

Petitioners' Reply in Support of Petition for *Inter Partes* Review of
U.S. Patent No. 9,143,561

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOX, INC., and DROPBOX, INC.,
Petitioners

v.

TOPIA TECHNOLOGY, INC.,
Patent Owner

Case No. IPR2023-00427

U.S. Patent No. 9,143,561

**PETITIONERS' REPLY IN SUPPORT OF PETITION FOR
INTER PARTES REVIEW OF U.S. PATENT NO. 9,143,561**

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List of Exhibits

Exhibit No.	Description of Document
1001	U.S. Patent No. 9,143,561 (“’561” or “’561 patent”)
1002	U.S. Patent No. 10,067,942 (“’942” or “’942 patent”)
1003	U.S. Patent No. 10,289,607 (“’607” or “’607 patent”)
1004	U.S. Patent No. 10,642,787 (“’787” or “’787 patent”)
1005	U.S. Patent No. 10,754,823 (“’823” or “’823 patent”)
1006	U.S. Patent No. 11,003,622 (“’622” or “’622 patent”)
1007	Prosecution History of the ’561 Patent
1008	Prosecution History of the ’942 Patent
1009	Prosecution History of the ’607 Patent
1010	Prosecution History of the ’787 Patent
1011	Prosecution History of the ’823 Patent
1012	Prosecution History of the ’622 Patent
1013	Case No. IPR2022-00782, Paper No. 1, Petition for IPR
1014	Case No. IPR2022-00782, Paper No. 17, Decision Granting Institution of IPR (Redacted – Public Version)
1015	U.S. Provisional Patent Application No. 60/986,896 (“’896 provisional”)
1016	U.S. Patent Application Publication No. 2007/0174246 A1 to Johann Tomas Sigurdsson, et al. (“Sigurdsson”)
1017	File History of U.S. Patent Application Publication No. 2007/0174246 A1 to Johann Tomas Sigurdsson, et al. (“Sigurdsson File History”)
1018	U.S. Patent No. 7,734,690 B2 to George P. Moromisato, et al. (“Moromisato”)
1019	U.S. Patent Application Publication No. 2006/0190506 A1 to Rajesh M. Rao, et al. (“Rao”)
1020	U.S. Patent Application Publication No. 2005/0091289 A1 to Michael Shappell, et al. (“Shappell”)
1021	Microsoft Computer Dictionary (5th ed. 2002) (excerpts)
1022	Jim Boyce, <i>Microsoft Outlook Version 2002 Inside Out</i> (2001) (“Boyce”) (excerpts)
1023	European Patent Application Publication No. EP 1,621,990 A2 to Kitamaru, et al. (“Kitamaru”)
1024	U.S. Patent No. 5,923,325 to Ronald Jason Barber and Edwin Joseph Selker (“Barber”)
1025	U.S. Patent No. 7,035,847 B2 to David K. Brown, et al. (“Brown”)

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1026	U.S. Patent Application Publication No. 2005/0120082 A1 to Lambertus Hesselink, et al. (“Hesselink”)
1027	<i>Topia Technology, Inc. v. Box, Inc.</i> , Case No. 6:21-cv-1372-ADA, D.I. 60 (Joint Claim Construction Chart)
1028	Opening Declaration of Dr. Ravin Balakrishnan
1029	Declaration of Heidi L. Keefe in Support of Petitioners’ Preliminary Reply (HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY)
1030	Joint Defense and Information Sharing Agreement (“JDA”) (HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY)
1031	Complaint, <i>Topia Technology, Inc. v. Egnyte, Inc.</i> , Case No. 1:21-cv-01821 (D. Del. Dec. 27, 2021), Dkt. No. 1 (“Egnyte complaint”)
1032	Complaint for Patent Infringement, <i>Topia Technology, Inc. v. Box, Inc.</i> , Case No. 6:21-cv-01372 (W.D. Tex. Dec. 29, 2021), Dkt. No. 1 (“Box complaint”)
1033	Complaint for Patent Infringement, <i>Topia Technology, Inc. v. Dropbox, Inc.</i> , Case No. 6:21-cv-01373 (W.D. Tex. Dec. 29, 2021), Dkt. No. 1 (“Dropbox complaint”)
1034	Correspondence dated May 26, 2023
1035	Case No. IPR2022-00782, Paper No. 31, Termination
1036	Biography of Lowell Mead
1037	Declaration of Lowell Mead ISO Motion for Pro Hac Vice Admission
1038	Biography of Reuben Chen
1039	Declaration of Reuben Chen ISO Motion for Pro Hac Vice Admission
1040	Microsoft Computer Dictionary (5th ed.) (excerpt)
1041	RFC 2616, Hypertext Transfer Protocol – HTTP/1.1 (June 1999), https://web.archive.org/web/20040614145003/https://www.ietf.org/rfc/rfc2616.txt (“IETF HTTP/1.1”)
1042	International Patent Application Publication No. WO 02/065359 A1 to Hepworth, et al. (“Hepworth”)
1043	U.S. Patent No. 5,416,842 to Aziz (“Aziz”)
1044	U.S. Patent No. 6,654,746 to Wong, et al. (“Wong”)
1045	Transcript from the February 8, 2024 Deposition of Prashant Shenoy

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1046	Reply Declaration of Ravin Balakrishnan, Ph.D.

I. INTRODUCTION

Patent Owner's Response (Paper 30) ("POR") presents the same arguments presented in its Preliminary Response (Paper 7) ("POPR"), which the Board preliminarily rejected in its Institution Decision (Paper 17) ("DI"). For the reasons in the Institution Decision and below, the Board should (1) find that Petitioners have properly named all real parties in interest ("RPIs") and (2) find all Challenged Claims¹ unpatentable.

II. THE PETITION NAMES ALL RPIs

Egnyte, Inc. ("Egnyte") is not a real party in interest ("RPI") or privy of Petitioners under 35 U.S.C. §§312(a)(2) and 315(b) and the factors in *RPX Corp. v. Applications in Internet Time, LLC*, IPR2015-01750, Paper 128 (P.T.A.B. Oct. 2, 2020) (precedential). The Board's determination at institution was correct, and PO presents nothing new to disturb that determination. DI, 9-17.

Regarding factor (a), the POR incorrectly asserts that Petitioners "provided *de facto* funding for shared counsel's representation of Egnyte[.]" POR, 3. [REDACTED]

[REDACTED]

[REDACTED]

¹ U.S. Patent No. 9,143,561 (EX1001) ("561 patent"), claims 1, 3, 4, 8, 10, and 11.

Under factors (b)-(c), Petitioners independently prepared, funded, and filed these IPRs for their own benefit, without considering Egnyte's interests and with no input from Egnyte. EX1029, ¶¶12-13, 20; EX2001, 8:19-21, 9:1-3, 11:16-19. In the district courts, Petitioners served invalidity contentions before Egnyte, and Egnyte independently chose to copy Petitioners' contentions. EX2004, 179; EX2003, 180; EX1029, ¶¶8-9, 11; EX2018, 158:3-18. There has been no overlap between Ms. Keefe's representations in the IPRs and Egnyte's district court litigation. EX1029, ¶22; EX2001, 11:19-21; 35 U.S.C. §311.

As to factors (d), (h), and (i), Petitioners and Egnyte are competitors, share no board members, and had no pre-filing communications regarding the potential content of the IPR petitions. POPR, 8; EX1029, ¶23; *ecobee Techs. ULC v. Causam Enters., Inc.*, IPR2022-01339, Paper 20, 11 (P.T.A.B. Mar. 22, 2023), 11 (no RPI given, *inter alia*, "no communications regarding the filing of the instant Petition"). PO misleadingly states: "Petitioners and Egnyte have refused to produce communications between them[.]" POR, 7. But PO did not seek discovery of such communications in this IPR. In any event, Petitioners and Egnyte did not collaborate in any way in developing Petitioners' IPRs. EX1029, ¶¶6, 23. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

EX1029, ¶¶ 6, 12, 20, 23, 25. Egnyte had no knowledge

or input regarding any of Petitioners' IPR-specific work. EX1029, ¶¶12-13, 17, 19-21, 23, 25. The IPRs were not controlled by Egnyte in any way, and Petitioners did not file the IPRs at the behest of Egnyte. EX1029, ¶¶23-25. Shared counsel, alone, does not establish RPI/privity. *Adobe Inc. v. Rah Color Techs. LLC*, IPR2019-00629, Paper 35, 12-13 (P.T.A.B. Sept. 4, 2019); *FPUSA, LLC v. M-I LLC*, IPR2016-00213, Paper 45, 11 (P.T.A.B. Mar. 20, 2017); *Aruze Gaming Macau, Ltd. v. MGT Gaming, Inc.*, IPR2014-01288, Paper 13, 19-20 (P.T.A.B. Feb. 20, 2015).

Under factors (e)-(g), Egnyte had no interest in filing these IPRs. Indeed, as PO notes, Egnyte's §315(b) one-year time bar lapsed a week *before* the IPRs were filed, which Egnyte never would have permitted if it were involved. This fact alone demonstrates Egnyte has no control over these IPRs, which were not filed at Egnyte's "behest." *Applications in Internet Time, LLC v. RPX Corp.*, 897 F.3d 1336, 1351 (Fed. Cir. 2018).

Nor do these IPRs otherwise serve Egnyte's interests. As PO admits, when the petitions were filed, "[t]rial with Egnyte" in the district court would "occur prior to any [hypothetical] final written decision resulting from this Petition." POPR, 3, 22.

Finally, PO's main argument that defeated Egnyte's motion to stay in district court was that Egnyte "refuses to be bound" by IPR estoppel because it is *not* a party or privy of the IPRs—exactly the opposite of PO's argument here. *See* EX2001,

36:21-37:11. The district court relied on PO's argument in denying Egnyte's motion. *Id.*, 50:12-51:4. The Board should apply judicial estoppel to bind PO to its successful prior position. *New Hampshire v. Maine*, 532 U.S. 742, 750-51 (2001); *Data Gen. Corp. v. Johnson*, 78 F.3d 1556, 1565 (Fed. Cir. 1996).²

III. THE CHALLENGED CLAIMS ARE UNPATENTABLE

A. PO Relies Upon a Flawed Claim Construction of “Automatically” Transferring Files.

PO's arguments on elements [1d] and [8c] rely heavily on an erroneously narrow claim construction of “automatically” transferring files. PO wrongly construes “automatically” transferring to prohibit any intervening steps between storing the “modified first electronic file” at the “first electronic device” and “automatically” transferring the file to a “third electronic device.” POR, 8. PO also incorrectly assumes this automatic transfer requires “push-based functionality.” *Id.* But nothing in the claims or specification requires these narrowing limitations. This language should be properly left to its plain and ordinary meaning. Paper 3

² PO misleadingly quotes Judge Burke from the Egnyte district court case as having stated: it's “about as close as you can get in terms of coordinating and understanding, et cetera, as you might.” POR, 4-5 (quoting EX2001, 11:10-12). In fact, he was merely paraphrasing what he understood to be **PO's** argument, before turning to Egnyte's position. EX2001, 11:3-13 (“But I guess *the other side is saying . . .*”).

(“Petition”), 7-8; EX1046, ¶¶22-27, 32-34, 40, 52, 64, 67.³

**1. The Plain Meaning of “Automatically” Transferring—
Distinct from “Manually” Transferring—Does Not Exclude
Client-Initiated Or Client-Requested Synchronization.**

The patent uses the term “automatically” with its plain and ordinary meaning to indicate that files are transferred “automatically” by a system as opposed to being transferred “manually” by a human user from one device to another. EX1046, ¶¶23, 26-28, 32-34, 52, 67. The patent distinguishes prior art where users “must *manually move files* between their devices” versus the claimed invention where files are transferred “*automatically.*” ’561, 1:31-62 (in prior art systems, “a customer has to *manually move files around*”), 2:66-3:20 (discussing prior art FTP operations performed “*manually,*” and email is “*even more manual*”), 3:54-61 (Summary of the Invention: “*automatically*” transfer files).

The patent’s only use of the word “automatically” in the detailed description of the preferred embodiment reflects this user-centric perspective: “allowing a *user* (not shown) who owns or otherwise controls devices 210, 280 to *automatically* maintain file synchronization between at least devices 210, 280[.]” ’561, 7:47-51;

³ The ’561 and ’942 patents share a common specification. Dr. Balakrishnan primarily relies upon the ’942 patent’s specification in his reply declaration (EX1046).

EX1046, ¶52.⁴ PO itself proclaims that the patent “provides a ***user-centric*** computer network architecture for file synchronization[.]” POR, 7. Nothing in the claims or specification requires file transfer that is automatic “from the perspective of the server” in the extremely narrow sense PO assumes—unilaterally initiated by the server without receiving any communication from another device. POR, 13; EX1046, ¶¶23, 26-28, 32-34, 52, 67.

PO does not attempt to argue any disclaimer, disavowal, or lexicography that would exclude “automatic” transfers that occur in response to communications between devices. *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012). PO does not even identify any exemplary embodiment requiring a server to unilaterally “push” files to a client without prior communication with that client. In fact, PO’s misinterpretation would impermissibly exclude a preferred embodiment that requires intervening communications between the server and the client before the file transfers from server to client. *Kaufman v. Microsoft Corp.*, 34 F.4th 1360, 1372 (Fed. Cir. 2022) (“A claim construction that excludes a preferred embodiment is rarely, if ever correct and would require highly persuasive evidentiary support.”) (citation omitted); EX1046, ¶¶32-34, 40. In that embodiment, a client ***must*** respond to a server’s polling request ***before*** a file transfers to the client.

⁴ Emphasis added throughout unless otherwise noted.

'561, 8:32-46 (“The synch application 380 ***polls the device 280*** to determine whether the device 280 is in communication with the server 230. ***If the device 280 is in communication with the server 230***, the synch application 380 transfers the file 370 to the device 280[.]”); *id.*, 8:12-18 (file transfers from server to client only “[u]pon ***resuming communication*** with the destination user device”); EX1046, ¶40.

These are also open-ended “comprising” claims, such that intervening steps may be performed so long as the file transfer is performed “automatically” as opposed to “manually” by the user. *CIAS, Inc. v. All. Gaming Corp.*, 504 F.3d 1356, 1360 (Fed. Cir. 2007) (“comprising” means “including but not limited to”); EX1046, ¶67.

Finally, the relationship between claims 1 and 4 of the '561 patent negates PO's misinterpretation. EX1046, ¶40. Claim 4 requires the “first application” on the first electronic device to “store the modified first electronic file copy to the memory device associated with the first electronic device when the third electronic device is not in communication with the first electronic device.” Claim 1, from which claim 4 indirectly depends, states that the first device must eventually (and “automatically”) transfer ***the same*** “modified first electronic file copy” of claim 4 to the third device. In order for claim 4 to implement this limitation inherited from claim 1, ***multiple*** steps must take place after the file is stored at the first device and before it is “automatically” transferred to the third device: the third device must

come back online and must communicate its online status to the first device (such as via poll/response, '561, 8:32-46). Although claim 1 recites no such steps, claim 4 requires that these steps fall within claim 1's "automatic" file transfer. EX1046, ¶40.

2. "Automatically" Transferring Files Encompasses Both Push- and Pull-Based File Transfers.

Similarly, contrary to PO's arguments, "automatically" transferring a file is not limited to a "push-based" model of file transfer. POR, 8-9; EX1046, ¶¶22-27, 32-34, 40, 52, 64, 67. Nothing in the claim language or specification provides any such disavowal or lexicography. EX1046, ¶67. In fact, the patent's only cursory reference to "push" discusses "push" and "pull" file transfers as interchangeable variants. '561, 10:33-43; EX1046, ¶32. The patent thus contemplates that automatic file transfers may be "push" or "pull," and the claims are not limited to either approach. EX1046, ¶¶32-34, 64. The relevant distinction for "automatically" transferring files is not "push vs. pull" but "manually vs. automatically," as the patent teaches. EX1046, ¶52.

B. Ground 1: The Challenged Claims Would Have Been Obvious in View of Sigurdsson in Combination with Shappell.

1. Sigurdsson and Shappell Disclose and Render Obvious "Automatically" Transferring Files From Server To Client.

There is no merit to PO's argument that Sigurdsson does not disclose or render

obvious elements [1d] and [8c].⁵ POR, 7-8, 12-19, 21-33; EX1046, ¶¶31-81.

**(a) Sigurdsson Discloses Its Server “Automatically”
Transferring Files Under the Plain and Ordinary
Meaning.**

As an initial matter, PO’s challenge on these claim elements relies entirely on PO’s erroneous construction of “automatically” transferring. *See* POR, 7-8, 12-19, 21-33 (PO wrongly assuming file transfer must be “automatic from the perspective of the server[,]” pointing to device “request for the missing content” and “intermediate steps[,]” and discussing “pull-based” transfer). Under the plain and ordinary meaning of “automatically” transferring files, Sigurdsson indisputably discloses its server automatically transferring files to clients, as opposed to the user manually transferring the files. Petition, 23-25; EX1016, Sigurdsson, ¶26 (“Exchange of content between the computer devices can occur *automatically without a user specifying* that the content should be sent to another computer device.”); *see also supra*, §III.A. Sigurdsson teaches the same concept as the challenged patent—files are transferred “automatically” among a user’s devices without requiring the user to manually transfer them.

⁵ *See* Petition, App’x A (listing claim elements).

**(b) Under PO's Erroneous Claim Construction,
Sigurdsson Teaches or Suggests "Automatically"
Transferring Files.**

Even under PO's incorrect claim construction, Sigurdsson discloses or renders obvious its server "automatically" transferring files via "push" without any prior request or intermediate steps. EX1046, ¶¶62-63, 65-66, 70. As the Board correctly observed, "Sigurdsson teaches or suggests a transfer from its server to its client that is automatic, not just from the perspective of the user, but also from the perspective of the first electronic device [*i.e.*, Sigurdsson's server]." DI, 33-36.

PO fails to identify any error in the Board's preliminary determination. The Board correctly determined that "Sigurdsson's alternative embodiment for step 606 at least suggests the automatic transfer of a modified file from the server to Client C." DI, 35. Step 606 of that alternative embodiment, reflected in Fig. 6 of Sigurdsson as the dashed line from the box labeled "Post Content," is described as follows: "the Client X Content 410 can be sent directly to the Server 106, thus bypassing the Client B 104. The ***Server 106 can then transmit*** the content to the remaining client peers, such as the Clients B and C." Sigurdsson, ¶68. As noted by the Board: "Sigurdsson . . . does not describe the transfer of a modified file with the alternative embodiment of step 606 as resulting from any request from Client C." DI, 34. In other words, the transfer from Server 106 to Client C in the last sentence of ¶68 occurs automatically, including under PO's narrow construction. EX1046,

Sigurdsson also expressly describes that each user device includes **both** an HTTPS client **and** an HTTPS server, meaning that Sigurdsson's server also includes an HTTPS client that can push data to user devices. EX1046, ¶¶35-36. This is shown, for example, in Sigurdsson's Figure 3, which depicts "Client B" as including both an HTTPS client and server that bidirectionally communicate with Server 106. Sigurdsson, Fig. 3, ¶¶31, 68; *see also id.*, ¶47; EX1046, ¶35. Indeed, Sigurdsson does not disclose any other way for Client B to communicate bidirectionally with Server 106 in Figure 3. EX1046, ¶35. Therefore, a POSA would understand that Server 106 also includes both an HTTPS server and client, and its HTTPS client would be capable of **pushing** a modified file to Client B using, *e.g.*, an HTTPS POST message. *Id.*, ¶¶35-36. Consistent with the well-known HTTP protocol, Sigurdsson describes that an HTTPS client "can transmit an HTTP post command containing the Client X Content[,]" thereby pushing data. Sigurdsson, ¶54; EX1046, ¶36.

Sigurdsson further explains that all its clients contain the same components and operate similarly. *E.g.*, EX1028, Balakrishnan Open. Decl., ¶122; EX1046, ¶35. Thus, a POSA reading Sigurdsson would understand that all client devices contain HTTPS clients and servers capable of bidirectional communication with Server 106, including the embodiment of Client C in ¶68. EX1046, ¶35. A POSA would therefore understand ¶68 to at least suggest the obvious use of an HTTPS client in

Server 106 to automatically push content from Server 106 to an HTTPS server in Client B or Client C without any client request for such content. Sigurdsson, ¶68; EX1046, ¶¶35-36. Use of such standard HTTP functionality would have been firmly within the background knowledge of the POSA, and as demonstrated by the fact that, *e.g.*, Sigurdsson ¶¶45 and 47 disclose using HTTP POST messages for pushing data without describing how they are implemented or used. *See* Sigurdsson, ¶¶45, 47; EX1046, ¶¶16-21, 26-28, 70. The POR makes much of the fact that HTTP/HTTPS was a request-response protocol while ignoring Sigurdsson's obvious suggestion, discussed above, to push a modified file from an HTTPS client in Server 106 to an HTTPS server in a client device. POR, 29-33; Shenoy Depo. Tr. (EX1045), 39:10-40:1, 115:25-116:17, 153:8-23; EX1046, ¶¶62-63, 65-66, 70.

Furthermore, while Sigurdsson's teachings regarding HTTP/HTTPS satisfy PO's narrow claim construction, neither the Challenged Claims nor Sigurdsson requires the use of HTTP or HTTPS, as noted by the Board. DI, 36-37; EX1046, ¶65. To achieve Sigurdsson's functions, it also would have been obvious to use other conventional applications capable of pushing modified files from Server 106 to Sigurdsson's client devices, in lieu of using HTTP/HTTPS clients/servers. *See* EX1046, ¶¶23-24, 65.

PO also overlooks that other embodiments in Sigurdsson teach or suggest transferring a modified file from a source client through a server to a destination

client. EX1046, ¶¶61, 66. Sigurdsson describes the embodiment associated with Figure 6 as operating *automatically*, given Sigurdsson's descriptions of similar functionality in Figures 1, 2, and 4 that Sigurdsson describes as automatic and analogous to functionality associated with Figure 6. Sigurdsson, ¶¶31, 32, 51, 61, 68; EX1046, ¶61. Paragraph 31 of Sigurdsson expressly discloses synchronization using Server 106 to send files modified at "Client A" through the Server 106 to "Client B" and vice versa for files modified at Client B. Sigurdsson, ¶31; EX1046, ¶66. A POSA reading paragraph 68's alternative embodiment would have understood it to refer to the same sort of transfer of Client A content through Server 106 to "remaining client peers, such as the Clients B and C" when such "remaining client peers" are *online*. Sigurdsson, ¶68; EX1046, ¶¶38-70.

Contrary to the POR, there is no disclosure in Sigurdsson that *requires* clients to use a peer-to-peer model when source and destination clients are online instead of a client-server model. POR, 16-17; EX1046, ¶53. For example, paragraph 68 of Sigurdsson expressly discloses sending content received from Client A at Server 106 to Clients B and C (which obviously must be online to receive the content). Sigurdsson, ¶68; EX1046, ¶53.

Contrary to PO's assertions, Sigurdsson expressly discloses that a destination client may choose to receive content modified at a source client from Server 106, *even when the source client is online*. Sigurdsson, ¶79 ("Additionally, the Client C

406 can request the content from the Server *even if the one or more other clients are online*. For instance, the Client C may request the content from the Server if the other clients have less available bandwidth relative to the Server.”); EX1046, ¶71. Thus, PO is incorrect in advocating a false dichotomy between Sigurdsson’s use of a peer-to-peer model when source and destination clients are online and use of a client-server model in other circumstances. POR, 16-17; EX1046, ¶53.

Even if PO were correct in requiring alternative step 606 to be implemented only “*when a client is offline*” (it is not), a POSA would have understood Sigurdsson to teach or suggest automatic transfer of a modified file from Client A to the Server 106 and then from Server 106 to Client C upon detecting that Client C comes back online after being offline. POR, 16 (emphasis in original); EX1046, ¶¶58-60. A POSA would view the sending of Client A content from the server to Client C as described in Sigurdsson ¶¶69-80 to occur “automatically” under a correct interpretation of the claims, as discussed above in §III.A.

(c) Under PO’s Erroneous Claim Interpretation, Sigurdsson in View of Shappell Renders Obvious Sigurdsson’s Server “Automatically” Transferring Files.

PO does not dispute that Sigurdsson as modified by Shappell would result in Sigurdsson’s server unilaterally and “automatically” transferring files to recipient client devices without any request or intermediate steps. Petition, 27-28, 30. Shappell’s “automatic replication” feature teaches “automatic” transfer of a

modified file to all connected member machines that previously obtained a copy of the file. *Id.*, 27. A “POSA would have been motivated to apply these concepts from Shappell to Sigurdsson’s systems and methods[,]” including “to automatically transfer an incoming, updated file from Server 106 to any other client device that may need the file as quickly as possible[.]” *Id.*, 27-28. The combination would have “predictably result[ed] in Sigurdsson’s system where a modified file received from an originating client is automatically forwarded to a receiving client after receipt of the file at Server 106[.]” *Id.*, 30.

The POR does not dispute this alternative obvious disclosure applying Shappell’s “automatic replication” feature. EX1046, ¶¶73-75. PO only argues against the motivation to combine Sigurdsson and Shappell, which is well-supported as discussed in the Petition and further below.

2. It Would Have Been Obvious to Combine Sigurdsson with Shappell.

Contrary to PO’s argument, the record amply supports the obvious combination of Sigurdsson and Shappell. Petition, 26-31; EX1046, ¶¶76-79. Nothing in Shappell “teaches away from using a server” as PO argues. POR, 36-39; EX1046, ¶¶76-79. A “reference does not teach away if it merely expresses a general preference for an alternative invention but does not criticize, discredit or otherwise discourage investigation into the invention claimed.” DI, 37 (quoting *UCB, Inc. v. Actavis Lab’ys UT, Inc.*, 65 F.4th 679, 692 (Fed. Cir. 2023)). PO cites nothing in

Shappell that criticizes, discredits, or otherwise discourages using a server. Petition, 30-31. Indeed, “remote computer 49” in Shappell Fig. 1, with which user “device 20” may communicate, may be “*a server*” or “a peer device” (Shappell, ¶37), and the “type of network . . . is not critical” and is only “preferably” peer-to-peer. Shappell, ¶40; EX1046, ¶77. Files may be transferred “indirectly” between user devices, as in a client/server architecture. Shappell, ¶40; EX1046, ¶77. Similarly, Sigurdsson also teaches the interchangeability of client/server and peer-to-peer communication. Sigurdsson, ¶¶51-52, 57, 61-62, 79; EX1046, ¶¶37, 43, 71. Given these naturally complementary teachings, the POSA would have been motivated to look to Shappell to improve upon Sigurdsson. *See* EX1028, ¶¶181-94.

3. Sigurdsson and Shappell Render Obvious Replacing an Older Version of the Modified File at the Same User’s Device.

PO wrongly asserts that Petitioner relies on Shappell for transfer of files between devices “associated with the same user.” POR, 39-42. However, the Petition relies on Sigurdsson (not Shappell) for file transfer among multiple devices associated with the same user (*e.g.*, “home computer,” “work computer,” “mobile device,” and server that authenticates the user). Petition, 17-18 (citing Sigurdsson, Fig. 4, ¶¶2, 27-29, 55, 58), 27-29. PO cannot overcome an obviousness combination “by attacking references individually[.]” *Bradium Techs. LLC v. Iancu*, 923 F.3d 1032, 1050 (Fed. Cir. 2019) (citation omitted).

PO does not identify any deficiency in Sigurdsson’s relevant disclosures. It

is immaterial that Shappell discusses sharing among “group” members, because the combination relies on Shappell not for user-device associations (which Sigurdsson teaches) but for file-synchronization teachings, including replacing an older version of a file with a modified file. Petition, 26-32; EX1046, ¶¶80-81. PO does not dispute that Shappell discloses replacing an older version of a file with a modified file, as claimed. Petition, 27. The record amply supports the obvious combination of (1) Sigurdsson’s file synchronization among client devices and server associated with the same user with (2) Shappell’s teachings including replacing an older version of a file with a modified file. *Id.*, 26-32; EX1046, ¶¶80-81.

4. Sigurdsson and Shappell Render Obvious Claims 4 and 11.

PO incorrectly asserts that claims 4 and 11 would not have been obvious over Sigurdsson and Shappell because Sigurdsson’s ¶68 does not address the situation where Client C is offline. POR, 19-21. However, the Petition relies primarily on Sigurdsson ¶66. Petition, 34-35, 37-38. Paragraph 66 discloses: “[I]n this case, *the third client [Client C] is offline, so the content is transmitted to the server for temporary storage.*” Sigurdsson, ¶66. Paragraph 66 also states that “Client X Content” may be sent from a source client to Server 106 if destination Client C is offline. *Id.* Similarly, the first two sentences of ¶68 and the disclosures in ¶67 make it clear that, in ¶68’s “alternative embodiment[,]” content from Client A may be transmitted directly to Server 106 and “stored on the server’s storage device” in step

610. Sigurdsson, ¶¶67-68. Although the last sentence of ¶68 discusses the situation in which destination clients B and C are online, a POSA would have found it obvious to send content from a source client to Server 106, store the content at Server 106, and then send the content from Server 106 to Client C after it comes back online using the steps in ¶¶69-81. *Id.*, ¶¶69-81; EX1046, ¶¶56-60. This would have been motivated by Sigurdsson's extensive teachings of using Server 106 as a "drop box" when a destination client is offline, satisfying claims 4 and 11. Sigurdsson, ¶¶27, 51, 62; Petition, 34-35, 37-38; EX1046, ¶¶71-73.

C. Ground 2: The Challenged Claims Would Have Been Obvious in View of Brown in Combination with Hesselink.

1. Brown in View of Hesselink Discloses and Renders Obvious Automatic Transfer of a Modified File from a Source Client Through a Server to a Destination Client.

There is no merit to PO's argument that Brown with Hesselink do not disclose and render obvious Brown's server "automatically" transferring files per elements [1d] and [8c]. POR, 42-62; EX1046, ¶¶134-76.

(a) Brown Discloses Its Server "Automatically" Transferring Files Under the Plain and Ordinary Meaning.

PO again relies on its erroneous claim interpretation limiting "automatically" transferring to a server unilaterally "pushing" files without any prior communication, which is incorrect as discussed in §III.A. POR, 42-52. Under the plain and ordinary meaning, there is no dispute that Brown discloses its server

“automatically” transferring files per elements [1d] and [8c]. Petition, 43, 55-56.

Brown discloses “automatic” file synchronization just like the challenged patent; the user need not manually transfer the files. Brown, 3:40-42 (“From the user’s perspective, the synchronization process is *automatic*, runs in the background and requires minimal monitoring or intervention.”).

(b) Under PO’s Erroneous Claim Interpretation, Brown In View of Hesselink Renders Obvious Brown’s Server “Automatically” Transferring Files.

Even assuming PO’s incorrect interpretation of “automatically” transferring, the evidence demonstrates obviousness consistent with the Board’s initial determination. DI, 42-44; Petition, 43-52, 56-57; EX1046, ¶¶134-57. A POSA “would have found it obvious in view of Hesselink to use Brown’s server to automatically push updates from the server to connected clients as soon as file updates occur.” DI, 43 (quoting EX1028, ¶902).

The modified Brown server, configured to receive a modified file from one user device and immediately push it to another user device, indisputably satisfies PO’s claim interpretation. EX1046, ¶¶134-57. PO does not directly rebut the combination. Instead, PO only attacks the references individually. *Bradium*, 923 F.3d at 1050. PO argues that Brown discloses client-initiated synchronization with a “client pull” from the server (POR, 43-45) and Hesselink describes “the system,” not “a server,” transmitting updated files (POR at 46-47, Hesselink, ¶183). But the

Petition relies on the obvious combination: Brown's server synchronizing files between multiple user devices, obviously modified based on Hesselink's teachings and motivation to receive a modified file from one user device and immediately transfer it to another user device, including extensive teachings beyond Hesselink ¶183. Petition, 44-45, 47-48, 56-57; Hesselink, ¶¶183, 189 ("actively subscribed" computers are "automatically updated concurrently[,]" enabling each computer to have "the latest, most up to date version of a file"), 192 ("the user is ensured of having a completely up to date master copy of each shared data file"), 197 (updates to file data "automatically transmitted" through "subscription").

Brown expressly teaches its server pushes changes to syncing clients—"changes that need to be *pushed down to a syncing client.*" Brown, 5:36-38; EX1046, ¶170. As modified, Brown's server would transfer the modified file to a syncing client immediately, rather than waiting until the client polls for an update and incurring the overhead of exchanging sync status polling messages. As the Petition explains, the combination is well-supported. Petition, 42-52, 56-57; EX1046, ¶¶134-57.

PO myopically focuses on Hesselink's discussion of HTTP (POR, 47-52), but the obvious combination need not rely on HTTP for Brown's server-client file transfer. EX1046, ¶139. Both Brown and Hesselink emphasize that protocols other than HTTP can be used to transfer files. Brown, 3:1-5, Hesselink, ¶75. Motivated

by Hesselink's teachings, a POSA would have appreciated numerous ways Brown's server could push modified files to clients, including (1) non-HTTP protocols enabling push capability, (2) combined HTTP client/server capability (like Sigurdsson) where Brown's server operates as an HTTP client to transmit files to a client co-operating as an HTTP server, and (3) Hesselink's "subscription" technique with "actively subscribed" connected devices "listening" for updates to "automatically" transfer file data (Hesselink, ¶¶189, 192, 197, 134-142); EX1046, ¶¶16-28, 139-42, 163.

2. Brown Discloses and Renders Obvious File Transfer Among Devices Associated with the Same User.

PO asserts that Hesselink does not disclose file transfer between devices associated with "the same user" (POR, 52-56), but the Petition relies on Brown (not Hesselink) for these "same user" limitations. Petition, 40-41; *Bradium*, 923 F.3d at 1050. PO does not dispute that Brown discloses file synchronization among multiple devices associated with the same user (*e.g.*, work, home, and portable computers, plus server with user-specific accounts and folders). Petition, 40-41. The Petition relies upon Hesselink not for the synchronization of files among devices associated with the same user (all disclosed and suggested by Brown), but for Hesselink's teaching of automatic file transfer when the user modifies a file content. *Id.*, 43-45, 55-57.

PO wrongly assumes the claims require the system to "make a determination

as to whether the third electronic device is associated with the same user” and “make an automatic transfer of a modified file based on such determination.” POR, 54-56. The claims require only the recited steps and functions to “automatically transfer” files to devices, imposing no additional requirement to transfer “based on” any determination that devices are associated with a certain user. In any event, the Petition relies upon Brown for transferring files among devices associated with a given user, with each device identified by the user’s account. Petition, 40-41; EX1046, ¶¶164-67.

Moreover, Hesselink’s teachings are fully consistent with synchronizing between devices associated with the same user as in Brown. EX1046, ¶¶165-67. For example, connection servers (14) (Figure 2) may be coupled to a security server 58 (Figure 3). Hesselink, ¶84, Figs. 2-3; EX1046, ¶165. The security server uses an “authentication application” to “see whether or not the authentication data in the request” from a client computer (12) “verifies the *user* of client computer 12” such that the client computer is assigned a connection server (14). Hesselink, ¶¶85-86. Thus, Hesselink expressly discloses association of a particular user to both client computer 12 and an “assigned” connection server 14. *Id.*, ¶86; EX1046, ¶165. Subsequently, a connection is established between *the same* connection server 14 “assigned” to client computer 12 and a “network-enabled device” 18 “*selected by the user*[.]” Hesselink, ¶86; EX1046, ¶165. Thus, clients 12 and 18 and “assigned”

server 14 are all associated with *the same* user, consistent with Brown. EX1046, ¶165. Hesselink further teaches that the user has access to computers the “user would normally have access to”—*i.e.*, computers associated with that user. Hesselink, ¶120; EX1046, ¶166.

3. Brown's Disclosure Supports Obviousness.

Relying on its erroneous “unilateral server push” claim construction, PO wrongly argues that a “‘push’ based file transfer” would “forfeit the purpose of Brown” because Brown describes that clients can “pull” changes from the server. POR, 56-57. But Brown expressly describes its server *pushing* “changes that need to be pushed down to a syncing client.” Brown, 5:36-38; EX1046, ¶170. Moreover, motivated by Hesselink's teachings to modify Brown, a POSA would have appreciated numerous ways to implement “push” transmission in Brown's server, as discussed in §III.C.1(b).

PO also mischaracterizes Brown's desire to “minimize the load on the server processor[,]” as the functions Brown's clients perform (message digest analysis, encryption, and synchronization of files on clients) would still be performed by clients in the modified system. POR, 56-57 (quoting Brown, 3:17-28). However, instead of delayed polling where clients become disadvantageously out-of-sync, file modifications would be advantageously immediately propagated. EX1046, ¶171. Regarding polling, Brown indicates that polling would impose minimal processing

on the server only “when the client and server are in sync.” Brown, 3:22-26. Where devices are *not* in sync after a file is modified at a client, Hesselink teaches and motivates immediately synchronizing that modified file, serving Brown’s overarching goal of “*maintaining currency at each client as changes are made[.]*” Brown, 1:47-50; EX1046, ¶148.

Brown’s goals also would have motivated a POSA to look to a reference like Hesselink for teachings to synchronize files as quickly and efficiently as possible, including immediately transferring modified files from one client to another, such as using Hesselink’s “subscription” method (Hesselink, ¶¶189, 134-142). EX1046, ¶171. A POSA would have recognized Hesselink’s push-based messaging as an obvious alternative applicable to Brown’s system. EX1046, ¶¶158-76.

4. The Petition Does Not Rely on Hesselink’s Peer-to-Peer Architecture, and Hesselink Does Not Teach Away From Client/Server Architectures.

Finally, contrary to PO’s assertion (POR, 58-62), the Petition does not rely on Hesselink’s peer-to-peer architecture. EX1046, ¶¶172-76. The Petition relies on Brown’s client/server system as modified in view of Hesselink’s teaching and motivation to immediately transfer modified files to clients, as the Board appreciated. Petition, 43-48, 55-57; DI, 43-44.

Nor does Hesselink disparage, criticize, or otherwise teach away from client/server models. Petition, 51-52; POR, 58-62; EX1046, ¶¶172-76. Indeed,

Hesselink's computers may include a "file server" and may connect "via a connection server." Hesselink, ¶¶122, 126, 84-86; EX1046, ¶¶172-73. PO admits that Hesselink describes that a server "serves as a pipeline or conduit between two peers" (POR, 60)—like Brown's "client-1/server/client-2" architecture, synchronizing clients' files through the server. EX1046, ¶175.

Hesselink's examples of storing family photos in "some unknown location" with "unknown" security or requiring a costly "dedicated private network" do not disparage client/server models generally, nor did Petitioners' expert say that. POR, 59-60; EX1046, ¶176. Nor do those idiosyncratic issues exist in Brown. Brown teaches that its server implements security (encryption and authentication) and does not require a dedicated private network (instead contemplating standard connection over the Internet "or any other type of network"). Brown, 3:8-16, 4:50-52, 8:24-40 (encryption), 17:39-59 (authentication), 4:7-10 (network). As Dr. Balakrishnan testified, Hesselink's purported security concerns do not apply to systems with "secure ways of storing things"—like Brown. EX2024, 78:2-6; EX1046, ¶176.

IV. CONCLUSION

For the reasons above and in the Petition, the Board should find the Challenged Claims unpatentable.

Petitioners' Reply in Support of Petition for *Inter Partes* Review of
U.S. Patent No. 9,143,561

Dated: February 20, 2024

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CERTIFICATE OF COMPLIANCE WITH WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), I certify that this reply complies with the type-volume limits of 37 C.F.R. §42.24(c)(1) because it contains 5584 words, according to the word-processing system used to prepare this reply, excluding the parts of this petition that are exempted by 37 C.F.R. §42.24(c) (including the table of contents, table of authorities, exhibit list, certificate of service, and this certificate word count).

DATED: February 20, 2024

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Petitioners' Reply in Support of Petition for *Inter Partes* Review of
U.S. Patent No. 9,143,561

CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. §42.6, that a complete copy of the foregoing **PETITIONERS' REPLY IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 9,143,561** and related documents are being served via electronic mail on the 20th day of February 2024, upon Patent Owner by serving its counsel of record below via email to:

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