

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOX, INC. and DROPBOX, INC.,
Petitioner,

v.

TOPIA TECHNOLOGY, INC.,
Patent Owner.

IPR2023-00432
Patent 10,754,823 B2

Before THOMAS L. GIANNETTI, NEIL T. POWELL, and
SHEILA F. McSHANE, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review
Granting Motions to Seal
35 U.S.C. § 314; 37 C.F.R. § 42.14

I. INTRODUCTION

Box, Inc. and Dropbox, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–4, 8–11, and 13–16 (the “challenged claims”) of U.S. Patent No. 10,754,823 B2 (Ex. 1005, the “’823 patent,” “challenged patent”) pursuant to 35 U.S.C. § 311 *et seq.* Paper 3 (“Pet.”). Topia Technology, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). With leave of the Board, Petitioner filed a Preliminary Reply to Patent Owner’s Preliminary Response (Paper 9), and Patent Owner filed a Sur-Reply to Petitioner’s Preliminary Reply (Paper 13).

We have authority under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons that follow, we determine that Petitioner has not demonstrated that there is a reasonable likelihood that it would prevail in showing the unpatentability of at least one of the challenged claims. For the reasons set forth below, and pursuant to 35 U.S.C. § 314, we do not institute *inter partes* review of claims 1–4, 8–11, and 13–16 of the ’823 patent.

A. Related Matters

The parties identify the following related district court litigations:

(i) *Topia Technology, Inc. v. Box, Inc., SailPoint Technologies Holdings, Inc., and Clear Channel Outdoor Holdings, Inc.*, Case No. 6:21-cv-01372-ADA (W.D. Tex.);

(ii) *Topia Technology, Inc. v. Dropbox, Inc.*, Case No. 6:21-cv-01373-ADA (W.D. Tex.);

(ii) *Topia Technology, Inc. v. Egnyte, Inc.*, Case No. 1:21-cv-01821 (D. Del.);

(iii) *Topia Technology, Inc. v. Box, Inc., SailPoint Technologies Holdings, Inc., and Vistra, Inc.*, Case No. 6:20-cv-01175-ADA (W.D. Tex.);

(iv) *Topia Technology, Inc. v. Box, Inc.*, Case No. 3:32-cv-00063LB (N.D. Cal.); and

(v) *Topia Technology, Inc. v. Dropbox, Inc.*, Case No. 3:23-cv-00062AGT (N.D. Cal.).

Pet. 1; Paper 4, 1.

For related patents, Petitioner also has filed petitions requesting *inter partes* review in IPR2023-00427 (U.S. Patent No. 9,143,561); IPR2023-00429 (U.S. Patent No. 10,289,607); IPR2023-00430 (U.S. Patent No. 11,003,622); IPR2023-00433 (U.S. Patent No. 10,067,942); and IPR2023-00431 (U.S. Patent No. 10,642,787). Pet. 1–2. In IPR2022-00782, filed by Unified Patents, LLC, *inter partes* review was instituted for claims of U.S. Patent No. 10,067,823, and that proceeding has now been terminated. *Id.* at 2; IPR2022-00782, Papers 17, 31.

B. Challenged Patent

The specification of the '823 patent (“Specification”) discloses a computer-implemented process for sharing electronic files among electronic devices across a network. Ex. 1005, code (54), 1:24–26. The Specification explains that users of modern computer systems operate more than one computing device and have to manually move files between those devices, thereby producing redundant file copies in an error-prone environment via a complex file management system. *Id.* at 1:30–2:12. The Specification purports to resolve these and other problems by providing that:

In some embodiments, a copy of a first file may be received, via a first application at a first computer system, from a second application at a second computer system associated with a user. The first file copy may be automatically received

from the second application responsive to the user modifying a content of the first file, where the first file copy is a version of the first file that is generated from the user modifying the content of the first file. Responsive to receiving the first file copy from the second computer system, the first file copy may be automatically transferred via the first application to a third computer system associated with the user to replace an older version of the first file stored on the third computer system.

Id. at 3:57–4:2.

Figure 2 of the '823 patent is shown below:

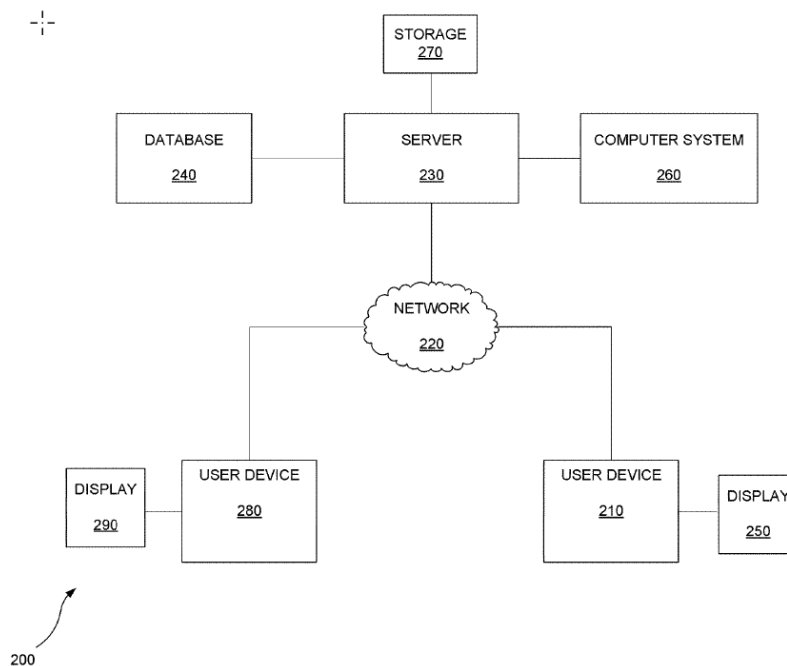


FIG. 2

Ex. 1005, Fig. 2. Figure 2, above, is block diagram showing an embodiment of an operating environment. *Id.* at 4:27–29. The Specification explains that computer network system 200 includes user devices 210, 280 (although more than two user devices can be implemented) connected to server 230 via network 220. *Id.* at 7:44–51. Server 230 is coupled to database 240, electronic storage 270, and computer system 260. *Id.* at 7:48–51. Files of the

user may be uploaded by user devices 210, 280 and stored in storage 270. *Id.* at 8:32–34. Upon receiving the files to be synched, server 230 stores the files in storage 270 and transfers the files to one of user devices 210, 280 such that “server 230 is operable to treat each hard drive of the respective user devices 210, 280 as a local document cache for files received by the server.” *Id.* at 8:34–42.

Figure 3 of the '823 patent is shown below:

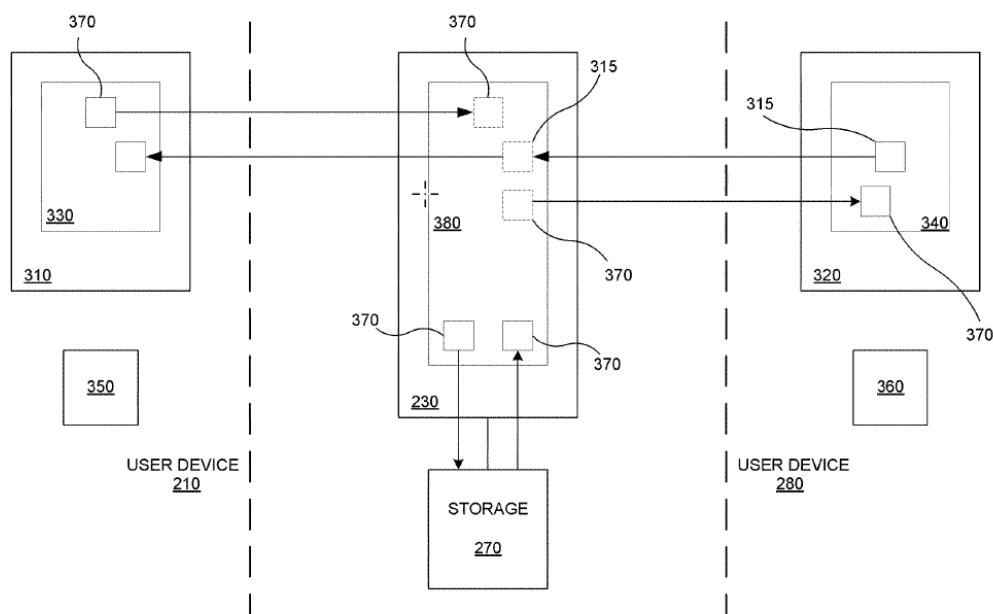


FIG. 3

Ex. 1005, Fig. 3. Figure 3 above is a block diagram illustrating an embodiment of file sharing and/or synchronizing. *Id.* at 4:30–32. The Specification explains that user devices 210, 280 include file-transfer clients 310, 320 having mobile-agent runtime environments 330, 340, respectively. *Id.* at 8:21–23. Upon a triggering event, such as a user saving a modified file 370 at user device 210, file-transfer client 310 transfers modified file 370 or a copy thereof to server 230 which has synchronization application 380 that

transfers modified file 370 to user device 280 to replace any previous version of file 370. *Id.* at 8:53–56, 9:3–8. To do this, synchronization application 380 monitors and polls user device 280 to ensure it is in communication with server 230. *Id.* at 8:63–9:3. If user device 280 is not currently in communication with server 230, modified file 370 is stored in storage 270 to be retrieved for sending to user device 280 when communication is later established. *Id.* at 9:8–12. A reversed-direction synchronization process may be performed for modified file 315 using file transfer client 320 of user device 280. *Id.* at 9:12–16.

C. Challenged Claims

Petitioner challenges claims 1–4, 8–11, and 13–16. Pet. 1. Claims 1, 8, and 13 are independent. Claim 1 is illustrative, and reproduced below, with identifiers included in brackets.¹

1. [1pre] A system comprising:

[1a] a server system comprising one or more processors programmed with computer program instructions that, when executed, cause the server system to:

[1b] receive, over a network, a copy of a first file from a first client device associated with a user, wherein the copy of the first file is automatically received from the first client device responsive to the user modifying a content of the first file stored on the first client device, the copy of the first file being an updated version of the first file that is generated from the user modifying the content of the first file;

[1c] receive, over a network, from the first client device, first metadata associated with the updated version of the first file that is generated from the user modifying the content of the first file, the first metadata being assigned a first priority greater than a second priority assigned to the copy of the first file;

¹ The identifiers are the same as those used in the Petition. *See* Pet. 12–40, Appendix A, Claim Listing, Claim 1.

[1d] automatically transfer, based on the first priority being greater than the second priority, the first metadata over a network to a second client device associated with the user such that the first metadata is transferred to the second client device before the copy of the first file is transferred to the second client device,

[1e] wherein, before the copy of the first file is transferred to the second client device: (i) the transfer of the first metadata to the second client device causes a graphical availability indication of the updated version of the first file to be presented at the second client device based on the first metadata, and

[1f] (ii) the graphical availability indication is presented proximate a file icon representing the first file on a user interface of the second client device, and

[1g] wherein the graphical availability indication indicates that the updated version of the first file generated from the user modifying the content of the first file is available to be downloaded from the server system to the second client device; and

[1h] subsequent to the transfer of the first metadata to the second client device, transfer the copy of the first file to the second client device,

[1i] wherein at least one of the server system or the first client device comprises a priority assignment configuration to assign greater priority to metadata associated with files than priority assigned to the files such that at least one of the server system or the first client device assigns the first priority to the first metadata and the second priority to the copy of the first file based on the priority assignment configuration.

Ex. 1005, 11:11–61.

D. Asserted Challenges to Patentability and Prior Art

Petitioner challenges claims 1–4, 8–11, and 13–16 on the below grounds.

Ground	Claim(s) Challenged	35 U.S.C. §	Reference(s)
1	1–4, 8–11, 13– 16	103(a) ²	Sigurdsson, ³ Shappell, ⁴ Rao ⁵
2	1–4, 8–11, 13– 16	103(a)	Brown, ⁶ Hesselink ⁷ , Shappell, Rao

Pet. 4.

Petitioner relies on a declaration with expert testimony from Dr. Ravin Balakrishnan (Ex. 1028). Patent Owner relies on a declaration with expert testimony from Dr. Prashant Shenoy (Ex. 2017).

II. LEVEL OF SKILL AND CLAIM CONSTRUCTION

A. Level of Skill in the Art

Petitioner proposes that an ordinarily skilled artisan would have had “a bachelor’s degree in computer science (or a similar degree) with two years of work experience in developing software, including at least some experience with storage, synchronization, and human-computer interaction technologies.” Pet. 6 (citing Ex. 1028 ¶¶ 15–21). Patent Owner does not

² The Leahy-Smith America Invents Act (“AIA”) included revisions to § 103 that became effective on March 16, 2013. Because the ’823 patent claims priority, through a continuation application, to a provisional application filed before March 16, 2013, and neither party has argued that the provisions of the AIA apply at this time, we apply the pre-AIA versions of the statutory bases for unpatentability. *See* Ex. 1005, codes (60), (63).

³ U.S. Publication No. 2007/0174246 A1, published July 26, 2007 (Ex. 1016).

⁴ U.S. Publication No. 2005/0091289 A1, published April 28, 2005 (Ex. 1020).

⁵ U.S. Publication No. 2006/0190506 A1, published April 24, 2006 (Ex. 1019).

⁶ U.S. Patent No. 7,035,847 B2, filed March 15, 2002 (Ex. 1025).

⁷ U.S. Publication No. 2005/0120082 A1, published June 2, 2005 (Ex. 1026).

propose a definition of an ordinarily skilled artisan nor disputes Petitioner's proposed definition. *See generally* Prelim. Resp. At this juncture, we determine that the qualifications proposed by Petitioner for an ordinarily skilled artisan are consistent with the level of skill reflected in the Specification and in the asserted prior art references. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). Accordingly, for purposes of this Decision, we adopt Petitioner's definition.

B. Claim Construction

Neither party requests that we expressly construe any claim term. Pet. 6; *see generally*, Prelim. Resp. At this juncture, we determine that we do not need to expressly construe any claim term for this Decision. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

III. ANALYSIS OF ASSERTED GROUNDS

A. Principles of Law

A patent claim is unpatentable under 35 U.S.C. § 103 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; and (4) when in evidence, objective indicia of

obviousness or nonobviousness.⁸ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Ground 1: Asserted Obviousness over Sigurdsson, Shappell, and Rao

Petitioner asserts that claims 1–4, 8–11, and 13–16 would have been obvious over the combination of Sigurdsson, Shappell, and Rao. Pet. 4, 12–48. Patent Owner’s arguments include that the prior art does not disclose all the limitations of the claims. Prelim. Resp. 29–52.

We begin our discussion with a summary of the prior art, and then address the evidence and arguments presented.

1. Sigurdsson (Ex. 1016)

Sigurdsson is directed to a method and a system for sharing and searching digital information and files between two or more clients or devices that involve files in a synchronization folder. Ex. 1016 ¶¶ 1–4. Sigurdsson discloses that its system and method automatically extract content from a first file in response to an event using a first client, generate metadata to associate with the content, and transmit, using the first client, the content and the metadata to a peer client if the peer client and the first client are currently operating and visible to each other on a network. *Id.* ¶¶ 4–5. Figure 4 of Sigurdsson, reproduced below, shows its system:

⁸ There are no discussions on or evidence of secondary indicia presented in the Petition or Preliminary Response. *See generally* Pet.; Prelim. Resp.

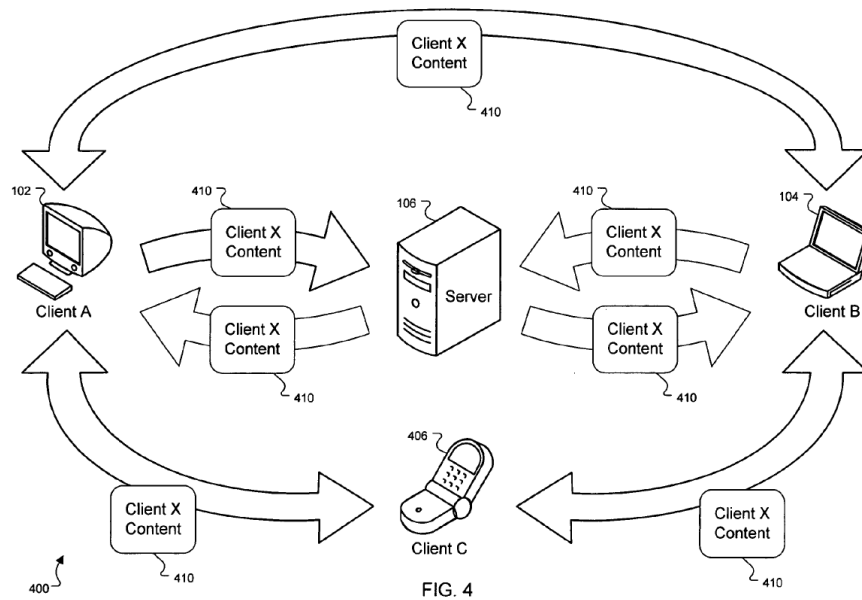


Figure 4, above, shows a system for sharing and synchronizing content using a mixed peer-to-peer and client/server architecture. Ex. 1016, Fig. 4, ¶¶ 19, 51. System 400 includes Client A 102, Client B 104, Client C 406, and Server 106. *Id.* ¶ 51. Server 106 operates as a “drop box” “for temporarily (or Permanently) storing Client X Content 410 originating from any of Clients 102, 104, and 406.” *Id.* ¶¶ 27, 51. System 400 “can use several algorithms or rules to optimize the use of resources needed to synchronize the content among the various peer clients.” *Id.* ¶ 58. The content can include a copy of the document or the content of the document, as well as metadata, and as an example, “the HTTPS Client/server 326 [(shown in Figure 3)] of the Client A 102 can transmit an HTTP post command containing the Client X Content 410 to the Server 106.” *Id.* ¶ 54. If Client C, as an example, is offline, data pertaining to a very large file can still be accessed by Client A although its content may not have been transmitted to Server 106 because metadata describing the file may be transmitted to Server 106. *Id.* ¶ 72. Server 106 includes Storage 330 for data storage and Synchronization

Manager 332 for tasks such as authentication and time stamping for the synchronization process. *Id.* ¶¶ 46, 48–49.

2. Shappell (Ex. 1020)

Shappell discloses a system and a method for sharing files among group members in a shared space. Ex. 1020 ¶ 1. Metadata is transmitted to all members when the files become available. *Id.* ¶ 76. An icon is displayed to inform a user that a file is not present locally. *Id.* ¶ 79. The system “renders such a display upon receipt that metadata concerning a shared file is available in the peer network,” and files that are missing or may be unavailable to a user when a system that is hosting the file of interest is offline, are represented by a “ghosted icon.” *Id.* When a modification of a file contained in a shared space occurs, a notification to other members in the group occurs, and upon receipt of such notification, member machines that have previously obtained a copy of the shared file will remove the local copy of the out-of-date file. *Id.* ¶ 81. “[I]f automatic replication of the shared file is enabled, the local machine obtains an updated version of the file.” *Id.*

3. Rao (Ex. 1019)

Rao is directed to a system and method for synchronizing a database having metadata and raw data. Ex. 1019, code (57). Figure 1 of Rao, reproduced below, illustrates an embodiment of the invention showing a synchronized database system.

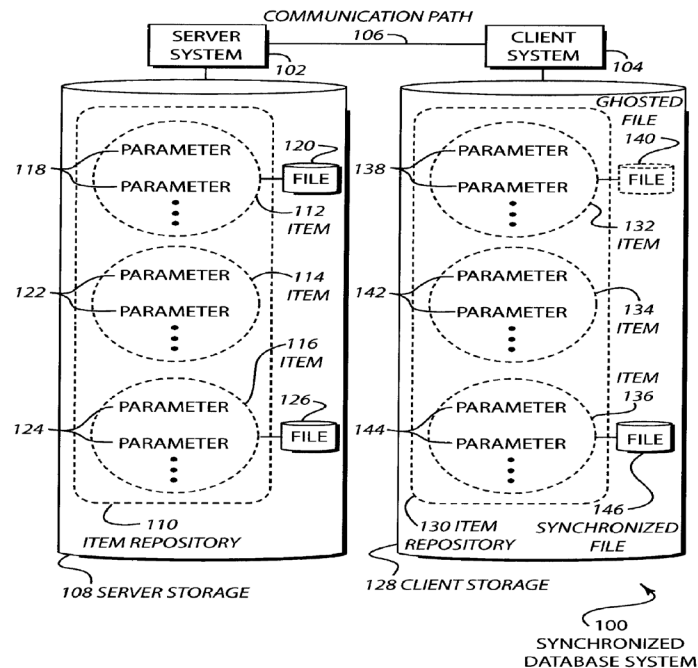


FIGURE 1

As shown in Figure 1 above, server system 102 has storage system 108 that contains an item repository 110, where items 112, 114, and 116 are comprised of parameters 118, 122, and 124. Ex. 1019 ¶ 23. Client system 104 has storage system 128 that contains item repository 130, where items 132, 134, and 136 are comprised of parameters 138, 142, and 144, respectively. *Id.* ¶ 24. Item 132 is related to ghosted file 140. *Id.*

In Rao, “[a] database containing raw data and metadata is synchronized in two phases. In the first phase, metadata is synchronized between a server and client while the raw data remains on the server system.” Ex. 1019 ¶ 63. In Rao, a file is shown as “ghosted” when the file is not synchronized but the file is shown. *Id.* ¶ 42. Rao discloses that ghosting files is used when “the raw data may be extraordinarily large files which may require a long time to transfer between the server system 102 and the client system 104.” *Id.* ¶ 48.

4. Claim 1

Petitioner asserts that the combination of Sigurdsson, Shappell, and Rao teaches all the limitations of claim 1. Pet. 12–40. Petitioner addresses “priority” limitations [1c], [1d], [1h], and [1i] under its discussion for limitation [1c]. *Id.* at 18, 31, 34–40. For limitation [1c], Petitioner asserts that in Sigurdsson, server 106 receives from first client device (Client A) a first metadata and the updated first file. Pet. 17–18. As to the limitation “the first metadata being assigned a priority that is greater than a second priority assigned to the copy of the first file,” Petitioner contends that the ’823 patent Specification includes limited disclosure on the limitation and “[n]o affirmative assignment of priority values is described.” *Id.* at 18 (citing Ex. 1005, 9:28–29; Ex. 1015, 17; Ex. 1028 ¶ 166). Petitioner asserts, however, “that to the extent [1c] requires assigning the ‘first priority’ to the first metadata before the server receives that metadata, the prior art discloses and renders that obvious.” *Id.* at 19 (emphasis omitted).

More specifically, Petitioner asserts that Sigurdsson discloses that server 106 receives from the first client device a file’s generated metadata before receiving the file, and then the server automatically transfers that metadata to a second client device before transmitting the file. Pet. 20 (citing Ex. 1028 ¶ 169). Petitioner relies on Sigurdsson’s priority algorithm wherein “[h]igher-priority (e.g., smaller and/or newer) files may be transferred before lower-priority (e.g., larger and/or older) files.” *Id.* (citing Ex. 1016 ¶¶ 58–60, 72; Ex. 1028 ¶ 170). Petitioner contends that Sigurdsson discloses that “Server 106 can first receive from the first client device the metadata associated with a low-priority file that Server 106 has not received.” *Id.* (citing Ex. 1016 ¶ 72; Ex. 1028 ¶ 170). Petitioner contends that “metadata received by Server 106 is then transmitted by Server 106 to a second client

device before Server 106 transfers the associated file.” *Id.* at 21 (citing Ex. 1016 ¶¶ 69–74, 79, 80, 96, Fig. 6 (steps 612, 614, 616); Ex. 1028 ¶ 172). With this, Petitioner contends that “the client device’s request for a list of missing content configures Server 106 to prioritize transmitting the first metadata received from the first client device to the second client device before transmitting the file.” *Id.* (citing Ex. 1028 ¶ 173) (emphasis omitted).

Petitioner further asserts that under a second interpretation where limitations [1c], [1d], [1h], and [1i] require assignment of priorities to metadata and files, “they are additionally rendered obvious by Sigurdsson with Shappell, which teaches prioritizing transfer of metadata for a modified file before transferring the file itself, and Rao, which teaches categorical assignment of first and second ‘phases’ to transfer metadata before files between clients and server.” Pet. 21–22 (citing Ex. 1028 ¶174) (emphasis omitted). Petitioner argues that Sigurdsson optionally assigns priority to items using a priority algorithm with the server dealing with data items. *Id.* at 22 (citing Ex. 1016 ¶¶ 58–59; Ex. 1028 ¶ 175). Petitioner contends that “[w]hile Sigurdsson does not expressly describe assigning priority values to metadata, Sigurdsson in view of Shappell and Rao renders obvious a predictable variation where the priority algorithm (priority assignment configuration) in the system, configured on the first client and/or Server 106, categorically assigns greater priority to metadata and lower priority to files.” *Id.* at 22–23 (citing Ex. 1028 ¶ 176). Petitioner asserts that Sigurdsson itself motivates this modification in view of the priority algorithm which “prioritize[s] ‘data items’ based on, for example, ‘size, type or age,’ in view of potential limited bandwidth.” *Id.* at 23 (citing Ex. 1016 ¶ 58; Ex. 1028 ¶ 177). Petitioner argues that Sigurdsson teaches assigning a greater priority

to smaller and newer data items, which are the attributes that person of ordinary skill in the art would recognize to apply to metadata, which typically has much less data than the file for an updated file, as well as the type of the “data item.” *Id.* (citing Ex. 1016 ¶¶ 58–59; Ex. 1028 ¶ 177). Petitioner asserts that a person of ordinary skill in the art would “appreciate the natural harmony” between the priority algorithm and server 106 prioritizing the “list of missing content,” which includes metadata. *Id.* (citing Ex. 1016 ¶ 58; Ex. 1028 ¶ 177). Petitioner contends that from these teachings a person of ordinary skill in the art “would have found it obvious to simply configure the priority algorithm to assign greater priority to metadata, and lower priority to the associated files,” which would account for Sigurdsson’s bandwidth considerations in transferring files. *Id.* at 23–24 (citing Ex. 1016 ¶¶ 60, 79; Ex. 1028 ¶ 177).

Petitioner argues that Shappell and Rao further disclose and motivate the modification to Sigurdsson. Pet. 24 (citing Ex. 1028 ¶ 178). Petitioner asserts that Shappell teaches that a file’s metadata “is transferred first (with a higher priority) from an originating computer to all connected group computers before transferring a copy of the file itself.” *Id.* at 26 (citing Ex. 1020 ¶¶ 62, 81, 77–78, Fig. 20; Ex. 1028 ¶ 179). Petitioner contends that Rao “provides naturally complementary teachings to categorically prioritize synchronizing metadata before files between server and client, to advantageously enable functions at the client.” Pet. 26 (citing Ex. 1028 ¶ 180). Petitioner asserts that Rao discloses synchronizing files in two phases: first the metadata, then the “raw data” of the files. *Id.* at 26–27 (citing Ex. 1019 ¶ 63; Ex. 1028 ¶ 180). Petitioner argues that “[m]uch like Shappell, Rao teaches that prioritizing metadata enables functions using the

metadata beneficial to ‘the user of the client’ receiving the metadata, such as to ‘display’ information about files.” *Id.* at 27 (citing Ex. 1019 ¶¶ 63, 43; Ex. 1028 ¶ 180). Petitioner asserts that it would have been obvious to combine Sigurdsson, Shappell, and Rao because: 1) they are analogous references; 2) Shappell and Rao originated with Microsoft, and Sigurdsson contemplates using computers with Microsoft software; 3) a person of skill in the art would have considered ways to address Sigurdsson’s bandwidth concerns and Shappell and Rao provide solutions by prioritizing transmitting metadata; and 4) the benefits of prioritizing transferring metadata before content was background knowledge for a person of ordinary skill in the art from known software. *Id.* at 27–31.

We are not persuaded that there is sufficient evidence that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenge as to claim 1.

We begin with the claim 1 language which requires “first metadata *being assigned a first priority greater than a second priority* assigned to the copy of the first file;” automatically transferring the first metadata “based on the *first priority being greater than the second priority*,” and “wherein at least one of the server system or the first client device *comprises a priority assignment configuration to assign greater priority to metadata associated with files than priority assigned to the files.*” Ex. 1005, 11:23–30, 11:53–56 (emphasis added). In other words, the claim limitations require the assignment of priority to the metadata and file, a comparison of the assigned priorities, and the use of a “priority assignment configuration” for assigning the priorities.

We agree with Patent Owner that claim limitations, such as the assignment and comparison of priorities, as well as a “priority assignment configuration” here, cannot be disregarded. *See* Prelim. Resp. 43; *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1532 (Fed. Cir. 1987). Although we recognize, as Petitioner argues, that the ’823 patent Specification’s discussion of prioritization is limited (*see* Pet. 18 (citing Ex. 1005, 9:28–29)), the issue of written support in the Specification for the claim limitations is not before us in the proceeding. The parties do not address claim construction issues related to these claim elements, and we do not discern that there is any disclosure in the ’823 patent Specification that indicates the terms “priority,” “the first priority being greater than the second priority,” or “priority assignment configuration to assign greater priority” should be afforded a special definition. *See Phillips*, 415 F.3d at 1316.

We also note that during the prosecution of the parent application to the ’823 patent, that is, Application No. 16/361,641 (which issued as U.S. Patent No. 11,003,622 (“the ’622 patent”)), after the issuance of an Office Action which included Sigurdsson as a basis for an obviousness rejection, limitations were added by the applicant that are substantially the same as limitations [1c] and [1d] of claim 1 of the ’823 patent. Ex. 1012, 102, 128–132. The Examiner then allowed the ’622 patent, stating:

In view of applicant’s amendment, remarks (12/14/2020), the prior art of Mohanty, US Pub. No. 2007/0180084, Sigurdsson, US Pub. No. 2007/0174246 and Yeager et al., US Pub. No. 2004/0088348 do not disclose, make obvious or otherwise suggest the structure of applicant’s “automatically transfer, based on the first priority being greater than the second priority, the first metadata to the second client device such that the first metadata is transferred to the second client device prior to the copy of the

first file being transferred to the second client device”, in claim 1, 12, 18.

Ex. 1012, 60. The Examiner therefore considered and determined that the limitation cited above, which is similar to that of limitation [1d], was not taught by Sigurdsson.

Here, Petitioner, in part, relies upon Sigurdsson’s “priority algorithm” for the teachings of limitation [1c], which states:

The system **400** can use several algorithms or rules to optimize the use of resources needed to synchronize the content among the various peer clients. Since bandwidth on the Server **106** and on the Clients **102** and **104** may be limited, and user actions can transmit or request large amounts of data at one time, content sharing can fall behind demand. For example, a user can store a very large document (e.g., a maintenance manual) on the Client A **102**, and at a short time later, the same user empties a digital camera on the Client B **104**. The same day, the user may go to work and update a small office memo on the Client C **406**. Although the Server **106** can receive content for all three data items in the order that the user accessed them, the Server **106** can also deal with the data items by assigning it priorities. The Server **106** can handle the higher priority data items first, and save the lower priority data items for later. In one implementation, the priorities are based on attributes such as their size, type or age, which are each associated with a score. A lower combined score can be assigned a higher priority. For example, a small document (e.g., an office memo) would receive lower score based on size, thus a higher priority. Similarly, a large document (e.g., a maintenance manual) and digital photos would receive a higher score (and a lower priority). A data item’s age would also affect its priority, with a higher priority being assigned to a newer data item. A data item’s type can also be used to calculate its priority, since, for example, an office environment can place a higher priority on work-related data items, such as documents generated by Microsoft Word™.

Ex. 1016 ¶ 58.

Patent Owner argues, and we agree, that Sigurdsson’s priority algorithm applies to prioritizing *content* for synchronization, but not to prioritizing metadata over content. *See* Prelim. Resp. 34–36 (citing Ex. 2017 ¶ 32). More specifically, the “data items” discussed in Sigurdsson refer to files containing content, that is, a maintenance manual, digital photos, and an office memo. Ex. 1016 ¶ 58. Although this passage of Sigurdsson, cited above, discloses that metadata, such as file size or age, can be used to set the priorities for the transmittal of the respective content files, there is no disclosure or suggestion that the priority algorithm is used to assign priorities to metadata, or to compare the assigned priorities of metadata and files, or to use a “priority assignment configuration” for assigning the priorities of metadata versus files. *See* Ex. 2017 ¶ 32.

Petitioner also relies on Sigurdsson’s disclosure where metadata is transmitted by server 106 to a second client device before the server transfers the associated file. *See* Pet. 21 (citing Ex. 1016 ¶¶ 69–74, 79, 80, 96, Fig. 6 (steps 612, 614, 616); Ex. 1028 ¶¶ 172–173). Petitioner, with Dr. Balakrishnan’s supporting testimony, contends that in light of this operation, “the client device’s request for a list of missing content configures Server 106 to prioritize transmitting the first metadata received from the first client device to the second client device before transmitting the file.” *Id.*; Ex. 1028 ¶ 173 (emphasis omitted). At most, Sigurdsson provides support that under certain circumstances its server software may send metadata before files. But there is no disclosure or suggestion in this disclosure of Sigurdsson that there is an assignment of priorities to metadata, a comparison of the assigned priorities of metadata and files, or a “priority assignment configuration” used for assigning the priorities of metadata versus files.

Petitioner acknowledges that Sigurdsson does not disclose the assignment of priorities to metadata and files. Pet. 21–22. For this teaching, Petitioner asserts “Sigurdsson in view of Shappell and Rao renders obvious a predictable variation where the priority algorithm (priority assignment configuration) in the system, configured on the first client and/or Server 106, categorically assigns greater priority to metadata and lower priority to files.” *Id.* at 22–23 (citing Ex. 1028 ¶ 176) (emphasis omitted). For this, Petitioner relies upon Shappell’s teaching that when a user modifies a file, metadata is sent before the file. *Id.* at 24–26. Petitioner also relies on Rao’s teaching that file synchronization is done in two phases, with the first phase being metadata synchronization and the second phase being to synchronize the raw data. *Id.* at 26–27. Petitioner’s assertion, with Dr. Balakrishnan’s supporting testimony, is that because metadata is always sent before the modified file or the raw data, this equates to the metadata being sent “with a higher priority” in Shappell, as well as to “categorically prioritize synchronizing metadata before files” under Rao’s teachings. Pet. 26–27 (citing Ex. 1028 ¶¶ 179–180). Petitioner then contends that because Sigurdsson teaches that higher priority data items (files with content) are sent before lower priority data items, a person of ordinary skill in the art “would have found it obvious to simply configure the priority algorithm to assign greater priority to metadata, and lower priority to the associated files” further in view of Sigurdsson’s bandwidth considerations. *Id.* at 23–24.

We do not find that the Petition’s arguments and evidence are sufficient to support that Sigurdsson in view of Shappell and Rao teaches the limitations for assignment of priority to metadata, comparison of the assigned priorities of metadata and files, or for a “priority assignment configuration”

used for assigning the priorities of metadata versus files. *See* limitations [1c], 1[d], and [1g]. As an initial matter, none of the references teaches that there is an assignment of priority to metadata or a comparison of the priorities of the metadata and files. *See* Ex. 2017 ¶¶ 32, 37, 55, 59. At most, Sigurdsson teaches that metadata may be transmitted before files and Shappell and Rao teach that metadata is always sent before files. But even if the metadata is sent, or is even “categorically” sent, before files are sent, that does not teach assignment of priorities or comparison of metadata/file priorities as required by the claim limitations.

Petitioner also contends that in light of Shappell’s and Rao’s teachings, and because Sigurdsson teaches that higher priority data items are sent before lower priority data items, a person of ordinary skill in the art would have found it obvious to configure Sigurdsson’s priority algorithm to assign greater priority to metadata, and lower priority to the associated files. Pet. 22–24. Petitioner additionally asserts that a person of ordinary skill would recognize that metadata for an updated file contains less data than a file in accordance with the priority algorithm. *Id.* at 23. Petitioner asserts that there is a “natural harmony” with the priority algorithm and a server prioritizing metadata. *Id.*

We do not find that the Petition presents sufficient reasoning to support why a person of skill in the art would modify Sigurdsson’s priority algorithm in view of Shappell’s and Rao’s teachings. Shappell and Rao simply teach that metadata is sent first and content or raw data is sent second. Petitioner contends that because the metadata is known to usually contain less data than a file and the updated version is newer, Sigurdsson’s priority algorithm should be reconfigured to assign greater priority to the metadata and lower

priority to the files. Pet. 23–24; Ex. 1028 ¶ 177. Petitioner asserts that Sigurdsson motivates the modification because of the “natural harmony” of Sigurdsson’s algorithm to prioritizing metadata. Pet. 23; Ex. 1028 ¶ 177. There is no explanation provided in the Petition, however, as to why a person of ordinary skill in the art would opt to modify Sigurdsson to assign and compare priorities by reconfiguring the priority algorithm of Sigurdsson when there is the simpler way of using software to simply send metadata first and content second as taught in Shappell/Rao. Absent explanation in the Petition as to why one of skill in the art would opt to reconfigure Sigurdsson’s priority algorithm to assign and compare priorities rather than employing the simpler method taught in Shappell/Rao of just sending metadata first, the Petition lacks rational underpinning.

Accordingly, on this record, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenge as to claim 1.

5. Independent Claim 8 and 13

Independent claims 8 and 13 contain similar limitations to limitations [1c], [1d], [1h], and [1i]. Ex. 1005, 12:40–13:24, 13:65–14:45. For these claims Petitioner relies on its arguments and evidence presented for claim 1. Pet. 47–48. We do not find the Petition’s arguments and evidence sufficient for the reasons discussed above.

Accordingly, on this record, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenge as to claims 8 and 13.

6. Dependent Claims 2–4, 9–11, and 14–16

By virtue of their dependency from independent claims 1, 8, and 13, the challenges to dependent claims 2–4, 9–11, and 14–16 presented in the Petition are insufficient for the reasons explained above.

Accordingly, on this record, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenge as to claims 2–4, 9–11, and 14–16.

B. Ground 2: Asserted Obviousness over Brown, Hesselink, Shappell, and Rao

Petitioner asserts that claims 1–4, 8–11, and 13–16 would have been obvious over Brown, Hesselink, Shappell, and Rao. Pet. 48–71. Patent Owner’s arguments include that the prior art does not disclose all the limitations of the claims. Prelim. Resp. 52–60.

We begin our discussion with a summary of Brown and Hesselink and then address the evidence and arguments presented.

1. Brown (Ex. 1025)

Brown discloses a server for synchronization of files in which files can be accessed remotely from multiple computers and changes to the files are retained. Ex. 1025, code (54); 1:15–17. “From the user’s perspective, the synchronization process is automatic, runs in the background and requires minimal monitoring or intervention.” *Id.* at 3:40–42. Figure 1 of Brown, reproduced below, shows its server with several clients:

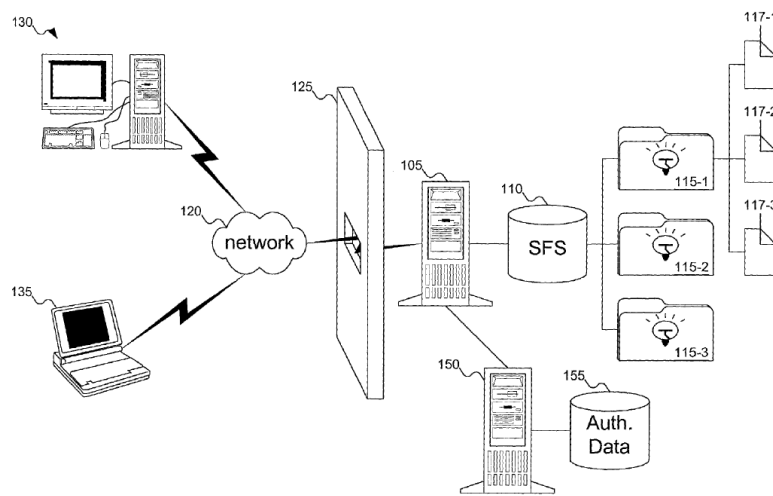


FIG. 1

Id. at Fig. 1; 2:3–5. Figure 1, above, shows server 105 including server SFS (Synchronization File System) 110 which stores folders 115-1, 115-2, 115-3, and in turn, each folder including multiple files such as files 117-1, 117-2, 117-3. *Id.* at 3:54–4:6. Server 105 is connected to clients 130, 135 which can be a desktop computer or a portable computer, via network 120, and can be separated from clients 130, 135 using firewall 125. *Id.* at 4:7–28. Server SFS 110 assigns a CSI (client sync (synchronization) index) for a state change to a user’s server account for synchronizing a client machine with server data. *Id.* at 5:4–13. A client SA (Synchronization Application) initiates the synchronization process by making a sync poll call to the server and obtaining the CSI to determine if index values are the same, which is indicative of the client being “up to date with the current state of its server account,” otherwise, the server SFS returns a higher index metadata for the client “to transition its account from its current state to the server’s current state.” *Id.* at 5:14–24.

2. Hesselink (Ex. 1026)

Hesselink discloses systems and methods using peer-to-peer applications for distributed data access and storage. Ex. 1026, codes (54), (57). When data is updated, such as when a file is edited, its system “may be configured to automatically update all or some designated subset of computers on the network as soon as the update has been performed at one location.” *Id.* ¶ 183. “Thus, the user is ensured of having a completely up to date master copy of each shared data file at the home location/home locations (since home locations of shared files may vary).” *Id.* ¶ 192.

3. Claim 1

For limitation 1[b], Petitioner contends that Brown in view of Hesselink teaches the limitation, with Hesselink further disclosing that the transfer of a copy of a file that is “responsive to the user modifying a content” of the file. Pet. 49–52. Petitioner asserts that “Brown alone discloses and renders obvious” “the priority-related limitations of [1c], [1d], [1h], and [1i] at least to the same extent the ’823 specification discloses them.” *Id.* at 55. Petitioner contends that Brown describes that metadata for a modified file is uploaded from the originating “first client device” to the server prior to the modified file being uploaded. *Id.* at 55–56 (citing Ex. 1025, 10:9–10, 15:38–40, 5:50–52, 12:53–13:3, 13:57–62, 14:5–6, 15:30–54, Fig. 8A (step 805), Fig. 8B (step 850), Figs. 11A–C; Ex. 1028 ¶¶ 614–619). Petitioner contends that Brown teaches that before the server transfers a copy of the modified file to a “second client device,” the server first transfers the Server Synchronization Data (“SSD”) that contains the metadata of files that have been changed since the last synchronization by the client. *Id.* at 56 (citing Ex. 1025, 5:25–49, 10:19–27, 8:48–61, 2:65–67; Ex. 1028 ¶¶ 616, 681).

According to Petitioner, to the extent that limitations [1c], [1d], [1h], and [1i] “require further categorical assignment of priorities to metadata and files,” Brown in view of Shappell and Rao renders them obvious. Pet. 57 (citing Ex. 1028 ¶ 623). Petitioner contends that Brown teaches that it is “desirable to minimize the amount of data a server sends to or receives from a client, so that other clients’ requests can be handled in a timely manner,” and this would have motivated a person of ordinary skill in the art to consider other prior art “focused on sending metadata prior to file data” to improve on the efficiency of Brown’s approach for synchronizing files. *Id.* (citing Ex. 1025, 11:60–63; Ex. 1028 ¶¶ 623–645). Petitioner relies upon Shappell and Rao’s teachings, with Shappell teaching transferring metadata before files, and Rao categorizing metadata synchronization before files. *Id.* at 58. Petitioner alleges that Shappell and Rao would be a predictable variation to Brown’s “categorically assign[ing] greater priority to metadata and lower priority to files.” *Id.* at 57. Petitioner argues that “[f]or substantially the same reasons above for Ground 1, Shappell and Rao both further disclose and motivate this this obvious modification to Brown.” *Id.* at 58 (emphases omitted).

As discussed *supra* in Section III.B.4, claim limitations [1c], [1d], [1h], and [1i] require the assignment of priority to the metadata and file, a comparison of the assigned priorities, and the use of a “priority assignment configuration” for assigning the priorities. As discussed, these claim limitations, such as the assignment and comparison of priorities, as well as a “priority assignment configuration” here, cannot be disregarded. Here, we discern no teaching in Brown, nor does Petitioner assert, that Brown discloses an assignment of priority to the metadata and file, or that there is a

teaching of a comparison of the assigned priorities, or that there is a teaching of a use of a “priority assignment configuration” for assigning the priorities. Pet. 55–57, 62, 65. At most, Brown as modified by Hesselink discloses that metadata may be sent before sending files or portions of files. *See id.*

For the combination of Brown/Hesselink with Shappell and Rao, none of the references teaches that there is an assignment of priority to metadata or a comparison of the priorities of the metadata and files. As discussed, Brown as modified by Hesselink, at best, teaches that metadata may be transmitted before files or portions, and Shappell and Rao at most teach that metadata is always sent before files. But even if the metadata is sent, or is even “categorically” sent, before files are sent, that does not teach assignment of priorities or comparison of metadata/file priorities as required by the claim limitations. Additionally, similar to the above discussion with regard to Sigurdsson, the Petition does not persuasively explain why a person of ordinary skill in the art would have modified Brown to assign and compare priorities when it would have been simpler always to send the metadata first and content second, as taught in Shappell and Rao. *See Pet. 57–61.*

Accordingly, on this record, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenge as to claim 1.

4. Independent Claim 8 and 13

Independent claims 8 and 13 contain similar limitations to limitations [1c], [1d], [1h], and [1i]. Ex. 1005, 12:40–13:24, 13:65–14:45. For these claims Petitioner relies on its arguments and evidence presented for claim 1. Pet. 70–71. We do not find these arguments and evidence sufficient for the reasons discussed above.

Accordingly, on this record and for this ground, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenges to claims 8 and 13.

5. Dependent Claims 2–4, 9–11, and 14–16

By virtue of their dependency from independent claims 1, 8, and 13, the challenges to dependent claims 2–4, 9–11, and 14–16 presented in the Petition are insufficient for the reasons explained above.

Accordingly, on this record and for this ground, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenges to claims 2–4, 9–11, and 14–16 of the '823 patent.

IV. DISCRETIONARY DENIAL

Patent Owner argues that we should exercise our discretion to deny institution for several reasons. Prelim. Resp. 1–33. We need not reach these issues in light of our assessment of the merits of the Petition, as discussed above.

V. CONCLUSION

Accordingly, because Petitioner has not established a reasonable likelihood that it would prevail in showing the unpatentability of claims 1–4, 8–11, and 14–13 of the '823 patent, we deny the Petition.

VI. MOTIONS TO SEAL

The parties have filed two unopposed motions to seal. Papers 8; 12. The first motion, filed by Petitioner, requests sealing of Exhibit 1030 (joint defense agreement) and paragraph 6 of Exhibit 1029 (declaration of Heidi L. Keefe). Paper 8, 2. The first motion also includes a request to enter an agreed protective order. *See id.*, Appendix A.

The second motion, filed by Patent Owner, requests sealing of its Preliminary Sur-reply (Paper 15) and Exhibit 2018 (transcript of Ms. Keefe's deposition). Paper 12, 1.

The contents of the materials for which sealing has been sought are not disclosed or discussed in this Decision.

We have reviewed the motions and the documents at issue and have considered the explanations of the confidential nature of the materials for which sealing is sought. We find there is good cause and therefore we grant the motions to seal and the associated request to enter the protective order.

VII. ORDER

It is

ORDERED that, pursuant to 35 U.S.C. § 314(a), *inter partes* review is hereby *denied* as to the challenged claims 1–4, 8–11, and 14–13 of the '823 patent;

FURTHER ORDERED that no *inter partes* review is instituted;

FURTHER ORDERED that the request to enter the protective order is granted; and

FURTHER ORDERED that the Motions to Seal (Papers 8, 12) are granted.

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