

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTUIT INC.,
Petitioner,

v.

SAMESURF, INC.,
Patent Owner.

IPR2023-00342
Patent 8,527,591 B2

Before KARL D. EASTHOM, BARBARA A. BENOIT, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

BENNETT, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision

Determining All Challenged Claims Unpatentable

Denying Patent Owner's Motion to Amend

35 U.S.C. § 318(a)

Denying Petitioner's Motion to Strike

Denying Petitioner's Motion to Exclude

37 C.F.R. § 42.64

I. INTRODUCTION

Intuit Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–18 (“the challenged claims”) of U.S. Patent No. 8,527,591 B2 (Ex. 1001, “the ’591 patent”). We instituted *inter partes* review of all challenged claims on all proposed grounds of unpatentability. Paper 12 (“Institution Decision”). Subsequent to the Institution Decision, Samesurf, Inc. (“Patent Owner”) filed a Patent Owner Response (Paper 24, “PO Resp.”), to which Petitioner filed a Reply (Paper 29, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 33, “PO Sur-reply”).

Patent Owner also filed a contingent Motion to Amend (“MTA”) proposing substitute claims 19–38 if we determine the original claims to be unpatentable (Paper 23), and Petitioner filed an Opposition (Paper 30, “Pet. MTA Opp.”). Pursuant to Patent Owner’s request, we provided Preliminary Guidance on the Motion to Amend. Paper 32. Patent Owner filed a Reply (Paper 34, “PO MTA Reply”), and Petitioner filed a Sur-reply (Paper 40, “Pet. MTA Sur-reply”).

Additionally, Petitioner filed a Motion to Strike (Paper 37), and Patent Owner filed an Opposition to the Motion to Strike (Paper 38). Petitioner also filed a Motion to Exclude (Paper 41), and Patent Owner filed an Opposition to the Motion to Exclude (Paper 43), to which Petitioner filed a Reply (Paper 45).

We held an oral hearing on March 27, 2024, and a transcript of the hearing has been placed in the record.¹ Paper 50 (“Tr.”).

¹ At the parties’ joint request (Paper 36), a consolidated hearing for this proceeding and two related proceedings was held. *See* Paper 39 (Order setting oral argument). This Decision is based on the record of this proceeding.

A. Real Parties in Interest

The Petition indicates Intuit Inc. is the real party in interest. Pet. 3. Patent Owner identifies itself as real party in interest. Paper 3 (Patent Owner’s Mandatory Notices), 2.

B. Related Matters

As required by 37 C.F.R. § 42.8(b)(2), each party identifies various judicial or administrative matters that would affect or be affected by a decision in this proceeding. Pet. 3; Paper 3, 2. The parties identify the following district court case: *Samesurf, Inc. v. Intuit, Inc.*, No. 3:22-cv-00412 (S.D. Cal.). The parties also each identify two concurrently filed petitions challenging different patents: IPR2023–00339 (challenging U.S. Patent No. 9,184,145 B2) and IPR2023–00341 (challenging U.S. Patent No. 9,483,448 B2). Pet. 3; Paper 3, 2.

C. The ’591 Patent

The ’591 patent is titled “Method and Apparatus for the Implementation of a Real-Time, Sharable Browsing Experience on a Guest Device.” Ex. 1001, code (54). The patent relates to a “sharable browsing experience” through “a synchronized browsing session on a guest device utilizing the transfer of URL [uniform resource locator], form data, script, and other information.” *Id.* at 1:8–12. In contrast with “desktop or screen sharing” approaches that “allow users to simply view the same content,” techniques described by the ’591 patent purportedly address the need for “all users in a session to interact with, discuss, log in separately or together, and share internet browsing in real time for online activities.” *Id.* at 2:19–21, 2:41–43.

Figure 2(a), reproduced below, illustrates communication between various devices “to initialize a synchronized browsing session.” *Id.* at 4:18–21.

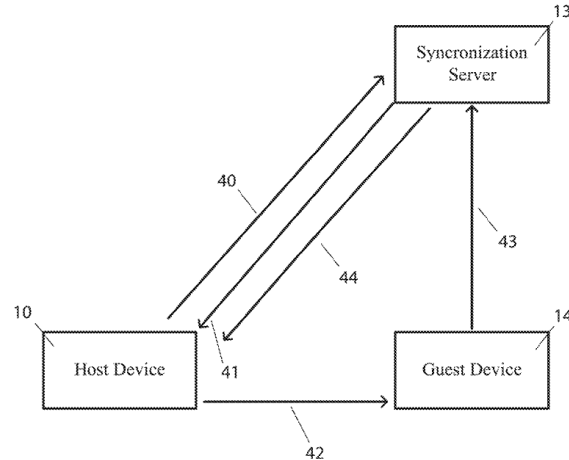


Figure 2(a) is a block diagram showing communication between host device 10, synchronization server 13, and guest device 14 to initialize a synchronized browsing session between host device 10 and guest device 14. *Id.* at 10:6–14; Fig. 2(a). Examples of host and guest devices include personal computers, mobile phones, and electronic tables with “a visual user interface and network connection.” *Id.* at 6:3–11 (identifying example host devices), 6:12–21 (identifying example guest devices). “Host device 10 transmits an initialization request 40 to synchronization server 13,” which responds by sending confirmation message 41 that includes session identifier 19 for the synchronized browsing session. *Id.* at 10:10–18. Host device 10 transmits session invitation 42 to guest device 14. *Id.* at 10: 19–22.

To join the synchronized browsing session with host device 10, guest device 14 transmits a request to join 43, which includes session identifier 19, to synchronization server 13. *Id.* at 10:29–34. Synchronization server 13 “records identification and routing information of guest device 14” and, in

some embodiments, sends “notification 44 to host device 10 [that] guest device 14 has joined the synchronized browsing session.” *Id.* at 10:40–43.

Figure 5(a), reproduced below, illustrates communication between various devices during a synchronized browsing session with a website server. *Id.* at 4:42– 45.

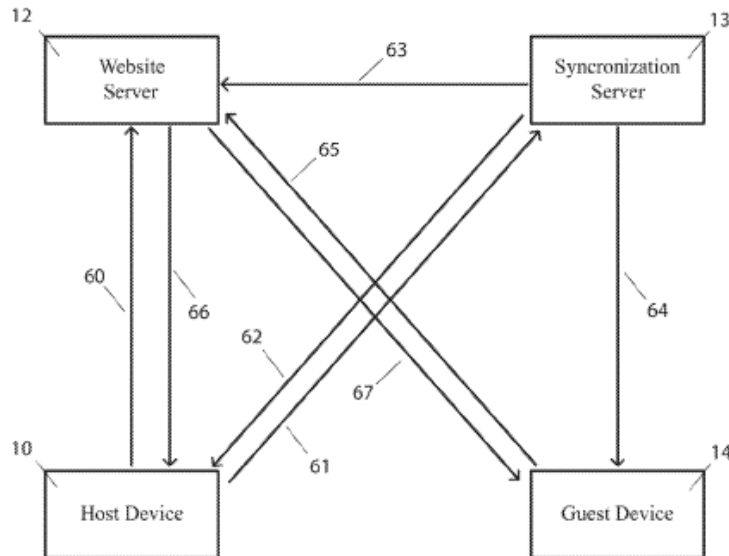


Figure 5(a) is a block diagram showing communication between website server 12, host device 10, synchronization server 13, and guest device 14 during a synchronized browsing session. *Id.* at 15:42–47. Host device 10 communicates with website server 12 to receive website content. *Id.* at 15:48–15:67. Host device 10 also transmits “website interaction information” to synchronization server 13. *Id.* at 16:1–12. Examples of website interaction information include the URL of website server 12, cookie information, form data, java script, other types of user inputted information, or attached files. *Id.* at 16:4–7. Synchronization server 13 then forwards the communication message to guest device 14. *Id.* at 16:31–34, 16:51–53. Guest device 14 uses the communication message to send

website request 65 to website server 12. *Id.* at 16:56–58. “In exemplary embodiments, website request 65 should be similar to or identical to website request 60.” *Id.* at 16:60–62. In other words, synchronized browsing between host device 10 and guest device 14 occurs because website server 12 provides identical website content to each device in response to identical requests sent by each device to the website server 12. *Id.* at 17:27–36.

Figure 5(d), reproduced below, illustrates steps used by a guest device during a synchronized browsing session with a host device. *Id.* at 18:64–66.

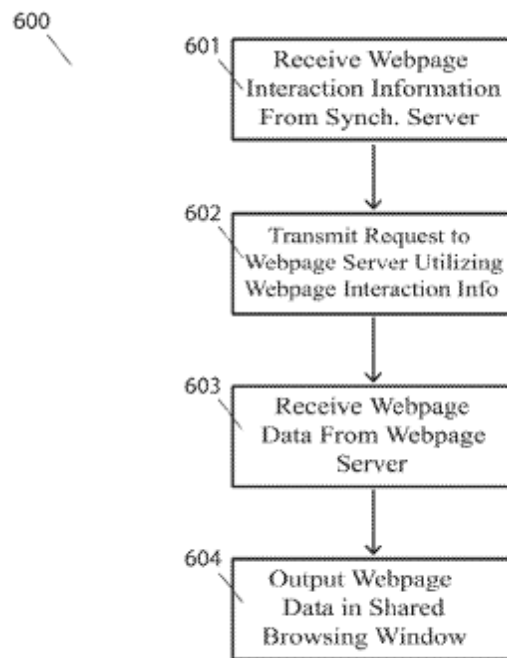


Figure 5(d) is “a flow chart of method 600 utilized by guest device 14 for the execution of a synchronized browsing session with host device 10.” *Id.* “In step 601, guest device 14 receives communication message 64 from synchronization server 13.” *Id.* at 19:5–6. As described previously and shown in step 601, communication message 64 includes webpage interaction information, which includes a duplicate of host device’s website request 60

or the URL address of the website server. *Id.* at 19:5–7; Fig. 5(d); *see also id.* at 16:31–40 (describing communication message 64).

“Guest device 14 formulates website request 65 by processing communication message 64.” *Id.* at 19:12–14. “In step 602, guest device 14 transmits website request 65 to website server 12.” *Id.* at 19:7–8. “In step 603, guest device 14 receives content reply 67 from website server 12.” *Id.* at 19:17–18. “Finally, in step 604, guest device 14 outputs content reply 67” through a user interface of guest device 14. *Id.* at 19:18–20. As shown, Figure 5(d) describes “content reply 67” as “webpage data.” The user interface may be part of specialized synchronization browsing software or may be output using a standard internet browser window. *Id.* at 19:19–25.

D. Challenged Claims

All eighteen claims in the ’591 patent are challenged, of which claims 1 and 10 are independent. Illustrative claim 1 follows:

1. [1pre] A method for a guest device performing a synchronized browsing session administered by a synchronization server, comprising:

[1a] detecting an activation of a hyperlink associated with the synchronized browsing session by a guest device;

[1b] sending a request by the guest device to join the synchronized browsing session to the synchronization server in response to the activation of the hyperlink;

[1c] receiving from the synchronization server a notification that guest device has joined the synchronized browsing session;

[1d] receiving data from the synchronization server, where the data relates to a website being accessed in real-time by a host device; and wherein the data comprises a URL of the website and

cookie information associated with the website and the host device; and

[1e] operating a browser by the guest device based on the data received from the synchronization server.

Ex. 1001, 22:22–23:2 (bracketed annotations added).

E. The Instituted Grounds of Unpatentability and Relied-Upon Evidence

We instituted an *inter partes* review of the challenged claims on the following grounds:

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1–18	103 ²	Lebrun ³ and Wang ⁴
1–18	103	Prajapat ⁵ and Wang

Pet. 5–6.

Petitioner relies on the above-referenced references, and also relies on the declarations of Henry Lieberman (Exs. 1003, 1034, 1036) in support of

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. § 103, was effective on March 16, 2013. Because the ’591 patent issued from an application filed on May 20, 2010, Petitioner “applies prior art with a priority date earlier” than that date and references the pre-AIA version of the statute. Pet. 4–5 n.2. The priority date precedes the effective date of the applicable AIA amendment so the pre-AIA version of § 103 applies.

³ WIPO International Publication No. WO 00/48110, published August 22, 2000 (Ex. 1005). *See* Pet. 5 (asserting the reference is prior art under pre-AIA 35 U.S.C. § 102(a), § 102(b)).

⁴ U.S. Patent Appl. Pub. No. US 2005/0033656 A1, published February 10, 2005 (Ex. 1006). *See* Pet. 5 (asserting the reference is prior art under pre-AIA 35 U.S.C. § 102(b), § 102(e)).

⁵ U.S. Patent Appl. Pub. No. US 2005/0021626 A1, published January 27, 2005 (Ex. 1007). *See* Pet. 5 (asserting the reference is prior art under pre-AIA 35 U.S.C. § 102(b), § 102(e)).

its arguments. Patent Owner relies on the declaration of Stacy Friedman (Ex. 2004). The parties also rely on other exhibits as discussed below.

II. PETITIONER’S MOTION TO STRIKE AND MOTION TO EXCLUDE

Petitioner moves to strike Exhibits 2006 and 2007. These exhibits comprise briefs filed by Petitioner in support of a motion to dismiss for lack of patent eligibility under 35 U.S.C. § 101 in the parallel district court litigation involving the challenged patents. The exhibits were submitted together with Patent Owner’s Sur-reply (Paper 33). We have not relied on Exhibit 2006 or Exhibit 2007 in our analysis. Accordingly, we deny the motion as moot.

Petitioner also moves to exclude Exhibits 2005–2007. For similar reason as to denying as moot Petitioner’s Motion to Strike, we deny as moot Petitioner’s motion as exclude as to Exhibits 2006 and 2007.

Exhibit 2005 is a copy of the district court’s opinion on the motion to dismiss pursuant to 35 U.S.C. § 101 that was the subject of the briefing in Exhibits 2006 and 2007. Exhibit 2005 was filed properly by Patent Owner with its Patent Owner Response to the Petition.

In its Motion to Exclude, Petitioner contends that these exhibits are irrelevant, unfairly prejudicial, and confusing. Paper 41, 3–5 (seeking exclusion under F.R.E. 402, 403). Petitioner argues that the district court order of Exhibit 2005 is irrelevant because “patentable subject matter is not a ground that can be raised in an IPR.” *Id.* at 3.

Patent Owner opposes, arguing that “Petitioner ignores the fact that validity under both Sections 101 and 103 depend on the scope of the claims and ignores the fact that Petitioner’s District Court contentions, and the

Court’s findings, regarding claim scope are inconsistent with Petitioner’s current PTAB contentions.” Paper 43, 3.

We agree with Patent Owner that Petitioner has not demonstrated that Exhibit 2005 is irrelevant and/or unduly prejudicial. Exhibit 2005 is relevant because it is evidence of how the ’591 patent has been characterized and interpreted by both Petitioner and a district court in another proceeding. Petitioner argues that Exhibit 2005 is irrelevant because patent eligibility is not a ground that may be raised in an IPR proceeding. We disagree because it is well-established that claim interpretation is relevant to the determination of patent eligibility and patent invalidity alike, and the Court’s discussion in Exhibit 2005 implicates issues of claim scope. Nor do we find that Exhibit 2005 should be excluded under Federal Rule of Evidence 403 because the probative value of Exhibit 2005 outweighs any potential confusion of issues or prejudice to Petitioner stemming from our consideration of Exhibit 2005.

Accordingly, we deny Petitioner’s Motion to Exclude Exhibits 2005–2007.

III. ANALYSIS OF THE INSTITUTED CHALLENGE

A. Level of Ordinary Skill in the Art

We review Petitioner’s asserted obviousness contentions in view of the understanding of a person of ordinary skill in the art at the time of the invention. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) The level of ordinary skill in the art at the time of the invention is a factual determination that provides a primary guarantee of objectivity in an obviousness analysis. *Al-Site Corp. v. VSI Int’l Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999) (citing *Graham*, 383 U.S. at 17–18; *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991)).

The level of ordinary skill in the art at the time of the invention is a factual determination that provides a primary guarantee of objectivity in an obviousness analysis. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991)).

Determining the level of ordinary skill in the art involves various factors, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). The prior art of record also reflects the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

The asserted prior art, like the challenged patent, presents high-level functional descriptions of web-based software with flow charts and diagrams between server components. The asserted prior art relates to functional descriptions of internet messages sent between software devices but does not have much discussion of the particulars of lower level communication protocols, such as cellular communication protocols or specific details of Internet protocols. For example, LeBrun’s technology relates to providing “access to personalized web sites” and describes messages sent over a network between web clients, a web site, and a personalization server. Ex. 1005, code (57), Figs. 1, 3. Wang describes a “collaboration system that includes a plurality of client devices individually connected to a network, and a server apparatus for receiving requests from the client devices, responding to the client devices, and providing a common collaboration environment among the client devices.” Ex. 1006, code (57), Fig. 3. Prajapat relates to “peer-to-peer dynamic web page sharing” and describes

web browsers submitting requests for and receiving web pages, web servers providing web pages, and a web media server communicating shared web page information. Ex. 1007, codes (54, 57), Figs. 1–3.

In the Institution Decision, we preliminarily determined that person of ordinary skill in the art would have had (1) at least a bachelor’s degree in computer science, computer engineering, electrical engineering, or a similar field, and (2) at least two years of work experience in software development and/or web-based software. Paper 12, 11. Petitioner does not address our preliminary characterization of the level of ordinary skill (Paper 29), and “Patent Owner accepts the Board’s level of ordinary skill in the art” (PO Resp. at 27). On this record, we apply the same level of ordinary skill as we applied in the Institution Decision because it is consistent with the level indicated in the applied prior art and the ’591 patent.

B. Claim Construction

In *inter partes* reviews, the Board construes claims using the same claim construction standard employed in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b) (2020). Under the principles set forth by our reviewing court, the “words of a claim ‘are generally given their ordinary and customary meaning,’” as would have been 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 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d

1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). We construe claim terms only as relevant to the parties’ contentions and only to the extent necessary to resolve the issues in dispute. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Petitioner does not propose express constructions for any claim terms in the Petition. Pet. 12. Similarly, Patent Owner does not propose express constructions for claim terms in the Patent Owner response. However, in summarizing the claimed subject matter of the ’591 patent, Patent Owner sets forth various assertions regarding claim scope with respect to: (1) “host device” and “guest device,” (2) “synchronized browsing session,” (3) “synchronization server,” and (4) the steps performed in claim 1 by the host device, guest device, and synchronization server to establish a synchronized browsing session. PO Resp. 15–17.

In its Reply, Petitioner challenges Patent Owner’s interpretation of “synchronized browsing session” and contends that Patent Owner’s arguments advance an “incorrect [and] unsupported claim construction.” Pet. Reply 4. Petitioner argues that Patent Owner improperly confines the meaning of “synchronized browsing session” and that “the claims do not require ‘synchronously sharing the same web browsing experiences.’” *Id.* Petitioner asserts that the claims “only recite the SBS in the initial elements establishing the session and notifying the guest that it has joined ([1pre]–[1c] and [10pre]–[10b.iii]),” but the challenged limitations of the claims “do not recite the synchronized browsing session or any synchronous sharing between the host and guest.” *Id.* Petitioner argues that its broader definition for synchronized browsing session is supported by the Specification because “according to the specification, all that is required to ‘establish’ a

‘synchronized browsing session’ is that (1) the host device transmit a request to the synchronization server and (2) the synchronization server responds with a confirmation including a session identifier.” *Id.* at 5 (citing Ex. 1001, 10:10-14). Petitioner argues that its broad interpretation is supported by the deposition testimony of Patent Owner’s expert, Mr. Friedman, because he “admitted that he had not evaluated whether ‘synchronized browsing session’ and ‘real-time’ were co-extensive and that he’d provided no claim construction of either term.” Pet. Reply 5 (citing Ex. 1033 at 139:7–22; 197:9–198:19; 206:10–208:15).

Patent Owner replies that “the term ‘synchronized browsing session’ requires that the host and guest device synchronously share the same web browsing experiences and in real time.” PO Sur-reply 3 (citing ’591 patent at 2:37–47; 5:11–22). Patent Owner argues that this construction is consistent with limitation [1d]’s recitation of “a website being accessed in real-time by a host device” because “[a] website ‘being accessed in real-time’ is one where the access by the host device is occurring simultaneously, or nearly simultaneously, to when the data is being received at the guest device through the synchronization server.” *Id.* at 3–4.

Patent Owner further argues that the ’591 patent’s specification and prosecution history support this interpretation. PO Sur-reply 4–5. Specifically, Patent Owner cites various statements in the specification describing a “real-time, sharable web browsing experience” and having users “simultaneously browse and fully interact with web sites,” noting that these statements characterize features of the “present invention.” *Id.* at 5–6 (citing *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007) (“When a patent thus describes the features of the ‘present invention’ as a whole, this description limits the scope of the invention.”)).

Patent Owner also contends that Exhibits 2005–2007 demonstrate that Petitioner’s contentions regarding the scope of synchronized browsing session are contrary to arguments by Petitioner in the district court. Patent Owner characterizes Petitioner’s statement in its district court briefing that “sending and receiving information for simultaneous interactions is the focus of the Asserted Claims” as contrary to its current position in this proceeding, and argues that we should give no weight to Petitioner’s arguments and its expert’s opinion. PO Sur-reply 6–7.

Finally, Patent Owner also challenges Petitioner’s assertion that Patent Owner’s expert testimony weakens its position. *Id.* at 9. Patent Owner argues that Petitioner does not address all of Mr. Friedman’s testimony, and in particular, fails to address his statement regarding the understanding a person of ordinary skill in the art would have had as to the plain and ordinary meaning of the term. *Id.* (citing Ex. 2004, ¶ 68 (“[T]he plain and ordinary meaning of ‘synchronized browsing session’ necessarily excludes any ‘browsing session’ that is not ‘synchronized.’”).

Patent Owner has the better argument. The plain and ordinary meaning in light of the specification generally dictates claim construction. *Phillips*, 415 F.3d at 1312. Here, the plain meaning and intrinsic evidence shows what “synchronized browsing session” means.

In view of the arguments proffered by each party, the key claim construction issues to decide are (1) whether the phrase “synchronized browsing session” requires that a host and a guest device experience, substantially in real-time, the same browsing experience on each of their respective computers; and (2) if so, whether that requirement permeates through each of the limitations of claim 1, including the disputed limitations [1d] and [1e]. We agree with Patent Owner on both issues.

Claim 1's preamble recites a method for a "guest device performing a synchronized browsing session administered by a synchronization server." Thus, claim 1's preamble indicates several things. First, it indicates that the method is performed by a guest device. Second, it indicates that the "browsing session" is something more than a standard browsing session, by virtue of the addition of the adjective "synchronized," as well as the browsing session being administered by a "synchronization server." The '591 patent provides context for how a synchronized browsing session differs from an ordinary browsing session. For example, it states that "[t]he present invention describes a method and apparatus for the implementation of a real-time, shareable web browsing experience on a guest device." Ex. 1001, Abstract.

In the Background section, the '591 patent describes drawbacks in the prior art including that "browsing the internet has remained a largely solitary experience" and that "there is a need . . . [to] share internet browsing in real time . . . and browsing the internet together in a simultaneous fashion from different device and/or locations." Ex. 1001, 1:41–42; 2:42–44. Thus, the '591 patent characterizes the problems being addressed as being related to the inability of current technology to allow for real-time sharing of a browsing experience.

The '591 patent's Detailed Description lends further context to the meaning of "synchronized browsing session." There, the '591 patent states that "[t]he present invention allows two or more persons browsing the internet to share their internet browsing experience and have all users simultaneously browse and fully interact with web sites . . . in real time." *Id.* at 5:10–15. Thus, the specification again characterizes the invention as being for the purpose of allowing multiple users to *simultaneously* browse

and interact with websites. The '591 patent further characterizes “the present invention” as involving “a synchronized browsing session between two or more internet users, thereby allowing all of them to view and fully interact with the same internet content without the hassle of coordinated user input.” *Id.* at 5:44–47.

In view of these disclosures, we agree with Patent Owner that a synchronized browsing session is a browsing session among two or more users in which users experience a shared browsing experience substantially in real-time. That is, during a synchronized browsing session, two or more users see the same web pages on their browsers. Also, when one browser receives and displays a new web page, the remaining browsers receive and display substantially the same page.

Having determined that a synchronized browsing session experience requires a host and a guest device to experience the same browsing experience substantially in real-time, we now turn to the issue of whether this real-time requirement permeates through each of the limitations of claim 1. This issue is important because the disputed limitations [1d] and [1e] of claim 1 make no reference to “synchronized browsing session,” and Petitioner contends that without such a reference, the operations performed in limitations [1d] and [1e] need not be performed in the context of a synchronized browsing session.

Essentially, this issue turns on whether the preamble, which recites that the method is for “a guest device performing a synchronized browsing session,” is limiting such that all of the steps of the method must be performed in connection with the synchronized browsing session. If the preamble is limiting, the step of operating a browser by the guest device

must occur as part of a synchronized browsing session. We agree with Patent Owner that the preamble is limiting here.

When a preamble “recites essential structure or steps, or if it is ‘necessary to give life, meaning, and vitality’ to the claim,” the preamble limits the claim. *TomTom, Inc. v. Adolph*, 790 F.3d 1315, 1323 (Fed. Cir. 2015) (internal citation omitted). “Conversely, a preamble is not limiting ‘where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.’” *Id.* (citations omitted). The “facts of each case in light of the claim as a whole and the invention described in the patent” govern this claim construction issue. *Id.* (citing *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006) (quoting *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 831 (Fed. Cir. 2003))).

The preamble of claim 1 recites “[a] method for a guest device performing a synchronized browsing session administered by a synchronization server.” Ex. 1001, claim 1. Generally, the recitation of “[a] method for” may indicate that the preamble is merely an intended use. Here, however, the body of claim 1 does not “define a structurally complete invention” because the terms recited in the preamble provide antecedent basis for several positively recited limitations in the body of claim 1. *See Shoes by Firebug LLC v. Stride Rite Children’s Grp., LLC*, 962 F.3d 1362, 1368 (Fed. Cir. 2020) (“While antecedent basis alone is not determinative of whether a preamble is limiting, use of preamble terms to define positive limitations in the body of claims can evince an inventor's intent that the preamble limit the scope of the claim.”). The “synchronized browsing session” introduced in the preamble provides antecedent basis for several other recitations of the phrase throughout the body of claim 1, including in

limitations [1a], [1b], and [1c]. Although not dispositive, the extensive recitation of terms from the preamble in the body of the claim evinces an intent by the inventor to limit claim 1.

In addition, as we noted above, the specification repeatedly characterizes the invention as providing a synchronized browsing session to users that allows for a shared browsing experience between them. Interpreting the claims such that the operation of the web browser occurs outside the context of a synchronized browsing session would be contrary to this fundamental characterization. Thus, both the claim as a whole and the invention described in the '591 patent specification support an interpretation that the preamble of claim 1 limits the claim such that the steps in the claimed method must be operations performed as part of a “synchronized browsing session.”

In sum, we conclude that the phrase “synchronized browsing session” requires that two participants experience a substantially similar browsing experience in substantially real-time, and that the recitation of “synchronized browsing session” in the preamble of claim 1 limits the claim such that the steps in the claimed method must be operations performed as part of a “synchronized browsing session.” Our analysis of the prior art challenges below applies this interpretation of claim 1.

C. Principles of Law

A patent claim is unpatentable under 35 U.S.C. § 103 “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103(a) (pre-AIA);

accord KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The question of obviousness involves resolving underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective indicia of nonobviousness when in evidence (none on this preliminary record). *Graham*, 383 U.S. at 17–18.

D. Obviousness over Lebrun and Wang

Petitioner asserts that claims 1–18 would have been obvious under 35 U.S.C. § 103 based on the combined teachings of Lebrun and Wang.

1. Lebrun’s Disclosure

Lebrun is a WIPO (World Intellectual Property Organization) international application published in English under the PCT (Patent Cooperation Treaty), and titled “Personalized Access to Web Sites.” Ex. 1005, code (54). Among other features, Lebrun indicates “multiple related users can simultaneously access a sequence of web sites (web surfing), such that each of the related users has substantially the same content presented at the same times.” *Id.* at 4:6–9.⁶

Figure 3, reproduced below, illustrates a system for group access to web sites. *Id.* at 29:25.

⁶ Page numbers refer to the original page numbers in the lower center of the document pages (i.e., not the page numbers added by Petitioner in the lower left of the document pages).

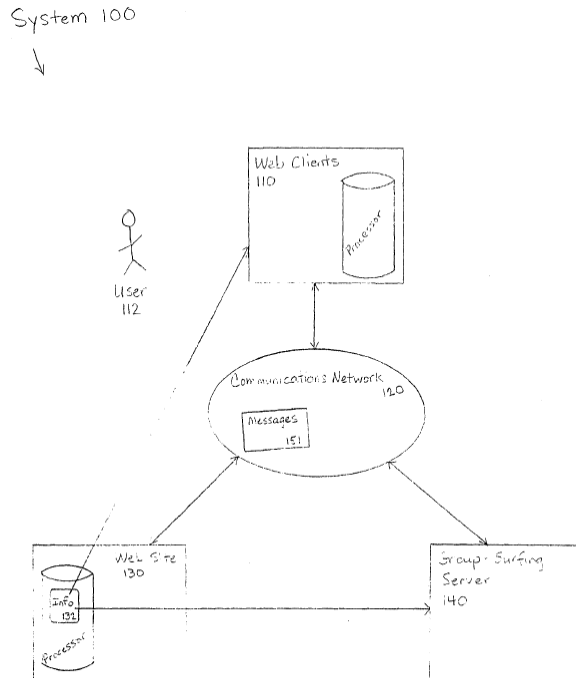


Figure 3 is a block diagram of “system 100 that includes a set of web clients 110, a communication network 120, at least one web site 130, and a group surfing server 140.” *Id.* at 29:27–28. Lebrun describes creating a “group-surfing session” in which “a first web client 110 sends a session-creation message 151 to the group-surfing server 140” to create a group-surfing session. *Id.* at 32:9–11. The message is sent in response “to an action by the user of the web client software 111, such as by selecting a web page or a link to a web page.” *Id.* at 32:5–7. Session-creation message 151 may include “an identifier for the group-surfing session, so that other web clients 110 can add themselves to the session.” *Id.* at 32:11–12. Lebrun also indicates that “group-surfing server 140 can also assign the identifier in a reply to the session-creation message 151.” *Id.* at 32:12–14.

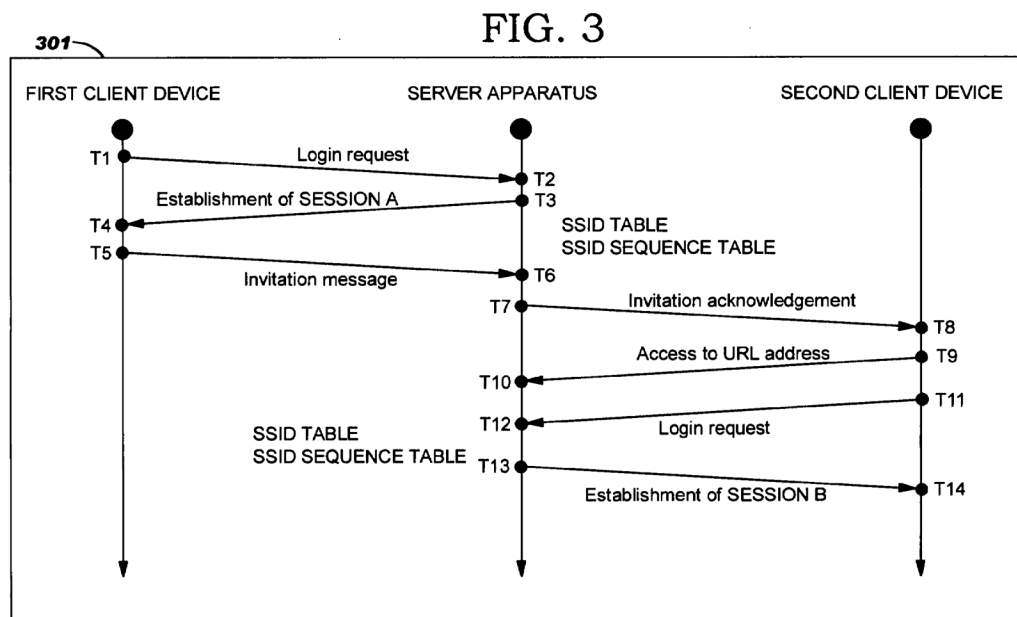
“The group-surfing server 140 receives the session-creation message 151 and responds by (1) creating a group-surfing session, and (2) informing the participants in the group-surfing session.” *Id.* at 32:26–31.

“To add itself to the session, a second (or further) web client 110 sends a session-join message 151, which may include the identifier for the group-surfing session, to the group-surfing server 140.” *Id.* at 33:2–4. Lebrun also describes group surfing server 140 adding web clients 110 to a group-surfing session in relation to steps in a flow chart shown in Figure 4. *Id.* at 44:18–26.

2. Wang’s Disclosure

Wang is a U.S. Published Patent Application and titled “Collaboration System Suitable for On-Line Shopping.” Ex. 1006, code (54). Wang’s collaboration system includes a server that receives and responds to requests from multiple client devices and provides a group session that synchronizes the displays on each of the client devices. *Id.* at code (57).

Wang’s Figure 3 is reproduced below:



Wang’s Figure 3 depicts a “a timing chart which illustrates the case wherein the client devices and a server apparatus establish a group session.” *Id.* ¶ 46.

Wang indicates that one example of a group session may be provided in the context of a virtual shopping system that allows multiple parties to participate in a group shopping session. *Id.* Wang’s group session is initiated when a first client device “transmits a message inviting other client devices to the shopping session” (*id.*) and then “the server apparatus transmits an invitation notice and a URL address to be used, such as ‘Invitation Acknowledgement, myURL address,’ to a second client device” (*id.* ¶ 48). When the second client device receives the invitation and URL, “the second device accesses the designated URL address” and “[s]ubsequently, the server apparatus receives . . . a login request from the second client.” *Id.*

3. Claim 1

a. Claim 1 Preamble

Claim 1’s preamble recites “[a] method for a guest device performing a synchronized browsing session administered by a synchronization server.” As we noted above in our claim construction analysis, the preamble limits claim 1.

Petitioner relies on Lebrun’s group surfing session created by group surfing server 140 for teaching a synchronized browsing session administered by a synchronization server. *See* Pet. 21–22 (citing Ex. 1005, 7:3–5; 32:1–19, 26–31; 33:2–4). Petitioner relies on Lebrun’s web client that adds itself to the group-surfing session for teaching a guest device that joins the synchronized browsing session as required by the preamble. *See id.* at 22–23 (citing Ex. 1005, 30:19–28; 32:1–19; 33:2–4; 30:19–24; 44:21–27; Fig. 4 (step 212)). Petitioner has demonstrated that Lebrun teaches or suggests the preamble because Petitioner relies on a plain reading of the

cited passages discussed above with respect to Lebrun’s disclosure. Patent Owner does not address Petitioner’s showing as to this limitation. *See generally* PO Resp.

b. Claim 1 Limitation [1a]

The first limitation in the body of claim 1 recites “detecting an activation of a hyperlink associated with the synchronized browsing session by a guest device”⁷ (limitation [1a] or “the detecting limitation”). For the detecting limitation, Petitioner relies on both Lebrun and Wang. *See* Pet. 23. Specifically, Petitioner relies on Lebrun’s description of a first client device sending a session creation message to the group-surfing server, in combination with Wang’s description of a client device receiving and accessing the designated URL address to join a group session, to teach the portion of the detecting limitation that recites “a hyperlink associated with the synchronized browsing session.” *See* Pet. 23 (citing Ex. 1005, 32:9–31; Ex. 1006 ¶ 47⁸).⁹

Petitioner further relies upon Lebrun’s discussion of informing the web client participants of the group-surfing session for teaching that the guest device performs the detecting—i.e., “by the guest device.” *See* Pet. 23 (citing Ex. 1005, 32:9–31). Petitioner relies on Lebrun’s description of a

⁷ This limitation appears to have an antecedent basis problem. The recitation of “a guest device” in limitation [1a] is the second recitation of “a guest device” in the claim. That is, the preamble of claim 1 also references “a guest device.” For purposes of our analysis, we interpret the recitation of “a guest device” in limitation [1a] to be the same as in the preamble.

⁸ Although Petitioner cites paragraph 47, the selected quotations are from Wang’s paragraph 49.

⁹ Patent Owner challenges the motivation to combine Lebrun and Wang separately. *See* PO Resp 69–70. We address Patent Owner’s arguments separately below.

second web client sending a session-join message to the group-surfing server for teaching “detecting an activation.” *See* Pet. 24 (citing Ex. 1005, 32:5–7, 9–31, 33:2–4). Petitioner posits that “[b]ecause both the ‘session-creation message’ and the ‘session-join message’ are labelled [similarly], and both of these messages contain an identifier for the group-surfing session, a [person of ordinary skill in the art] would have understood that the ‘session-join message 151’ is a reply message to ‘the session-creation message 151’ that they include the same identifier.” *Id.* (citing Ex. 1005, 33:2–4; Ex. 1003 ¶ 155).

Lebrun describes that after a first web client 110 sends a session creation message to the group-surfing server 140 to create a group-surfing session (Ex. 1005, 32:9–11), a second web client 110 can “add itself to the session” by sending “a session-join message 151 to the group surfing server 140” (*id.* at 33:2–3). The session creation message sent by the second web client, which corresponds to the recited guest device, is sufficient to teach or suggest detecting an activation associated with the synchronized browsing session. Lebrun differs from the detecting limitation in that it does not expressly describe that the session creation message is sent by activating a hyperlink. However, Petitioner’s combination of Wang’s description of a second client device joining a group session via the myURL address, together with Lebrun’s disclosure, teaches or suggests “a hyperlink associated with the synchronized browsing session” as required by the claim. *See* Pet. 23–24 (contending “Lebrun and Wang disclose “a hyperlink associated with the synchronized browsing session”).

Based on the record, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Lebrun and Wang teaches or suggests limitation [1a].

Aside from its challenge to the motivation to combine discussed *infra*, Patent Owner does not address Petitioner’s showing as to limitation [1a].

See generally PO Resp.

c. Claim Limitation [1b]

Limitation [1b] recites “sending a request by the guest device to join the synchronized browsing session to the synchronization server in response to the activation of the hyperlink.”

Petitioner again relies on Lebrun and Wang for this limitation. *See* Pet. 25–27. Petitioner relies on Lebrun’s description of the second web client sending a session-join message to the group-surfing server to teach sending a request by the guest device to join the synchronized browsing session. *See* Pet. 25–26 (citing Ex. 1005, 33:2–4). According to Petitioner, Lebrun teaches limitation [1b] because a person of ordinary skill in the art would have understood that receiving a session-creation message necessarily comprises detecting the activation of a hyperlink within the message. *See* Pet. 26.

Petitioner also cites the teaching of Wang “[t]o the extent that Lebrun is found not to explicitly disclose ‘in response to the activation of the hyperlink.’” Pet. 26. Petitioner again relies on Wang’s description of the myURL address that is utilized by a second client device to join a group session. *See* Pet. 26–27 (citing Ex. 1006 ¶ 49; Ex. 1003 ¶ 160).

We agree with Petitioner that Lebrun’s description of sending “a session-join message 151 to the group surfing server 140” (Ex. 1005, 33:2–3) teaches sending a request by the guest device to join the synchronized browsing session. As was the case with limitation [1a], Wang’s description of a second client device joining a group session via the myURL address teaches the recited hyperlink. Aside from its challenge to the motivation to

combine (*see* PO Resp. 69–70), Patent Owner does not address Petitioner’s showing as to limitation [1b]. *See generally* PO Resp.

On this record, we determine that Petitioner has demonstrated by a preponderance of the evidence that the combination of Lebrun and Wang teaches or suggests limitation [1b].

d. Claim Limitation [1c]

Limitation [1c] recites “receiving from the synchronization server a notification that [a] guest device has joined the synchronized browsing session.”¹⁰ Petitioner relies on Lebrun’s description of the group-surfing server’s notifications to other participants in response to the session-join message to teach limitation [1c]. *See* Pet. 27 (citing Ex. 1005, 33:6–10). Petitioner asserts that a person of ordinary skill in the art “would have understood that the group-surfing server 140 informing the other participants of the newly added web client causing other web clients to receive a notification discloses this limitation.” *Id.* (citing Ex. 1003, ¶ 161).

We find that Lebrun teaches or suggests limitation [1c]. Lebrun’s group-surfing server informs other participants in the group-surfing session when a new participant is added. Ex. 1005, 33:6–10. By informing the other participants, Lebrun’s group-surfing server—which corresponds to the recited synchronization server—provides a notification that a new participant has joined the synchronized browsing session.

Patent Owner does not address Petitioner’s showing as to this limitation. *See generally* PO Resp. On this record, we determine that Petitioner has demonstrated that Lebrun teaches or suggests limitation [1c].

¹⁰ Limitation [1c] recites “notification that guest device” that appears to be missing an article, such as “a” or “the” preceding “guest device.”

e. Claim Limitation [1d]

Limitation [1d] recites “receiving data from the synchronization server, where the data relates to a website being accessed in real-time by a host device; and wherein the data comprises a URL of the website and cookie information associated with the website and the host device” (limitation [1d] or “the receiving URL and cookie information” limitation). Unlike the previous limitations, for the receiving URL and cookie information limitation, Patent Owner responds with particularity to Petitioner’s contentions.

(i) Petitioner’s Contentions

For “receiving data from the synchronization server, where the data relates to a website being accessed in real-time by a host device,” Petitioner relies on Lebrun’s description of (1) the first web client accessing a web page the user wants to share, (2) the first web client sending a session-creation message that identifies an initial web page to the group-surfing server, (3) the group-surfing server directing the target web site to deliver the page to the group-surfing server, and (4) the group-surfing server resending the page to the other participating web clients. *See* Pet. 28–29 (citing Ex. 1005, 32:9–19, 32:26–31, 35:5–28, 32:9–19, 43:13–22). For the recitation “the data comprises a URL of the website,” Petitioner contends that “a POSITA would have understood sharing web pages to include the URL of web site 130.” Pet. 30 (citing Ex. 1005, 43:13–22). According to Petitioner, Lebrun discloses that “instead of receiving the actual web page from the synchronization server, ‘the second web client can only receive a list of pointers (such as URLs) to those pages presented during the group-surfing session.’” *Id.*

For the recitation that the data comprises “cookie information associated with the website and the host device,” Petitioner relies upon Lebrun’s indication that when the group-surfing server sends a page to participating clients, it uses cookies to deliver those pages. *See* Pet. 30 (citing Ex. 1005, 35:5–28). According to Petitioner, “[a] POSITA would have understood Lebrun to disclose that the data being shared between the web clients comprises cookie information associated with the web site 130 and the controlling web client.” Pet. 30–31 (citing Ex. 1003, ¶ 168); *see also* Pet. Reply 12 (“Lebrun describes that the web site 130 sends a cookie directly to the web client 110, and that cookie is made available to the personalization server 140.” (citing Ex. 1005, 26:8–18)). In support of Petitioner’s assertions, Petitioner’s expert, Dr. Lieberman opines that “[a] POSITA would have understood Lebrun to disclose that the data being shared between the web clients comprises cookie information associated with the web site 130 and the controlling web client” (Ex. 1004, ¶ 168) and further opines that “Lebrun describes that the web site 130 sends a cookie directly to the web client 110, and that cookie is made available to the personalization server 140” (Ex. 1034, ¶ 15).

(ii) Patent Owner’s Contentions

Patent Owner contends that Petitioner fails to demonstrate that Lebrun in view of Wang teaches the receiving URL and cookie information limitation of claim 1, offering several reasons in support. PO Resp. 37–48.

Patent Owner first argues that Lebrun’s preferred embodiment utilizes cookie information that is associated with the group-surfing server and not associated with the host device, as claim 1 requires, because the group-surfing server (and not the web clients) retrieves the pages from the website during the group-surfing session. *Id.* at 37–38. Citing Mr. Friedman’s

testimony, Patent Owner asserts that “[n]either the Petition nor Dr. Lieberman provide any technical description of how a cookie received by one device (the group-surfing server) while browsing to a website would be associated with another device (the host device) that plays no part in the browsing action.” *Id.* at 39 (citing Ex. 2004, ¶¶ 59–63).

Patent Owner also argues that “the preferred embodiment of Lebrun does not actually disclose in this embodiment that a single set of cookies is received *by each of the participating web clients*.” *Id.* Patent Owner asserts that Lebrun teaches instead that the cookies are recorded in a cookie database local to the group-surfing server. According to Patent Owner:

[W]hen Lebrun discusses the “usage of a single set of ‘cookies’” “sent by the web site 130 and stored by the group-surfing server 140 at each participating web client 110” (Ex. 1005, 35:11-15), the act of storing “at each participating web client 110” indicates storing in the database for each entry associated with the participating web client—not at the web client itself. (Ex. 2004, ¶¶ 60-65).

Id. at 40–41.

Patent Owner further contends that, as was recognized in the institution decision, the first alternative embodiment relied upon by Petitioner is a “no cookies” embodiment, and therefore does not include cookie information as required by limitation [1d]. *Id.* at 41. And Patent Owner further argues that the second alternative embodiment does not teach limitation [1d] because “the Institution Decision failed to realize that the second cited alternative embodiment indicates that the web client receives ‘*only* a list of pointers (such as URLs) to those pages presented during the group-surfing session.’” *Id.* at 42 (citing Ex. 1005, 43:13–22; Ex. 2004, ¶¶ 66, 69–73); *see also* PO Sur-reply 13 (“If the drafter of Lebrun had wanted to state that information in addition to pointers is received, then they

could have done so, but they did not.”). According to Patent Owner, the “‘only a list of pointers’ embodiment is no longer associated with a ‘synchronized browsing session’” and is used to allow “a guest device [to] access any webpage in the history of webpages that were part of Lebrun’s group-surfing session while the controlling host is viewing the most recent page.” *Id.* at 47.

Patent Owner also contends that the cited combination of references fails to teach or suggest that the data received by the guest device from the synchronization server both relates to a website being accessed in real-time by a host device, and also includes a URL of the website. PO Resp. at 43. Patent Owner asserts that Lebrun’s preferred embodiment tasks the group-surfing server with retrieving web pages from web sites and then resending the retrieved web pages to the web clients, and that Petitioner’s reliance on Wang is misplaced because Wang merely describes using a myURL address to initiate a synchronized browsing session. *Id.* at 44–46.

(iii) Analysis of claim limitation [1d]

We determine that Petitioner has shown by a preponderance of the evidence that the cited references teach or suggest claim limitation [1d]. Specifically, the alternative embodiment described in connection with Lebrun’s multiple group-surfing sessions teaches or suggests this limitation. Ex. 1005, 43:5–22.

Lebrun describes that “the group-surfing server 140 can maintain more than one separate group-surfing session, with each separate group-surfing session having its own history of viewed pages” and that newly added web clients are “able to review the history of pages viewed prior to joining that group-surfing session.” *Id.* at 43:6–11. Lebrun teaches that “[w]hen a web client 110 adds itself to the participating web clients 110 in a

group-surfing session, it is presented with the most recent viewed page.” *Id.* at 43:9–10. Lebrun describes a preferred embodiment of multiple group-surfing sessions, that is distinguishable from limitation [1d] because it sends webpages, and not URLs to session participants. *Id.* at 43:17–20 (“If the second web client 110 is already participating in that group-surfing session, the page would be presented to the second web client 110 when it is sent by the first web client 110 to the group-surfing server 140.”).

Lebrun’s alternative approaches, however, are also relevant here. Lebrun states that “[i]n alternative embodiments, the second web client 110 can receive only a list of pointers (such as URLs) to those pages presented during a group-surfing session, dynamically updated when a new page is added.” *Id.* at 43:20–22. Thus, in Lebrun’s multiple group-surfing session alternative embodiments, instead of sending a web page to the web clients in the session, the group-surfing server sends URLs. As such, Lebrun teaches a guest device (the second web client 110) receiving data from the synchronization server (the group-surfing server 140). Lebrun’s alternative embodiment also provides that the list of URLs is “dynamically updated when a new page is added.” *Id.* at 43:22.

Because the list of URLs sent to the web client is updated “when a new page is added” and because web clients are presented “with the most recent viewed page,” Lebrun’s newly added URLs relate to a website being accessed in real-time by a host device. Limitation [1d]’s recitation that “the data comprises a URL of the web site,” is also taught by Lebrun’s alternative embodiment, as the group-surfing server sends “a list of pointers (such as URLs)” (*id.* at 43:21) to the web client devices.

Limitation [1d] also requires that the received data also include “cookie information associated with the website and the host device.” We

agree with Petitioner that Lebrun’s description of sending “a single set of ‘cookies,’ or other data related to identity or session” teaches or suggests cookie information associated with the website and the host device. *See* Pet. 30 (citing Ex. 1005, 35:5–28). There is no dispute that the cookie information described by Lebrun is associated with the website. The dispute lies in whether that cookie information is also associated with a host device.

We note the term “associated” is broad and requires only that there be some connection between the cookie information and the host device. Here, Petitioner cites Lebrun’s disclosure that web sites “send a cookie or other data to the user” and that “the data (includeing [sic] whatever information is associated with the ‘cookie’) is recorded at the personalization server 140.” Ex. 1005, 26:8–18. This description demonstrates that Lebrun contemplates cookie information from a web client being shared with the server, and then in turn being made available to other web clients. That is, Lebrun contemplates that the cookie will be associated with both the host device and with the server, as it resides on both at some point in the process.

Lebrun’s description of the group-surfing session using a single set of cookies that is “sent by the website and stored by the group-surfing server at each participating web client 110” (Ex. 1005, 35:13–15) in the preferred group-surfing embodiment demonstrates that Lebrun’s system uses cookies generated by the web site 130 in delivering pages selected by the controlling web client (i.e., the host device) to provide a group-surfing experience to the other web client participating in the session. Given this disclosure, we agree with Petitioner’s expert that “[a] POSITA would have understood Lebrun to disclose that the data being shared between the web clients comprises cookie information associated with the web site 130 and the controlling web client.” Ex. 1004, ¶ 168.

As noted above, Patent Owner argues that Lebrun’s preferred embodiment utilizes cookie information that is associated with the group-surfing server and not associated with the host device, as claim 1 requires. According to Patent Owner, this is because the group-surfing server (and not the web clients) retrieves the pages from the website during the group-surfing session. PO Resp. 37–39. However, Petitioner does not rely solely on Lebrun’s primary embodiment with respect to limitation [1d]. Petitioner relies additionally on Lebrun’s alternative, multiple group-surfing session embodiment in which URLs (instead of the web pages themselves) are sent by the group-surfing server to the participating web clients at the behest of the controlling web client. *See* Ex. 1005, 43:20–22. In this implementation scenario, we agree with Petitioner that a person of ordinary skill in the art would have understood that cookie information generated by the host device accessing the web site 130 would be included with the URL information sent to the participating clients. In this regard, we credit Dr. Lieberman’s testimony that “[a] POSITA would have understood Lebrun to disclose that the data being shared between the web clients comprises cookie information associated with the web site 130 and the controlling web client” because it is consistent with Lebrun’s description of the use of cookie information in the group-surfing session. Ex. 1003, ¶ 168.

Lebrun also does not support Patent Owner’s argument that Lebrun teaches that the cookies are recorded in a cookie database local to the group-surfing server and not with web clients. PO Resp. 40–41. This argument is at odds with what Lebrun expressly discloses—that cookies are “stored by the group-surfing server 140 *at each participating web client 110.*” Ex. 1005, 35:14–15 (emphasis added). In addition to this explicit statement regarding how Lebrun’s system stores cookies, Lebrun elsewhere discloses

that web site 130 sends cookies to participating web clients, as Petitioner argues. *See* Pet. Reply 12 (“Indeed, Lebrun describes that the web site 130 sends a cookie directly to the web client 110, and that cookie is made available to the personalization server 140.”) (citing Ex. 1005, 26:8–18).

The record also does not support Patent Owner’s argument that Lebrun’s second alternative embodiment receives “only a list of pointers” to the exclusion of all other data. PO Resp. 42 (citing Ex. 1005, 43:13–22; Ex. 2004 ¶¶ 66, 69–73); *see also* PO Sur-reply 13 (“If the drafter of Lebrun had wanted to state that information in addition to pointers is received, then they could have done so, but they did not.”). Read in the context of the entire paragraph where it appears, Lebrun’s statement that “the second web client 110 can receive only a list of pointers (such as URLs)” indicates rather than adding the web page itself to the group-surfing session and sending the web page to the second web client, the URL to the page is sent to the second web client instead. That is, Lebrun’s statement that “only a list of pointers (such as URLs)” is better understood to be an alternative to sending the entire web page to the second web client, and not as a replacement for all other data being transmitted.

The record also does not support Patent Owner’s argument that in the second alternative group-surfing embodiment, URLs are sent only for the purpose of allowing a new group participant to view pages previously displayed during the session, prior to the participant’s arrival. Lebrun makes clear that group-surfing sessions allow the second web client 110 to view in real-time the pages being accessed by the controlling web client. Lebrun does not provide any indication that this real-time page sharing functionality would be absent or otherwise limited when practicing the second alternative

embodiment, especially given that Lebrun states that the URLs are “dynamically updated when a new page is added.” Ex. 1005, 43:22.

On this record, therefore, we determine that Petitioner has demonstrated by a preponderance of the evidence that Lebrun teaches or suggests limitation [1d].

f. Claim Limitation [1e]

Limitation [1e] recites “operating a browser by the guest device based on the data received from the synchronization server.” Patent Owner argues against Petitioner’s contentions for limitation [1e].

(i) Petitioner’s Contentions

For the recitation “operating a browser by the guest device,” Petitioner relies on Lebrun’s disclosure of multiple web clients sharing web pages using ordinary web surfing techniques, including some web clients corresponding to the ’591 patent’s host device and other web clients corresponding to guest devices. *See* Pet. 31. For the recitation “based on the data received from the synchronization server,” Petitioner relies on Lebrun’s description of sending cookies to participating web clients (citing Ex. 1005, 35:13–15) and the second web client receiving URLs in the second alternative embodiment of the multiple group-surfing session (citing *id.* at 43:13–22). Pet. 31.

(ii) Patent Owner’s Contentions

Patent Owner contends that Petitioner’s reliance on Lebrun’s second alternative embodiment is misplaced because “the claim language requires that ‘the data received’ be used to operate the browser—not some of the data received, or a portion of the data received—and so the guest device must operate the browser using both the URL and the ‘cookie information associated with the website and the host device.’” PO Resp. 48. Similar to

its argument made above in connection with limitation [1d], Patent Owner asserts that because Lebrun’s second alternative embodiment “discloses that ‘only’ a list of pointers is received—it does not disclose receiving cookies as well.” *Id.*

(iii) Analysis of Limitation [1e]

Petitioner persuasively shows that Lebrun’s description of web clients sharing web pages using ordinary web surfing techniques, including some web clients corresponding to the ’591 patent’s host device and other web clients corresponding to guest devices, teaches or suggests “operating a browser by the guest device.” *See* Ex. 1005, 43:13–22. Petitioner also persuasively shows that Lebrun’s description of sending cookies to participating web clients (Ex. 1005, 35:13–15), and the second alternative multiple group-surfing embodiment receiving URLs (*id.* at 43:13–22), such that “[a]s controlling web client selects a progression of pages 153 for the session, that progression of pages 153 is presented at each of the web clients 110 participating in the session,” teaches the recitation “based on the data received from the synchronization server.” We also credit the testimony of Petitioner’s expert, Dr. Lieberman, who opines that “[a] POSITA would have understood the second web client 110 receiving the page or the URLs of the page from the group-surfing server to comprise a guest device operating a browser based on the data received from the synchronization server.” Ex. 1003, ¶ 171. We credit Dr. Lieberman’s testimony that is consistent with Lebrun’s descriptions of sharing web pages on which it relies. Ex. 1003, ¶ 171 (citing Ex. 1005, 43:13–22, 35:5–28, 43:13–22).

Patent Owner’s argument with respect to limitation [1e] generally follows its previous argument that the “only a list of pointers” statement in Lebrun means that no cookies are sent to the second web client in the second

alternative embodiment of the multiple group-surfing session scheme. For the reasons we discussed in our limitation [1d] analysis, we disagree. Patent Owner also argues that Lebrun’s primary embodiment’s use of cookies “would be inoperative during the group-surfing session” because “the web clients would not access the website that originally generated the cookie.” PO Resp. 49. We do not agree because Petitioner does not rely on Lebrun’s primary embodiment for this limitation. Petitioner relies on Lebrun’s second alternative multiple group-surfing session embodiment, which as we discussed above, does not proscribe the use of cookies by the client devices.

As such, we determine that Petitioner has demonstrated by a preponderance of the evidence that Lebrun teaches or suggests limitation [1e].

g. Motivation to Modify Lebrun—Incompatible Embodiments

Patent Owner contends that Petitioner relies on incompatible embodiments within Lebrun. PO Resp. 49–52; PO Sur-reply 17–18. Patent Owner contends that “Petitioner fails to even address that the different embodiments within Lebrun operate differently, or that there would be a motivation to combine them” (PO Resp. 49) and also fails in “pointing to any teachings within Lebrun, or any other art, that suggests a proper combination” (*id.*). Patent Owner asserts that “neither the Petition nor Petitioners’ expert ever acknowledges how or why portions of the disclosure from the ‘no cookies’ embodiment would be combined with the disclosure from the ‘only a list of pointers’ embodiment or the preferred embodiments.” *Id.* at 50. Patent Owner further challenges the sufficiency of Petitioner’s analysis because “Petitioner also fails to include any evidence that a POSITA would expect success in combining the specific references that are relied upon” and that absent such evidence, “there is no way for the

Board to determine” whether the ordinarily skilled artisan would have had a reasonable expectation of success in combining Lebrun’s embodiments. PO Resp. 52.

Lebrun is a broad, multi-faceted disclosure that has four main parts delineated by the use of roman numeral section numbers (I–IV). Each of the main specification parts (i.e., Background of the Invention, Summary of the Invention, Brief Description of Drawings, and Detailed Description) is divided into sections I–IV. The first section (Section I) is associated with Figures 1 and 2, and describes a system and process “for access to personalized web sites.” Ex. 1005, 10:14–15. The second section (Section II) is the section of Lebrun that Petitioner relies upon, and is associated with Figure 3 and 4. Lebrun characterizes these drawings and their associated description as relating to “a system for group access to web sites.” *Id.* at 10:21. The third section (Section III) is associated with Figure 5–7, and characterized by Lebrun as “a system for summarization and aggregation of personalized information.” *Id.* at 10:28. The fourth and final section (Section IV) of Lebrun is associated with Figures 8–14, and is described as being related to “a system for automated and intelligent structured data input.” *Id.* at 11:1.

Lebrun’s Figures 3 and 4 illustrate a system and a method for fostering “group access to web sites.” Ex. 1005, 29:25, 43:26–27. Lebrun describes method 200 shown in Figure 4 as being “performed by the system 100, including the web client 110, the communications network 120, the web server 130, and the group-surfing server 140,” which are the system components depicted in Figure 3. Ex. 1005, 43:29–30. Thus, Lebrun expressly indicates that the method 200 shown in Figure 4 is performed by the elements shown in Figure 3. In addition, Lebrun also connects Figures 3

and 4 by indicating that the web client 110 sends the session-join message 151 to the group-surfing server 140 in step 221 shown in Figure 4 and does so “as described above.” In context, the phrase “as described above” is in reference to creating a group-surfing session described with respect to Figure 3. Ex. 1005, 33:2–3 (indicating web client 110 adds itself to the session by sending a session-join message 151 to the group-surfing server 140); *see generally* Ex. 1005, 32:1–33:10 (Section titled “Creating a Group-Surfing Session”).

Based on these express statements showing the relationship and continuity between the system described in Figure 3 and the method described in Figure 4, we find that Lebrun in Figures 3 and 4 discloses a system and method for group access to web sites. Further supporting our finding is that Section II of Lebrun consists of entirely of Figures 3 and 4 and their associated description.

Petitioner relies almost exclusively on Lebrun’s Section II.¹¹ Section II of Lebrun includes subsections relating to “*Creating a Group-Surfing Session*” (*id.* at 32:1–33:10), “*Operating the Group-Surfing Session*” (*id.* at 33:13–36:17), “*Efficient Group-Surfing Session Activity*” (*id.* at 36:19–37:17), as well as a variety of techniques used for special situations (Ex. 1005, 37:19–43:22). All of the subject matter in Section II cited by Petitioner relates to techniques disclosed in Lebrun related to group access to web sites. Thus, we do not agree with Patent Owner’s position that Petitioner failed to meet its burden to show with particularity why each challenged claim is unpatentable because Petitioner “did not provide a

¹¹ Petitioner also cites one portion of Lebrun’s Section I that relates to cookies being sent to web client 110 by a web site 130. Ex. 1005, 26:8–18.

rationale for combining the various different elements from Lebrun.” PO Resp. 51.

Considering the consistent and parallel organization and structure of Lebrun, one of ordinary skill would understand Section II as describing a set of features related to group access to web sites. We note that there is no persuasive evidence of record that the features of Lebrun’s group access to web sites are not combinable or that one of ordinary skill would not have the ability to use the various features described in Lebrun in conjunction with each other.

We are mindful that in its detailed description of Figures 3 and 4 in Section II, Lebrun describes various features as being “a preferred embodiment.” *See, e.g.*, Ex. 1005, 32:21–22, 35:10, 45:31. In the context of Lebrun’s express disclosures and consistent organization and structure, Lebrun describes various features that may be combined and often complimentary of each other, and not as separate unrelated embodiments that cannot be combined. As Petitioner correctly notes, “the ‘multiple group surfing channels’ (Ex. 1005, 43:5) that PO calls out as a discrete embodiment is actually a sub-heading under the heading ‘*variations on* the group-serving session.’” Pet. Reply 15.

Moreover, even if Figures 3 and 4 disclose separate embodiments, combining the embodiments described with respect to Figures 3 and 4 would not “require a leap of inventiveness.” *Cf. Boston Scientific v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009) (“Combining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness”); *see* Pet. Reply 15–16 (citing same). Dr. Lieberman’s testimony supports this finding. He testifies that “Lebrun contemplates the processes of its various disclosed embodiments as being compatible.”

Ex. 1034 ¶ 17. Dr. Lieberman’s testimony further supports a finding that one of ordinary skill would have had a reasonable expectation of success in combining compatible embodiments, and we credit Dr. Lieberman’s testimony because he supports his testimony with a passage from Lebrun that is consistent with his conclusion. *Id.* (stating “Lebrun describes several ‘*variations on the group-surfing session*,’ which includes a subsection of ‘multiple group surfing channels.’ Ex. 1005, 37:19, 43:5 (emphasis in original).”). Consistent with Lebrun’s description, Dr. Lieberman opines, and we agree, that “[a] POSITA would understand ‘multiple group surfing channels’ would be one example/scenario of the ‘variations on the group-surfing session,’ and the latter encompasses the former and the two embodiments are compatible and combinable.” Ex. 1034 ¶ 18.

The standard for determining whether a claim is obvious is “an expansive and flexible approach.” *KSR*, 550 U.S. at 415. The obviousness inquiry is not so inflexible as to require Petitioner, in view of the express disclosures and consistent section organization of Lebrun, to address the combinability of Lebrun’s group access features in its Petition as Patent Owner contends. *See KSR*, 550 U.S. at 419 (indicating “[t]he obviousness analysis cannot be confined by formalistic conception of the words teaching, suggestion, and motivation”); *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litigation*, 676 F.3d 1063, 1069 (Fed. Cir. 2012) (indicating that “the overall obviousness inquiry must be expansive and flexible”). The use of Lebrun’s various permutations in combination is precisely the type of resourcefulness that an ordinarily skilled artisan is expected to possess, because “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR* 550 U.S. at 421 (“[A] person of

ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle.”).

Accordingly, we do not agree with Patent Owner that Petitioner improperly relies on, or has otherwise improperly combined, multiple embodiments in Lebrun.

h. Motivation to Combine Lebrun and Wang

As discussed above, for limitations [1a] and [1b], Petitioner relies on the combined teachings of Lebrun and Wang. Petitioner asserts that a person of ordinary skill in the art would have had reason to combine Lebrun and Wang. *See* Pet. 18–19 (characterizing combination as one of known prior art elements yielding predictable results), 25 (asserting that utilizing Wang’s hyperlink would further Lebrun’s objective of providing improved group access to web sites).

Patent Owner contends that Petitioner’s obviousness analysis is deficient because “[n]either the Petition nor Dr. Lieberman’s declaration attempt to identify differences between the claimed subject matter and the prior art, and does not discuss what obviousness-related modifications to Lebrun . . . should be made with the disclosure of Wang.” PO Resp. 69. Relying on Mr. Friedman’s testimony, Patent Owner further contends that Wang’s system architecture and purpose differs from that of Lebrun, and that because Wang is designed to store a complete snapshot of page data locally, Lebrun’s scheme of sending page data without multimedia elements teaches away from Wang’s snapshot. *Id.* at 69–70 (citing Ex. 2004, ¶ 56–57).

We disagree with Patent Owner’s arguments, and we agree with Petitioner that a person of ordinary skill in the art would have had a reason to combine Lebrun and Wang. As discussed above in connection with

limitations [1a] and [1b], Wang teaches initiating a group session using a myURL address to invite session participants. Ex. 1006, ¶¶ 46–48. We agree with Petitioner that a person of ordinary skill in the art would have understood that utilizing Wang’s designated URL address to activate a session join invitation would enable Lebrun’s group-surfing server to better coordinate and manage a group-surfing session, and that doing so would further Lebrun’s goal of providing “an improved technique for group access to web sites.” Ex. 1005, 7:3.

Patent Owner asserts that Petitioner fails to describe the modifications that would be made to Lebrun using Wang. PO Resp. 69. We disagree, as Petitioner’s analysis asserts that “[a] POSITA would therefore have sought out various available solutions for enabling multiple users to browse web pages together in a collaborative, synchronized manner,” and Dr. Lieberman’s testimony provides support for this assertion. Pet. 19 (citing Ex. 1003, ¶¶ 138–140). We find Dr. Lieberman’s testimony that “the ‘identifier’ in the group surfing invitation of Lebrun (Ex. 1005, 32:21–24) could incorporate the hyperlink ‘URL address’ disclosed in Wang (Ex. 1006, ¶[0048]) using conventional web programming techniques” and that “[t]he result would be a combination of prior art elements according to known method to yield predictable results” (Ex. 1003, ¶ 139) to be credible and supported by the respective disclosures of the references, in view of the level of ordinary skill in the art discussed above.

We also disagree with Patent Owner’s assertion that the differing architectures of Lebrun and Wang would discourage any combination of their respective teachings. To the extent that Patent Owner contends that Lebrun and Wang are incompatible system architectures and cannot be bodily combined, we note that bodily incorporation is not required to show

obviousness. *Allied Erecting and Dismantling Co., Inc. v. Genesis Attachments, LLC*, 825 F.3d 1373, 1381 (Fed. Cir. 2016) (indicating “[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference” (quoting *In re Keller*, 642 F.2d 413, 425 (CCPA 1981))).

Moreover, Petitioner does not propose bodily incorporating Wang’s architecture into Lebrun’s group-surfing scheme. Rather, Petitioner proposes applying certain teachings from Wang to Lebrun. *See* Ex. 1003, ¶¶ 144–45. Moreover, Patent Owner’s argument and Mr. Friedman’s supporting testimony do not account for the expansive nature of the obviousness inquiry. *KSR*, 550 U.S. at 415 (The standard for determining whether a claim is obvious is “an expansive and flexible approach.”). Thus, the record provides persuasive support that a person of ordinary skill in the art would understand that incorporating Wang’s myURL into Lebrun’s session invitation scheme would allow “Lebrun’s group-surfing server to coordinate and manage the group-surfing session.” *See* Pet. 25.

Nor do we agree with Patent Owner that differences in their underlying system architectures supports a finding that Wang and Lebrun teach away. Patent Owner identifies no portions of either reference that characterize the other’s alternative approach to collaborative browsing as being undesirable, or otherwise disparages the other reference’s underlying scheme. As such, we find that Lebrun’s preferred embodiment does not teach one of ordinary skill away from incorporating Wang’s hyperlink in Lebrun’s session invitation.

i. Conclusion Regarding Claim 1

For the reasons set forth above, we determine that Petitioner has demonstrated by a preponderance of evidence that claim 1 would have been obvious over the combined teachings of Lebrun and Wang.

4. Independent Claim 10

Claim 10 is independent, and recites an apparatus for a guest device performing a synchronized browsing session including a network interface and a processor adapted to perform steps similar to those recited in claim 1.¹²

Relying generally on its showing with respect to claim 1, Petitioner provides a similar showing for independent claim 10, including the additional hardware components recited therein. *See* Pet. 32–34 (claim 10).¹³ Because most limitations of claim 10 are analogous to those of claim 1, we specifically address those limitations that differ from claim 1.

a. Claim 10—Preamble

The preamble of claim 10 recites “[a]n apparatus for a guest device performing a synchronized browsing session administered by a

¹² Claim 10 appears to be a mixed-type claim, because it recites a process step “receiving data from the synchronization server . . .” among the other recited limitations for the claimed apparatus. *See IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005). For purposes of this proceeding, we interpret the “receiving data” limitation as meaning that the claimed processor is adapted to receive data.

¹³ Patent Owner also recognizes that claim 10 has “analogous limitations” to claim 1 and relies on its arguments presented with respect to claim 1. Prelim. Resp. 47. Patent Owner does not discuss claim 10 in the Patent Owner Response. *See generally*, PO Resp. We agree with the parties that many of claim 10’s limitations are sufficiently analogous to those of claim 1 that our analysis of analogous limitations of claim 1 applies equally to claim 10.

synchronization server.” Petitioner relies on the reasons stated for claim 1’s preamble, and also cites Dr. Lieberman’s declaration. Pet. 32 (citing Ex. 1003, ¶ 172). Petitioner notes that Lebrun’s web clients may comprise “a general-purpose computer, such as a laptop or workstation.” Pet. 22 (citing Ex. 1005, 30:19–28).

As we discussed in connection with limitation [1pre] above, Lebrun teaches “a guest device performing a synchronized browsing session administered by a synchronization server.” We agree with Petitioner that Lebrun’s description that “web clients 110 each include a general-purpose computer, such as a laptop or workstation,” discloses the recited “apparatus.”

Accordingly, Petitioner has demonstrated by a preponderance of the evidence that Lebrun teaches or suggests the preamble of claim 10.

b. Claim 10—“network interface . . .”

Claim 10 also differs from claim 1 in that it recites “a network interface adapted to communicate with the synchronization server.” For this limitation, Petitioner relies on its showing of a “synchronization server” made in connection with claim 1 (Pet. 32), and we agree that Petitioner’s analysis of claim 1 addresses the recited “synchronization server.” For the recitation “a network interface adapted to communicate with the synchronization server,” Petitioner relies on Lebrun’s communication network 120 and Dr. Lieberman’s testimony that a person of ordinary skill in the art “would have concluded that Lebrun’s disclosure of a communication network 120 thus discloses a network interface adapted to communicate with the synchronization server.” Pet. 33 (citing Ex. 1003, ¶ 174).

As noted above, Lebrun discloses that web clients 110 comprise a general-purpose computer. Ex. 1005, 30:19–20. Lebrun further notes that

the various system components, including the web clients and the synchronization server, communicate via communication network 120. *Id.* at 30:30–31:2 (“[T]he communication network 120 may include any other set of communication links that couple the web clients 110, web site 130, and group-surfing server 140 so they can perform the functions described herein.”). We credit Dr. Lieberman’s testimony that a person of ordinary skill in the art “would have concluded that Lebrun’s disclosure of a ‘communication network 120 transporting messages . . . by the ‘web clients’ . . . comprises a network interface adapted to communicate with the synchronization server” as it is consistent with Lebrun’s disclosure. Ex. 1003, ¶ 173. We, therefore, find that Petitioner has demonstrated by a preponderance of the evidence that Lebrun teaches or suggests “a network interface adapted to communicate with the synchronization server.”

c. Claim 10—“a processor adapted to”

Claim 10 also includes the limitation “a processor adapted to.” Petitioner asserts that “Lebrun discloses ‘a processor’” because, *inter alia*, “web clients 110 ‘each include a processor operating under control of web client software 111, such as a web browser.’” Pet. 33 (citing Ex. 1005, 12:11–16, 30:14–15). Because Lebrun’s web client software controls the processor, we agree with Petitioner that Lebrun’s web clients, including the web clients operating as guest devices, comprise a processor adapted to perform operations recited in the remainder of claim 10. Therefore, we determine that Petitioner has shown by a preponderance of the evidence that Lebrun teaches or suggests “processor adapted to.”

d. Remaining Limitations of Claim 10 and Conclusion Regarding Claim 10

The remaining limitations of claim 10 are each analogous to corresponding limitations recited in claim 1. We find that these limitations

are taught or suggested by Lebrun and Wang for the same reasons as claim 1. For the reasons discussed with respect to claim 1, and the additional reasons discussed above, we determine that Petitioner has demonstrated by a preponderance of evidence that claim 10 would have been obvious over Lebrun and Wang.

5. Dependent Claims 2–9 and 11–18

The '591 patent includes claims 2–9 (depending directly or indirectly from claim 1) and claims 11–18 (depending directly or indirectly from claim 10). In its assertions that these claims would have been obvious over Lebrun and Wang, Petitioner maps the added limitations of the dependent claims to the asserted prior art and provides reasons for why one of ordinary skill would have combined the references. Pet. 34–47; *see also* Pet. 18–19 (discussing motivation to combine Lebrun and Wang). Patent Owner does not present separate or additional arguments addressing these claims. *See generally* PO Resp. We analyze Petitioner's contentions below to determine whether they demonstrate by a preponderance of the evidence that the dependent claims would have been obvious over the combination of Lebrun and Wang.

a. Claim 2

Claim 2 recites “[t]he method of claim 1, further comprising receiving an invitation to join the synchronized browsing session.” Petitioner asserts that claim 2's recitation of receiving an invitation to join the synchronized browsing session, is taught or suggested by Lebrun's description of the group-surfing server creating a group-surfing session and informing participants. *See* Pet. 34 (citing Ex. 1005, 32:1–31). Petitioner additionally

relies on Wang's use of the myURL address to provide an invitation to join a group session. *See* Pet. 35 (citing Ex. 1006 ¶ 49).

Lebrun teaches that a first web client (i.e., the host device) sends a session creation message to the group-surfing server. Ex. 1005, 32:9–11 (“A first web client 110 sends a session-creation message 151 to the group-surfing server 140, to request the group-surfing server 140 to create or set up a group-surfing session.”). The first web client may specify other web clients for participation in the created session. Ex. 1005, 32:14–16 (“[T]he message 151 includes identifiers for a set of web clients 110 participating in, permitted to participate in, or forbidden from participating in, that session.”). The group-surfing server, having received the session-creation message from the first web client, proceeds to create the group-surfing session and notify the participants of the session. Ex. 1005, 32:26–28 (“The group-surfing server 140 receives the session-creation message 151, and responds by (1) creating a group-surfing session, and (2) informing the participants in the group-surfing session.”). We agree with Petitioner that when the participants in the group-surfing session are notified, this notification teaches or suggests receiving an invitation to participate in the group-surfing session.

Petitioner also relies on Wang's use of the myURL address in establishing a group session. *See* Pet. 35 (citing Ex. 1006 ¶ 49). Wang describes that after a first client device initiates a group session, the server establishes a session with the first client. Ex. 1006, ¶ 47. Wang further describes that upon instruction from the first client, the server sends invitations to other clients to join the group session. Ex. 1006, ¶ 48 (“[T]he server apparatus transmits an invitation notice and a URL address to be used, such as ‘Invitation Acknowledgement, myURL address,’ to a second client

device.”). Wang’s transmission of the invitation notice and URL by the server, and the receipt of that information by the second client device, teaches the recited “receiving an invitation to join the synchronized browsing session” because Wang’s second client device is a guest device in the group session.

We find, therefore, that Lebrun and Wang teach or suggest the subject matter of claim 2, and we determine that Petitioner has established by a preponderance of the evidence that claim 2 would have been obvious over Lebrun and Wang.

b. Claim 3

Claim 3 depends from claim 2, and recites additional detail regarding the content of the received invitation: “The method of claim 2, wherein the invitation comprises the hyperlink associated with the synchronized browsing session.” For claim 3, Petitioner relies on Lebrun’s session-creation message sent to participants and Wang’s use of a myURL address to invite participants to join a session. *See* Pet. 35–36 (citing Ex. 1005, 32:9–31; Ex. 1006, ¶ 47).

As discussed above, Wang teaches inviting client devices into a group session. Ex. 1006, ¶ 48. Wang’s invitation includes an invitation acknowledgement and a myURL address. *Id.* at ¶ 49 (“Upon receiving the electronic mail including the “Invitation acknowledgement, myURL address . . . the second client accesses the designated URL address.”). We agree with Petitioner that this description teaches or suggests the subject matter of claim 3 because Wang’s myURL address is a hyperlink. Accordingly, we determine that Petitioner has established by a preponderance of the evidence that claim 3 would have been obvious over Lebrun and Wang.

c. Claim 4

Claim 4 depends from claim 2 and recites “[t]he method of claim 2, wherein the invitation further comprises a session identifier.” For claim 4, Petitioner relies on the identifier included in Lebrun’s session-creation message. *See* Pet. 36–37 (citing Ex. 1005, 32:9–31). Petitioner also relies on Wang’s session invitation, asserting that a person of ordinary skill in the art would have understood Wang’s session invitation to necessarily include a session identifier. *See* Pet. 37.

As discussed above in connection with claim 2, Lebrun describes a first web client (i.e., a host device) sending a session creation message to the group-surfing server. Lebrun’s group-surfing server then creates the group-surfing session and notifies the participants of the session. Ex. 1005, 32:9–11, 32:26–28). Lebrun notes that “the [session-creation] message 151 includes an identifier for the group-surfing session, so that other web clients 110 can add themselves to that session.” *Id.* at 32:11–13. Claim 4 includes no requirement that the session identifier be received by the guest device from any particular entity. Claim 4 only requires that the session identifier be received *by the guest device*.

We agree with Petitioner that because the session-creation message includes an identifier allowing other web clients can add themselves to the session, a person of ordinary skill in the art would have understood that the other web clients would receive the session identifier when notified by the group-surfing server about the group-surfing session. We, therefore, determine that Petitioner has demonstrated by a preponderance of the evidence that claim 4 would have been obvious over Lebrun and Wang.

d. Claim 5

Claim 5 also depends from claim 2, and recites:

5. The method of claim 2, wherein the invitation is received via:

- a social network communication;
- a news feed;
- an email message;
- an instant message communication;
- a micro-blogging communication;
- a text message communication; or
- other communication medium.

As an initial matter, we note that the list of different communication media recited in claim 5 includes the conjunction “or,” which indicates that the items in the list are alternatives. Thus, only one item from the list is required to be within the scope of claim 5. Moreover, the recitation of “other communication medium” encompasses any communication medium that is not listed.

Petitioner relies on both Lebrun and Wang to teach the subject matter of claim 5. Specifically, Petitioner relies on various communication media disclosed in Lebrun for communication over a network. *See* Pet. 38 (citing Ex. 1005, 41:16–22, 30:30–31:15). Petitioner also relies on Wang’s disclosure of sending an invitation and URL address via email. *Id.* (citing Ex. 1006 ¶¶ 48, 66).

As we discussed above in connection with claim 2, Lebrun’s invitation to join a group-surfing session is sent over the network to web clients 110. Ex. 1005, 32:26–31. Lebrun discloses that web clients participating in a group-surfing session can select one of various techniques for communicating with others in the group, including e-mail. *Id.* at 41:16–22. Lebrun further describes that the various components in the group-

surfing environment are in communication over a communication network, and “the communication network 120 may include any other set of communication links that couple the web clients 110, web site 130, and group-surfing server 140 so they can perform the functions described herein.” *Id.* at 30:33–31:2. Given the broad scope of claim 5, we agree with Petitioner that Lebrun’s description of the communication links among the various system components demonstrates that the invitation sent to a client device is received over at least the recited “other communication medium” of claim 5. We, therefore, determine that Petitioner has demonstrated by a preponderance of the evidence that claim 5 would have been obvious over Lebrun and Wang.

e. Claims 6 and 16

Dependent claims 6 and 16 recite similar limitations and are addressed jointly in the Petition. Specifically, claims 6 and 16 depend from claims 1 and 10, respectively.¹⁴ Claim 6 recites:

- 6. The method of claim 1, wherein information related to the shared user input web browsing interaction comprises:
 - form data;
 - java script data; or
 - other web browsing interaction data.

Aside from its dependency on the apparatus of claim 10, claim 16 is identical to claim 6. As with claim 5, the list of items in claim 6 includes the

¹⁴ Claims 6 and 16 recite in part, “information related to the shared user input web browsing interaction.” The phrase “shared user input web browsing interaction” lacks antecedent basis in the independent claims. We interpret “the shared user input web browsing interaction” to refer to operations performed by host device in connection with “a website being accessed in real-time by a host device” as recited in claim 1.

conjunction “or,” so any of the three listed items meets the requirements of claim 6. In addition, the phrase “other web browsing interaction data” effectively covers *any* type of web browsing interaction data because the first two items in the list are types of web browsing data, and the third listed item refers to “other web browsing interaction data” without specifying any particular type of web browsing interaction data that is required.

For claim 6’s recitation of “other web browsing interaction data,” Petitioner relies on Lebrun’s description of the group-surfing server receiving a page from a web site and passing it to web clients participating in a group session. *See* Pet. 39 (citing Ex. 1005, 35:5–28, 46:7–11). We agree with Petitioner that Lebrun teaches the subject matter of claim 6. Lebrun teaches that information sent to the participating client devices in a group-surfing session may include “cookies, or other data related to identity or session” (Ex. 1005 35:13). As noted above, we interpret the shared user input web browsing interaction as referring to operations performed by a host device on a web site. The cookies and other data that are sent to participating devices comprise information that relates to operations performed by the host device in connection with the web site. Thus, the cookies and other data are information related to the shared user input web browsing interaction. Cookies and other web page data are also “other web browsing interaction data” because they relate to the interaction of the controlling web client with a web site.

Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 6 and claim 16 would have been obvious over Lebrun and Wang.

f. Claims 7 and 17

Dependent claims 7 and 17 also depend respectively from claims 1 and 10, and recite “wherein the shared user input web browsing interaction is depicted in a first web browser window.” For this limitation, Petitioner relies on Lebrun’s controlling web client making browser inputs that result in a progression of web pages presented to the web clients participating in the session. *See* Pet. 39 (citing Ex. 1005, 34:15–21, 35:5–28). We again note a lack of antecedent basis for the phrase “the shared user input web browsing interaction,” and we interpret the phrase the same as we interpret it for claim 6 above.

We agree with Petitioner that the inputs of Lebrun’s controlling web client are depicted in a first web browser window because Lebrun teaches when “controlling web client 110 is a single web client 110, that single controlling web client 110 determines the progression of pages 153 viewed during the group surfing session.” Ex. 1005, 34:15–17. Thus, in Lebrun’s group-surfing session system, the inputs to the controlling web client (i.e., the host device web browser) are depicted in a web browser window of the participating devices. We, therefore, agree that Petitioner has demonstrated by a preponderance of the evidence that claims 7 and 17 would have been obvious over Lebrun and Wang.

g. Claims 8 and 18

Claim 8 and claim 18 depend from claim 7 and claim 17, respectively, and recite the limitations “wherein non-shared web browsing interactions are depicted in a second web browser window” and “wherein non-shared web browsing interactions are depicted in a non-shared web browser window,” respectively. The ’591 patent specification describes that in certain situations a synchronized browsing participant may wish to not share their

browsing experience with other guests in the synchronized browsing session. Ex. 1001, 19:42–20:54. To achieve this, a separate browser tab or window may be opened. The separate browser tab or window is not shared in the session. Both the leading device and a following device may utilize unshared browsing windows. *Id.*

For these claims, Petitioner relies on Lebrun’s look ahead function that allows the controlling web client to determine whether certain pages require special access before being presented to session participants. *See* Pet. 40 (citing Ex. 1005, 37:29–38:27). Petitioner contends that the ability to require special access means that the controlling web client can access certain pages that are not made available to other participants in the group-surfing session. *Id.* at 40–41 (citing Ex. 1005, 47:1–6, 47:22–27, 47:29–31). Petitioner also relies on Dr. Lieberman’s testimony that “[a] POSITA would have understood that the controlling web client 110’s selection and exclusion of certain web pages from being presented to participants in the group-surfing session comprises non-shared web browsing interactions that are depicted in a second web browser window” and that non-shared browsing information would be provided in a second browser window “in order to separately view and interact with the web site and not share that with the other clients.” Ex. 1003, ¶ 198–199.

Dr. Lieberman further testifies that “a POSITA would understand that the privately entered information in the special access feature to be a non-shared web browsing interaction in a second browser window because it requires a user interaction that is not shared with the group-surfing session.” *Id.* at ¶ 200.

We find that Lebrun’s look ahead feature (Ex. 1005, 37:29–38:17) and the special access feature (Ex. 1005, 38:21–27) discloses or suggests claim

7's "wherein non-shared web browsing interactions are depicted in a second web browser window" and claim 17's "wherein non-shared web browsing interactions are depicted in a non-shared web browser window," respectively. Lebrun's look ahead feature allows the controlling web client to select a web page for viewing before designating the web page in the progression of web pages to be shared. Ex. 1005, 37:29–31. We credit Dr. Lieberman's testimony that a person of ordinary skill in the art would have understood that a separate browser window would be beneficial in allowing for the restricted access in the look ahead to be separately viewed and not shared with other clients. Ex. 1003, ¶ 199.

Accordingly, we determine that Lebrun's look ahead feature teaches or suggests the subject matter of claims 8 and 18, and Petitioner has demonstrated by a preponderance of the evidence that claims 8 and 18 would have been obvious over Lebrun and Wang.

h. Claim 9

Claim 9 depends from claim 1 and recites the limitation "wherein the shared user input web browser action further comprises a log-in into a restricted-access webpage."¹⁵ Petitioner relies on Lebrun to teach this limitation. Specifically, Petitioner relies on the same special access functionality discussed above, and in particular, that Lebrun's special access pages correspond to the recited restricted-access webpage. See Pet. 41 (citing Ex. 1005, 37:29–38:27, 39:4–10). Additionally, Petitioner contends that Lebrun's controlling web client is able to present information from an HTML form to web clients participating in the session. Citing the testimony

¹⁵ We again note the lack of antecedent basis for "the shared user input web browser action."

of Dr. Lieberman, Petitioner contends that a person of ordinary skill in the art “would have recognized that presenting an HTML form to each participating web client 110 in Lebrun’s group-surfing session comprises the shared user input web browser action [and] further comprises a log-in into a restricted-access webpage.” Pet. 41–42 (citing Ex. 1003, ¶¶ 201, 274–77).

We agree with Petitioner that Lebrun teaches or suggests a shared user input web browser action that further comprises a log-in into a restricted-access webpage. Specifically, we credit Dr. Lieberman’s testimony based on Lebrun’s description of completing an HTML form to allow special access to a web page. Accordingly, we determine that Lebrun teaches or suggests the subject matter of claim 9, and Petitioner has demonstrated by a preponderance of the evidence claim 9 would have been obvious over Lebrun and Wang.

i. Claim 11

Claim 11 depends from claim 10 and recites the additional limitation “a user interface adapted to initiate the processor to send the request in response to a user input.” For this limitation, Petitioner relies on Lebrun’s description of a web client user sending a message to the group-surfing server using ordinary web surfing techniques. *See* Pet. 42 (citing Ex. 1005, 12:24–28, 30:14–17, 43:13–22).

We agree with Petitioner that ordinary web surfing techniques employ a user interface that is adapted to initiate a processor and send a request in response to user input. Therefore, we find that Lebrun teaches or suggests “a user interface adapted to initiate the processor to send the request in response to a user input,” as recited in claim 11. We determine that Petitioner has demonstrated by a preponderance of the evidence that the subject matter of claim 11 would have been obvious over Lebrun and Wang.

j. Claim 12

Claim 12 depends from claim 11 and additionally specifies that “the user input comprises activation of the hyperlink for initializing sending of the request to join the synchronized browsing session.” Petitioner relies on Lebrun’s description of sending a session-creation message for a group-surfing session by selecting a web page or a link to a web page. *See* Pet. 42–43 (citing Ex. 1005, 32: 9–11, 32:5–7). Petitioner also relies on Wang’s myURL address in combination with Lebrun, contending that the use of the myURL address teaches the claimed activation of the hyperlink to join a session, and asserts that a person of ordinary skill in the art would have understood that Lebrun’s messages to the group-surfing server could be modified to include Wang’s myURL address. *See* Pet. 43 (citing Ex. 1006 ¶ 47).

Claim 12 narrows claims 10 and 11 by making explicit that user input on the guest device causes the activation of the hyperlink. We agree with Petitioner that the teachings of Lebrun and Wang discussed above in connection with limitations [1a] and [1b] teach or suggest that a guest device user input is how Wang’s myURL is activated. Accordingly, we determine that Petitioner has demonstrated by a preponderance of the evidence that claim 12 would have been obvious over the combined teachings of Lebrun and Wang.

k. Claim 13

Claim 13 depends from claim 10 and recites that the apparatus of claim 10 further includes “a memory adapted to store one or more software modules for controlling the processor.” Petitioner relies on Lebrun for claim 13, asserting that Lebrun’s description of the web clients utilizing a

general purpose computer teaches the subject matter of claim 13. *See* Pet. 44 (citing Ex. 1005, 12:24–28, 30:14–17, 30:19–28).

We agree with Petitioner that Lebrun’s use of web clients on general purpose computers teaches “a memory adapted to store one or more software modules for controlling the processor.” Therefore, we find that Lebrun teaches the subject matter of claim 13, and Petitioner has demonstrated by a preponderance of the evidence that claim 13 would have been obvious over Lebrun and Wang.

1. Claim 14

Claim 14 depends from claim 10, and is nearly identical to claim 5, discussed above. Claim 14 differs from claim 5 in that it specifies that a “hyperlink” (instead of the more general “invitation”) is received from the host device via communication media. Petitioner relies on both Lebrun and Wang to teach the subject matter of claim 14. *See* Pet. 44–46. Specifically, Petitioner relies on Lebrun’s session-creation messages in combination with Wang’s myURL address, which can be sent via email. *See* Pet. 44–45 (citing Ex. 1005, 41:16–22, 30:30–31:15; Ex. 1006 ¶¶ 48, 66).

For claim 5, we determined that Lebrun’s description of the communication links among the various system components demonstrates that the invitation sent to a client device to join the group-surfing session is received over “other communication medium.” To the extent that Lebrun’s invitation is not sent via a hyperlink, we agree with Petitioner that Wang’s myURL teaches the use of hyperlinks for group session invitations. We, therefore, determine that Petitioner has shown by a preponderance of the evidence that the subject matter of claim 14 would have been obvious over Lebrun and Wang.

m. Claim 15

Claim 15 depends from claim 10 and recites “a user interface adapted to depict the shared user input web browsing interactions in a shared web browsing window.” Claim 15 is similar to claim 7 discussed above, except that claim 15 additionally includes a user interface and the phrase “shared user input web browsing interactions” is plural instead of singular.¹⁶ For claim 15, Petitioner relies on the same subject matter relied upon for claim 7. *See* Pet. 46 (citing Ex. 1005, 12:24–28, 30:14–17, 43:13–22). Petitioner further relies upon Lebrun’s discussion of sending different versions of the same page to accommodate different web clients, arguing that sending different versions demonstrates Lebrun’s use of the claimed user interface. *Id.* (citing Ex. 1005, 36:11–17).

We agree with Petitioner that Lebrun teaches or suggests a user interface adapted to depict shared user input web browsing interactions in a shared web browsing window. As discussed above in connection with claim 7, inputs to Lebrun’s controlling web client are depicted in a first web browser window because when “controlling web client 110 is a single web client 110, that single controlling web client 110 determines the progression of pages 153 viewed during the group surfing session.” Ex. 1005, 34:15–17. Thus, in Lebrun’s group-surfing session system, the inputs to the controlling web client (i.e., the host device web browser) are depicted in a web browser window of the participating devices. We further agree with Petitioner that Lebrun’s description of accommodating different web clients by sending different pages demonstrates that Lebrun contemplates that the web clients

¹⁶ As with claim 7, the phrase “the shared user input web browsing interactions” lacks antecedent basis.

have different types of user interfaces that display pages differently. We, therefore, agree that Petitioner has demonstrated by a preponderance of the evidence that claim 15 would have been obvious over Lebrun and Wang.

n. Conclusion Regarding Dependent Claims

Having considered the evidence and arguments of record, we determine that Petitioner has demonstrated by a preponderance of the evidence that the subject matter of dependent claims 2–9 and 11–18 would have been obvious over Lebrun and Wang.

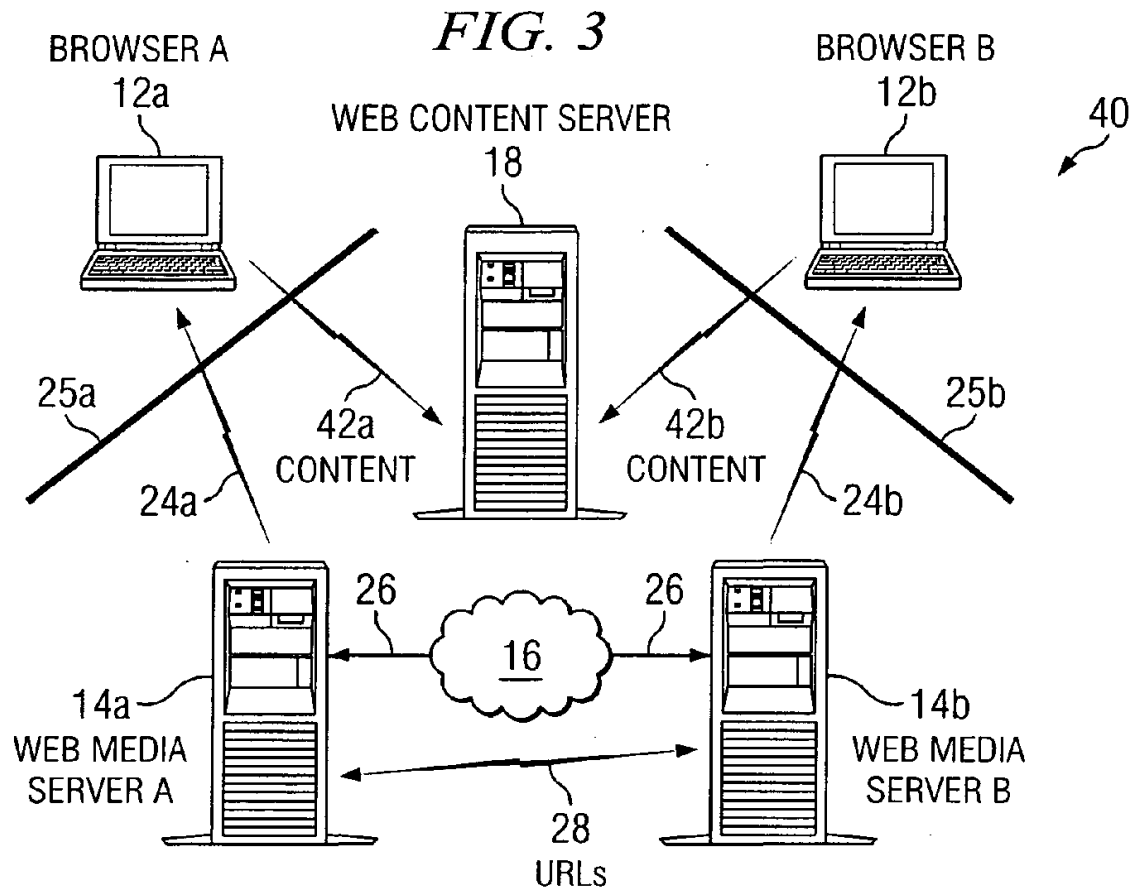
E. Obviousness over Prajapat and Wang

Petitioner asserts that claims 1–18 would have been obvious under 35 U.S.C. § 103 based on the combined teachings of Prajapat and Wang.

1. Prajapat's Disclosure

Prajapat is a U.S. Published Patent Application and titled “Peer-to-Peer Dynamic Web Page Sharing.” Ex. 1007, code (54). Prajapat relates to a “communication system [that] includes a first browser operable to submit requests for one or more web pages and a request to share the one or more requested web pages with another browser.” *Id.* at code (57).

Prajapat's Figure 3 is reproduced below:



Prajapat's Figure 3 "illustrates an example of a communication system 40 operable to provide peer-to-peer simple web page sharing" and "includes browsers 12, web media servers 14, and web content server 18." Ex. 1007 ¶ 41. Prajapat details that "[i]n operation of the system 40, browser 12a may request a web page sharing session with one or more other browsers 12 (in this example, browser 12b)." *Id.* Prajapat further describes that "[b]rowser 12a may submit a request to web content server 18 for one or more web pages using link 42a, for example." *Id.* The browser 12a may also "communicate the URL or other suitable information regarding the requested web page to web media server 14a," which in turn "may communicate the URL and any other suitable information to web media

server 14b.” *Id.* The web media server 14b “may communicate the URL and any other suitable information to browser 12b” which “may use the URL and any other suitable information to request from web content server 18 the web page that browser 12a requested.” *Id.*

2. Claim 1

a. Claim 1 Preamble

As we noted above, claim 1’s preamble recites “[a] method for a guest device performing a synchronized browsing session administered by a synchronization server.” Petitioner relies on Prajapat’s peer-to-peer web page sharing via a web media server for teaching a synchronized browsing session administered by a synchronization server. *See* Pet. 47–48 (citing Ex. 1007 ¶¶ 12, 41). Petitioner relies on Prajapat’s description of an associated browser 12b that joins a synchronized browsing session for teaching a guest device. *See* Pet. 49 (citing Ex. 1007 ¶ 16). We determined above that the preamble of claim 1 is limiting. *See supra* § III.b. We agree with Petitioner that web browser 12b’s participation in a co-browsing or web page sharing session that utilizes web media servers 14a and 14b to facilitate the session, teaches or suggests the preamble of claim 1.

Petitioner has demonstrated by a preponderance of the evidence that Prajapat teaches or suggests the preamble of claim 1 because Petitioner relies on a plain reading of the cited passages discussed above with respect to Prajapat’s disclosure. Patent Owner does not address Petitioner’s showing as to this limitation. *See generally* PO Resp.

b. Claim 1 Limitation [1a]

For “detecting an activation of a hyperlink associated with the synchronized browsing session by a guest device,” Petitioner relies on both

Prajapat and Wang. *See* Pet. 49–51. Specifically, Petitioner relies on Prajapat’s co-browsing request process, by which a URL and other suitable information are transmitted from a first browser through a media server and to a second browser. *See* Pet. 49–50 (citing Ex. 1007 ¶¶ 17, 22, 26–27, 36, 39, 43). Petitioner contends that a “POSITA would have understood browser 12b’s receipt of browser 12a’s request to co-browse to comprise detecting an activation of a hyperlink associated with the synchronized browsing session by a guest device.” Pet. 50 (citing Ex. 1003 ¶¶ 220–21).

Petitioner also cites Wang in combination with Prajapat for limitation [1a], applying Wang’s teachings in substantially the same way they were applied with respect to Ground 1 above. *Id.* (citing Ex. 1006 ¶ 47). Specifically, Petitioner relies on Wang’s description of the use of a myURL address to allow a second client device to join a session, in combination with Prajapat’s co-browsing request from a first browser to a second browser. Petitioner asserts that “[a] POSITA would also have understood Prajapat’s disclosure of browser 12b receiving browser 12a’s request to co-browse to include receiving ‘myURL address’ of Wang.” *See* Pet. 50 (citing Ex. 1003 ¶ 222).

Petitioner contends that a person of ordinary skill in the art would have been motivated to combine Wang’s URL-based session invitation with Prajapat’s co-browsing request because doing so would allow Prajapat’s guest device to perform collaborative browsing and would further provide control over the time that other browsers could join a co-browsing session. *See* Pet. 50–51. Petitioner also contends that the combination of Prajapat and Wang would have been obvious because both references are directed to problems relating to collaborative browsing. *See* Pet. 20 (citing Ex. 1007 ¶ 5, Fig. 2; Ex. 1006 ¶¶ 9–10, 13). Petitioner further asserts that a person of

ordinary skill in the art would have sought out variable available solutions for enabling co-browsing. *Id.* (citing *KSR*, 550 U.S. at 421).

Petitioner has demonstrated that Prajapat and Wang teach or suggest limitation [1a] because Petitioner relies on a plain reading of the cited passages discussed above with respect to their respective disclosures. Patent Owner does not address this limitation.¹⁷ *See generally* PO Resp.

c. Claim 1 Limitation [1b]

For the limitation “sending a request by the guest device to join the synchronized browsing session to the synchronization server in response to the activation of the hyperlink,” Petitioner again relies on both Prajapat and Wang. *See* Pet. 51–52. Specifically, Petitioner cites Prajapat’s communication session between browser 12b and web media server 14b having an outgoing channel 30b that allows the browser to submit requests for web pages. *See* Pet. 51. Citing Dr. Lieberman’s testimony, Petitioner avers that “[a] POSITA would have understood browser 12b submitting requests for web pages may be in response to the receipt of the request to co-browse.” *See* Pet. 51 (citing Ex. 2003 ¶ 224).

Petitioner also relies on Wang’s teachings, arguing that Wang’s second client device accessing the myURL address and subsequently sending a login request to a server apparatus teaches the “sending” limitation. *See* Pet. 51–52 (citing Ex. 1006 ¶ 49). Petitioner further contends that a person of ordinary skill in the art would have understood Prajapat’s browser request and Wang’s myURL-based login request “to be in response to the activation of the hyperlink.” Pet. 52. Petitioner also

¹⁷ Patent Owner separately argues against the combination of Prajapat and Wang. We address that issue *infra*.

argues that a person of ordinary skill in the art would have also understood Prajapat's browser making requests for web pages would have included accessing a designated URL address and that Wang's sending a login request would have included sending a request by the guest device to join the synchronized browsing session. *See* Pet. 52 (citing Ex. 1003 ¶ 225).

Petitioner has demonstrated that Prajapat and Wang teach or suggest limitation [1b] because Petitioner relies on a plain reading of the cited passages discussed above with respect to their respective disclosures. Patent Owner does not address this limitation. *See generally* PO Resp.

d. Claim 1 Limitation [1c]

For the limitation "receiving from the synchronization server a notification that guest device has joined the synchronized browsing session," Petitioner relies on Prajapat's description of web media server 14b's use of incoming channel 32b to communicate notifications and other information to browser 12b. *See* Pet. 52–53 (citing Ex. 1007 ¶¶ 21, 35). Relying on Dr. Lieberman's declaration, Appellant asserts that "[a] POSITA would have understood this disclosure to show receiving from the synchronization server a notification that the guest device has joined the synchronized browsing session." Pet. 53 (citing Ex. 1003 ¶ 227).

Petitioner has demonstrated that Prajapat teaches or suggests limitation [1c] because Petitioner relies on a plain reading of the cited passages discussed above with respect to their respective disclosures. Patent Owner does not address Petitioner's showing as to this limitation. *See generally* PO Resp.

e. Claim 1 Limitation [Id]

(i) Petitioner's Contentions

For the recitation “receiving data from the synchronization server,” Petitioner relies on Prajapat’s incoming channel between web media server 14b (which Petitioner maps to the synchronization server) and browser 12b (which Petitioner maps to the guest device). *See* Pet. 53 (citing Ex. 1007 ¶¶ 21, 22, 26, 27, 35, 36, 39, 43). Petitioner also relies on Prajapat’s description of a user desiring to co-browse with other users to teach “where the data relates to a website being accessed in real-time by a host device,” *See* Pet. 53–54 (citing Ex. 1007 ¶¶ 12, 16). Petitioner cites the testimony of Dr. Lieberman, arguing that “[a] POSITA would have understood that a ‘user associated with browser 12a’ co-browsing with ‘another user associated with browser 12b’ comprises sharing data that relates to a website being accessed in real-time by a host device.” *Id.* (citing Ex. 1003 ¶ 229).

For the recitation “and wherein the data comprises a URL of the website,” Petitioner relies on Prajapat’s description of browser 12a submitting requests for web pages using the URL of the web site. *Id.* at 54 (citing Ex. 1007 ¶¶ 22, 36, 43). Petitioner also relies on Prajapat’s disclosure that browser 12a’s web page request may include cookies and other information needed to properly render the webpage to teach “cookie information associated with the website and the host device.” *Id.*

Responding to Patent Owner’s contention, discussed *infra*, that the Petition improperly combines embodiments in Prajapat, Petitioner asserts that Prajapat’s paragraph 47, discussed in the Institution Decision, supports combining embodiments. Pet. Reply. 18–19. Petitioner further cites Prajapat’s paragraphs 41 and 45, and Dr. Lieberman’s Reply Declaration (Ex. 1034 ¶ 19) as evidence that “[a]dditional portions of Prajapat also

contemplate that similar processes can be used among the various embodiments.” Pet. Reply 19 (citing *Boston Scientific v. Cordis*, 554 F.3d 982, 991 (Fed. Cir. 2009)).

(ii) Patent Owner’s Contentions

Patent Owner contends that Prajapat discloses two embodiments, including peer-to-peer dynamic web page sharing and peer-to-peer simple web page sharing in which multiple web media servers are used for the purpose of providing improved scalability. PO Resp. 53 (citing Ex. 1007 ¶¶ 12, 33, 41; Ex. 2004 ¶¶ 46–48). Patent Owner asserts that neither of Prajapat’s disclosed embodiments teach or suggest “the use of the ‘URL of the website and cookie information associated with the website and the host device’ that a ‘guest device’ receives from a ‘synchronization server’ and uses to operate a browser as claimed in elements 1[d] and 1[e].” PO Resp. 53.

Patent Owner describes Prajapat’s peer-to-peer dynamic web page sharing, depicted in Figures 1 and 2, as allowing co-browsing between two browsers by having a first browser 12a submit a web site address to a first web media server 14a, which in turn requests a web page from a web content server 18, and receives the requested page from the web content server 18. *Id.* at 53–54. Patent Owner asserts that Prajapat indicates that first web media server 14a performs a transformation of the received page into an intermediate form in order to accommodate different types of browsers, and then transmits the intermediate form to a second web media server 14b. *Id.* at 56 (citing Ex. 1007 ¶¶ 24–25, 37–38). According to Patent Owner, “[w]eb media server 14b then transforms the intermediate form of the retrieved webpage into a renderable form that may be rendered by browser 12b.” *Id.* (citing Ex. 1007 ¶¶ 26, 39).

Patent Owner also characterizes Prajapat's peer-to-peer simple web page sharing embodiment, depicted in Figure 3. PO Resp. 58–63. Patent Owner asserts that “[i]n this embodiment, a URL or other suitable information regarding the requested web page is transmitted from one browser to another browser via the web media servers” but that “[t]here is however, no teaching or suggestion by Prajapat that the two browsers are simultaneously, or even nearly simultaneously, sharing internet browsing on the same web page in real time, *i.e.*, that the browsers are engaged in a ‘synchronized browsing session,’ as stated in the claims.” *Id.* at 58–59. Patent Owner contends that “in the ‘peer-to-peer simple web page sharing’ embodiment, Prajapat teaches the mere direct transmission of a URL from one browser to another, in ‘any time’ sequence.” *Id.* (citing Ex. 1007 ¶¶ 47–51). Patent Owner, relying on Mr. Friedman's testimony, argues that “Prajapat states that each event in the ‘peer-to-peer simple web sharing’ embodiment ‘may’ occur, not that it will occur, or that it does occur simultaneously, or nearly simultaneously, with any other event in real time. *Id.* (citing Ex. 1007 ¶ 43; Ex. 2004, ¶¶ 47–51).

Further relying on Mr. Friedman's testimony, Patent Owner also further contends that in Prajapat, “the cookie information is sent to the web media server 14a to aid in formulating a request, but there is no disclosure that the cookie information is passed to another browsing device.” *Id.* at 67 (citing Ex. 2004 ¶¶ 46–47, 74–77, 80). Patent Owner further contends that any cookie received by a guest device in Prajapat lacks the characteristics required by claim 1—that the cookie be associated with the host device and the website. PO Resp. at 67.

Citing *In re Stepan Co.*, 868 F.3d 1342, 1346 (Fed. Cir. 2017), Patent Owner further asserts that Petitioner's obviousness analysis improperly

combines features from different embodiments of Prajapat “without pointing to any teachings within Prajapat, or any other art, that suggests a proper combination” and lacks “evidence that a POSITA would expect success” in combining the different embodiments. *Id.* at 67–68. Patent Owner argues that “the architectures that underlie these two embodiments are fundamentally different from one another” and that “[n]either the Petition nor Petitioners’ expert ever acknowledges how or why portions of the disclosure from these two embodiments would be combined.” *Id.* (citing Ex. 2004 ¶¶ 55, 74–77). Patent Owner further amplifies these argument in the Sur-reply, asserting that the cited passages in Prajapat regarding similar features in the different embodiments does not establish that a person of ordinary skill in the art would have been motivated to combine the embodiments. PO Sur-reply 19–20 (“[I]t is essential to note that Prajapat does not state anywhere that the description of [the peer-to-peer dynamic web page sharing] applies to any other embodiment.”).

(iii) Analysis

We find Petitioner has shown by a preponderance of the evidence that Prajapat teaches or suggests limitation [1d]. We agree with Petitioner that the data sent from web media server 14b (which corresponds to the synchronization server) to browser 12b (which corresponds to the guest device) in Prajapat’s simple web page sharing embodiments teaches “receiving data from the synchronization server, where the data relates to a website being accessed in real-time by a host device,” as claimed. Ex. 1007, ¶ 43. In particular, Prajapat explains that browser 12a’s (which Petitioner maps to the claimed host device) web page request “may communicate the URL or other suitable information regarding the requested web page to web media server 14a” and the web media server 14a may, in turn,

“communicate the URL and any other suitable information to web media server 14b.” *Id.* Prajapat further teaches that the web media server 14b then “may communicate the URL and any other suitable information to browser 12b.” *Id.* Thus, concurrent with the browser 12a sending web page requests to the web server and receiving the requested page in response, the web media server 14b communicates to browser 12b (the guest device) the URL being accessed along with “other suitable information.” *Id.*

Because these actions are taking place concurrently, and because the information sent includes the URL for the requested and received web page, we agree with Petitioner that this description teaches or suggests the guest device “receiving data from the synchronization server, where the data relates to a website being accessed in real-time by a host device; and wherein the data comprises a URL of the website.”

We now turn to the recitation “and cookie information associated with the website and the host device.” As we noted above, Prajapat teaches that in the simple web page sharing embodiment, “the URL and any other suitable information” are communicated to browser 12b. As an initial matter, we agree with Petitioner a person of ordinary skill in the art would understand that “any other suitable information” includes cookie information. Although Prajapat’s paragraph 43 does not specify that “any other suitable information” includes cookies, Prajapat’s disclosure, taken in its entirety, indicates that this is the case.

Describing the dynamic web page sharing embodiment, Prajapat discloses that the information communicated in a web page request “may specify the web page to retrieve and display as well as any other suitable information.” Ex. 1007 ¶ 17. Prajapat describes the suitable information as including “information that may be required to properly render the web page

on browser 12a, such as session information, cookies, parameters to send to web content server 18, and any other suitable information.” *Id.* Thus, Prajapat makes clear that the information included in a page request from a web site may include cookie information. Because Prajapat also discloses that the information “may include information that may be required to properly render the web page on the browser 12a,” which is the requesting browser, any cookie information included in the request would relate to the browser 12a (which corresponds to the host device) and also the web site receiving the request.

Patent Owner argues that Prajapat is deficient with respect to limitation [1d] because the dynamic web page sharing embodiment uses a middleman server to retrieve web content and, therefore, the web site is not “being accessed in real-time by a host device” as claimed. PO Resp. 54–57. We disagree because Petitioner does not rely on the dynamic embodiment to teach the real-time access, and instead relies on the simple web page sharing embodiment. As we note above, the simple web page sharing embodiment, does not utilize the web media servers 14a and 14b to retrieve web pages, and instead the browsers 12a and 12b retrieve web pages directly from the web server 18. Ex. 1007 ¶ 43.

Patent Owner also argues that the simple peer-to-peer embodiment does not provide a co-browsing or synchronized browsing experience, and that Prajapat instead teaches “the direct transmission . . . of a URL from one browser to another, in an ‘any time’ sequence.” PO Sur-reply 21. We disagree because such a limited functionality is inconsistent with Prajapat’s teachings as a whole. For example, Prajapat discloses that “*in general* web media servers 14 allow browser 12a to co-browse one or more web pages with browser 12b.” Ex. 1007 ¶ 12 (emphasis added). Thus, Prajapat teaches

that the general use of web media servers 14 allows for co-browsing, and further teaches that co-browsing allows “browser 12a and browser 12b [to] display the same web pages at substantially the same time; browser 12a may alter web pages and browser 12b may view those alterations; browser 12b may alter web pages and browser 12a may view those alterations; or any other suitable situations.” *Id.*

Patent Owner emphasizes that the simple web page sharing embodiment makes no reference to co-browsing, and instead uses the phrase “web page sharing” in connection with this embodiment. PO Resp. 67 (“Prajapat’s simple web page sharing and phone-to-phone web page sharing embodiments do not teach co-browsing.”). We disagree because Prajapat repeatedly describes the functionality provided in the dynamic embodiment as web page sharing—indicating that co-browsing and web page sharing have the same meaning. *See, e.g.*, Ex. 1007 ¶ 16 (“The user associated with browser 12a may also desire to *co-browse or share* the one or more web pages . . . with another user associated browser 12b.”); ¶ 16 (“[T]he present invention contemplates browser 12a *sharing web pages* with any number of other browsers 12.”); ¶ 31 (“[W]eb page form content, such as fields in web page forms for example, are kept in sync on web pages in browsers 12 involved in *a web page sharing session*.”); ¶ 34 (“[B]rowser 12a may submit a request to co-browse with chachi@happydaycompany.com. For purposes of this description, it will be assumed that the browser 12 with which *browser 12a desires to share* is browser 12b.”) (emphases added).

In describing the peer-to-peer simple web page sharing embodiment, Prajapat refers to the interactions between the two browsers 12a and 12b as “a web page sharing session.” Ex. 1007 ¶ 41. Thus, just as the synchronized browsing experience provided by Prajapat’s peer-to-peer

dynamic web page sharing embodiment is characterized as a “web page sharing session” (Ex. 1007 ¶ 31), the peer-to-peer simple web page sharing embodiment similarly refers to the provided functionality as a “web page sharing session” (*id.* at ¶ 41).

Further, Prajapat never provides any indication that the web page sharing session that is provided in the peer-to-peer simple web page sharing embodiment has any less page sharing functionality than that of the dynamic embodiment. Rather, based on Prajapat’s description of the embodiments, we understand “dynamic” to refer to the use of an intermediate form and transformation of the web pages retrieved by the web media server 14a, while “simple” means that the pages are retrieved directly from the web sites and not transformed prior to delivery to the browsers 12. We do not understand “dynamic” and “simple” to be referring to differences in the experience of web page sharing delivered to the guest devices.

Petitioner also argues that Prajapat paragraph 43’s use of the permissive “may” in describing the operations of the peer-to-peer simple web sharing embodiment demonstrates that the operations described therein are not required. We disagree because the use of “may” allows for situations where the operations occur. That is, “may” merely indicates that certain operations, in certain situations, may be omitted, but does not indicate that those operations should not ever be performed.

Patent Owner, relying on Mr. Friedman’s testimony, also argues that Prajapat’s “cookie information is sent to the web media server 14a to aid in formulating a request, but there is no disclosure that the cookie information is passed to another browsing device.” PO Resp. 67 (citing Ex. 2004 ¶¶ 46–47, 74–77, 80). We disagree because the peer-to-peer simple web page sharing embodiment of paragraph 43 states that the “[w]eb media server 14b

may communicate the URL *and any other suitable information to browser 12b.*” Ex. 1007 ¶ 43. As we discussed above, Prajapat makes clear that cookies are one form of “suitable information” that may be sent. *Id.* at ¶ 17.

We also do not agree with Patent Owner that Petitioner’s obviousness analysis improperly combines features from different embodiments of Prajapat. We agree with Petitioner that Prajapat’s description “ties together the processes of its various disclosed embodiments.” Pet. Reply 9.

Prajapat’s description of the dynamic web page sharing embodiment is lengthy and detailed as compared to the simple web page sharing embodiment. *Compare* Ex. 1007 Fig. 1, 2; ¶¶ 12–40 (describing dynamic web page sharing) *with* Ex. 1007 Fig. 3; ¶¶ 41–43 (describing simple web page sharing). The relative paucity of description for the simple web page sharing embodiment, indicates that the focus in describing the simple web page sharing embodiment is more toward identifying the differences from the earlier described dynamic embodiment, rather than describing each and every detail anew. This understanding is confirmed by Prajapat’s several statements indicative of interoperability among the various embodiments. *See, e.g.*, Ex. 1007 ¶ 41 (“Web media server 14a may locate the web media server associated with browser 12b in a substantially similar manner to that described above with reference to FIGS. 1 and 2.”); ¶ 45 (“For purpose of web page sharing, UA and media controller 54a may locate UA and media controller 54b in substantially the same manner as described above with reference to FIGS. 1, 2, and 3.”); ¶ 47 (“In this example, web pages may be shared in a substantially similar manner to that described above with reference to FIGS. 1 and 2.”).

We also find that the Federal Circuit’s decision in *Boston Scientific v. Cordis*, 554 F.3d 982, 991 (Fed. Cir. 2009) aligns better with the facts here

than *In re Stepan Co.*, 868 F.3d 1342, 1346 (Fed. Cir. 2017), relied upon by Patent Owner. In *Boston Scientific*, the Federal Circuit considered whether a person of ordinary skill in the art would have been motivated to combine two embodiments of a drug-eluting polymer stent disclosed adjacent to each other, where the stent in each embodiment was represented by the same reference numeral in the patent. *Boston Scientific*, 554 F.3d at 991. Holding that a motivation to combine was present in the record, the court noted that “[c]ombining two embodiments disclosed adjacent to each other in a prior art patent does not require a leap of inventiveness,” and combining the embodiments to achieve the respective benefits of each embodiment would have been obvious. *Id.* Here, to the extent Petitioner relies on the dynamic web page sharing embodiment separately from the simple web page sharing embodiment, we note that similar to *Boston Scientific*, the embodiments are immediately adjacent each other and they share common reference numerals for common components.

The case cited by Patent Owner, *In re Stepan Co.*, 868 F.3d 1342, 1346 (Fed. Cir. 2017), involved a Board determination that a claim was obvious because the modification to the prior art reference involved routine optimization. In a footnote, the court stated that “whether a rejection is based on combining disclosures from multiple references [or] combining multiple embodiments from a single reference . . . there must be a motivation to make the combination.” *Id.* at 1346. The court vacated the Board’s determination because routine optimization is not, of itself, sufficient reasoning to show a motivation to combine. *Id.* Here, Petitioner does not argue that the relied upon portions of Prajapat would be arrived at via routine optimization. Rather, Petitioner contends that Prajapat expressly contemplates interoperability among the different embodiments, a

contention, as we explain above, with which we agree. As such, we do not find *In re Stepan* controlling here.

f. Claim 1 Limitation [1e] – The Operating a Browser Limitation

For the limitation “operating a browser by the guest device based on the data received from the synchronization server,” Petitioner relies on substantially the same disclosure in Prajapat as with the preceding limitation. *See* Pet. 55–56. More specifically, Petitioner relies on Prajapat’s description that browsers 12a and 12b display the same web pages as substantially the same time during a co-browsing session. *Id.* (citing Ex. 1007 ¶¶ 12, 16). Petitioner further relies on Prajapat’s description that information for rendering the page passes from the first browser 12a through the web media server 14a and 14b, and then to the second browser 14b. *Id.* (citing Ex. 1007 ¶¶ 22, 26–27, 36, 39, 43).

Petitioner has demonstrated that Prajapat teaches or suggests limitation [1e]. Other than Patent Owner’s argument made in connection with limitation [1d] that Prajapat teaches only web link sharing, Patent Owner does not address Petitioner’s showing as to this limitation. *See generally* PO Resp. As we discussed above in connection with limitation [1d], we agree with Petitioner that despite Patent Owner’s arguments to the contrary, Prajapat’s description of the simple web page sharing embodiment teaches co-browsing, and is not merely unsynchronized web link sharing.

g. Motivation to Combine the Teachings of Prajapat and Wang

Patent Owner challenges the combination of Prajapat and Wang, arguing that Petitioner has not delineated the specific modifications that would be made to Prajapat in view of Wang, and that Mr. Friedman’s testimony regarding why a person of ordinary skill in the art would not have

made the combination stands un rebutted. PO Resp. 69–70 (citing Ex. 2004 ¶¶ 81–87) PO Sur-reply 22–23 (citing Ex. 2004 ¶¶ 85, 87).

We disagree with Patent Owner that the combination of Prajapat and Wang is improper. Petitioner asserts that a person of ordinary skill in the art would have combined the teachings of Prajapat and Wang because they each are directed to solving similar problems relating to collaborative browsing. Pet. 20 (citing Ex. 1003 ¶¶ 142–147). Dr. Lieberman testifies that “[a] POSITA attempting to solve problems in collaborative web browsing . . . would have sought out various available solutions for enabling multiple users to browse web pages together in an efficient, collaborative manner such as Prajapat web page sharing with the hyperlink invitation concept disclosed in Wang.” Ex. 1003 ¶ 144.

We agree with this testimony because it is consistent with the teachings of Prajapat and Wang. We also credit Dr. Lieberman’s testimony that the differing system architectures between Prajapat and Wang would not dissuade their combination, as “a POSITA would have recognized that even if Prajapat did not explicitly disclose that an invitee user requests a web page independent of a ‘web media server,’ it would have been obvious to incorporate the software functionality of Wang to permit the invited user’s web browser to request a web page independent of a ‘web media server.’” *Id.* at ¶ 145.

Mr. Friedman testifies that the combination of Wang and Prajapat would not be obvious because of “incompatible system architectures and purposes” due to Wang’s single server and Prajapat’s multiple server, multiple browser format architecture. Ex. 2004 ¶ 85, 87. However, it is well-established that “[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the

primary reference Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.” *MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1294 (Fed. Cir. 2015) (quoting *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)). Petitioner does not propose bodily incorporating Wang and Prajapat together, but rather taking certain teachings from Wang and applying them to Prajapat. *See* Ex. 1003 ¶¶ 144–45. Moreover, Mr. Friedman’s testimony does not account for the expansive nature of the obviousness inquiry. *KSR*, 550 U.S. at 415 (The standard for determining whether a claim is obvious is “an expansive and flexible approach.”). Thus, the record provides persuasive support that a person of ordinary skill in the art would understand that incorporating Wang’s myURL into Prajapat’s co-browsing request would allow Prajapat’s guest device to perform collaborative browsing and would further provide control over the time that other browsers could join a co-browsing session. *See* Pet. 50–51.

h. Conclusion Regarding Claim 1

For the reasons discussed above, and having considered the arguments and evidence of record, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claim 1 would have been obvious over Prajapat and Wang.

3. Independent Claim 10

Relying generally on its showing with respect to claim 1, Petitioner provides a similar showing for independent claim 10. *See* Pet. 56–58 (claim 10). Patent Owner also recognizes that claim 10 has “analogous limitations” to claim 1 and relies on its arguments presented with respect to claim 1. Prelim. Resp. 57.

For the reasons discussed in connection with claim 1, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claim 10 would have been obvious over Prajapat and Wang.

4. Dependent Claims

Petitioner cites various portions of Prajapat and Wang for the additional subject matter recited by dependent claims 2–9 and 11–18. Pet. 58–70. Petitioner provides persuasive reasoning as to why the claimed subject matter would have been obvious to one of ordinary skill in the art. *Id.* Patent Owner does not present separate or additional arguments addressing these claims. *See generally* PO Resp.

We have considered the evidence and arguments of record and determine that Petitioner has demonstrated by a preponderance of the evidence that the subject matter of dependent claims 2–9 and 11–18 would have been obvious based on the relied-on prior art for the reasons discussed in the Petition.

F. Conclusion Regarding Patentability Challenges

For the foregoing reasons, and having considered the evidence and arguments of record, we determine that Petitioner has demonstrated by a preponderance of evidence that the subject matter of claims 1–18 of the '591 patent is unpatentable under 35 U.S.C. § 103.

IV. PATENT OWNER'S MOTION TO AMEND

Patent Owner filed a contingent Motion to Amend ("MTA"), presenting substitute claims 19–38 requesting preliminary guidance. *See* Paper 23 (hereinafter "MTA"). Petitioner filed an opposition. *See* Paper 30 ("Pet. MTA Opp."). We provided non-binding Preliminary Guidance.

Paper 32 (“Prelim. Guidance”). Subsequent to the Preliminary Guidance, Patent Owner filed a Reply. Paper 34 (“MTA Reply”). Petitioner responded with a Sur-reply. Paper 40 (“MTA Sur-reply”). Because we conclude that Petitioner has shown by a preponderance of the evidence that each of the challenged claims 1–18 is unpatentable, we consider Patent Owner’s MTA with respect to the substitute claims.

“Before considering the patentability of any substitute claims, . . . the Board first must determine whether the motion to amend meets the statutory and regulatory requirements set forth in 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121.” *See Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 at 4 (PTAB Feb. 25, 2019) (precedential). Patent Owner bears the burden of persuasion to show by a preponderance of the evidence that the motion to amend complies with these requirements. 37 C.F.R. § 42.121(d)(1). Specifically, a patent owner must provide a claim listing reproducing each proposed substitute claim, and must make an initial showing to demonstrate the following: (1) the amendment proposes a reasonable number of substitute claims; (2) the amendment responds to a ground of unpatentability involved in the trial; and (3) the amendment does not seek to enlarge the scope of the claims of the patent or introduce new subject matter. *See* 35 U.S.C. § 316(d); 37 C.F.R. § 42.121. If Patent Owner meets its burden to show that the amendment requirements are met, a petitioner bears the burden of persuasion to show, by a preponderance of the evidence, that any proposed substitute claim is unpatentable. *See* 37 C.F.R. § 42.121(d)(2) (assigning burden of persuasion of unpatentability of proposed substitute claims to petitioner).

Patent Owner, as explained below, has failed to meet its burden of persuasion to show that the amendments comply with the requirements set forth in 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121.

A. Proposed Substitute Claims

Patent Owner proposes amending the '591 patent with the addition of new claims 19–38 in one-to-one correspondence with the set of original claims 1–18. *See* MTA (App. A at 1–6). Of the proposed substitute claims, claims 19 and 28 are independent. Independent claims 19, which is proposed as a replacement for original independent claim 1 is reproduced below with added subject matter underlined and deleted subject matter in double brackets or strikethrough. We add single bracket annotations to identify claim limitations that we address below:

19. A method for a guest device performing a synchronized browsing session administered by a synchronization server, comprising:

[19a] detecting an activation of a hyperlink associated with the synchronized browsing session by a guest device;

[19b] sending a request by the guest device to join the synchronized browsing session to the synchronization server in response to the activation of the hyperlink;

[19c] receiving from the synchronization server a notification that guest device has joined the synchronized browsing session;

[19d] receiving first data from the synchronization server, where the first data relates to a website being accessed in real-time by a host device; and

wherein the first data comprises a URL of the website, ~~and~~ cookie information associated with the website and the host device, and information related to a shared user input web browsing interaction that includes second data indicating at least

one direct host device interaction with content of the website performed by the host device;~~and~~

[19e] operating a browser by the guest device based on at least the second data received from the synchronization server to independently replicate the host device interaction with the content of the website, obtained by the guest device from a website server based on at least the first data.

MTA (App. A at 1).

B. Requirements for Amendment

Patent Owner bears the burden of persuasion to show that proposed substitute claims 19–38 meet the statutory and regulatory requirements set forth in 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121. *See* 37 C.F.R. § 42.121(d). For the reasons that follow, we determine that Patent Owner has failed to satisfy that burden.

1. Reasonable Number of Substitute Claims

A motion to amend must “propose a reasonable number of substitute claims.” 35 U.S.C. § 316(d)(1)(B); *see also* 37 C.F.R. § 42.121(a)(3) (“A motion to amend may cancel a challenged claim or propose a reasonable number of substitute claims.”). “There is a rebuttable presumption that a reasonable number of substitute claims per challenged claim is one (1) substitute claim.” *Lectrosonics*, IPR2018-01129, Paper 15 at 4; *see also* 37 C.F.R. § 42.121(a)(3). Here, Patent Owner proposes no more than one substitute claim for each challenged claim. MTA (App. A at 1–6). Petitioner does not contend that the number of substitute claims is unreasonable. *See generally* Pet. MTA Opp. We determine that this requirement is met because there is only one proposed substitute claim per original challenged claim.

2. Responsive to Ground of Unpatentability

“A motion to amend may be denied where. . . [t]he amendment does not respond to a ground of unpatentability involved in the trial.” 37 C.F.R. § 42.121(a)(2)(i). The Petition asserts that claims 1–18 are unpatentable over the cited prior art. *See generally* Pet.

Patent Owner responds, through the MTA, to the grounds of unpatentability involved in the trial by proposing substitute claims 19–38 for challenged claims 1–18 that each recite new elements, and new combinations of elements that address Petitioner’s contentions that the asserted prior art discloses aspects of the original independent claims. *See* MTA 3–4; MTA App. A at 1–6. Petitioner does not contend that the proposed amendments fail to respond to a ground of unpatentability in this trial. *See generally* Pet. MTA Opp.

We determine that this requirement is met. For example, Patent Owner proposes substitute independent claim 19 that, among other changes, recites “operating a browser by the guest device . . . to independently replicate the host device interaction with the content of the website.” MTA App. A at 1. This change, for example, is responsive to Petitioner’s contentions that Lebrun discloses “operating a browser by the guest device based on the data received from the synchronization server” recited in claim 1. *See, e.g.*, Pet. 31–32; *see also* Pet. Reply 6 (“Nothing in the claim recites *how* the synchronized browsing session is administered by the synchronization server.”). Patent Owner proposes independent claim 28 that proposes similar modifications to independent claim 10. MTA 3; MTA App. A at 3–4.

Additionally, Patent Owner proposes “fixing a possible antecedent basis issue via proposed claim 27 by changing ‘action’ to ‘interaction.’”

MTA. 4; MTA App. A. at 3. *Lectrosonics* affords a degree of flexibility in the permissible scope of amendments proposed in a motion to amend. Specifically, in the context of *inter partes* reviews, *Lectrosonics* advises that it is not required “that every word added to or removed from a claim in a motion to amend be solely for the purpose of overcoming an instituted ground.” *Lectrosonics*, Paper 15 at 5. Addressing such an issue serves the public interest by helping to ensure the patentability of amended claims. *See Lectrosonics*, Paper 15 at 6 (allowing additional limitations in an amendment to address potential § 101 or § 112 issues).

3. May Not Enlarge the Claim Scope

An amendment may not seek to enlarge the scope of the claims of the patent. 35 U.S.C. § 316(d)(3); 37 C.F.R. §§ 42.121(b)(1), 42.121(b)(2). Patent Owner asserts that proposed substitute claims 19–38 do not seek to enlarge the scope of the claims because they retain all of the original independent claims’ features and add narrowing elements. MTA 5. Petitioner does not contend that any proposed substitute claim enlarges the scope of any challenged patent claim. *See generally* Pet. MTA Opp. We agree with Patent Owner and determine that this requirement is met. *See, e.g.*, MTA App. A at 1 (addition of “and information related to a shared user input web browsing interaction that includes second data indicating at least one direct host device interaction with content of the website performed by the host device” and “to independently replicate the host device interaction with the content of the website, obtained by the guest device from a website server based on at least the first data” in substitute claim 19).

4. *No New Matter*

An amendment may not introduce new matter. 35 U.S.C. § 316(d)(3); 37 C.F.R. §§ 42.121(b)(1), 42.121(b)(2). New subject matter is any addition to the claims that lacks sufficient support in the subject patent’s original disclosure. *See TurboCare Div. of Demag Delaval Turbomach. v. Gen. Elec. Co.*, 264 F.3d 1111, 1118 (Fed. Cir. 2001) (“When [an] applicant adds a claim . . . , the new claim[] . . . must find support in the original specification.”). To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail such that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. *See, e.g., Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed. Cir. 2003). For the proposed substitute claims, Patent Owner is required to show written description support in “the original disclosure of the patent for each claim that is . . . amended,” and in “an earlier-filed disclosure for each claim for which benefit of the filing date of the earlier filed disclosure is sought.” 37 C.F.R. §§ 42.121(b)(1), 42.121(b)(2).

In our Preliminary Guidance, we preliminarily determined that Patent Owner had not shown adequate written description support for the proposed substitute claims. Prelim. Guidance 5–7. Because that determination was non-binding, and because both Patent Owner and Petitioner have supplemented the record before us with their respective Reply and Sur-reply on the Motion to Amend, we reconsider this issue in light of the more developed record before us.

a. Proposed Substitute Claim 19—“independently replicate”

Petitioner contends that the term “independently replicate,” recited in proposed substitute independent claims 19 and 28, lacks written description

support. Pet. MTA Opp. 1–3. We disagree. Paragraph 118, cited by Patent Owner for support, describes that the visual and audio output of host device 10 and guest device 14 may be identical. Ex. 1002, 193 (¶ 118). Paragraph 56, also relied upon by Patent Owner for support, describes that the user of guest device 14 views the same display of internet content as the user of host device 10. *Id.* at 174 (¶ 56). Paragraph 43 describes that all users are allowed to view and fully interact with the same internet content. *Id.* at 168–69 (¶ 43). Paragraph 48 describes that guest devices 14 and 15 receive the same data response from the website server as that received by host device 10, which indicates that the guest devices receive independent responses from the website server that allow for replication of the actions each device. *Id.* at 171 (¶ 48).

b. Proposed Substitute Claim 19 —Limitations [19d] and [19e]

Petitioner argues the limitations “operating a browser by the guest device based on at least the second data . . . to independently replicate the host device interaction with the content of the website, obtained by the guest device from a website server based on at least the first data” lack written description support in the ’591 patent’s original disclosure. Pet. MTA Opp. 3–5. Petitioner further contends “there is no specification support for a single message including (1) first data that serves as the basis for the guest device obtaining the website content from a website server and (2) second data that enables the guest device to independently replicate the host device interaction with that ‘obtained’ content.” *Id.* at 4.

Patent Owner responds, arguing that “[t]he ‘second data’ is distinct from URL or cookie data by dint of claim differentiation and ‘indicates’ a ‘direct host interaction with content of the website.’” PO MTA Reply 1. Patent Owner asserts that one non-limiting example of the second data is

form data, which may be “input by a host [and] may be ‘relayed’ by the synch-server to the guest device.” *Id.* at 2 (citing Ex. 1001, 6:65-7:1, 7:56-59).

In the Sur-reply, Petitioner further contends that Patent Owner’s citations to the record do not “provide written description support for the amended claims, which specifically require that the first data comprises a second data subset ‘indicating at least one direct host device interaction with the content of the website performed by the host device’ and that the ‘operating a browser’ step to independently replicate that action is performed ‘based on at least the second data.’”¹⁸ Pet. MTA Sur-reply 5.

We find that Patent Owner has not shown by a preponderance of the evidence that the original disclosure of the ’591 patent provides written description support for the “operating a browser” limitation of proposed substitute claim 19.

As we noted above, to satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail such that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. *See, e.g., Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed. Cir. 2003).

Crucial to our written description analysis is the scope of the proposed substitute claim. Patent Owner contends that the claim encompasses a

¹⁸ In the Sur-reply, Petitioner accuses Patent Owner of improperly introducing new citations for written description support in the MTA Reply which do not correspond to those relied upon in the MTA and improperly citing to the ’591 patent instead of the originally filed Specification. Pet. MTA Sur-reply 2. We do not find Patent Owner’s citations to the record to be improper in these circumstances.

scenario where a webpage viewed by the host device is delivered to the guest device, and then form data typed into the host device webpage (but not yet submitted in a server request) is relayed via the synchronization server to the guest device, automatically filling in form fields of the already displayed page on the guest device browser. For example, Patent Owner argues that “[t]he ‘second data’ . . . ‘indicates’ a ‘direct host interaction with content of the website’” and that a non-limiting example of the second data is form data, which may be “input by a host [and] may be ‘relayed’ by the synch-server to the guest device.” PO MTA Reply at 2 (citing Ex. 1001, 6:65-7:1, 7:56-59). Patent Owner further explains:

Specifically, “form data” input by a host may be “relayed” by the synch-server to the guest device. The data passed to the synchronization server is sent to the guest device. The guest device then uses this information, which can include the claimed “second data,” to replicate an action of the host device, including, for example, “formulating” an “identical” request.

MTA Reply 2 (citations omitted) (*italics added*). Thus, Patent Owner argues that form data input by a host is relayed by the synchronization server to a guest device, and the guest device uses the form data to replicate an action of the host device.

Patent Owner’s argument notes that replicating the action of the host device *includes, for example*, formulating an identical request. But as Patent Owner explicitly states, this is merely an example of replicating an action of the host device, and not a *requirement* of replicating an action of the host device. At the oral hearing, Patent Owner further explained its position. *See, e.g.*, Tr. 129:9–11 (“[T]he ’591 patent goes on to explain that fully interacting with such data includes examples such as filling in form data or drawing on the screen.”); 130:10–12 (“[I]t is well within the skill of a person

of ordinary skill in the art to understand that that form data would be used by that synchronized browsing software to fill in that form as the patent expressly indicates.”). Patent Owner’s amendment counsel also explained that the recited “first data” and “second data” in limitations [19d] and [19e] need not be received contemporaneously:

Then the claim goes on to contend that the guest device, again, the acting agent here, operates a browser based on the second data by using that information, such as form data about the host device interaction, to independently replicate the host interaction with content of the website obtained by the guest device based on the first data. So, it uses the URL, for example, to obtain content of the web device, and it uses the form data to interact with i.e., fill in the form corresponding to add information.

Again, there is no contemporaneousness or timeliness requirement for all of this, Your Honor.

Id. at 136:17–24.

Amendment counsel for Patent Owner further made clear that the claim amendments set forth in limitations [19d] and [19e] encompass a user on the host device providing input to a form field, resulting in the corresponding form field on the guest device also being visually populated on the guest device display:

JUDGE BENNETT: So, if I’m understanding, this amendment to the claim would cover a scenario where the host issuer has a web page on their browser and they start filling in a web form, and what would happen would be the guest users would see the web form being filled in, is that correct?

MR. TOMSA: It would happen, but it would happen in a particular manner

Id. at 2–8.

There is no support for such an interpretation in the originally filed disclosure. Patent Owner's proffered interpretation of the proposed substitute claims covers situations where inputted form data is transmitted to the synchronization server 13, and then to the guest device 14, without the form being first submitted to the website server 12 in a website server page request. As we explain below, the original disclosure of the '591 patent consistently and repeatedly describes that the transmission of data to the synchronization server 13 is caused by a page request sent to the website server 12 by the host device 10.

For example, in discussing form data, the specification states that "[f]orm data may be defined as information inputted by a user in pre-defined fields on a webpage that may be transmitted to a website server." Ex. 1002, 192 (¶ 116). Although permissive language is used (i.e., "may be defined," "may be transmitted") the specification does not describe any alternative scenario where form data is transmitted elsewhere. The specification further explains:

Website request 60 may include form data inputted by the user of host device 10. For example, should the user of host device 10 search a website for hotel vacancies in New York City on a specified date, website request 60 would include form data for data fields such as location, data of travel, number of nights, number of guests, and other query fields. As such, in exemplary embodiments of the present invention, because communication message 61 may be a duplicate of website request 60, communication message 61 may include the same form data as to that inputted by the user of host device 10 on the hotel reservation website.

Id. Thus, in the disclosed embodiments, form data that is inputted by the user is transmitted in website request 60, and the communication message 61 sent to the synchronization server 13 includes that form same data. The

specification goes onto explain that “[w]ithout the transfer of form data or other types of user input information, should website request 60 sent by host device 10 to website server 12 include any user input, website request 65 may be wholly different than website request 60,” and “website content reply 66 may be wholly different than that of website content reply 67.” *Id.* at 192 (¶ 117). The specification thus emphasizes the need for the website request 65, sent from the guest device 14 to the website server 12, to be identical to the website request that is originally sent from the host device 10 to the website server 12.

Figure 5(b) is a flowchart depicting the synchronized browsing process from the perspective of the host device. Ex. 1002, 166–167, ¶ 34. Figure 5(b) shows a process in which a request 60 to the website server 12 including form data occurs at step 401, and at step 402, the URL of the website request 60 and the form data are transmitted in communication message 61 to the synchronization server 13. Although the specification states that the steps of Figure 5(b) “may be taken in any other conceivable sequence without deviating from the scope of the present invention,” there is no description of transmitting the communication message 61 without an associated website server request 60 first being made.

Specification Figure 5(d) receives a similar scheme. Figure 5(d) is a flowchart that depicts the synchronized browsing process from the perspective of the guest device 14. Ex. 1002, 167 (¶ 36). Like Figure 5(b) above, the process entails receiving webpage interaction information from the synchronization server at step 601 and transmitting a request to the webpage server *utilizing the webpage interaction information* at step 602. The specification describes that “[i]n step 601, guest device 14 receives communication message 64 from synchronization server 13” and that “[i]n

step 602, guest device 14 transmits website request 65 to website server 12.” *Id.* at 196 (¶ 130). The specification further notes that “website request 65 is a data communication message sent to request web content at a designated URL location, such as website server 12, and is similar or identical to website request 60 sent by host device 10” and that “information in communication message 64, including URL, form data, cookies or other data, is transmitted in website request 65.” *Id.*

In sum, in light of the broad scope ascribed by Patent Owner to the proposed substitute claims, a scope not disputed by Petitioner, we find that the proposed substitute claims lack support in the originally filed disclosure. We do so because we discern no disclosure that communication message data is ever sent to the synchronization server *in the absence of an already transmitted website request made to a website server*. As such, the specification does not disclose that form data typed into a webpage form field, but not yet submitted in a host device 10 request to the website server 12, would be transmitted to the synchronization server 13 and then relayed to the guest device 14 to be inserted into form fields of an already loaded webpage, which is exactly the system operation Patent Owner contends is covered by the proposed substitute claims.¹⁹

¹⁹ We are mindful of the apparent similarity between the language of the “operating a browser” limitation [19e] and limitation [1f.1] in claim 1 of U.S. Patent No. 9,483,448 B2 (“the ’448 patent” and the subject patent in related proceeding IPR2023-00341) which recites:

wherein the information related to the shared web browsing interaction is to be processed by a browser of the invitee device and enables the invitee device to generate a request to retrieve a substantially the same webpage content as the request for the webpage content from the host device;

Patent Owner argues that “[t]he ’591 Patent also lists other examples of replication that include host input being ‘formatted, forwarded and inputted into other devices’” which “enables ‘all’ session attendees to ‘view[] and fully interact in a shared browsing experience’ and ‘with the same internet content.’” PO MTA Reply 2 (quoting Ex. 1001, 5:41–47). Patent Owner argues that this fully interactive browsing experience “includes ‘filling in form data’ as well as activities such as drawing on the screen,’ both of which are examples of content interaction that can be ‘inputted’ into the other devices.” *Id.* (quoting Ex. 1001, 5:48–50). According to Patent Owner, because the specification discloses that webpage interactions such as these allow for identical visual output of the shared browsing window, the specification “examples show possession of a guest device receiving information including the ‘second data’ as claimed.” *Id.* (citing Ex. 1001, 6:65–7:1, 16:31–40).

We disagree with Patent Owner that these examples show possession of the subject matter of the proposed substitute claim. The examples cited by Patent Owner appear at the beginning of the detailed description, and are fairly characterized as describing the general goal of providing synchronized browsing functionality—to allow users to experience the same web browsing experience together without the need to coordinate user input.

However, the scope of the limitation [1f.1] of the ’448 patent differs because it implies that a request is necessarily made to the web site server—and then that same request to the web site server is made by the guest device. That is, the guest device is given information so that it can make the same request to the website server that the host device has already made. Proposed substitute claim 19, in contrast, covers a scenario where the guest device independently replicates the host device interaction without generating a web site server request.

Patent Owner argues that because the specification states that filling in form data and sharing screen drawings are part of the fully interactive browsing experience, a website request need not be predicate to transmitting a communication message to the synchronization server. This argument is not persuasive because the detailed embodiments described throughout the remainder of the specification provide the shared browsing experience exclusively by passing a communication message to the synchronization server *in response to a webpage request being made to a website server*.

As we note above, the proposed substitute claims, as written, encompass passing a communication message to the synchronization server in the absence of a webpage request. Because the originally disclosure does not disclose this capability, proposed substitute claim 19 lacks adequate written description. For the same reasons, we also find that proposed substitute independent claim 28 also lacks adequate written description. Because each of the proposed substitute independent claims lacks written description, the remaining proposed substitute dependent claims also are inadequately described in the specification based on their respective claim dependencies.

c. Proposed Substitute Dependent Claims 25, 33, and 35

Because we find proposed amendments to the independent claims lack support, we do not address Petitioner's arguments that proposed substitute dependent claims 25, 33, and 35 separately lack written description.

5. Conclusion Regarding the Requirements for Amendment

We determine that Patent Owner has failed to meet its burden of persuasion to show that the amendments comply with the requirements set

forth in 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii). We deny Petitioner's Contingent Motion to Amend for this reason.²⁰

III. CONCLUSION²¹

Having considered the arguments and evidence of record, we determine as follows:

- (1) We deny Petitioner's motion to strike exhibits 2006 and 2007.
- (2) We deny Petitioner's motion to exclude exhibits 2005–2007.
- (3) Petitioner has shown by a preponderance of the evidence that claims 1–18 of the '591 patent are unpatentable over Lebrun and Wang.
- (4) Petitioner has shown by a preponderance of the evidence that claims 1–18 are unpatentable over Prajapat and Wang.
- (5) We deny Patent Owner's Motion to Amend because Patent Owner has failed to show by a preponderance of evidence that proposed substitute claims 19–36 meet the statutory requirements (35 U.S.C. § 316(d)) and regulatory requirements (37 C.F.R. § 42.121) for the proposed amendment.

In summary:

²⁰ Because Patent Owner has failed to meet its burden of showing proposed substitute claims 19–36 comply with the statutory and regulatory requirements for a Motion to Amend, we do not reach Petitioner's evidence and grounds of unpatentability for the proposed substitute claims.

²¹ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. §§ 42.8(a)(3), (b)(2).

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–18	103	Lebrun, Wang	1–18	
1–18	103	Prajapat, Wang	1–18	
Overall Outcome			1–18	

ORDER

For the foregoing reasons, it is

ORDERED that claims 1–18 of the '591 patent have been proven to be unpatentable;

FURTHER ORDERED that Patent Owner's contingent Motion to Amend is denied;

FURTHER ORDERED that Petitioner's Motion to Strike and Petitioner's Motion to Exclude are denied; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2023-00342
Patent 8,527,591 B2

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