

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.

IPR2023-00430
Patent 11,003,622 B2

Before THOMAS L. GIANNETTI, NEIL T. POWELL, and
JOHN R. KENNY, *Administrative Patent Judges*.

POWELL, *Administrative Patent Judge*.

DECISION

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

Granting Petitioner's Motion to Seal
37 C.F.R. § 42.14

Granting Patent Owner's Motion to Seal
37 C.F.R. § 42.14

I. INTRODUCTION

A. BACKGROUND

Box, Inc., and Dropbox, Inc. (“Petitioner”) filed a Petition for *inter partes* review of claims 1, 3–5, 7, 11, 12, 14, 16, and 17 of U.S. Patent No. 11,003,622 B2 (Ex. 1006, “the ’622 patent”). Paper 3 (“Pet.”). Topia Technology, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). As authorized by an Order (Paper 7 (Conduct of Proceeding)), Petitioner filed a supporting Preliminary Reply (Paper 9 (“Prelim. Reply”)) and Patent Owner filed a sealed Sur-Reply (Paper 15 (“Prelim. Sur-Reply”)).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the Petition and any response thereto shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Having considered the arguments and the associated evidence, we determine that Petitioner has not shown a reasonable likelihood that it will prevail in establishing the unpatentability of any of the challenged claims. Accordingly, we do not institute *inter partes* review.

B. RELATED PROCEEDINGS

The parties note the ’622 patent is involved in the following district court proceedings: *Topia Technology, Inc. v. Box, Inc.*, No. 6:21-cv-01372-ADA (W.D. Tex.); *Topia Technology, Inc. v. Dropbox, Inc.*, No. 6:21-cv-01373-ADA (W.D. Tex.); *Topia Technology, Inc. v. Egnyte, Inc.*, No. 1:21-cv-01821 (D. Del.); *Topia Technology, Inc. v. Box, Inc., SailPoint Technologies Holdings, Inc., and Vistra, Inc.*, 6:20-cv-01175-ADA; *Topia Technology, Inc. v. Box, Inc.*,

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3:32-cv-00063LB; and *Topia Technology, Inc. v. Dropbox, Inc.*,
3:23-cv-00062AGT. Pet. 1; Paper 4, 1.

The parties also identify the following related IPR matters:
IPR2022-00782 (Patent 10,067,942); IPR2023-00427 (Patent 9,143,561);
IPR2023-00429 (Patent 10,289,607); IPR2023-00431 (Patent 10,642,787);
IPR2023-00432 (Patent 10,754,823); IPR2023-00433 (Patent 10,067,942).
Pet. 1–2; Paper 4, 3.

Patent Owner additionally notes the following U.S. Patent
applications as claiming priority to one or more of the currently challenged
patents: 17/306,548; 17/940,730; and 17/941,518. Paper 4, 3–4.

C. THE '622 PATENT

The '622 patent's disclosed "invention relates generally to
computer-implemented processes and, more specifically, to sharing of
electronic files among computer systems." Ex. 1006, 1:22–24. The
'622 patent identifies the following problem:

Although modern devices are easily connected, they do
not provide the customer a seamless environment; the customer
must manually handle many aspects of that connection. With
regards to file management, customers must manually move
files between their devices using some protocol like email, ftp,
or by posting them on the Web.

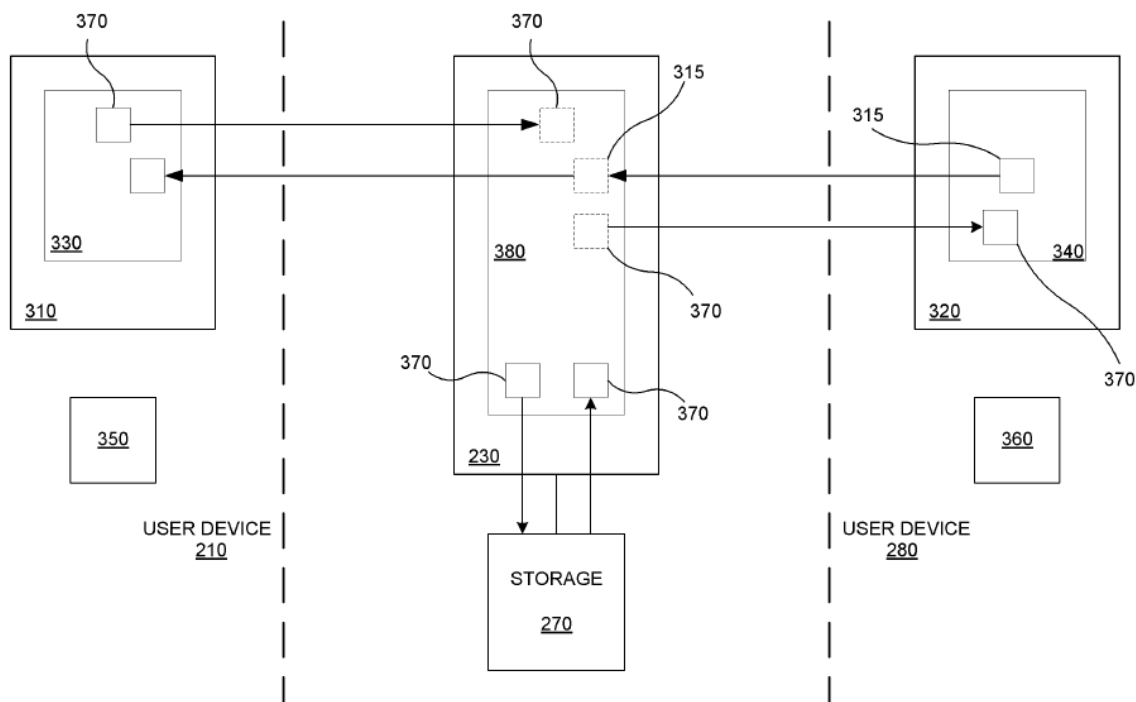
Id. at 1:37–42. According to the '622 patent, "[t]hat a customer has to
manually move files around to ensure their accessibility on his devices is
unnecessary." *Id.* at 1:66–67. With this background, the '622 patent
discloses:

[A]utomatic modification-triggered transfer of a file among two
or more computer systems associated with a user. In some
embodiments, 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 3:55–4:2.

The '622 patent discusses its approach in more detail in connection with Figure 3, which is reproduced below.



“[Figure] 3 is a functional block diagram illustrating file sharing and/or synchronization according to an embodiment of the invention.”

Id. at 4:15–17.

More specifically, Figure 3 shows user devices 210, 280 and server 230, which may be owned or controlled by a user. *Id.* at 7:60–8:2. File-transfer applications on user devices 210, 280 provide file transfer clients 310, 320. *Id.* at 8:2–5. File-transfer client 310 may include mobile-agent runtime environment 330. *Id.* at 8:5–7. Likewise, file-transfer client 320 may include mobile-agent runtime environment 340. *Id.* The file-transfer applications on user devices 210, 280 may also include user interfaces 350, 360 displayed on respective displays 250, 290. *Id.* at 8:11–13.

Files the user wants to be shared or synched may “be uploaded by one or more of the user devices 210, 280 and stored in storage 270.” *Id.* at 8:16–18. For example, “[u]pon a predetermined and user-configurable triggering event, the transfer client 310 transfers the modified file 370, or a copy of the modified file, to the server 230.” *Id.* at 8:37–40. The triggering event may be when the user saves the file, when the file has been open a certain amount of time, or when a communication session between device 210 and server 230 is re-initiated. *Id.* at 8:40–44.

On server 230, synchronization application 380 may be executing. *Id.* at 8:45–46. Synchronization application may include a mobile-agent runtime environment. *Id.* “[S]ynch application 380 monitors a set of user devices to which the file 370 should be transferred to effect file synchronization.” *Id.* 8:48–50. In the example shown in Figure 3, user device 280 is included in the monitored set. *Id.* at 8:50–51. User device 280 is polled by synch application 380 to determine whether user device 280 is in communication with server 230. *Id.* at 8:51–54. If not, file 370 may be stored in storage 270 by synch application 380, pending reestablishment of

communication between user device 280 and server 230. *Id.* at 8:59–63. In the event server 230 and user device 280 are in communication, file 370 is transferred to device 280 by synch application 380. *Id.* at 8:54–56. At such time, the previous version of file 370 cached on device 280 is replaced by transfer client 320 with the latest version of file 370 altered on user device 210. *Id.* at 8:54–59. In the case of file 315 altered on device 280, transfer clients 310, 320 and synch application 380 may execute a similar reverse-direction synchronization operation. *Id.* at 8:64–67.

D. ILLUSTRATIVE CLAIMS

Of the challenged claims, claims 1, 11, and 16 are independent. Each of claims 3–5, 7, 12, 14, and 17 depends, from one of independent claims 1, 11, and 16. Claim 1 is illustrative and is reproduced below with certain reformatting: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 a version of the first file that is generated from the user modifying the content of the first file;

[1c] store the copy of the first file on the server system;

¹ We have added the same labels that Petitioner applies to each of the portions of claim 1. *See* Pet. App. A.

- [1d] receive, from the first client device, first metadata associated with the 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;
- [1e] 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; and
- [1f] automatically transfer, over a network, the copy of the first file to the second client device associated with the user to replace an older version of the first file stored on the second client device, responsive to receiving the copy of the first file from the first client device.

Ex. 1006, 10:60–24.

E. EVIDENCE

Petitioner relies on the following evidence:

- (1) U.S. Patent Application Publication No. 2007/0174246 A1, published July 26, 2007 (Ex. 1016, “Sigurdsson”);
- (2) U.S. Patent Application Publication No. 2006/0190506 A1, published Aug. 24, 2006 (Ex. 1019, “Rao”);
- (3) U.S. Patent Application Publication No. 2005/0091289 A1, published Apr. 28, 2005 (Ex. 1020, “Shappell”);
- (4) U.S. Patent No. 7,035,847 B2, published Apr. 25, 2006 (Ex. 1025, “Brown”);
- (5) U.S. Patent Application Publication No. 2005/0120082 A1, published June 2, 2005 (Ex. 1026, “Hesselink”);
- (6) Declaration of Ravin Balakrishnan, Ph.D (Ex. 1028).

Patent Owner relies on the following evidence:

- (1) Declaration of Dr. Prashant Shenoy (Ex. 2013); and
- (2) Microsoft Computer Dictionary, Fifth Edition (2002) (Ex. 2015).

F. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner challenges the patentability of claims 1, 3–5, 7, 11, 12, 14, 16, and 17 of the '622 patent on the following grounds (Pet. 4):

Claims Challenged	35 U.S.C. §	References
1, 3–5, 7, 11, 12, 14, 16, 17	103	Sigurdsson, Shappell, Rao
1, 3–5, 7, 11, 12, 14, 16, 17	103	Brown, Hesselink, Shappell, Rao

II. ANALYSIS

A. LEVEL OF ORDINARY SKILL

Petitioner contends: “[T]he claims’ earliest effective filing date is November 10, 2008. A POSA would have possessed a bachelor’s degree in computer science (or similar degree), and two years of work experience developing software, including at least some experience with storage, synchronization, and human-computer interaction technologies.

(Balakrishnan, ¶¶15-21.)” Pet. 7–8. Patent Owner does not dispute Petitioner’s definition of a person of ordinary skill in the art. *See generally* Prelim. Resp; Prelim. Sur-Reply. We find Petitioner’s position consistent with the '622 patent and the asserted prior art, and supported by Dr. Balakrishnan’s testimony (Ex. 1028 ¶¶15–21). Therefore, we adopt Petitioner’s definition of a person of ordinary skill in the art.

B. CLAIM CONSTRUCTION

In an *inter partes* review proceeding, a claim of a patent is construed using the same standard used in federal district court, including construing the claim in accordance with the ordinary and customary meaning of the claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent. 37 C.F.R. § 42.100(b) (2020). According to the applicable standard, claim terms “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) (citations omitted).

Petitioner believes that we presently need not construe any claim language expressly. Pet. 8. Patent Owner does not argue that we need to construe any claim language expressly. *See generally* Prelim. Resp; Prelim. Sur-Reply. Further, we do not see the need to expressly construe any claim language. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (applying *Vivid Techs.* in the context of an *inter partes* review).

C. GROUND 1: ALLEGED OBVIOUSNESS OF CLAIMS 1, 3–5, 7, 11, 12, 14, 16, AND 17 OVER SIGURDSSON, SHAPPELL, AND RAO

1. *Overview of Sigurdsson*

Sigurdsson’s disclosed invention “relates to a sharing and search method and system.” Ex. 1016 ¶ 1. Sigurdsson identifies the following problem:

[U]sers want to have access to their digital information whether they are on their home computer, using a laptop at work, or on the road with a wireless personal digital assistant.

Some current systems permit a user to move files to a synchronization folder, which can be used to transfer files between two or more clients. These systems, however, may require explicit user action for this synchronization to take place. In this case, even if a user has recently accessed a file, it will not be synchronized unless the user moves it to the synchronization folder.

Id. ¶¶ 2–3. With this background, Sigurdsson discloses “assist[ing] users . . . in entering to share and find data across [their] devices.” *Id.* ¶ 4. For example, Sigurdsson discloses a method for doing so:

The method includes receiving an event indicating an action associated with a first file has been performed by a user using a first client. . . . The method also includes automatically extracting content from the first file in response to the event using the first client and generating metadata to associate with the content, and transmitting, 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. The timing of the transmission is determined automatically after the event is received.

Id. ¶ 5.

Sigurdsson discusses an embodiment in connection with Figure 3, which is reproduced below.

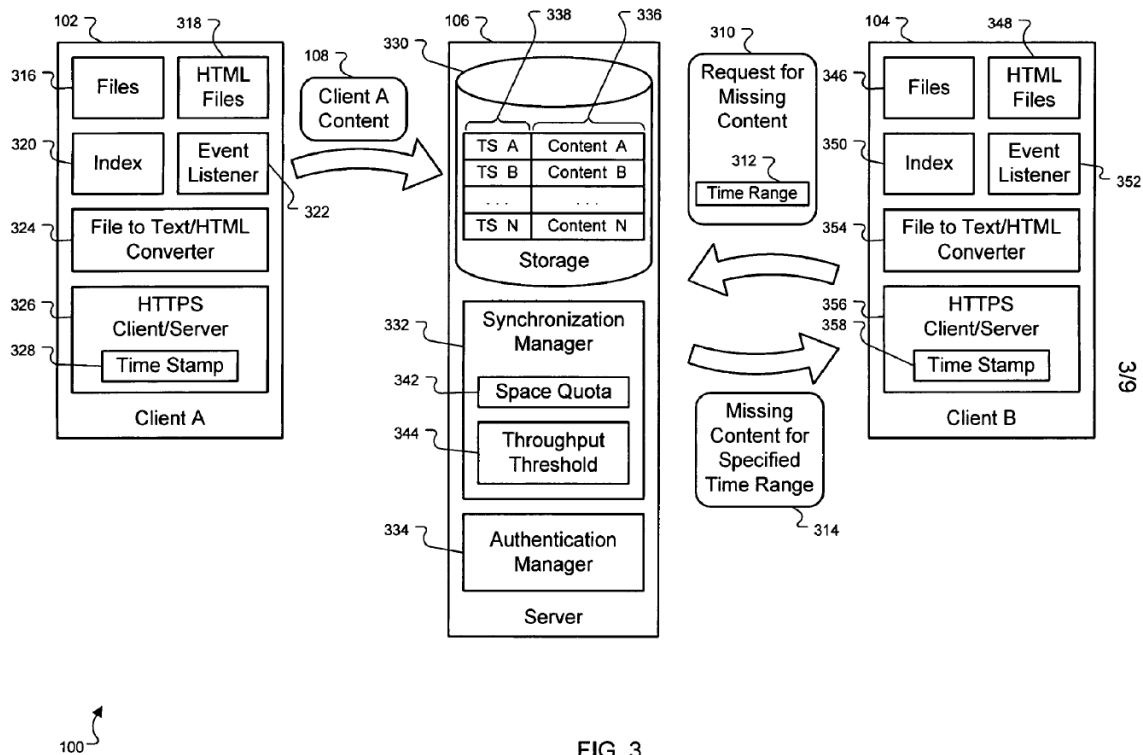


FIG. 3

Figure 3 “is a block diagram showing the system 100” with its “Server 106 . . . act[ing] as a temporary storage location that facilitates synchronization between the user’s clients,” which include Client A 102 and Client B 104.

Id. ¶ 45.

In operation, “[t]he Client A 102 posts the Client A Content 108 to the Server 106 after content is changed on the Client A 102.” *Id.* “The Client A Content 108 is received by and stored in the Server 106.” *Id.* ¶ 46. “In order to keep its locally stored content synchronized with content from the other clients, the Client B 104 periodically issues a Request for Missing Content 310 to the Server 106.” *Id.* “The Request 310 includes a Time Range 312 parameter identifying the range of time stamps for the missing content.” *Id.*

“The Server 106 can locate the content by checking time stamps stored in tables.” *Id.* ¶ 46. “The time stamps correspond to content received

earlier by the Server 106 from the Client A 102.” *Id.* “[T]he time stamps may indicate when the content was transmitted to the Server 106[.]” *Id.* “If the Server 106 finds time stamps in its table within the specified Time range 312,” Server 106 sends Client B 104 Missing Content for Specified Time Range 314, which “includes the content with time stamps that fall within the Time Range 312.” *Id.*

“Client A 102 can include . . . Files 316, hypertext markup language (HTML) Files 318, . . . an Index 320[,]. . . Event Listener 322, a File to Text/HTML Converter 324, and a hypertext transfer protocol secure (HTTPS) Client/server 326.” *Id.* ¶ 47. Client B 104 can include similar components. *Id.* ¶ 50. Client A 102’s “Event Listener 322 listens for and detects user actions, such as saving a file, deleting a file, or viewing a web page, that may require the associated content Client A Content 108 to be posted to the Server 106.” *Id.* at 47. Additionally,

[t]he HTTPS Client/server 326 can be used as a client that tracks web access[,]. . . can contain a Time Stamp 328 which associates viewed web pages with a time that they were accessed by the user[, and] . . . can also be used as a server to provide content to peer clients[.]

Id.

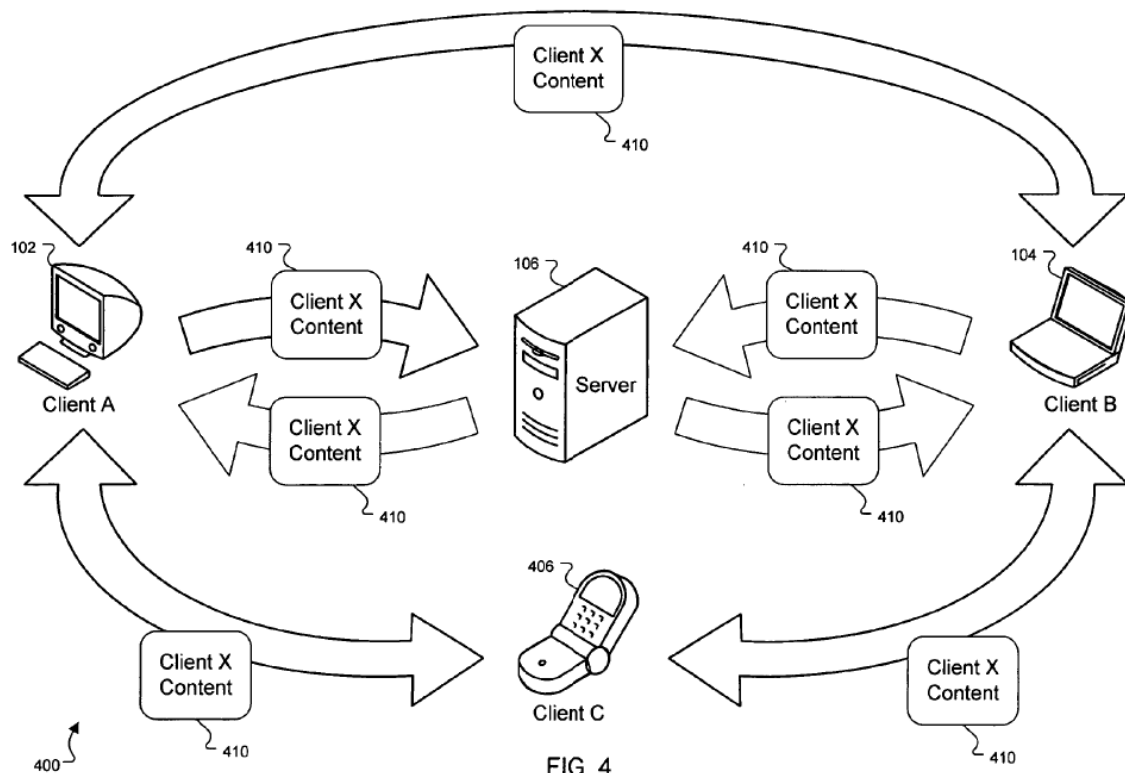
“The Server 106 can contain a Storage 330, a Synchronization Manager 332, and an Authentication Manager 334.” *Id.* ¶ 48.

The Storage 330 can contain the Content A, and Content B through Content N 336 that has been received from the user’s various clients[, each item having] an associated time stamp TS A, and TS B through TS N 338, which can identify the time at which each of the items were created.

Id. “The Synchronization Manager 332 contains a Space Quota 342 and a Throughput Threshold 344.” *Id.* Synchronization Manager 332 “can use the

Time Stamps 338 to synchronize content stored on and shared between the Client A 102 and the Client B 104.” *Id.* Using Time Stamps 338 and Space Quota 342, Synchronization Manager 332 can implement a first in, first out method for purging the oldest content when a client’s storage quota is reached. *Id.* Authentication Manager 334 can ensure unauthorized clients do not store or request content. *Id.* ¶ 49.

In addition to disclosing clients sharing data via server 106, Sigurdsson discloses directly sharing data between clients. For example, Sigurdsson discusses such an approach in connection with Figure 4, which is reproduced below.



“[Figure] 4 is a schematic showing a system for sharing and synchronizing content using a mixed peer-to-peer and client/server architecture.” *Id.* ¶ 19.

Specifically, Figure 4 shows system 400, which allows Client A 102 and Client B 104 to share data via Server 106 or in a peer-to-peer manner. *Id.* ¶ 51. The peer-to-peer sharing approach allows “direct sharing of content among the Clients 102, 104 and 406, thus bypassing the Server 106.” *Id.* This can reduce the volume of data transmission at Server 106. *Id.* “The Server 106 can still serve as a drop-box for temporarily (or permanently) storing Client X Content 410 originating from any the Clients 102, 104 or 406.” *Id.* System 400 may rely on Server 106 to store content in instances where a client’s offline status prevents it from immediately receiving a direct transmission of new content from another client. *Id.* “Although FIG. 4 does not show explicit arrows between the Client C 406 and the Server 106, the Client C 406 can . . . communicate with the Server 106 in a manner similar to the method used by the Clients A or B.” *Id.*

2. *Overview of Rao*

Rao relates to synchronizing computer databases. Ex. 1019 ¶ 2. Rao discusses an embodiment in connection with Figure 1, which is reproduced below.

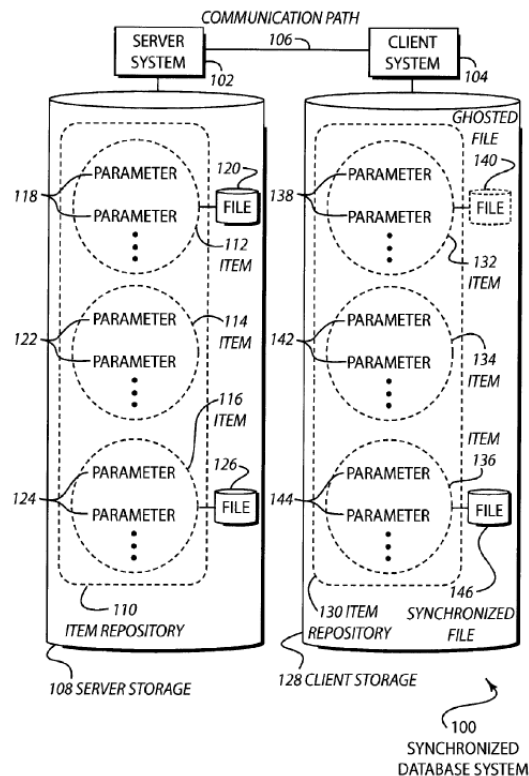


FIGURE 1

“[Figure] 1 is a diagrammatic illustration of an embodiment showing a synchronized database system.” *Id.* ¶ 9.

In particular, Figure 1 shows synchronized database system 100, which includes server system 102, client system 104, and communication path 106. *Id.* ¶ 22. Server system 102 and client system 104 may be any apparatus that may manipulate and store data, such as computer systems. *Id.* ¶ 25. Communication path 106 may include any communication mechanism allowing communication between server 102 and client 104. *Id.* ¶ 26.

Server system 102 includes storage system 108. *Id.* ¶ 23. File 120 and file 126 are in storage system 108. *Id.* ¶ 23, Fig. 1. Additionally, storage system 108 holds item repository. *Id.* ¶ 23. Items 112, 114, and 116

reside in item repository 110. *Id.* ¶ 23; Fig. 1. “Items 112, 114, and 116 are comprised of parameters 118, 122, and 124, respectively.” *Id.* ¶ 23.

Client system 104 includes storage system 128. *Id.* ¶ 24. Storage system 128 holds item repository 130, which includes “[i]tems 132, 134, and 136 . . . comprised of parameters 138, 142, and 144, respectively.” *Id.* ¶ 24, Fig. 1. Storage system also holds ghosted file 140 and synchronized file 146. *Id.* ¶ 24, Fig. 1.

Item repository 110 and item repository 130 may hold metadata. *Id.* ¶¶ 23–24, Fig. 1. In item repository 110, “items 112, 114, and 116 may contain metadata.” *Id.* ¶ 28. In item repository 130, item 132 contains metadata. *Id.* ¶ 43.

“File backed items have a related file may contain various metadata about the file.” *Id.* ¶ 31. For instance, item 112 relates to file 120, and item 116 relates to file 126. *Id.* Similarly, item 132 contains metadata relating to file 140. *Id.* ¶ 43.

Rao explains that “metadata may include derived data, which can be ascertained by analyzing the file directly, as well as non-derived data.” *Id.* ¶ 31. Rao discusses creation of metadata in connection with Figure 2, which is reproduced below.

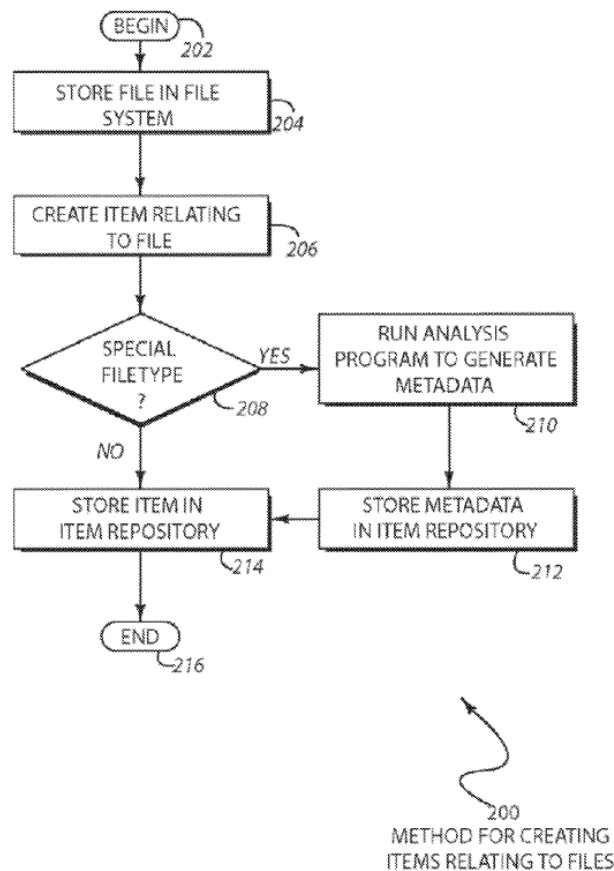


FIGURE 2

“[Figure] 2 is a flowchart illustration of an embodiment 200 of a method by which metadata may be generated from a file.” *Id.* ¶ 50.

After the method begins at block 202, “[t]he file is stored in a file system in block 204.” *Id.* In block 206, an item relating to the file is created. *Id.* In block 208, if the file is a special type, an analysis program executes at block 210 to produce metadata. *Id.* In block 212, the metadata is stored in the item. *Id.* “If the file is not a special type in block 208, or when the metadata is stored in the item in block 212, the item is stored in the repository in block 214.” *Id.* ¶ 50. The method concludes in block 206. *Id.*

Rao also discloses that “[t]he client system 104 is synchronized with the server system 102.” *Id.* ¶ 37. To reach this result, Rao discloses

synchronizing in two phases. *Id.* ¶ 63. First, Rao’s system synchronizes metadata between server and client. *Id.* Second, Rao’s system synchronizes raw data between server and client. *Id.*

3. *Overview of Shappell*

Shappell’s disclosed invention “relates to communication and interaction over a computer network” and “is directed to . . . defining a server-less shared memory space and sharing files among group members in the shared space.” Ex. 1020 ¶ 1. Shappell identifies the following problem:

[E]xisting network interaction mechanisms do not provide a mechanism for readily manipulating shared data and information among a desired group of users. . . .

There thus remains a need to facilitate group interaction . . . through which users can access, and maintain control with respect to files shared in their shared relationships with one another.

Id. ¶¶ 5–6. With this background, Shappell discloses “a system and method for sharing files in [a] shared space”:

An owner of the shared space can invite other users into the space for the purpose of sharing files such as pictures, video or other content. . . . [U]sers can drag and drop files into the shared space itself as well as perform other file system operations with respect to the shared files and directories. . . . [T]he shared files include associated metadata that is propagated to other members of the shared space.

Id. ¶ 9.

“For sharing files among group members, metadata is transmitted to all members when files become available[.]” *Id.* ¶ 76.
“Such metadata are sufficient to render an icon of the shared file and may include date, time, thumb-nail information, name size, and

optionally the source of the information.” *Id.* “This may include an identifier for the source computing machine[.]” *Id.* “[S]hared content can be downloaded from any machine upon which the shared content resides.” *Id.*

“When a modification of a file contained in a shared space occurs, a notification to other members in the group occurs[.]” *Id.* ¶ 81. The local machine’s reaction to such a notification depends on whether automatic replication of the shared file is enabled. *Id.* If so, the local machine may acquire the file’s updated version. *Id.* If not, the local machine may remove its out-of-date copy of the file, which will alter the file’s visual representation to “missing.” *Id.*

4. *Discussion*

In asserting obvious of claims 1, 3–5, 7, 11, 12, 14, 16, and 17 over Sigurdsson, Shappell, and Rao, Petitioner “relies primarily on Sigurdsson.” Pet. 9, 14–46 (emphases omitted). Petitioner relies on Shappell and Rao as allegedly “further render[ing] obvious the limitations relating to metadata and priority assignments.” *Id.* at 9, 19–36.

Patent Owner argues that Petitioner presents a deficient obviousness challenge because “Sigurdsson in view of Shappell and Rao does not disclose several claimed features.” Prelim. Resp. 35. For example, Patent Owner argues that Sigurdsson, Shappell, and Rao do not disclose the challenged claims’ limitations regarding prioritization of metadata. *Id.* at 49–52.

We turn now to detailed discussion of the parties’ patentability dispute. We begin with the dispute regarding claim 1’s limitations requiring prioritization.

a) Claim 1

(1) Limitations 1d and 1e

Limitation 1d relates to a first file and associated first metadata:

receive, from the first client device, first metadata associated with the 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.

Ex. 1006, 11:6–11. Limitation 1e also relates to the first metadata:

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.

Id. at 11:12–17. Petitioner contends that these limitations are met by Sigurdsson with Shappell and Rao. Pet. 19–32.

Petitioner explains that Sigurdsson discloses “first metadata associated with the first file generated from the user modifying the content of the first file.” *Id.* at 15 (emphasis omitted). Petitioner asserts that in Sigurdsson, when a user modifies a file, metadata describing the content can be transmitted to Server 106 along with the file. *Id.*

Regarding the recitation in the claim of assigning priorities to the first metadata and the copy of the first file, Petitioner observes that in the ’622 patent, “[n]o affirmative assignment of priority values is described.”

Id. at 21. Petitioner argues further that “Claim [1d] . . . does not recite that ‘the first metadata being assigned a first priority’ must be assigned its priority prior to the server system receiving that ‘first metadata.’” *Id.*

Petitioner asserts also that “[u]nder any reasonable interpretation consistent with the specification, Sigurdsson in view of Shappell and Rao disclose and

render obvious claims [1d], [1e], and 3.”² *Id.* at 22 (emphases omitted).

Petitioner discusses two scenarios. In the first scenario, Petitioner relies on Sigurdsson alone, “if these limitations are interpreted to encompass a server system configured to receive metadata from a first device, and then automatically (not user-manually) transfer that metadata to a second client device.” *Id.* Petitioner explains under this scenario, Server 106 in Sigurdsson “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.” *Id.* (some emphases omitted).

Sigurdsson discloses a “priority algorithm” that “prioritizes the order in which files are transferred.” *Id.* at 22–23. Petitioner contends that “[a]s a result of the priority algorithm, 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.* at 23 (citing Ex. 1016 ¶ 72; Ex. 1028 ¶ 170) (emphases omitted).

Petitioner continues 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.* (emphasis omitted). According to Petitioner, when a client comes back online after a period of time and requests a list of “missing content” from Server 106, this request “configures Server 106 to prioritize transmitting the first metadata received from the first

² Petitioner includes “priority-related limitation” 1e and dependent claim 3 under its discussion for limitation 1d. Pet. 21, 32, 36. Claims 11, 16, and 17 include similar priority-related limitations. Prelim. Resp. 49. *See infra*.

client device to the second client device before transmitting the file.” *Id.* at 24 (citing Ex. 1028 ¶ 173) (emphases omitted).

Under the second scenario, where the claims “are interpreted to require affirmative, categorical assignment of greater/lesser priorities to metadata and files,” Petitioner relies on Sigurdsson with Shappell and Rao. *Id.* at 24–28. In this scenario, Sigurdsson’s priority algorithm is “configured” to “categorically assign[] greater priority to metadata and lower priority to files, thereby causing metadata to transfer prior to the transfer of the associated files based on the greater priority,” Petitioner argues. *Id.* at 25 (citing Ex. 1028 ¶ 176).

Petitioner contends that “Shappell teaches synchronizing files across multiple computers using metadata.” *Id.* at 26 (citing Ex. 1020 ¶ 9; Ex. 1028 ¶ 178) (emphasis omitted). 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.” *Id.* at 28 (citing Ex. 1028 ¶ 180) (emphasis omitted). According to Petitioner,

[i]t would have been obvious to combine Sigurdsson with Shappell’s and Rao’s metadata-priority teachings, predictably resulting in Sigurdsson’s system where a priority algorithm at the first client and at Server 106 assigns a first, greater priority to metadata and lesser priority to files, resulting in the metadata transferring first (based on the first priority) before transferring associated files.

Id. at 28–29 (citing Ex. 1028 ¶ 181).

Patent Owner responds that “Petitioner mischaracterizes the ‘priority algorithm’ in Sigurdsson.” Prelim. Resp. 50. Patent Owner continues, “the ‘priority algorithm’ in Sigurdsson is for prioritizing between the content that

is to be synchronized and not for prioritizing between metadata and the content.” *Id.* (citing Ex. 2013 ¶ 44). Patent Owner concludes that “Sigurdsson does not teach or suggest that ‘the first metadata being assigned a first priority greater than a second priority assigned to the copy of the first file.’” *Id.* at 51 (quoting limitation 1d).

We begin with the language of limitations 1d and 1e, which require “first metadata *being assigned a first priority greater than a second priority* assigned to the copy of the first file” and automatically transferring the first metadata “based on the *first priority being greater than the second priority*.” Ex. 1006, 11:9–11, 11:12–17 (emphases added). We agree with Patent Owner that claim limitations, such as the requirements of limitations 1d and 1e for assignment and comparison priorities, cannot be ignored. *See* Prelim. Resp. 45; *Perkin-Elmer Corp. v. Westinghouse Elec. Corp.*, 822 F.2d 1528, 1532 (Fed. Cir. 1987). 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 ’622 patent that indicates the meaning of terms “priority” or “the first priority being greater than the second priority” should be afforded a special definition.³ *See Phillips*, 415 F.3d at 1316.

We also note that in the ’622 patent’s prosecution history, after the issuance of an Office Action that included Sigurdsson as a basis for an obviousness rejection, limitations 1d and 1e were added to claim 1. Ex. 1012, 102, 128–132. The Examiner then allowed the claims, stating:

³We recognize, as Petitioner argues, that the ’622 patent includes limited discussion of prioritization. Pet. 21 (citing Ex. 1006, 9:12–13)). But the issue of support in the ’622 patent for the claim limitations is not before us in the proceeding.

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 (emphasis omitted). The Examiner therefore considered and determined that limitations 1d and 1e distinguished claim 1 from Sigurdsson's teachings.

Consistent with this, we agree with Patent Owner that Sigurdsson's priority algorithm applies to prioritizing content for synchronization, but not to prioritizing metadata over content. 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 Sigurdsson 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 in Sigurdsson that the priority algorithm is used to assign priorities to metadata, or to compare the assigned priorities of metadata and files. *See* Ex. 2013 ¶ 44.

In Petitioner's analysis, a client's request for 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." Pet. 24 (emphases omitted). At most, the cited disclosure suggests that under certain circumstances, Sigurdsson's server software may send metadata before files. But there is no disclosure or suggestion in Sigurdsson

that under this disclosure, there is an assignment of priorities to metadata or a comparison of the assigned priorities of metadata and files.

Petitioner admits that without modification, Sigurdsson does not disclose

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, thereby causing metadata to transfer prior to the transfer of the associated files based on the greater priority.

Id. at 25 (emphasis omitted). To support its argument for making this modification to Sigurdsson, Petitioner relies on Shappell and Rao.

Id. at 24–32. Petitioner contends that Shappell “teaches prioritizing transfer of metadata for a modified file before transferring the file itself.” *Id.* at 24. Petitioner contends Rao teaches “categorical assignment of first and second ‘phases’ to transfer metadata before files between clients and server.” *Id.* We do not find these arguments persuasive.

As an initial matter, none of these references teaches or suggests an assignment of priority to metadata or a comparison of the priorities of metadata and files. Prelim. Resp. 49–52; Ex. 2013 ¶¶ 44, 47, 51. 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 even “categorically” sent, as in Rao, before sending the files (*see* Pet. 24–25), that does not teach assignment of priorities or comparison of metadata and file priorities, as required by the priority-related 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. 25–28. Petitioner additionally asserts that “[a person of ordinary skill] would . . . appreciate the natural harmony between the priority algorithm and Server 106 prioritizing the ‘list of missing content’ (containing metadata) to inform clients about new content at Server 106, and prioritizing high-priority data items.” *Id.* at 25–26.

We do not find Petitioner's “natural harmony” rationale sufficient reasoning to establish why a person of skill in the art would have modified Sigurdsson's priority algorithm in view of Shappell's and Rao's teachings to meet the claims. Shappell and Rao teach that metadata is sent first and content or raw data is sent second. They do not teach assigning priorities to the files and their associated metadata and then comparing the priorities to determine which is greater. 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 would have been reconfigured to assign greater priority to the metadata and lower priority to the files. Pet. 27–28. Petitioner asserts that Sigurdsson motivates the modification because of the “natural harmony” of Sigurdsson's algorithm to prioritizing metadata. *Id.* at 25–26. The Petition does not explain why (beyond hindsight) a person of ordinary skill in the art would have modified Sigurdsson to assign and compare priorities by reconfiguring Sigurdsson's priority algorithm when it would have been simpler always to send the metadata first and content second, as taught in Shappell and Rao.

The additional arguments for combining the references presented by Petitioner (Pet. 28–32) do not overcome the failure of the references to disclose this feature of the claims.

(2) *Conclusion for Claim 1*

Because Petitioner does not present sufficiently persuasive arguments and evidence with respect to limitations 1d and 1e, Petitioner has not demonstrated a reasonable likelihood of establishing obviousness of independent claim 1 over Sigurdsson, Shappell, and Rao.

b) *Claims 3–5, 7, 11, 12, 14, 16, and 17*

Like limitations 1d and 1e, independent claim 11’s limitations 11b and 11c require “the first metadata being assigned a first priority greater than a second priority” and transferring metadata “based on the first priority being greater than the second priority.” Ex. 1006, 12:44–49. Likewise, independent claim 16’s limitations 16c and 16d require “the first metadata being assigned a first priority greater than a second priority” and transferring metadata “based on the first priority being greater than the second priority.” *Id.* at 14:10–15.

When addressing limitations 11b, 11c, 16c, and 16d, Petitioner relies on its arguments and evidence for claim 1. Pet. 41, 46. Accordingly, for the reasons discussed above in Section II.4.a that Petitioner does not present sufficiently persuasive arguments and evidence with respect to limitations 1d and 1e, we find Petitioner does not present sufficiently persuasive arguments and evidence with respect to limitations 11b, 11c, 16c, and 16d.

Additionally, Petitioner’s arguments and evidence with respect to dependent claims 3–5, 7, 12, 14, and 17 do not cure the deficiencies in Petitioner’s challenges of independent claims 1, 11, and 16. Pet. 36–46.

Accordingly, Petitioner has not demonstrated a reasonable likelihood of establishing obviousness of any of claims 3–5, 7, 11, 12, 14, 16, and 17 over Sigurdsson, Shappell, and Rao.

D. GROUND 2: ALLEGED OBVIOUSNESS OF CLAIMS 1, 3–5, 7, 11, 12, 14, 16, AND 17 OVER BROWN, HESSELINK, SHAPPELL, AND RAO

1. *Overview of Brown*

Brown “pertains to distributed file access, and more particularly to accessing files remotely from multiple computers and retaining changes.” Ex. 1025, 1:15–17. Brown notes that a user employing multiple computers “can find himself with several versions of the files” on those computers in certain circumstances, such as if the user “forgets to move the latest versions of the files off the computer he most recently used.” *Id.* at 1:35–45.

With that background, Brown discloses that its “invention is a method and apparatus for synchronizing data on multiple client machines.” *Id.* at 1:54–55. Brown discusses more details in connection with Figure 1, which is reproduced below.

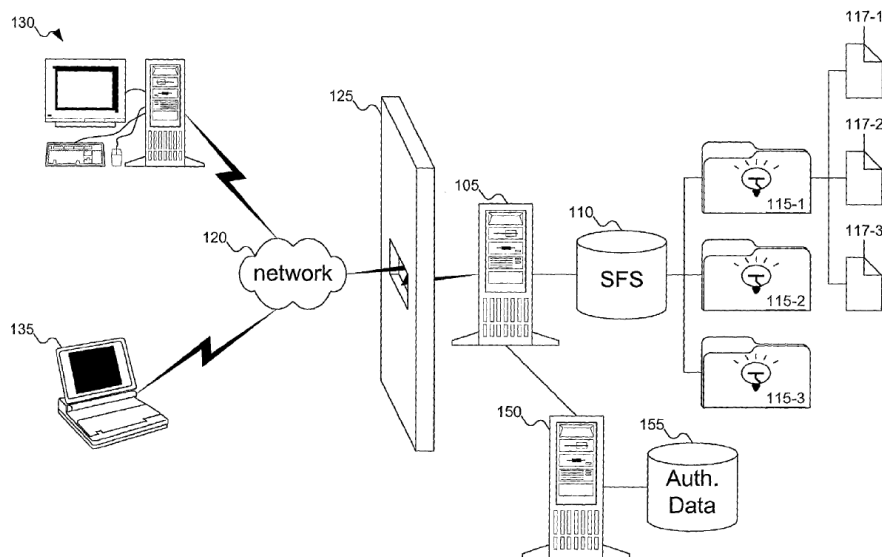


FIG. 1

“[Figure] 1 shows a server with several clients accessing files stored on a server Synchronization File System on the server.” *Id.* at 2:3–5.

The embodiment shown in Figure 1 includes server 105, network 120, firewall 125, client 130, and portable computer 135. *Id.* at 3:56, 4:7–12, 4:20–24. With firewall 125 blocking unauthorized access, server 105 and clients can communicate with one another over network 120, such as by using hypertext transport protocol (HTTP). *Id.* at 4:10–15. “This allows synchronization to occur.” *Id.* at 4:15–16.

For performing such synchronization, Brown discloses “a client/server application that allows users to synchronize data on multiple machines.” *Id.* at 2:57–59. “The server component is a server Synchronization File System (SFS).” *Id.* at 2:59–60. For example, in Figure 1, “server 105 includes server SFS 110.” *Id.* at 3:56–57. Server SFS 110 holds folders 115–1, 115–2, and 115–3, each of which “is assigned to a user.” *Id.* at 3:62–66. The SFS has a “functional interface and metadata organization that enables efficient and reliable synchronization by the clients.” *Id.* at 2:59–62. The SFS uses a “sync . . . index” for tracking changes in the state of a user’s server account: “[S]tate changes to a user’s server account occur in file or directory change increments. . . . The server SFS numbers these states and assigns them a sequence number called the sync (short for synchronization) index.” *Id.* at 5:3–7.

The client/server application’s “client component is a client Synchronization Application (SA) that uses the server SFS to synchronize its local client data with the server.” *Id.* at 2:63–65. When a client machine has outdated data, the synchronization process “can be viewed as the process of moving the state of the client’s directory from the old server SFS state,

identified by an older (lower) server sync index (SSI) value, to a new server SFS state, identified by a more recent (higher) SSI value.” *Id.* at 5:7–13.

The synchronization process begins with a client SA “mak[ing] a sync poll call to the server.” *Id.* at 5:14–15. The client SA sends the server “the client sync index (CSI) identifying its current known state of the account.” *Id.* at 5:14–17. If the CSI and SSI match, the client is up to date relative to its server account, and the server sends the matching SSI back to the client. *Id.* at 5:17–21. If not, the server sends the client information needed to update its account to match the server’s current state. *Id.* at 5:21–24.

2. *Overview of Hesselink*

Hesselink discloses “systems and methods for efficiently accessing data and controlling storage devices among multiple computers connected by a network.” Ex. 1026, code (57). Hesselink notes that a user may require access to files that are on a physically remote computer. *Id.* ¶ 7. Hesselink also notes that a user commonly has multiple devices in different locations with “overlapping data files that the user may wish to access at any given time from any one of these devices.” *Id.* ¶ 8. Hesselink adds that “[t]his requires that the common data all be kept current, i.e., with the latest version of each common file,” which involves “an enormously time consuming and tedious responsibility to frequently synchronize files between all of the devices that maintain a local copy.” *Id.*

With this background, Hesselink “provides applications, systems and methods for efficiently accessing data and controlling storage devices among multiple computers connected by a wide area network.” *Id.* ¶ 24. As part of this, Hesselink provides for updating a file across devices: “[W]hen data is updated, such as when a file is edited, for example, the 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.

If the user wants to have a local copy of a file that has been accessed from a remote storage device, the user may store a local copy in the local storage device[and s]uch local storage does not prevent the automatic updates of the file in the remote storage device each time the user locally saves the file being worked on in cache.

Id. ¶ 192. Hesselink explains that

[w]hen the user works locally on a file, the user does not need to be concerned with managing the transmission or other movement of files back and forth between the user module (local computer) and the device module (remote storage device), as the system manages this automatically for the user.

Id. ¶ 197. Hesselink elaborates that

[T]he system is designed to automatically update at least the “master copy” of a file at a remote location (i.e., the file at the location of the device module from where the file was accessed by the user module) as the user makes changes to the file locally on the computer associated with the user module.

Id. ¶ 210.

3. Discussion

In support of its position that claims 1, 3–5, 7, 11, 12, 14, 16, and 17 would have been obvious over Brown, Hesselink, Shappell, and Rao, Petitioner relies on Brown and Hesselink as allegedly “disclosing the core synchronization features.” Pet. 10, 47–68. Petitioner relies on Shappell and Rao when addressing the prioritization requirements of limitations 1d, 1e, 11b, 11c, 16c, and 16d. *Id.* at 53–60, 66, 68.

Patent Owner argues, among other things, that Petitioner presents a deficient challenge based on Brown, Hesselink, Shappell, and Rao because “Shappell and Rao fail to disclose ‘the first metadata being assigned a first priority greater than a second priority assigned to the copy of the first file,’ [as required by the challenged claims].” Prelim. Resp. 63.

We turn now to detailed discussion of the parties’ patentability dispute. We begin with the dispute regarding claim 1’s limitations requiring prioritization.

a) Claim 1

Petitioner’s analysis of this ground is similar to its challenge based on Sigurdsson, as discussed above in Section II.C. Petitioner contends that “Brown discloses and renders obvious (and renders obvious with Shappell and Rao) the priority-related limitations . . . at least to the same extent the ’622 specification discloses them.” Pet. 53 (emphasis omitted). According to Petitioner, to the extent that the priority-related limitations 1d and 1e “require further categorical assignment of priorities to metadata and files, Brown in view of Shappell and Rao disclose and render them obvious” for “similar reasons as Ground 1.” *Id.* at 55 (emphasis omitted).

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.” *Id.* (citing Ex. 1025, 11:60–63) (emphasis omitted). Petitioner asserts “[t]his teaching would have motivated [a person of ordinary skill] to consider other references focused on sending metadata prior to file data to further improve upon Brown’s approach for synchronizing files.” *Id.* Thus, Petitioner asserts that Shappell and Rao “render obvious a predictable variation where

Brown’s clients and/or server categorically assign greater priority to metadata and lower priority to files (priority assignment configuration) and transmit metadata prior to associated files based on such prioritization, to advantageously inform clients about updated files.” *Id.* (emphases omitted). Petitioner argues “[f]or substantially the same reason above for Ground 1, Shappell and Rao disclose and motivate this obvious modification to Brown.” *Id.* at 56 (emphases omitted). In this combination, Petitioner relies upon Shappell as teaching transferring metadata “first” before files, and Rao as disclosing “categorically” prioritizing metadata synchronization before files. *Id.*

As discussed above in Section II.C.a.1, the priority-related claim limitations 1d and 1e require assignment of priority to the metadata and file and a comparison of the assigned priorities. Petitioner does not show a teaching in Brown of an assignment of priority to the metadata and file, or of a comparison of the assigned priorities. Pet. 55. At most, Brown, as modified by Hesselink,⁴ discloses that metadata may be sent before sending files or portions of files. *See id.*

None of the other 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 most, teaches that metadata may be transmitted before files or portions, and Shappell and Rao teach that metadata is always sent before files. *See discussion supra* in Section II.C.a.1. As is discussed above, even if the metadata is sent, or even

⁴ Petitioner relies on Hesselink for disclosing “the first client transferring a copy of a file specifically ‘responsive to the user modifying a content’ of the file,” as recited in limitation 1b. Pet. 49 (emphasis omitted).

“categorically” sent, before files are sent, that does not teach assignment of priorities or a comparison of metadata and file priorities as required by the claim limitations. *Id.* And Petitioner has not demonstrated sufficiently that Shappell or Rao suggests assigning different priorities to metadata and files and comparing those priorities. As previously observed with respect 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.

Accordingly, for the reasons given, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its obviousness challenge to claim 1.

b) Claims 3–5, 7, 11, 12, 14, 16, and 17

When addressing independent claims 11 and 16, Petitioner cites its arguments and evidence for independent claim 1, relying on the arguments and evidence for limitations 1d and 1e to address the prioritization requirements of limitations 11b, 11c, 16c, and 16d. Pet. 66, 68.

Accordingly, for substantially the same reasons discussed above in Sections II.C.4.a.1 and II.D.3.a, Petitioner does not present sufficiently persuasive arguments and evidence with respect to limitations 11b, 11c, 16c, and 16d. Additionally, Petitioner’s arguments and evidence addressing dependent claims 3–5, 7, 12, 14, and 17 do not cure the deficiencies in Petitioner’s positions regarding limitations 1d, 1e, 11b, 11c, 16c, and 16d. Pet. 61–68. Accordingly, Petitioner has not demonstrated a reasonable likelihood of establishing that claims 3–5, 7, 11, 12, 14, 16, and 17 would have been obvious over Brown, Hesselink, Shappell, and Rao.

III. PETITIONER’S MOTION TO SEAL

Petitioner filed an Unopposed Motion to Seal. Paper 8 (“Petitioner’s Motion” or “Pet. Mot.”). Along with this, Petitioner filed a Proposed Protective Order (Pet. Mot. App.), representing that Petitioner and Patent Owner agree on the terms of the Proposed Protective Order (*id.* at 5).

Petitioner’s Motion seeks to seal Exhibit 1030, along with paragraph 6 of Exhibit 1029. *Id.* at 2. Petitioner explains that Exhibit 1030 “is a Joint Defense and Information Sharing Agreement (‘JDA’)” containing “confidential business information and details about the membership and nature of the JDA.” *Id.* at 4. Additionally, Petitioner explains that confidential information from the JDA is discussed in paragraph 6 of the JDA. *Id.* at 5. Petitioner contends that disclosure of the parties’ confidential business information would cause the parties concrete harm, which outweighs the public interest in an open record. *Id.* at 4.

In this Decision, we do not rely on or refer to the contents of Exhibit 1030 or paragraph 6 of Exhibit 1029. Having reviewed Petitioner’s Motion and the accompanying documents, we find good cause for sealing Exhibit 1030 and paragraph, and we find the Proposed Protective Order acceptable.

IV. PATENT OWNER’S MOTION TO SEAL

Patent Owner filed an Unopposed Motion to Seal. Paper 12 (“Patent Owner’s Motion” or “PO Mot.”). Patent Owner seeks to seal Ex. 2018, which is a deposition transcript. PO Mot. 1. Patent Owner also seeks to seal its Sur-Reply to Petitioners’ Preliminary Reply to Patent Owner’s Preliminary Response. *Id.* Patent Owner explains that these documents “contain information provided to Patent Owner by [Petitioner] through the

deposition of their lead counsel, Ms. Heidi Keefe under a HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY designation.” *Id.*

In this Decision, we do not rely on or refer to the contents of Exhibit 2018 or Patent Owner’s Sur-Reply to Petitioners’ Preliminary Reply to Patent Owner’s Preliminary Response. Having reviewed Patent Owner’s Motion and the accompanying materials, we find good cause for sealing Exhibit 2018 or Patent Owner’s Sur-Reply to Petitioners’ Preliminary Reply to Patent Owner’s Preliminary Response.

V. CONCLUSION

Because we determine that the information presented in the record does not establish there is a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim of the patent ’622 patent, we do not institute an *inter partes* review.

VI. ORDER

For the reasons given, it is:

ORDERED that the Petition is *denied* as to all challenged claims of the ’622 patent and no trial is instituted;

FURTHER ORDERED that Petitioner’s Motion to Seal Exhibit 1030 and paragraph 6 of Exhibit 1029 is *granted*;

FURTHER ORDERED that Patent Owner’s Motion to seal Exhibit 2018 and Patent Owner’s Patent Owner’s Sur-Reply to Petitioners’ Preliminary Reply to Patent Owner’s Preliminary Response is *granted*; and

FURTHER ORDERED that the Proposed Protective Order is *entered*.

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