may be raised during trial. *See* 37 C.F.R. § 42.64(b)(1). On the current record, we are persuaded Petitioner has set forth a threshold amount of evidence for institution under § 314(a) establishing that Blake was publicly accessible before the August 19, 1997 filing date of the application for the '371 patent. In particular, Blake's page i shows a 1995 date with a catalog number, and page iii shows a 1996 date stamp from the Library of Congress. Ex. 1219, i, iii. Although this evidence may not ultimately prevail at trial in showing public accessibility, we determine it is sufficient to move forward with a trial.

As with Bernstein, Patent Owner argues the Petition is deficient because, with respect to Blake, Petitioner includes only 185 pages of a 650 page volume, which itself "is only one volume of a much larger six-volume work that totals more than 3,000 pages." Prelim. Resp. 54; *see generally* Prelim. Resp. 50–57. In this case, Petitioner relies on the portions of the Blake that it filed as Exhibit 1219, and, therefore, Petitioner has provided

copies of the prior art that it "relies upon in support of the petition." *See* 35 U.S.C. § 312(a). If Petitioner's submitted evidence ultimately does not support a conclusion of obviousness, Petitioner will not prevail.

Blake describes a "Performance Monitor" tool that allows monitoring various "objects" in a computer system, including physical disks and memory. Ex. 1219, 21–22. Blake explains: "Each object has a set of *counters* defined for it. An object's counters record the activity level of the object." Ex. 1219, 21. One such "counter" is "% Free Space," which "is the ratio of the free space available on the logical disk unit to the total usable space provided by the selected logical disk drive." Ex. 1219, 22, 428.

b. Independent Claims 1 and 8

Claim 1 is directed to "[a] processing system for use with a database of data records, said database stored in a memory," and claim 8 is directed to "[a] method of operating a processing system for use with a database of data records, said database stored in a memory." Petitioner argues Bernstein teaches the preambles of claims 1 and 8. Pet. 25–27, 48–49 (citing Ex. 1203, 2, 17; Ex. 1202 ¶¶ 48–51, 70–71). Bernstein describes a database system (DBS) as "a collection of hardware and software modules that support commands to access the database" and further discloses that "the DBS executes on a *centralized* computer system." Ex. 1203, 2, 17. We are persuaded that Bernstein teaches the preambles of claims 1 and 8.

i. Time stamping controller / assigning a time stamp

Claim 1 further recites "a time stamping controller that assigns a time stamp to transactions to be performed on said database," and claim 8 further recites the step of "assigning a time stamp to transactions to be performed on

said database." Bernstein teaches that "[a]s for all [timestamp ordering ("TO")] schedulers, each transaction has a unique timestamp, denoted ts(T_i). Each operation carries the timestamp of its corresponding transaction. Each version is labeled by the timestamp of the transaction that wrote it." Ex. 1203, 153, *quoted in* Pet. 28; *see* Ex. 1202 ¶ 52. Petitioner contends Bernstein discloses that "the 'transaction man[a]ger' (TM) performs the actual timestamp assignment." Pet. 28–30 (citing Ex. 1203, 17, 85). In particular, Bernstein discloses: "Usually, TMs assign timestamps to transactions. If there is only one TM in the entire system, then it can easily generate timestamps by maintaining a counter. To generate a new timestamp, it simply increments the counter and uses the resulting value." Ex. 1203, 85. As Petitioner notes (Pet. 26), Bernstein describes that a database system (DBS) is "a collection of hardware and software modules that support commands to access the database" (Ex. 1203, 2). Bernstein describes the transaction manager as one of four modules in the DBS, along with a scheduler, a recovery manager, and a cache manager. Ex. 1203, 17.

On this record, we are persuaded that Bernstein teaches or renders obvious a "time stamping controller," as recited in claim 1, and the step of "assigning a time stamp," as recited in claim 8.

ii. Versioning controller / creating multiple versions of data records

Claim 1 further recites "a versioning controller that creates multiple versions of ones of said data records affected by said transactions that are update transactions," and claim 8 further recites the step of "creating multiple versions of ones of said data records affected by said transactions that are update transactions." According to Petitioner, Bernstein teaches that

"when a '**Write'** operation is to be performed on an item in the database, the software generates a new version of the item." Pet. 32 (citing Ex. 1203, 143). In particular, Bernstein discloses that, "[i]n a multiversion concurrency control algorithm, each Write on a data item *x* produces a new copy (or *version*) of *x*. The [data manager ("DM")] that manages *x* therefore keeps a list of versions of *x*, which is the history of values that the DM has assigned to *x*." Ex. 1203, 143. As discussed above, Bernstein discloses that the operation "Write(*x*, *val*) changes the value of *x* to *val*." Ex. 1203, 2, *quoted in* Pet. 33; *see* Ex. 1202 ¶ 57. Although these passages of Bernstein refer to an "operation," rather than a "transaction," we credit Petitioner's declarant's testimony that this difference is immaterial. Ex. 1202 ¶ 58; *see* Ex. 1203, 2 (referring to "*database operations* (or simply *operations*)").[10]

On this record, we are persuaded that Bernstein teaches or renders obvious a "versioning controller," as recited in claim 1, and the step of "creating multiple versions," as recited in claim 8.

iii. Aging controller that monitors a measurable characteristic of said memory / monitoring a measurable characteristic

Claim 1 further recites "an aging controller that monitors a measurable characteristic of said memory," and claim 8 further recites the step of "monitoring a measurable characteristic of said memory." In its contentions as to these limitations, Petitioner relies on the following passage of Bernstein:

[10] We note, however, that Bernstein also teaches "transactions that write into the database" are "called *update transactions* or *updaters*." Ex. 1203, 5.

> Eventually, the scheduler will run out of space for storing intervals, or the [database manager] will run out of space for storing versions. At this point, old versions and their corresponding intervals must be deleted. To avoid incorrect behavior, it is essential that versions be deleted from oldest to newest.

Ex. 1203, 154, *quoted in* Pet. 35.

With regard to the "monitor[ing]" operation of the aging controller of claim 1 and the "monitoring" step of claim 8, Petitioner argues:

> Although the passage from Bernstein above does not expressly state that the system "**monitor[s] a measurable characteristic of said memory**," it would have been obvious to a person of ordinary skill in the art that the disclosures in Bernstein disclose this step. [Ex. 1202] ¶ 61. As discussed above . . ., Bernstein explains that "[a]n obvious cost of maintaining multiple versions is storage space. To control this storage requirement, versions must be periodically purged or archived." [Ex. 1203[11]], 143–44. To this end, the passage quoted above indicates that Bernstein can detect when it has "**run out of space**" for storing intervals or data items, and can respond to that condition by deleting older versions. *Id.*, p.154. Therefore, it would have been obvious that this functionality discloses the ability to ascertain the amount of available space for storing items, *i.e.*, monitoring a measurable characteristic of the system's memory. Otherwise, the system could not determine when it has run out of space. *Id*. Moreover, determining the amount of free space or memory was a standard and well-known feature. *Id*. [Ex. 1202] ¶ 61.
>
> It is possible that the patent owner might take a narrow position on the "monitoring" limitation in order to assert that Bernstein alone does not sufficiently disclose the claimed "monitoring" feature, or could argue for a different interpretation

[11] Petitioner cites "*Id.*, pp.143-44." Pet. 36. Although the previous citation is to the Gibbons declaration, based on the context of the statement and the citation, we understand Petitioner's citation to refer to Bernstein.

> of the teachings of Bernstein. For this reason, this Petition also cites to the **Blake** reference. Blake clearly and explicitly discloses the claimed monitoring feature and, as explained above, is readily combinable with the database system in Bernstein.

Pet. 36–37; *see* Ex. 1202 ¶ 61.

Petitioner relies on Blake's "Performance Monitor" for an additional teaching of "monitoring a measurable characteristic of said memory." Pet. 37–38. Figure 2.12 of Blake is reproduced below.

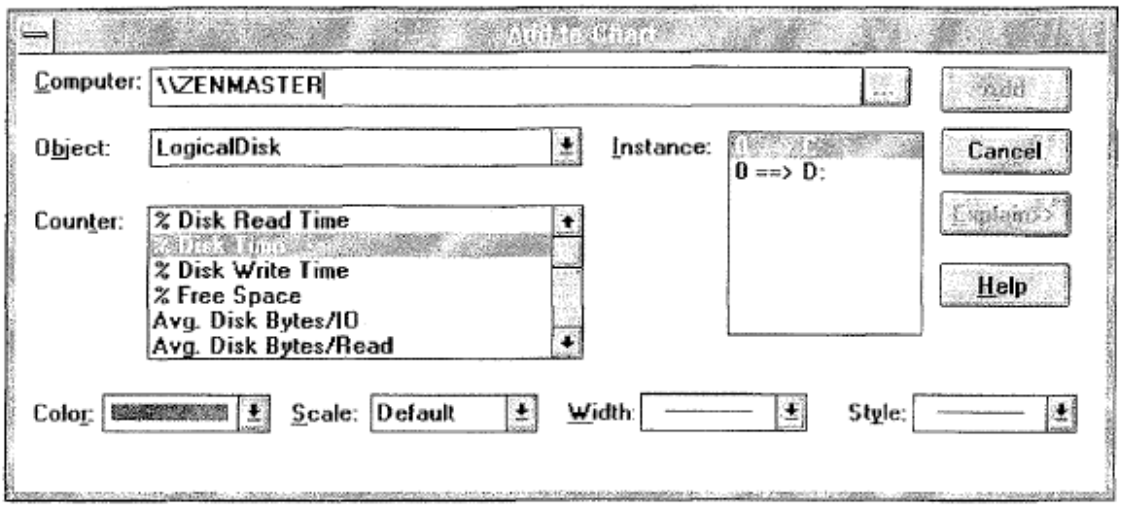

Figure 2.12 shows an "Add to Chart dialog box" for the Performance Monitor. Ex. 1219, 22. As explained above, Blake's "Performance Monitor" tool monitors various "objects" in a computer system, including physical disks and memory, where "[e]ach object has a set of *counters*," which "record the activity level of the object." Ex. 1219, 21–22. One such "counter" depicted in Figure 2.12 is "% Free Space," which "is the ratio of the free space available on the logical disk unit to the total usable space provided by the selected logical disk drive." Ex. 1219, 22, 428.

Patent Owner argues the combination of Bernstein and Blake does not teach "monitoring a measurable characteristic of said memory." Prelim.

Resp. 41–46. According to Patent Owner, "[i]n the context of the ['371] Patent, a monitored 'measurable characteristic of . . . memory,' includes and depends on a value that can be 'monitored' and measured, such as '0.51.'" Prelim. Resp. 42 (third alteration in original). In attempting to distinguish the disclosure of Blake from the claimed subject matter, Patent Owner asserts that "[r]eceiving a 'disk full' or 'disk exceeds a threshold amount' alert and deleting records in response to it is not the same as, for example, measuring the remaining amount of free memory." Prelim. Resp. 45. Blake, however, expressly disclosure measuring the remaining amount of free memory with the "% Free Space" counter, which "is the ratio of the free space available on the logical disk unit to the total usable space provided by the selected logical disk drive." Ex. 1219, 21–22, 428. Furthermore, Bernstein itself teaches taking certain actions upon running out of storage space (Ex. 1203, 154), which means that the memory is determined to be fully utilized and to have no available capacity. The '371 patent explains that a memory's current utilization or capacity are measurable characteristics of the memory. Ex. 1201, 3:9–10, 5:41–43, 6:46–53.

On this record, we are persuaded that the combination of Bernstein and Blake teaches or renders obvious "an aging controller that monitors a measurable characteristic of said memory," as recited in claim 1, and the step of "monitoring a measurable characteristic of said memory," as recited in claim 8.

iv. Aging controller that deletes versions / deleting versions

Finally, claim 1 recites that the aging controller "deletes ones of said multiple versions of said ones of said data records in response to said time stamp and said measurable characteristic thereby to increase a capacity of

said memory," and claim 8 recites the step of "deleting ones of said multiple versions of said ones of said data records in response to said time stamp and said measurable characteristic thereby to increase a capacity of said memory."

Petitioner argues that Bernstein teaches deleting old versions of data items and their corresponding intervals to recover storage space. Pet. 43–44 (citing Ex. 1203, 143–144, 154). Further, because the deletions may be based on the age of the version, as well as the storage space available, Petitioner argues the combination of Bernstein and Blake teaches that such deletions are "in response to said time stamp and said measurable characteristic." Pet. 43–45 (citing Ex. 1203, 85–86, 154, 161; Ex. 1219, 45–46); *see* Ex. 1202 ¶¶ 63–65; *see also* Ex. 1203, 153 ("largest," i.e., latest, time stamp), 161 ("smallest," i.e., earliest time stamp). As noted by Petitioner, Bernstein discloses that "[t]o avoid incorrect behavior, it is essential that versions be deleted from oldest to newest." Ex. 1203, 154, *quoted in* Pet. 44. As further noted by Petitioner, Bernstein discloses that, "[s]ince timestamps increase monotonically with time and are unique, if a transaction lives long enough it will eventually have the smallest timestamp (i.e., will be the oldest) in the system." Ex. 1203, 85–86, *quoted in* Pet. 44. Moreover, Petitioner argues that these deletions are intended to "increase [the] capacity of said memory." Pet. 45 (citing Ex. 1203, 154, 161); *see* Ex. 1202 ¶ 66.

Patent Owner contends that, "[a]t best, [Bernstein and Blake] simply base the decision whether to delete versions on the time stamp, an alert that memory is needed, and/or a determination that the version is unneeded." Prelim. Resp. 46. On the current record, however, we are persuaded that

Bernstein's disclosure of deleting the oldest version and the Bernstein and Blake combination's disclosure of monitoring memory utilization, as discussed above, and deleting records based on that monitoring teach deleting "in response to said time stamp and said measurable characteristic."

On this record, we are persuaded that the combination of Bernstein and Blake teaches or renders obvious "an aging controller that . . . deletes ones of said multiple versions of said ones of said data records in response to said time stamp and said measurable characteristic thereby to increase a capacity of said memory," as recited in claim 1, and the step of "deleting ones of said multiple versions of said ones of said data records in response to said time stamp and said measurable characteristic thereby to increase a capacity of said memory," as recited in claim 8.

v. Rationale to combine

Petitioner argues that a person of ordinary skill in the art would have had reason to combine the teachings of Bernstein and Blake in the manner asserted. Pet. 38–42; *see* Ex. 1202 ¶¶ 78–85. In particular, as noted above, Bernstein teaches that:

> Eventually, the scheduler will run out of space for storing intervals, or the [database manager] will run out of space for storing versions. *At this point*, old versions and their corresponding intervals must be deleted. To avoid incorrect behavior, it is essential that versions be deleted from oldest to newest.

Ex. 1203, 154 (emphasis added). Thus, Bernstein teaches deleting older versions only *after* the scheduler or the database manager has run out of storage space. *Id.*; *see also* Pet. 40–41; *see* Ex. 1202 ¶¶ 82–84. Petitioner's declarant testifies that "the Performance Monitor tool described by Blake

can notify a user or a program when the amount of free space on a logical disk, or the amount of available bytes in memory, fall below a certain threshold." Ex. 1202 ¶ 84 (citing Ex. 1219, 45–46). Petitioner's declarant further testifies that "[t]his capability in Blake would have improved the database system of Bernstein by allowing it to proactively delete old versions before the database runs out of storage space—thereby allowing the database to consistently maintain a minimal level of space." Ex. 1202 ¶ 84; *see KSR*, 550 U.S. at 417 ("[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.").

Patent Owner contends Petitioner has not demonstrated a person of ordinary skill in the art "would have combined [Bernstein and Blake] to make the claimed invention" because "[t]he proposed combination would not be reasonably expected to achieve the ['371] patent's efficient, responsive deletion of old records." Prelim. Resp. 48. This line of argument, however, relies on subject matter that is not recited in claims 1 and 8. *See* Prelim. Resp. 48–50. As discussed above, we are persuaded, on this record, that the combination of Bernstein and Blake teaches the limitations of claims 1 and 8. Bernstein describes deleting old versions when the system runs out of space (Ex. 1203, 153–154), which itself teaches deleting versions in response to a time stamp and a measurable characteristic of memory (i.e., no capacity remaining). Blake additionally teaches a "Performance Monitor" that monitors the amount of free space in a disk. Ex. 1219, 21–22, 428.

On the current record, we are persuaded Petitioner has set forth sufficient articulated reasoning as to why a person of ordinary skill in the art would have combined the teachings of Bernstein and Blake in the manner asserted. *See* Pet. 38–42; Ex. 1202 ¶¶ 78–85.

vi. Threshold determination as to claims 1 and 8

Based on our review of Petitioner's contentions and supporting evidence, we are persuaded that the combination of Bernstein and Blake teaches the limitations of claims 1 and 8 and that Petitioner has provided sufficient reasoning as to why a person of ordinary skill in the art would have combined the references. Therefore, we determine Petitioner has established a reasonable likelihood of prevailing in demonstrating claims 1 and 8 are unpatentable under 35 U.S.C. § 103(a) over the combined teachings of Bernstein and Blake.

c. Dependent Claims 2, 3, 9, and 10

Claims 2 and 9 depend, respectively, from claims 1 and 8 and recite that "said time stamp is generated as a function of a time stamp counter." Claim 3 depends from claim 2 and recites that "said system increments said time stamp counter." Claim 10, which depends from claim 9, similarly recites "incrementing said time stamp counter."

Petitioner argues that these claims are rendered obvious over the combined teachings of Bernstein and Blake. Pet. 47–48, 50 (citing Ex. 1203, 85; Ex. 1202 ¶ 69). In particular, Bernstein discloses: "Usually, TMs [transaction managers] assign timestamps to transactions. If there is only one TM in the entire system, then it can easily generate timestamps by maintaining a counter. To generate a new timestamp, it simply increments

the counter and uses the resulting value." Ex. 1203, 85. According to Petitioner, "[t]he passage quoted above satisfies the limitations of claims 2 and 3 because it discloses that the system described in Bernstein maintains '**a counter**,' and assigns new timestamps by incrementing the timestamp counter and using the just-incremented counter value." Pet. 48; *see id.* at 50 (addressing claims 9 and 10).

Based on the record before us, we are persuaded, and we determine Petitioner has established a reasonable likelihood of prevailing in demonstrating claims 2, 3, 9, and 10 are unpatentable under 35 U.S.C. § 103(a) over the combined teachings of Bernstein and Blake.

D. Constitutionality

Patent Owner makes additional arguments stating that post grant review proceedings, such as this proceeding, are unconstitutional. Prelim. Resp. 59–60. We decline to consider the constitutional challenges as, generally, "administrative agencies do not have jurisdiction to decide the constitutionality of congressional enactments" where consideration of the constitutional question would "require the agency to question its own statutory authority or to disregard any instructions Congress has given it." *Riggin v. Office of Senate Fair Employment Practices*, 61 F.3d 1563, 1569–70 (Fed. Cir. 1995). We do note, however, that certain of Patent Owner's arguments in this regard have been rendered moot because, on April 24, 2018, the Supreme Court held that "*inter partes* review does not violate Article III or the Seventh Amendment" of the Constitution. *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S. Ct. 1365, 1379 (2018) (emphasis added).

III. CONCLUSION

For the foregoing reasons, we are persuaded that Petitioner has shown a reasonable likelihood of prevailing in showing that claims 1–3 and 8–10 of the '371 patent would have been obvious over the combined teachings of Bernstein and Blake. We have not made a final determination with respect to the patentability of any challenged claim or the construction of any claim term.

IV. ORDER

Accordingly, it is:

ORDERED that Petitioner's Motion for District Court-Type Claim Construction is *granted*;

FURTHER ORDERED that Petitioner shall file, as a new exhibit, a complete, text-searchable copy of the Bernstein textbook within five business days of the entry of this Decision;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted as to claims 1–3 and 8–10 of the '371 patent on the following ground:

Claims 1–3 and 8–10 as unpatentable under 35 U.S.C. § 103(a) as rendered obvious over the combined teachings of Bernstein and Blake; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial. The trial will commence on the entry date of this Decision.

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Paper 11
Entered: July 6, 2018

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HULU, LLC,
Petitioner,

v.

SOUND VIEW INNOVATIONS, LLC,
Patent Owner.

Case IPR2018-00366
Patent 6,125,371

Before DEBRA K. STEPHENS, DANIEL J. GALLIGAN, and JOHN A. HUDALLA, *Administrative Patent Judges.*

STEPHENS, *Administrative Patent Judge*, dissenting.

I respectfully dissent from the majority opinion. I would not have instituted an *inter partes* review of claims 1–3 and 8–10 as being unpatentable under 35 U.S.C. § 103(a) for obviousness over the combined teachings of Bernstein and Blake. Specifically, I agree with Patent Owner (Prelim. Resp. 57–58) that Petitioner has not established a reasonable likelihood of prevailing in demonstrating that Blake was publicly accessible to the extent required to establish it as a "printed publication" for purposes

of this Decision. Accordingly, I would have found that, for purposes of this Decision, Blake was unavailable as prior art against the '371 patent.

The Federal Circuit has held that "public accessibility" is "the touchstone" in determining whether a reference is a printed publication. *In re Hall*, 781 F.2d 897, 899 (Fed. Cir. 1986). "A given reference is 'publicly accessible' upon a satisfactory showing that such document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it." *SRI Int'l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008) (quoting *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378 (Fed. Cir. 2006)).

Petitioner submits Blake "was published on March 1, 1995" and "was received and archived at the Library of Congress on October 23, 1996, as evidenced by the date stamp on page iii." Pet. 18. Petitioner, however, inexplicably omitted the copyright page from the provided pages of Blake. Ex. 1219. Thus, rather than relying on the copyright date of the book, Petitioner relies on a date stamp from the Library of Congress. Pet. 18.

I find that the Library of Congress date stamp on Blake, by itself, does not establish when Blake became publicly accessible. Although the date stamp on Petitioner's copy of Blake suggests that the Library of Congress stamped the publication with an October 23, 1996 date identifying the Library of Congress Copyright Office, Petitioner has not identified, and I am unable to ascertain, any information about Blake's public accessibility based on this date stamp.

Petitioner does not provide, for example, competent testimony from a librarian of the Library of Congress or Copyright Office, regarding the

acquisition, indexing, cataloging, shelving, and circulation practices of the library to support an assertion of public accessibility. *See In re Hall*, 781 F.2d at 899; *In re Lister*, 583 F. 3d 1307, 1312 (Fed. Cir. 2009). In particular, Petitioner has not shown that Blake was cataloged, shelved, or could have been found in the library at the time of invention of the '371 patent.

Furthermore, it is unclear what the first page of the Exhibit represents. Although the first page appears to be a catalog number, Petitioner does not explain how this first page relates to the Blake book. Again, Petitioner has not provided any competent testimony from a librarian explaining how this catalog number relates to the book and how this supports an assertion of public accessibility.

Petitioner's Declarant, Dr. Gibbons, does not provide any support for public accessibility through additional evidence or argument (Ex. 1202 ¶ 38). Nor has Petitioner provided any other evidence or argument to support their assertion that Blake qualifies as prior art.

For the foregoing reasons, I am not persuaded that Petitioner has shown a reasonable likelihood of prevailing in showing that claims 1–3 and 8–10 of the '371 patent would have been obvious over the combined teachings of Bernstein and Blake.

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