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Paper 10
Date: March 25, 2020

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETFLIX, INC. and ROKU, INC.,
Petitioner,

v.

UNILOC 2017 LLC,
Patent Owner.

IPR2020-00041
Patent 8,407,609 B2

Before CHARLES J. BOUDREAU, DANIEL J. GALLIGAN, and JULIET MITCHELL DIRBA, *Administrative Patent Judges*.

DIRBA, *Administrative Patent Judge.*

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

I. INTRODUCTION

On October 18, 2019, Netflix, Inc. and Roku, Inc. (collectively "Petitioner") filed a Petition seeking institution of *inter partes* review of claims 1–3 of U.S. Patent No. 8,407,609 B2 (Ex. 1001, "the '609 patent"). Paper 1 ("Pet."). Uniloc 2017 LLC ("Patent Owner") filed a Preliminary Response on January 24, 2020. Paper 9 ("Prelim. Resp.").[1]

To institute an *inter partes* review, we must determine that the information presented in the Petition, viewed in light of the Preliminary Response, "shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Having considered the parties' submissions, we determine that Petitioner has demonstrated a reasonable likelihood that it would prevail in establishing the unpatentability of claims 1–3 on the grounds asserted in the Petition. Accordingly, we institute an *inter partes* review of the challenged claims.

A. Related Matters

The parties identify several district court proceedings involving the '609 patent, including *Uniloc 2017 LLC v. Netflix, Inc.*, 8:18-cv-02055 (C.D. Cal.); *Uniloc 2017 LLC v. Roku, Inc.*, 8:19-cv-00295 (C.D. Cal.); *Uniloc 2017 LLC v. Google LLC*, 2:18-cv-00502 (E.D. Tex.); *Uniloc 2017 LLC v. American Broadcasting Companies, Inc.*, 8:18-cv-02056 (C.D. Cal.); *Uniloc*

[1] In the Preliminary Response, some page numbers are repeated, causing different pages to have identical page numbers. This Decision cites to this Paper using the number appearing at the bottom of a page and, unless otherwise indicated, refers to pages occurring after the first set of pages 1–9.

2017 LLC v. Vudu, Inc., 1:19-cv-00183 (D. Del.); and *Uniloc 2017, LLC v. Sling TV, LLC*, 1:19-cv-00278 (D. Colo.). Pet. 2–3; Prelim. Resp. 1.

The '609 patent is also the subject of two other petitions for *inter partes* review: IPR2019-01367 (filed by Sling TV, L.L.C. on July 22, 2019) and IPR2020-00115 (filed by Google LLC on October 31, 2019). Pet. 3; Prelim. Resp. 1. The Board instituted an *inter partes* review in IPR2019-01367. *Sling TV, L.L.C. v. Uniloc 2017 LLC*, IPR2019-01367, Paper 7 (PTAB Feb. 4, 2020) (Institution Decision). A decision whether to institute has not yet been entered in IPR2020-00115.

B. The Petition's Asserted Grounds

Petitioner asserts the following grounds of unpatentability (Pet. 5):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–3	103(a)[2]	Davis[3] and Choi[4]
1–3	103(a)	Siler[5] and Davis

Petitioner also relies on the testimony of Dr. Michael Franz to support its contentions. Ex. 1002.

[2] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011), revised 35 U.S.C. § 103 effective March 16, 2013. Because the challenged patent was filed before March 16, 2013, we refer to the pre-AIA version of § 103.

[3] US 5,796,952, issued Aug. 18, 1998 (Ex. 1003).

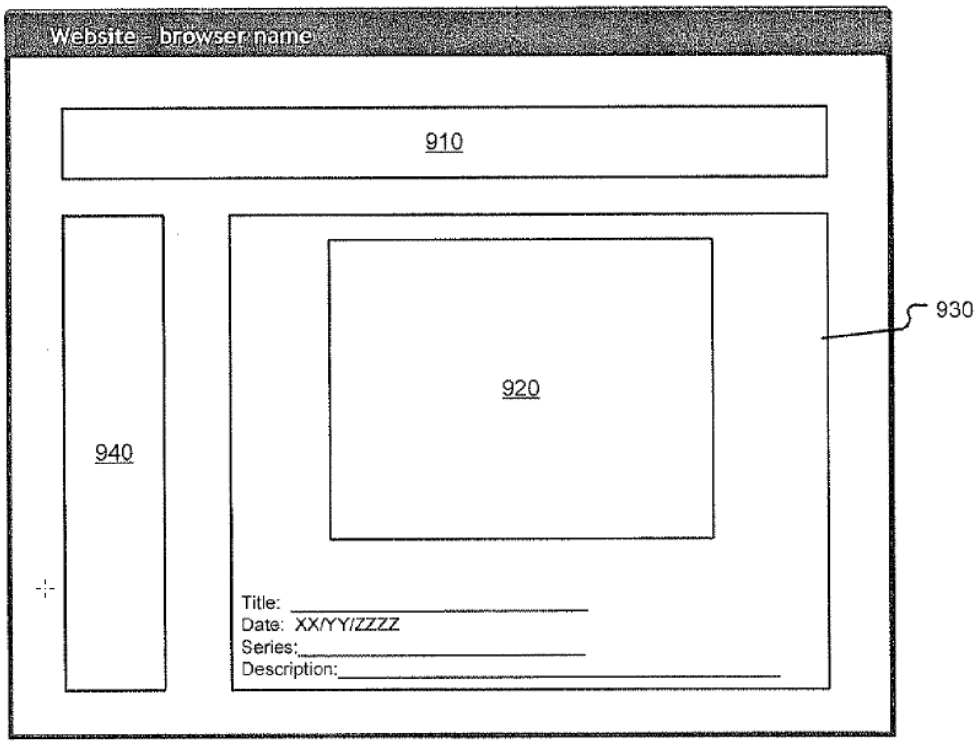
[4] US 2003/0236905 A1, published Dec. 25, 2003 (Ex. 1004).

[5] US 2004/0133467 A1, published Jul. 8, 2004 (Ex. 1005).

C. Summary of the '609 Patent

The '609 patent is titled "System and Method for Providing and Tracking the Provision of Audio and Visual Presentations via a Computer Network." Ex. 1001, code (54). The application that led to the '609 patent was filed on August 21, 2009, and claimed the benefit of a U.S. provisional application filed August 21, 2008. *Id.* at code (22), (60).

The '609 patent discloses tracking a user computer's receipt of digital media presentations via a web page. Ex. 1001, Abstr. An exemplary web page provided to a user's computer is shown in Figure 9, which is reproduced below:



Ex. 1001, Fig. 9. As shown above, Figure 9 depicts a web page (900) with portion 930 (including portion 920, where a presentation selected by the user may be displayed) and portions 910 and 940, which "may be used to display related information, such as advertisements." *Id.* at 11:59–12:6, 12:12–14.

In order to appropriately value the advertising space, the '609 patent seeks to "identify how long the media was actually, or may typically be played." *Id.* at 12:6–15.

The presentation, which is displayed in portion 920, may be supplied by the system or may be linked by the system (with the content stored on a third party's computer system). Ex. 1001, 12:64–66; *see id.* at 7:25–38 (identifying challenge of tracking presentation "[w]here content is housed elsewhere and linked to by computers 30"). "Regardless, page 900 may include a timer applet,"[6] which is "used to indicate when a pre-determined temporal period has elapsed." *Id.* at 12:66–67, 13:5–6. For example, the temporal period may be ten, fifteen, or thirty seconds. *Id.* at 13:6–8. "[W]hen the applet determines the predetermined temporal period has elapsed, it signals its continued execution to system 20." *Id.* at 13:10–12. In addition, "the applet may cause [a] cookie [received with web page 900], or associated data, to be transmitted from the user's computer 20 to system 30." *Id.* at 13:14–21; *see id.* at Fig. 1 (illustrating user computers 20 and server computers 30). The system logs receipt of the applet's signal and the client's cookie data (or data associated with it). *Id.* at 13:12–13, 13:21–23. For example, "a table entry" may be made identifying the user, the page, and total time on that page. *Id.* at 13:24–30.

According to the '609 patent, this "provide[s] the capability to know that a viewer began viewing a particular show at a certain time, and to know when a user began viewing a different page, or show, thereby providing knowledge of how long a particular viewer spent on a particular page." *Id.*

[6] "'Applet,' as used herein, generally refers to a software component that runs in the context of another program . . . ." Ex. 1001, 12:67–13:3.

at 13:43–48. The '609 patent states that this knowledge allows the cost of "advertising displayed on a given page" to correspond to the length of time that page is viewed. *Id.* at 13:49–14:2; *see also id.* 7:42–52, 11:53–58.

D. Challenged Claims

The Petition challenges claims 1–3 of the '609 patent. Claim 1 is independent, and claims 2 and 3 depend from claim 1. Independent claim 1 is reproduced below:

> 1. A method for tracking digital media presentations delivered from a first computer system to a user's computer via a network comprising:
>
> providing a corresponding web page to the user's computer for each digital media presentation to be delivered using the first computer system;
>
> providing identifier data to the user's computer using the first computer system;
>
> providing an applet to the user's computer for each digital media presentation to be delivered using the first computer system, wherein the applet is operative by the user's computer as a timer;
>
> receiving at least a portion of the identifier data from the user's computer responsively to the timer applet each time a predetermined temporal period elapses using the first computer system; and
>
> storing data indicative of the received at least portion of the identifier data using the first computer system;
>
> wherein each provided webpage causes corresponding digital media presentation data to be streamed from a second computer system distinct from the first computer system directly to the user's computer independent of the first computer system;

> wherein the stored data is indicative of an amount of time the digital media presentation data is streamed from the second computer system to the user's computer; and
>
> wherein each stored data is together indicative of a cumulative time the corresponding web page was displayed by the user's computer.

Ex. 1001, 14:17–45.

II. DISCRETIONARY DENIAL

Patent Owner argues that we should exercise our discretion to deny institution. Prelim. Resp. 1–11; *see* 35 U.S.C. §§ 314(a), 325(d) (2018). For the reasons explained below, we decline to do so.

A. Horizontal Redundancy

Patent Owner argues that "[t]he Petition presents grounds that are horizontally redundant with respect to each other." Prelim. Resp. 2 (citing *Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co.*, CBM2012-00003, Paper 7 (PTAB Oct. 25, 2012)). According to Patent Owner, Petitioner is required to "explain[] the relative strength and relative weakness" of its two grounds. *Id.* at 3. Because Petitioner failed to do so, Patent Owner asserts that "the Board should consider, at most, only one of the two redundant asserted grounds, and if that one considered ground is found not to merit institution," the Board should exercise discretion to deny without considering the second ground. *Id.* at 4.

We are not persuaded. We perceive no support for Patent Owner's contention that Petitioner was obligated to explain the relative strength and weakness of the two grounds of unpatentability that were presented in a

single Petition.[7] Patent Owner relies on *Liberty Mutual* (*see* Prelim. Resp. 1–3), but we find no analogy between this Petition, which alleges *two* grounds of unpatentability, and the petition in *Liberty Mutual*, which alleged *four hundred and twenty-two* grounds of unpatentability. *See Liberty Mut.*, CBM2012-00003, Paper 7 at 2.[8]

Accordingly, we do not deny institution on this basis.

B. Becton-Dickinson *Factors*

Patent Owner asserts that "[i]t is clear under the applicable standards of *Becton, Dickinson* . . . that the Board should decline to exercise its discretion to institute" review because Petitioner fails to analyze "why the present prior art is not cumulative" of the references cited during prosecution. Prelim. Resp. 4–5 (citing *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential in relevant part)). In addition, Patent Owner submits that the Examiner found that a prior art reference (Cobley) taught a "timing applet that sends a message to a server indicative of a time that a web page remains

[7] The requirements are different, however, when a petitioner files multiple petitions. *See* Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019), available at https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf, at 59–60.

[8] Patent Owner also quotes from *Eizo Corp. v. Barco N.V.*, IPR2014-00358, Paper 11 at 28–31 (PTAB July 23, 2014) (Prelim. Resp. 3–4), but this case is inapposite. There, the petitioner failed to demonstrate a reasonable likelihood of prevailing on a dependent claim because the petitioner failed to explain how the limitations of the claim were allegedly taught by the asserted references. *Eizo*, IPR2014-00358, Paper 11 at 28–31. We perceive (and Patent Owner identifies) no such deficiency in the instant Petition.

loaded" and another (Shuster) taught "an applet . . . [that] count[s] down for a predetermined time period." *Id.* at 6–7 (citing Ex. 2001, 66, 68). Because Cobley and Shuster each have a timing applet, Patent Owner asserts that Davis is cumulative of these references. *Id.*

Section 325(d) provides that in determining whether to institute an *inter partes* review, "the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." We consider several non-exclusive factors when determining whether to deny institution under Section 325(d), including: (a) the similarities and material differences between the asserted art and the prior art involved during examination; (b) the cumulative nature of the asserted art and the prior art evaluated during examination; (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art; (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments. *Becton, Dickinson*, Paper 8 at 17–18. "If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office, then factors (c), (e), and (f) relate to whether the petitioner has demonstrated a material error by the Office." *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 10 (PTAB Feb. 13, 2020) (precedential).

We are not persuaded that the Petition includes the same or substantially the same prior art or arguments as were previously presented to the Office. The Petition does not rely on any prior art that was cited during prosecution of the '609 patent. Pet. 5; *see* Prelim. Resp. 4–8; *see also* Ex. 2001. And we do not agree with Patent Owner's contention that Davis (relied upon by Petitioner) is cumulative of Cobley or Shuster (from the prosecution history) merely because each reference allegedly discloses a timer applet (a single claim term). *See* Prelim. Resp. 6–7. Indeed, Petitioner relies on Davis for most of the limitations of claim 1 (*see* Pet. 14–40), including the recited "timer applet" (*see id.* 26–27), and Patent Owner does not contend that any of these other aspects of Davis are cumulative of a reference cited during prosecution. Moreover, while Petitioner relies on Davis to teach only one other limitation in the proposed Siler-Davis combination (*see id.* 43–66), Patent Owner does not allege that Siler was previously considered during prosecution or is cumulative of prior art that was considered.

Accordingly, we do not deny institution under 35 U.S.C. § 325(d).

C. General Plastic *Factors*

Finally, Patent Owner contends that the Petition should be denied because an earlier-filed petition for *inter partes* review also challenges claim 1 of the '609 patent. Prelim. Resp. 8–11 (citing *Sling TV, L.L.C. v. Uniloc 2017 LLC*, IPR2019-01367 (the "Sling IPR"); *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential)). For the reasons explained below, we are not persuaded to exercise our discretion under 35 U.S.C. § 314(a) to deny institution.

Petitioner contends that this Petition "is based on entirely separate references and grounds from the Sling IPR Petition." Pet. 5. According to Petitioner, this is the only petition filed by Petitioner against the '609 patent, and "there is no relationship between Sling and Petitioners with respect to the '609 Patent." *Id.* at 6. Petitioner also asserts that the Petition was filed before Patent Owner filed a preliminary response in the Sling IPR and before the Board decided whether to institute the Sling IPR. *Id.* Petitioner further argues that "Patent Owner's cases against Petitioners are not sufficiently advanced to warrant non-institution," as no trial date has been set. *Id.*

Patent Owner asserts that Petitioner delayed in filing the Petition. Prelim. Resp. 9–10. Specifically, Patent Owner contends that the Petition was filed "only seven days before the one-year time bar, and less than three weeks before the due date for the Patent Owner's preliminary response in [the Sling IPR]." *Id.* at 10 (emphasis omitted). Patent Owner also argues that Petitioner does not identify when it became aware of the asserted references (citing the fourth and fifth *General Plastic* factors) and does not explain how its asserted references differ from the references asserted in the Sling IPR (citing the sixth *General Plastic* factor). *Id.* at 10–11.

The *General Plastic* factors are a non-exclusive list of factors considered by the Board to evaluate whether it is equitable to permit a follow-on petition. *Gen. Plastic Indus.*, IPR2016-01357, Paper 19 at 15–16. The first factor considers "whether the same petitioner previously filed a petition directed to the same claims of the same patent." *Id.* at 16; *see also Valve Corp. v. Elec. Scripting Prods., Inc.,* IPR2019-00062, Paper 11 at 9–10 (PTAB April 2, 2019) (precedential) (considering relationship between

parties when applying this factor). Here, Petitioner asserts that it has no relevant relationship with Sling TV, the petitioner in the Sling IPR (Pet. 6), and Patent Owner does not allege any relationship between these petitioners (*see* Prelim. Resp. 8–11). As a result, this factor weighs against exercising discretion to deny.

The third factor evaluates whether Petitioner "already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition." *Gen. Plastic Indus.*, IPR2016-01357, Paper 19 at 16. This Petition was filed before any substantive filings in the Sling IPR, including both Patent Owner's preliminary response and the Board's decision on whether to institute review. *See* Pet. 6; Prelim. Resp. 10. Thus, this factor also weighs against exercising discretion to deny.

Three of the factors (i.e., factors 2, 4, and 5) "allow[] us to assess and weigh whether a petitioner should have or could have raised the new challenges earlier." *Gen. Plastic Indus.*, IPR2016-01357, Paper 19 at 18. To that end, Patent Owner contends that Petitioner waited until the eleventh hour to file its Petition and, relatedly, that Petitioner does not identify when it became aware of its asserted references. *See* Prelim. Resp. 10. But, even if Petitioner *could* have filed the Petition earlier, we are not persuaded on this record that Petitioner should be faulted for not having done so, given that this is Petitioner's first petition challenging this patent and we perceive no improper gamesmanship in the timing of the Petition. Accordingly, these factors do not weigh in favor of denying institution. We have also considered the remaining two factors (i.e., the Board's finite resources and statutory deadlines), and we determine these do not favor denial on this

record. For example, the Board will be able to consider both the Petition and the petition in the Sling IPR contemporaneously, and the oral hearing in these proceedings, if requested, will occur on the same date.[9]

Accordingly, we are not persuaded to exercise our discretion under 35 U.S.C. § 314(a) to deny institution.

III. ANALYSIS

A. The Level of Ordinary Skill in the Art

Petitioner asserts that the level of ordinary skill in the art corresponds to "at least a B.S. degree in computer science, computer engineering, or electrical engineering (or equivalent experience) and . . . at least two years of experience with web development, including the then-current web technologies such as HTML, XML, Java, and JavaScript." Pet. 14 (citing Ex. 1002 ¶¶ 21–25). Petitioner states that "[a]dditional educational experience in computer science could make up for less work experience and vice versa." *Id.* Patent Owner contends that Petitioner's definition "is improper as lacking an upper bound on the . . . level of educational attainment and the time of work experience," but Patent Owner "does not offer a competing definition" at this stage. Prelim. Resp. 12.

We agree with Patent Owner that Petitioner's inclusion of the qualifier "at least" is vague because it expands the range indefinitely without an upper

[9] *Cf. Google LLC v. Uniloc 2017 LLC*, IPR2019-01584, Paper 7 at 12–16 (PTAB March 24, 2020) (discretionarily denying third petition where prior two petitions were filed four and three months earlier, the petitions rely on references having overlapping authorship/inventorship, and the third petitioner did not explain why a third IPR was an efficient use of Board resources).

bound, precluding a meaningful indication of the level of ordinary skill in the art. However, on this record, the remainder of Petitioner's proposal is both reasonable and supported by the testimony of Dr. Franz. Accordingly, for purposes of this Decision, we adopt the level of ordinary skill as articulated by Petitioner, except that we remove all instances of the qualifier "at least." We adopted a slightly different articulation of the level of ordinary skill in our decision instituting *inter partes* review in a related proceeding. *Sling TV, L.L.C. v. Uniloc 2017 LLC*, IPR2019-01367, Paper 7 at 7 (PTAB Feb. 4, 2020). To the extent the level of ordinary skill in the art is in dispute or makes a material difference in the obviousness analysis, the parties will have opportunity during trial to brief their respective positions in this regard.

B. Claim Construction

Because the Petition was filed after November 13, 2018, we interpret claim terms using "the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b)." 37 C.F.R. § 42.100(b) (2019).[10]

Petitioner proposes constructions for the terms "computer system" and "streamed." Pet. 12–14 (emphasis omitted). Patent Owner advocates that all claim terms have their "ordinary and customary meaning" (Prelim. Resp.

[10] On October 11, 2018, the USPTO revised its rules to harmonize the Board's claim construction standard with that used in federal district court. Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Oct. 11, 2018). This rule change applies to petitions filed on or after November 13, 2018. *Id*.

12–13) and disputes Petitioner's proposed constructions (*id.* at 13–18). But, when identifying the alleged deficiencies in the grounds asserted by Petitioner, Patent Owner does not rely on any particular claim constructions. *See generally id.* at 18–34. Patent Owner also submits, as an exhibit, a district court order construing various terms of the '609 patent. *Id.* at 1 (citing Ex. 2002 (Claim Construction Memorandum and Order)).

We have reviewed and considered the district court's constructions in *Uniloc 2017 LLC v. Google LLC*, 2:18-cv-00502 (E.D. Tex.). *See* Ex. 2002, 57–78; 37 C.F.R. § 42.100(b) ("Any prior claim construction determination concerning a term of the claim in a civil action . . . that is timely made of record in the inter partes review proceeding will be considered.").

As explained below, our determination whether to institute does not depend on a construction of any claim terms or phrases (including those identified by Petitioner and those construed by the district court), and thus we do not expressly construe any terms at this preliminary stage. *See, e.g.*, *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) ("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'" (*quoting Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Law on Obviousness

The legal question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence,

objective evidence of nonobviousness.[11] *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966). One seeking to establish obviousness based on more than one reference also must articulate sufficient reasoning with rational underpinnings to combine teachings. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007).

D. Overview of the Asserted Prior Art

1. Davis (Ex. 1003)

Davis is titled "Method and Apparatus for Tracking Client Interaction with a Network Resource and Creating Client Profiles and Resource Database." Ex. 1003, code (54). Davis discloses a tracking program with a software timer that "permits the accurate determination of the length of time users have displayed and/or interacted with [a particular] Web page," which is "invaluable information to Internet advertisers, among others." *Id.* at Abstr., 11:24–33; *see id.* at 16:64–17:10 ("[U]sers who have access to a live news or entertainment feed may be charged according to the amount of [time] information [is] displayed," and "[s]imilarly, a user could be charged and billed for time spent on a Web page.").

One of the embodiments of Davis is illustrated in Figure 4, reproduced below:

[11] The current record does not include allegations or evidence of objective indicia of nonobviousness.

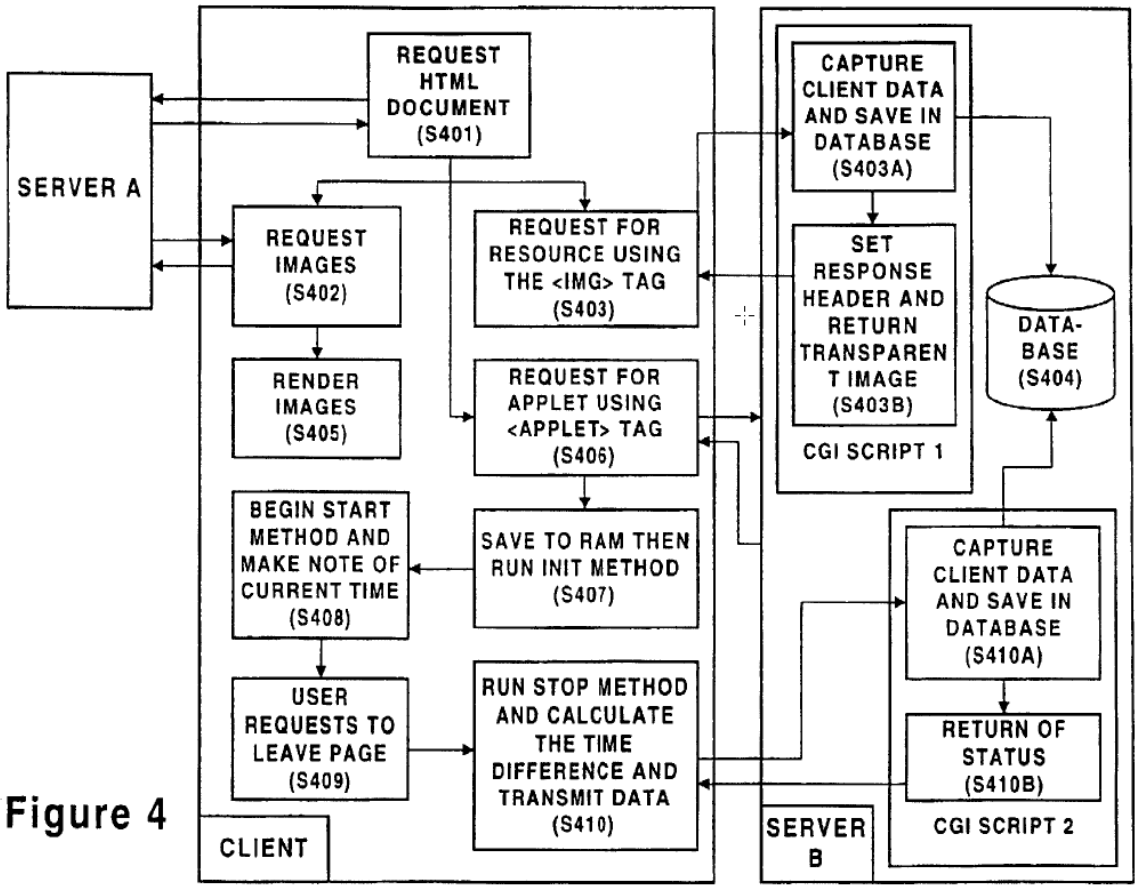


Figure 4

As shown above, Figure 4 depicts a client and two servers (Server A and Server B), as well as various steps. Ex. 1003, 6:1–4.

In step S401, the client requests, from Server A, "[a] Web page (or HTML document)" that "contains text, as well as embedded URLs that point to graphical images (e.g. GIF format image files)." Ex. 1003, 11:35–40. In this embodiment of Davis, the embedded URLs point to images located on Server A (*id.* at 11:37–40), but Davis indicates that these URLs may point to other resources (e.g., video) that may be located on different servers (*see id.* at 7:19–24 ("A typical Web page is an HTML document with text, 'links' that a user may activate (e.g. 'click on'), as well as embedded URLs pointing to resources (such as images, video or sound) that the client must fetch to fully render the Web Page in a browser. These resources may not be

located on the same server that the HTML document was sent from."), 11:40–41 ("The images, in general, may be located on any HTTP server on the Internet.")). As shown in Figure 4, the client fetches the images (S402) and renders them on the browser (S405). *Id.* at 11:45–47.

The web page received from Server A also includes embedded URLs that point to two resources residing on Server B. Ex. 1003, 11:47–50. The client will fetch the first of these resources (S403), causing Server B to execute CGI Script 1, which registers the web page for tracking with Server B. *Id.* at 11:53–12:4. The client also fetches the other resource (S406) and receives "a JAVA applet, the tracking program." *Id.* at 12:13–14, 12:19–21. The client initializes the tracking program (S407) and executes its START method, which makes a note of the current time (S408). *Id.* at 12:22–26. When the user leaves the Web page (S409), the client executes the applet's STOP method, which "compute[s] the difference between the current time and the time noted during execution of the START method." *Id.* at 12:26–30; *see id.* at 9:3–4 ("In its simplest form, the tracking program is a timer program . . . ."). "This difference, which is the time between execution of the STOP and execution of the START methods, is sent to the Server B for storage and analysis (S410)" via CGI Script 2. *Id.* at 12:30–36. CGI Script 2 "can then obtain any information tracked and transmitted by the applet as well as any available information in the HTTP request header" for storage in a database on Server B. *Id.* at 12:36–40. As a result, the database may store "information about users who have visited the Web page, such as their network and client IDs, how often they visited the Web page, how long the Web page was displayed, and so on." *Id.* at 12:51–55.

2. Choi (Ex. 1004)

Choi is titled "System and Method for Automatically Recovering from Failed Network Connections in Streaming Media Scenarios." Ex. 1004, code (54). Choi describes a "method of streaming media content from a server" to a client that allows playback of the content to be re-synchronized after streaming is interrupted. *Id.* ¶ 5. Choi notes that its invention can be implemented using "real-time streaming protocol (RTSP)." *Id.* ¶ 6; *see id.* ¶ 29 (RTSP "is an application-level protocol for control of the delivery of data with real-time properties," such as video.).

In Choi, "[t]he client [] periodically transmits state data (e.g., logging statistics) to the server [] for storage." Ex. 1004 ¶ 47. This state data includes, *inter alia*, a "stream identifier" that identifies the particular stream being delivered to the client. *Id.* ¶¶ 44, 47. If the server-to-client session is interrupted, "the client [] can resume playback at the location in the stream when the failure occurred using statistics saved prior to the failure." *Id.* ¶ 28; *see id.* ¶ 34 (explaining that server uses the state to re-establish a lost connection). If the client successfully reconnects, it sends logging statistics to the server (*id.* ¶¶ 40, 49–50); otherwise, after the time for reconnecting expires, the server will log an error, which includes "generating a log on behalf of the client," because the client "will not submit a log . . . for content rendered before the reconnect event" (*id.* ¶ 47).

Choi's Appendix C provides "an exemplary list and discussion of logging statistics." Ex. 1004, ¶¶ 49, 88; *see id.* ¶¶ 49 ("Logging information is data that describes the characteristics of the client [] and the rendering information associated with the streaming session."), 88 ("Logging statistics are used by content distribution networks (CDNs) to bill customers. As a

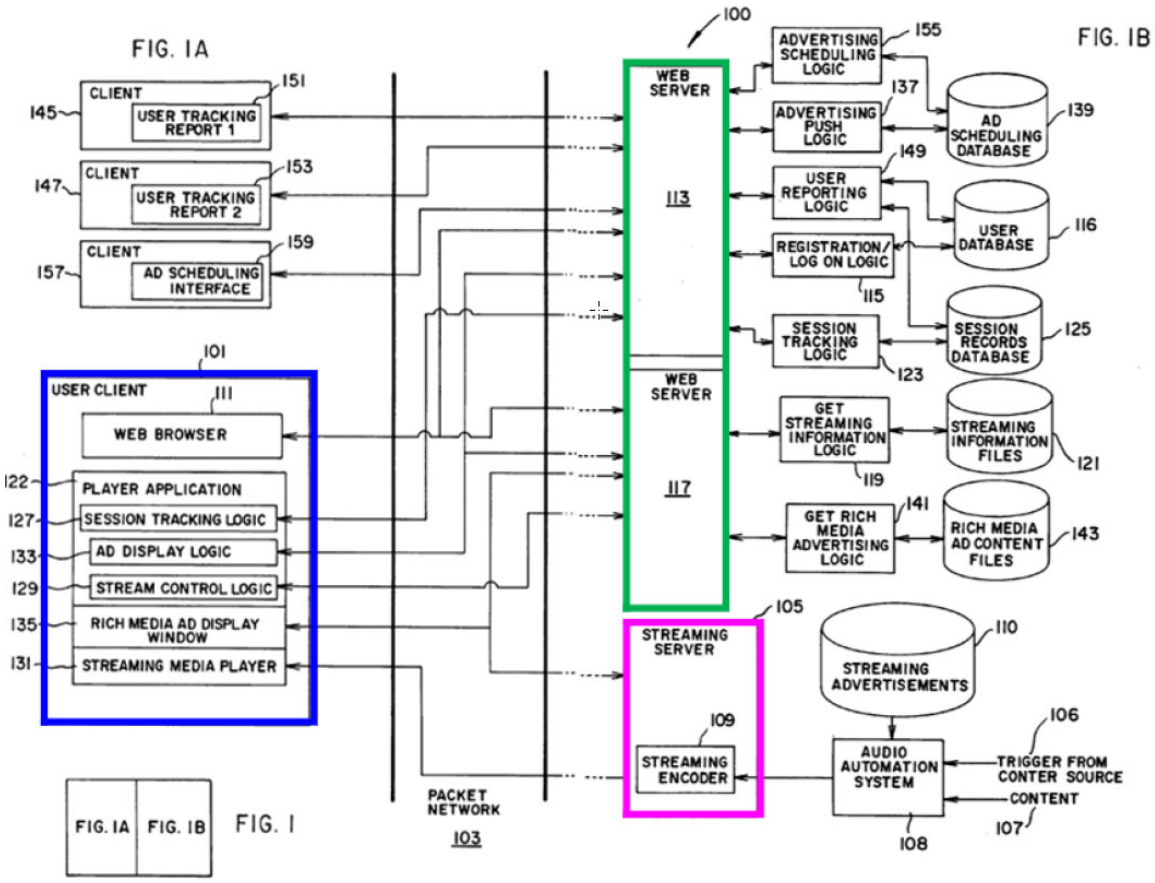
result, accurate logging statistics are critically important for the CDNs to maximize their revenue opportunities."). Appendix C includes Table C1, which lists exemplary parameters, including some "static parameters" that are "sent once in the beginning or at the end of the session." *Id.* ¶ 99.[12] "[O]ther dynamically changing parameters are sent regularly, [and] the frequency of reporting [is] set by the statistics reporting interval parameter sent in the initial request." *Id.* ¶ 97.

3. Siler (Ex. 1005)

Siler is titled "Method and Apparatus for Selecting Streaming Media in Real-Time." Ex. 1005, code (54). Siler discloses a process for "tracking which users are receiving a particular media stream and how long each of the users receives" the stream so that advertising can be inserted into the stream and appropriately priced. *Id.* at Abstr., ¶¶ 4–6.

[12] Choi's Appendices repeat paragraph numbers that were previously used in its specification. *Compare* Ex. 1004, 7 (using paragraph numbers 94–100), *with id.* at 10, 18, 22, 25 (repeating paragraph numbers 94–100). Unless otherwise indicated, this Decision refers to the second instance of paragraphs 96–99, which appear on page 22 of Choi (in Appendix C).

Figure 1 of Siler, as annotated by Petitioner, is reproduced below:



Pet. 47 (annotating and combining Ex. 1005, Figs. 1A, 1B). As shown above, Figure 1 is a block diagram of Siler's system that includes user client 101 (outlined in blue), web servers 113 and 117 (outlined in green), and streaming server 105 (outlined in pink).

After a user selects a particular stream, client 101 (via web browser 111) registers with web server 113 and requests, from web server 117, "information with which to set up the [selected] media stream." Ex. 1005 ¶¶ 23–25. Web server 117 returns a file that "includes a locator, such as a Universal Resource Locator (URL), from which the particular stream is available." *Id.* ¶ 25. "Receiving this file causes, in the preferred embodiment, a player application 122 to be launched on client computer

101" (*id.*), but "[p]layer application 122 may, alternatively, be implemented as a web page with active components" (*id.* ¶ 32). Client 101 then "requests the stream from the URL," which "points to a streaming service on streaming server 105," and "streaming server [105] begins transmitting the stream to client computer 101." *Id.* ¶ 27.

When a user is receiving a media stream, player application 122 (in client 101) periodically sends information, including a session identifier that "uniquely identifies the session," to web server 113. Ex. 1005 ¶¶ 26, 28; *see also id.* at Fig. 3 (steps 301, 311). After receiving an update from client 101, web server 113 "updat[es] the session record for the particular user." *Id.* ¶ 29. "This session record includes, but is not limited to, fields for the user identifier, the time the media stream was set up, and/or information that identifies the media stream (e.g. the radio station broadcast including for example the particular advertisement) sent to the user." *Id.* ¶ 26.

E. Obviousness in view of Davis and Choi

Petitioner contends that claims 1–3 are rendered obvious by the combination of Davis and Choi. Pet. 14–42. Patent Owner argues the Petition fails to show that a person of ordinary skill in the art would have modified Davis in view of Choi such that a portion of the identifier data is received "responsively to the timer applet each time a predetermined temporal period elapses," as required by claim 1. Prelim. Resp. 18–29.

Having considered the arguments and evidence presented in the Petition in light of Patent Owner's Preliminary Response, we are persuaded at this stage of the proceeding, for the reasons that follow, that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claims 1–3 would have been obvious over the combined teachings of Davis and Choi.

1. Independent Claim 1

a. Petitioner's Contentions

Petitioner asserts that Davis discloses the preamble, if it is limiting.[13] Pet. 18–20 (citing Ex. 1003, Fig. 4, 5:4–7, 9:33–35, 11:35–12:4, 12:13–40).

Petitioner contends that Davis discloses "providing a corresponding web page to the user's computer for each digital media presentation to be delivered using the first computer system," as required by claim 1. Pet. 22–23. In particular, Petitioner contends that Server A is part of the first computer system and provides, to a client, a web page that corresponds to a digital media presentation. *Id.* (citing Ex. 1003, 7:10–15, 7:19–29, 8:1–5, 9:3–6, 9:16–20, 9:23–26, 11:35–47, 18:1–3; Ex. 1002 ¶¶ 111, 118–119).

Petitioner asserts that Davis discloses "providing identifier data to the user's computer using the first computer system," as required by claim 1. Pet. 24–25. In particular, Petitioner contends the claimed "identifier data" is taught by: (1) "content-identifying information, such as a URL for an image, audio, or video embedded in a web page," which is provided by Server A (*id.* at 24–25 (citing Ex. 1003, 7:19–29, 9:18–27, 11:34–41)), and (2) client ID, which is provided by Server B (*id.* (citing Ex. 1003, 2:12–22, 11:65–12:4; Ex. 1002 ¶¶ 121–123)). Petitioner asserts that Server A and Server B collectively map to the claimed "first computer system." *Id.* at 20–22 (citing Ex. 1003, 4:15–18, 11:24–33, 12:33–37, 12:39–50, 17:63–18:7; Ex. 1002 ¶¶ 110–117).

[13] "Generally, the preamble does not limit the claims." *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1346 (Fed. Cir. 2002).

Petitioner submits that Davis discloses "providing an applet to the user's computer for each digital media presentation to be delivered using the first computer system, wherein the applet is operative by the user's computer as a timer," as required by claim 1. Pet. 26–27. Petitioner contends that Server B, part of the first computer system, provides a tracking program, which operates as a timer and may be implemented as an applet, to the client along with each web page. *Id.* (citing Ex. 1003, 9:3–4, 9:20–23, 9:35–38, 10:11–57, 11:24–33, 12:13–33, 18:1–5).

Petitioner contends that Davis discloses "receiving at least a portion of the identifier data from the user's computer responsively to the timer applet . . . using the first computer system," as required by claim 1. Pet. 27–29. According to Petitioner, when a web page is no longer displayed, the client provides to Server B the tracking information "as well as any available information in the HTTP request header," which would include the client ID. *Id.* at 27–28 (emphasis omitted) (quoting Ex. 1003, 12:33–39) (citing Ex. 1003, Fig. 4 (S410A, S410B), 9:35–38, 11:59–12:4, 12:22–39; Ex. 1002 ¶¶ 132–134).

Petitioner contends that Davis also discloses "storing data indicative of the received at least portion of the identifier data using the first computer system," as required by claim 1, because Server B stores the received information, including the client ID, in a database. Pet. 33–34 (citing Ex. 1003, 11:13–24, 12:39–40, 12:51–55).

Further, Petitioner submits that Davis discloses "wherein each provided webpage causes corresponding digital media presentation data" to be provided "from a second computer system distinct from the first computer system directly to the user's computer independent of the first

computer system," as required by claim 1. Pet. 34–35. According to Petitioner, Davis's web page causes the client to download the digital media presentation data directly from another server, and it would have been obvious for that server to be on a computer system distinct from Servers A and B. *Id.* (citing Ex. 1003, 7:19–24, 9:23–29, 11:37–41, 11:45–47; Ex. 1002 ¶¶ 153–157).

Finally, Petitioner asserts that the Davis discloses "wherein each stored data is together indicative of a cumulative time the corresponding web page was displayed by the user's computer," as required by claim 1, because Server B stores data that indicates the amount of time a web page was displayed by the client. Pet. 39 (citing Ex. 1003, 11:13–33, 12:51–55).

Petitioner does not assert that Davis expressly discloses the remaining limitations of the claim, which recite: (1) the identifier data is received "each time a predetermined temporal period elapses" (referred to in this Decision as the "predetermined time interval limitation") (*see* Pet. 29), and (2) the provided webpage causes the corresponding digital media presentation data "to be streamed" from the second computer, and "the stored data is indicative of an amount of time the digital media presentation data is streamed from the second computer system to the user's computer" (collectively referred to in this Decision as the "streaming limitations") (*see id.* at 35–39). According to Petitioner, however, a person of ordinary skill in the art would have recognized these differences to be "nothing more than the exchange of one set of well-known elements disclosed in Davis for another set of well-known elements used widely in the field, with Choi serving as the example disclosure." *Id.* at 15.

We summarize Petitioner's arguments for these limitations in turn.

(1) Predetermined Time Interval Limitation[14]

According to Petitioner, a person of ordinary skill in the art "would have found it obvious to modify Davis's system based on the teachings of Choi so that [Davis's] Server B would receive the client ID—as well as other identifier data, such as a stream identifier—from the client after the tracking program operated for a predetermined temporal period." Pet. 27.

According to Petitioner, "Davis disclosed that its tracking program operated by running from the time the web page was first loaded until the user leaves the web page," but a person of ordinary skill in the art would have recognized that this "was only one way of tracking the duration the web page was displayed." Pet. 29 (citing Ex. 1003, 12:26–28; Ex. 1002 ¶¶ 103–109). Petitioner contends that a person of ordinary skill in the art "would have recognized from Choi's disclosure that using a series of periodic reports from the client to the server while the web page was displayed was another possible approach." *Id.* at 29–30 (citing Ex. 1004 ¶¶ 47, 97; Ex. 1002 ¶¶ 103–109). Further, Petitioner contends that the ordinary artisan would have been motivated to modify Davis "to use a periodic timer to trigger a report from the client to Server B" because: (1) it was "one among a limited number of solutions to triggering the report" and (2) periodic reports were "very well-known," "frequently used for client-server communications," and "preferred . . . in many networked environments." *Id.* at 17, 30 (citing Ex. 1002 ¶¶ 103–109); *see id.* at 17 (alleging a reasonable expectation of success (citing Ex. 1002 ¶¶ 103–109)).

[14] Claim 1 specifies that the identifier data is received "each time a predetermined temporal period elapses." Ex. 1001, 14:30–31.

(2) Streaming Limitations[15]

Petitioner asserts that a person of ordinary skill in the art "would have found it obvious to provide the digital media presentation in the web page as streaming content based on the teachings of Choi." Pet. 35 (citing Ex. 1002 ¶¶ 95–102). In support, Petitioner submits that Davis "contemplated delivery of live new and entertainment feeds" and requires no "specific way" of retrieving and fetching resources. *Id.* at 23 (citing Ex. 1003, 7:19–29, 16:63–17:10). Petitioner also contends that a person of ordinary skill "would have understood that streaming was a preferred method for content delivery" and that streaming "would have improved the user experience with the web page." *Id.* (citing Ex. 1003, 2:25–52, 16:63–17:10; Ex. 1004 ¶¶ 1–3, 5–6, 97–99; Ex. 1002 ¶¶ 95–102); *see id.* at 16 (alleging a reasonable expectation of success (citing Ex. 1002 ¶¶ 95–102)).

In addition, Petitioner contends that a person of ordinary skill in the art would have recognized that Davis's system, when modified based on Choi as described above, "would have stored data indicative of the amount of time that the digital media presentation was streamed from the third-party server . . . to the client." Pet. 36. In support, Petitioner submits that it would have been obvious to modify Davis so that Server B would receive and store "a stream identifier, a playback beginning timestamp, a playback ending timestamp, and a duration of network streaming." *Id.* (citing Ex. 1002 ¶¶ 151–152, 158–176); *see id.* at 25–26 (arguing that a person of ordinary

[15] Claim 1 recites that: (1) the provided webpage causes the corresponding digital media presentation data "to be streamed" from the second computer, and (2) "the stored data is indicative of an amount of time the digital media presentation data is streamed from the second computer system to the user's computer." Ex. 1001, 14:36, 14:40–42.

skill in the art, when adding streaming content, would have "augmented and/or replaced" Davis's identifier data with Choi's "stream identifier" to identify the streaming content (citing Ex. 1002 ¶¶ 124–130; Ex. 1004 ¶¶ 44, 53; Ex. 1003, 7:19–29)), 30–31 (arguing that it would have been obvious to include the stream identifier in the tracking data reported to Server B (citing Ex. 1004 ¶¶ 47, 96–97; Ex. 1002 ¶¶ 136–150)), 31–32 (arguing that it would have been obvious to include other parameters from Choi's periodic message in the tracking data reported to Server B (citing Ex. 1004 ¶¶ 88, 90, 97–99, Table C1; Ex. 1003, 11:24–33, 13:47–15:5; Ex. 1002 ¶¶ 136–150, 158–176)), 33–34 (arguing that it would have been obvious to store this information in Server B (citing Ex. 1003, 11:13–33, 12:39–13:18; Ex. 1002 ¶¶ 151–152)).

Petitioner also asserts that a person of ordinary skill in the art would have been motivated to store information in Server B indicating the amount of time streaming content was played to a user—according to Petitioner, a person of ordinary skill in the art would have recognized that "streaming content was yet another type of resource about which website administrators, advertisers, or marketers may want to have tracking data," as taught by Davis. Pet. 31–32 (citing Ex. 1002 ¶¶ 136–150, 158–176; Ex. 1003, 11:24–33, 13:46–15:5, Fig. 6; Ex. 1004 ¶¶ 88, 90, 97–99, Table C1). Moreover, Petitioner contends that "Davis's Server B as modified by Choi would receive and store on a periodic basis the amount of time the media content was transferred over a network" and "displayed for playback." *Id.* at 37–39 (addressing alternative claim constructions for "streamed") (citing Ex. 1004 ¶¶ 47, 50, 90, 97–99, Table C1; Ex. 1002 ¶¶ 158–176).

b. Patent Owner's Arguments

In the Preliminary Response, Patent Owner argues that Petitioner fails to establish that the predetermined time interval limitation would have been obvious to a person of ordinary skill in the art. Prelim. Resp. 18–29. At this stage, Patent Owner does not respond to Petitioner's arguments, analysis, or evidence for the other limitations of claim 1. *See generally id.*

Patent Owner contends that Petitioner "misrepresent[s] and oversimplif[ies] the disclosure of the Davis reference," as that reference "in fact teaches a variety of sophisticated tracking programs that provide monitoring of a wide variety of user interactions with a resource." Prelim. Resp. 19 (citing Ex. 1003, 4:46–53). In particular, Patent Owner notes that Davis's tracking program does much more than track the amount of time a page is displayed (e.g., it can monitor keyboard events and amount of data downloaded and it can query a server for additional information). *Id.* at 19–22 (citing Ex. 1003, Figs. 5–6, 4:46–48, 4:51–53, 4:59–61, 8:32–38, 13:18–22, 14:24–44, 16:19–21, 16:39–48). Patent Owner contends that Petitioner "omit[s] any mention of these features, or how they would be implemented" in the proposed combination. *Id.* at 22; *see id.* at 23–24 (arguing Petitioner fails to "acknowledge the numerous alternative technological implementations"). For example, Patent Owner asserts that Petitioner fails to "explain[] how Davis would be modified in view of Choi to accommodate Davis's disclosures of sending data to a server in response to a predetermined user action." *Id.* at 20–21 (citing Ex. 1003, Fig. 5, 4:59–61, 13:18–22). Further, Patent Owner asserts that the declarant's failure to discuss these features shows that "the Declaration is merely conclusory, and should not be given weight." *Id.* at 23; *see id.* at 24 (arguing the failure to

reconcile "numerous technological alternatives disclosed in Davis" with the proposed combination "is further evidence that the Declaration is merely conclusory").

Patent Owner further contends that Davis discusses sending the tracking information from the client to the server "in at least nine different portions of the specification" but that none of these "involves using a periodic transmission of data from the client to the server." Prelim. Resp. 23 (citing Ex. 1003, 4:56–61, 5:51–56, 9:11–15, 9:35–38, 12:27–33, 13:42–45, 15:42–48, 16:52–55, 17:2–5).

Patent Owner also argues that "Choi does not relate to tracking of user interaction with content, in complete contrast to Davis. Thus, Choi and Davis are disparate references . . . ." Prelim. Resp. 25.

Finally, Patent Owner argues that Petitioner's citations to and description of Choi are misleading. Prelim. Resp. 25–28. In particular, Patent Owner asserts that paragraphs 6 and 29 of Choi do not mention periodic reporting intervals (*id.* at 25) and paragraph 97 does not describe periodic reporting intervals (*id.* at 26–27).[16] Patent Owner also contends that Petitioner's failure to explain "the reason for [Choi's] periodic reporting" is also misleading—according to Patent Owner, "in the real-time streaming protocol used in the system of Choi, the server must receive data from the client periodically, or the server will determine that a 'client inactivity timeout' has occurred." *Id.* at 27. Because Davis "is not employing a real-

[16] Patent Owner's citation to and discussion of paragraph 97 focuses on the first instance of that paragraph (on page 7 of Choi), rather than the paragraph referenced by Petitioner (which appears on page 22 of Choi). Prelim. Resp. 26–27; *see, e.g.*, Pet. 29–30 (quoting from cited paragraph).

time streaming protocol," Patent Owner reasons that Davis "would not need to be modified to provide for periodic reporting." *Id.* at 28. Finally, Patent Owner contends that Choi transfers "log information at the end of playback." *Id.* at 28 (emphasis omitted) (citing Ex. 1004 ¶¶ 49–50, Table C1).

c. Analysis

On this record, for purposes of this Decision, Petitioner has shown sufficiently that the predetermined time interval limitation would have been obvious in light of Davis and Choi.

Davis discloses a tracking program running on a client that includes "a software timer to monitor the amount of time [a] Web page is displayed on the client computer." Ex. 1003, 9:8–10, 12:13–14. Davis's tracking program may also track other information "to provide meaningful data to the server concerning the user's interaction with the Web page." *Id.* at 8:64–9:2. This information collectively "permits the accurate determination of the length of time users have displayed and/or interacted with [a particular] Web page." *Id.* at 11:24–30.

The tracking program may report this information to a server when the user leaves the web page. *E.g.*, Ex. 1003, 9:11–15, 9:33–38. For example, after a Web page is downloaded, the tracking program makes a note of the time. *Id.* at 12:22–26. When the timer is stopped, "for example, when the user leaves the Web page," the tracking program computes the difference between the current time and the starting time, and the tracking program reports its information to the server. *Id.* at 12:26–39. Alternatively, the software timer may be "stopped when the user incurs a keyboard or mouse event," such as by clicking on a portion of the page, and

the tracking program will then report the information collected. *Id.* at 13:19–22, 13:39–46.

We are sufficiently persuaded that a person of ordinary skill in the art would have recognized, from Choi's disclosure, that periodic reports could have been used instead of Davis's event-driven reporting. *See* Pet. 29–30 (citing Ex. 1004 ¶ 47; Ex. 1002 ¶¶ 103–109). Choi describes periodic transmission of data to the server (Ex. 1004 ¶¶ 47, 97), and Dr. Franz testifies that a person of ordinary skill in the art would have recognized several other approaches for reporting Davis's tracking information, including "a regular, periodic reporting interval," as disclosed by Choi (Ex. 1002 ¶¶ 103–105).

We are also sufficiently persuaded that a person of ordinary skill in the art would have been motivated to modify Davis to periodically report tracking information. Petitioner contends that periodic reporting was well-known, widely implemented, and predictable (Pet. 17, 30 (citing Ex. 1002 ¶¶ 103–109)), and this contention is consistent with and supported by the evidence cited. *See KSR*, 550 U.S. at 416 ("The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results."). In addition, Dr. Franz testifies that a person of ordinary skill "would have recognized several significant benefits with using the regular reporting approach," including protection against network disruptions and a potentially easier implementation. Ex. 1002 ¶¶ 105–107 (citing Ex. 1004 ¶¶ 47–51). Similarly, Choi indicates that the client periodically sends status information to the server to allow the connection to be re-established following a network disruption (or so that the server can submit a log on the client's behalf). Ex. 1004 ¶ 47; *see id.* ¶ 88

(explaining that "accurate logging statistics are critically important"); *see also KSR*, 550 U.S. at 420 ("[A]ny need or problem known in the field . . . can provide a reason for combining the elements in the manner claimed."). Dr. Franz also testifies that periodic reporting intervals were one of three potential approaches (i.e., the predetermined timing approach, a batch reporting approach, and Davis's event-driven approach) that could be implemented without difficulty. Ex. 1002 ¶¶ 108–109; *see KSR*, 550 U.S. at 421 (explaining that obviousness may be shown where there are a "finite number of identified, predictable solutions").

Although Patent Owner correctly observes that Petitioner summarizes Davis's disclosure—and, consequently, does not describe *every* feature and figure in that reference—we perceive no aspects of Davis that should have been, but were not, addressed by the Petition or Petitioner's declarant. *See* Prelim. Resp. 19–24 (arguing that Petitioner fails to explain how various features would be implemented in the proposed combination).[17] Petitioner need not address every incidental feature disclosed in a reference, and Petitioner is not required to explain how every aspect of each reference would be handled. *See MCM Portfolio LLC v. Hewlett-Packard Co.*, 812 F.3d 1284, 1294 (Fed. Cir. 2015) ("[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)); *In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) ("[I]t is not necessary that the inventions of the references be physically combinable

[17] Moreover, on this record, we perceive (and Patent Owner identifies) no portion of Dr. Franz's testimony that is conclusory. *See* Prelim. Resp. 23–24 (arguing the declaration is conclusory and "should not be given weight").

to render obvious the invention under review."). The features identified by Patent Owner have no apparent relevance to Petitioner's proposed combination or Petitioner's obviousness analysis.

Although we agree with Patent Owner that Davis consistently sends tracking information using an event-driven approach, rather than using periodic transmissions (*see* Prelim. Resp. 23), the Petition's analysis is likewise based on this assumption (*see* Pet. 29). Moreover, as explained above, we are sufficiently persuaded that a person of ordinary skill in the art would have been motivated to modify Davis to send its tracking information using periodic transmissions, as disclosed by Choi.

On this record, we are also sufficiently persuaded that both Davis and Choi are analogous art to the '609 patent. Although Patent Owner alleges there are differences between Davis and Choi (*see* Prelim. Resp. 25), Patent Owner does not contend that either reference is not analogous *to the claimed invention*. *See In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) ("References within the statutory terms of 35 U.S.C. § 102 qualify as prior art for an obviousness determination only when analogous to the claimed invention." (citing *In re Clay*, 966 F.2d 656, 658 (Fed. Cir. 1992)).

We disagree with Patent Owner's contention that Petitioner's citations to and descriptions of Choi are misleading. *See* Prelim. Resp. 25–28. In its argument that Petitioner's reference to paragraph 97 is misleading, Patent Owner discusses a different passage of Choi than the one relied upon by Petitioner. *Compare* Ex. 1004, 7 (*cited by* Prelim. Resp. 26–27), *with id.* at 22 (*cited by* Pet. 29–30). Moreover, although Patent Owner contends that paragraph 47 of Choi is "inadequate" to disclose periodic reporting (*see* Prelim. Resp. 25), Patent Owner later appears to acknowledge that Choi

discloses periodic reporting (*see id.* at 27–28 (explaining the purpose of Choi's periodic reporting)). Finally, Patent Owner contends that Choi's periodic reporting "is simply a requirement of a real-time streaming protocol to avoid a client inactivity timeout" and, from this, concludes that Davis would not be modified to include periodic reporting. *Id.* But, on this record, accepting Patent Owner's argument regarding the purpose of Choi's periodic reporting would lead us to the opposite conclusion—if periodic reporting is required by real-time streaming protocols, then it stands to reason that, in Petitioner's proposed combination, Davis would need to include periodic reporting because it includes streaming (*see* Pet. 15–16, 23 (contending that it would have been obvious to modify Davis to include streaming content)).

Petitioner's assertions and explanations for the other limitations of claim 1 for this ground are consistent with and supported by the evidence cited by Petitioner. Accordingly, on this record, we are persuaded that Petitioner has shown sufficiently that each limitation of claim 1 either is disclosed by or would have been obvious in light of Davis and Choi. We are further persuaded that Petitioner has shown sufficiently that it would have been obvious to combine the cited references as Petitioner proposes. As a result, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claim 1 as unpatentable over the combination of Davis and Choi.

2. Dependent Claims 2 and 3

We also find that Petitioner has made an adequate showing, unchallenged by Patent Owner in its Preliminary Response (*see* Prelim. Resp. 34), that the additional limitations of dependent claims 2 and 3 would have been obvious in light of the references. *See* Pet. 40–42 (citing

Ex. 1003, 3:42–53; Ex. 1004 ¶¶ 97–99; Ex. 1002 ¶¶ 103–109, 180–190). Accordingly, we conclude that Petitioner also has demonstrated a reasonable likelihood of prevailing in its challenge to those claims as unpatentable over the combination of Davis and Choi.

F. Obviousness in view of Siler and Davis

Petitioner contends that claims 1–3 are rendered obvious by the combination of Siler and Davis. Pet. 43–69. Patent Owner argues the Petition fails to establish that the proposed combination teaches or suggests "a second computer system distinct from the first computer system" that streams the digital media presentation "directly to the user's computer independent of the first computer system," as required by claim 1. Prelim. Resp. 29–34.

Having considered the arguments and evidence presented in the Petition in light of Patent Owner's Preliminary Response, we are persuaded at this stage of the proceeding, for the reasons that follow, that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claims 1–3 would have been obvious over the combined teachings of Siler and Davis.

1. Independent Claim 1

a. Petitioner's Contentions

Petitioner asserts that Siler discloses the preamble, if it is limiting. Pet. 46–50 (citing Ex. 1005, Figs. 1A, 1B, 3, ¶¶ 20, 23–30, 32).

Petitioner argues that Siler discloses "providing a corresponding web page to the user's computer for each digital media presentation to be delivered" and that it would have been obvious for this to be provided "using the first computer system," as required by claim 1. Pet. 51–53. In

particular, Petitioner contends that, in Siler, streaming content can be displayed in a player application, or alternatively, in a web page corresponding to that content. *Id.* at 51 (citing Ex. 1005 ¶¶ 27, 32; Ex. 1002 ¶¶ 223–225). Further, Petitioner asserts that, although "Siler arguably does not explicitly state what system provides the web page to the user client 101 in this alternative implementation," a person of ordinary skill in the art would have found it obvious for this web page to be provided by Siler's web servers 113 and 117 (which Petitioner collectively maps to the "first computer system"). *Id.* at 52–53 (citing Ex. 1005 ¶¶ 23, 28, 32; Ex. 1002 ¶¶ 223–225); *see id.* at 50–51 (addressing proposed construction of "first computer system").

Petitioner asserts that Siler discloses "providing identifier data to the user's computer using the first computer system," as required by claim 1, because web server 113 provides a session identifier to client 101. Pet. 53–54 (citing Ex. 1005 ¶¶ 26–27, 29, 32; Ex. 1002 ¶¶ 226–227).

Petitioner contends that Siler discloses "receiving at least a portion of the identifier data from the user's computer responsively to the timer . . . each time a predetermined temporal period elapses using the first computer system," as required by claim 1. Pet. 56–59. According to Petitioner, "Siler disclose[s] that user client 101 includes a timer function that causes user client 101 to send on a periodic basis identifier data to web server 113, waiting for a prescribed time, and repeating this." *Id.* at 57 (citing Ex. 1005 ¶ 28, Fig. 3); *see also id.* at 54–55 (asserting Siler discloses a timer function that determines a wait time has expired (citing Ex. 1002 ¶¶ 230–232)). Petitioner contends that "[t]he identifier data received by web server 113

include[s] the session identifier previously provided by web server 113 and 117 to user client 101." *Id.* at 58–59 (citing Ex. 1005 ¶ 28).

Petitioner contends that Siler also discloses "storing data indicative of the received at least portion of the identifier data using the first computer system," as required by claim 1, because web server 113 stores the received identifier data, including the session identifier, in a session records database. Pet. 59–60 (citing Ex. 1005, Fig. 4 (step 403), ¶¶ 26, 29).

Petitioner submits that Siler discloses "wherein each provided webpage causes corresponding digital media presentation data to be streamed from a second computer system distinct from the first computer system directly to the user's computer independent of the first computer system," as required by claim 1. Pet. 61–62. According to Petitioner, after receiving a URL provided by web servers 113 and 117, Siler's user client 101 streams content directly from streaming server 105. *Id.* at 61 (citing Ex. 1005 ¶¶ 17, 25, 27; Ex. 1002 ¶¶ 234–236). As noted above, Petitioner contends that it would have been obvious for web servers 113 and 117 to provide a web page to user client 101 for displaying the streaming content. *Id.* (citing Pet. 51–53). Petitioner further contends that it would have been "obvious to provide streaming server 105 as a distinct computer system from web servers 113 and 117," as it "could be under separate operation or control." *Id.* at 62 (citing Ex. 1005 ¶¶ 18, 23; Ex. 1002 ¶¶ 234–236).

Finally, Petitioner asserts that the Siler discloses "wherein the stored data is indicative of an amount of time the digital media presentation data is streamed from the second computer system to the user's computer," as required by claim 1, because web server 113 stores data, in a session records database, indicating how long a stream of content from streaming server 105

was received by and presented to client 101. Pet. 62–64 (citing Ex. 1005, Abstr., ¶¶ 6, 15, 19, 30; Ex. 1002 ¶¶ 237–239).

Petitioner does not assert that Siler expressly discloses the remaining limitations of the claim, which recite: (1) "providing an applet to the user's computer for each digital media presentation to be delivered using the first computer system, wherein the applet is operative by the user's computer as a timer" (*see* Pet. 43, 56), and (2) "wherein each stored data is together indicative of a cumulative time the corresponding web page was displayed by the user's computer" (*see id.* at 43, 64). For these limitations, Petitioner relies on Davis. *Id.* at 54, 56, 64–66; *see id.* at 43–46 (alleging motivation to modify Siler to include the relevant teachings from Davis).

For the former limitation, Petitioner contends that Siler discloses a timer function to track display of a stream of content (as noted above), and Davis discloses providing a timer applet to the client. Pet. 54–56 (citing Ex. 1005 ¶ 28, Fig. 4; Ex. 1003, 9:20–23, 12:13–50, 18:1–5). Petitioner contends that a person of ordinary skill in the art "would have been motivated to modify Siler's system based on the teachings of Davis so that the timer function would be provided as an applet downloadable from web servers 113 and 117 to the user client 101." *Id.* at 56 (citing Ex. 1002 ¶¶ 206–218; Ex. 1003, 12:13–50); *see also id.* at 43–44 (asserting that an ordinary artisan would be motivated to make this change when implementing Siler's web page (citing Ex. 1005 ¶¶ 25, 27, 32; Ex. 1003, 9:20–23, 12:13–50, 18:1–5; Ex. 1002 ¶¶ 206–218)).

For the latter limitation, Petitioner asserts that "Davis disclose[s] that Server B store[s] data received from the client that indicate[s] the amount of time a web page was displayed by the client." Pet. 64 (citing Ex. 1003,

11:13–33, 12:51–55). According to Petitioner, a person of ordinary skill in the art would have been motivated to modify Siler to "store data indicative of the amount of time the web page provided by web server 113 was displayed"—in particular, Petitioner submits that Davis discloses this information was valuable to advertisers, and Siler discloses that advertisers were the consumers of its tracking data. *Id.* at 64–65 (citing Ex. 1003, 11:13–33, 12:51–55; Ex. 1005 ¶¶ 6, 30; Ex. 1002 ¶¶ 206–218). Petitioner further argues that a person of ordinary skill would have recognized that implementing player application 122 as a web page, as suggested by Siler (Ex. 1005 ¶ 32), would also have motivated this change. *Id.* at 43–45, 65–66 (citing Ex. 1003, 11:24–33, 12:51–55; Ex. 1005 ¶¶ 6, 25, 27, 30; Ex. 1002 ¶¶ 206–218). Petitioner also asserts:

> [W]here the "prescribed time" used as the periodic interval by the user client 101 was less than the total time that the web page was displayed, a [person of ordinary skill in the art] would have found it obvious that web server 113 would keep track of the number of times the same identification was reported, such as by storing multiple data entries that would cumulatively indicate the amount of time that the web page was displayed.

Id. at 65 (citing Ex. 1002 ¶¶ 240–241). Petitioner further contends that an ordinary artisan would have had a reasonable expectation of success in making the proposed modification. *Id.* at 66 (citing Ex. 1005 ¶ 26; Ex. 1002 ¶¶ 206–218).

b. Patent Owner's Arguments

In the Preliminary Response, the Patent Owner argues that Petitioner fails to establish that the proposed combination teaches or suggests "a second computer system distinct from the first computer system" that streams the digital media presentation "directly to the user's computer

independent of the first computer system," as required by claim 1. Prelim. Resp. 29–34.

Patent Owner asserts that "the respective web servers and streaming server of Siler are not distinct from one another, and do not operate independent of one another." Prelim. Resp. 30. According to Patent Owner, Siler's streaming server 105 is not distinct from (and does not operate independently of) web servers 113 and 117 because "the process of registration, providing for payment, selecting a stream, and obtaining a stream" collectively involves both web servers 113 and 117 and streaming server 105. *Id.* at 32 (citing Ex. 1005 ¶¶ 23, 25–27); *see id.* at 31 ("[A]s an initial condition to obtaining content from streaming server 105, user information, including payment information, is passed to web server 113.").

In addition, Patent Owner argues that the Petition fails to sufficiently show that it would have been obvious for Siler's streaming servers and web servers to be under separate operation and control. Prelim. Resp. 32–33 (citing Pet. 62; Ex. 1002 ¶ 236). Finally, Patent Owner submits that the Petition fails to sufficiently address the claim's requirement that the two computer systems be "independent." *Id.* at 33–34.

At this stage, Patent Owner does not respond to Petitioner's arguments, analysis, or evidence for the other limitations of claim 1. *See generally id.*

c. Analysis

On this record, for purposes of this Decision, Petitioner has shown sufficiently that Siler discloses "a second computer system distinct from the first computer system" that streams "directly to the user's computer independent of the first computer system," as required by claim 1. Siler's

streaming server 105 (the alleged "second computer system") is "distinct from" Siler's web servers 113 and 117 (the alleged "first computer system"). *E.g.*, Ex. 1005, Figs. 1A, 1B (illustrating streaming server 105 as separate from web servers 113 and 117), ¶¶ 17, 23–27 (describing separate operations of streaming server 105 and web servers 113 and 117). Moreover, Siler discloses that streaming server 105 streams content directly to user client 101 independent of[18] web servers 113 and 117: after receiving a URL from web server 117, client 101 "requests the stream from the URL," which "points to a streaming service on streaming server 105." Ex. 1005 ¶¶ 25, 27; *see id.* ¶¶ 17 ("The data stream is transmitted by a streaming server 105 through packet network 103 to the client computer."), 27 (describing streaming between client 101 and streaming server 105).

Patent Owner submits that Siler's "process of registration, providing for payment, selecting a stream, and obtaining a stream" collectively involve both streaming server 105 and web servers 113 and 117; and, from this, Patent Owner concludes that these components are "not distinct." Prelim. Resp. 32. We disagree. First, components can be both "distinct" *and* involved in the same process. For example, client 101 and web server 113 are distinct components, yet both are involved in the registration process. *See* Ex. 1005 ¶¶ 23–24 (describing registration process). Second, contrary to Patent Owner's implication, Siler discloses that the processes identified by Patent Owner are handled by *either* web servers 113 and 117 *or* streaming

[18] Patent Owner alleges that Petitioner fails to map this claim term to the reference. Prelim. Resp. 33. We disagree. The Petition sufficiently identifies its contention and the evidence in support. *See* Pet. 61 (asserting that client 101 receives a URL from web servers 113 and 117, which causes client 101 to stream content directly from streaming server 105).

server 105. In particular, web servers 113 and 117 handle registration, payment, and stream selection (*see* Prelim. Resp. 30–31), where streaming server 105 only transmits the stream to client 101 (*see id.* at 32).

Patent Owner also argues that the Petition fails to show that it would have been obvious for Siler's streaming server and web server to be under separate operation or control. Prelim. Resp. 32 (citing Pet. 62). However, we do not perceive any limitation in claim 1 that requires the first and second computer systems to be separately operated or controlled. *See* Ex. 1001, 14:17–45 (claim 1); *accord Sling TV*, IPR2019-01367, Paper 7 at 21–23 (concluding that neither the claim language nor the parties' proposed constructions include this requirement). Neither Petitioner nor Patent Owner identifies a relevant claim limitation or explains why claim 1 should be construed to include such a requirement. *See* Pet. 12–14, 62; Prelim. Resp. 12–18, 32–33. Moreover, the Specification indicates that the method applies *whether or not* the first and second computer systems are operated by different entities. *See* Ex. 1001, 12:46–50 (noting that playback may be "tracked in a substantially same [sic] manner, regardless of whether it is streamed from system 30 or otherwise unrelated computer systems operated by third parties"). Accordingly, on this record, we conclude that claim 1 does not require the claimed first and second computer systems to be under separate control. Consequently, because we do not perceive the relevance of Petitioner's contentions regarding separate control (*see* Pet. 62), we do not respond to Patent Owner's critique of them (*see* Prelim. Resp. 32).

Petitioner's assertions and explanations for the other limitations of claim 1 for this ground are consistent with and supported by the evidence cited by Petitioner. Accordingly, on this record, we are persuaded that

Petitioner has shown sufficiently that each limitation of claim 1 either is disclosed by or would have been obvious in light of Siler and Davis. We are further persuaded that Petitioner has shown sufficiently that it would have been obvious to combine the cited references as Petitioner proposes. As a result, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claim 1 as unpatentable over the combination of Siler and Davis.

2. Dependent Claims 2 and 3

We also find that Petitioner has made an adequate showing, unchallenged by Patent Owner in its Preliminary Response (*see* Prelim. Resp. 34), that the additional limitations of dependent claim 2 would have been obvious in light of the references and that the additional limitations of dependent claim 3 are disclosed by Siler. *See* Pet. 66–69 (citing Ex. 1003, 3:42–53; Ex. 1005 ¶ 28; Ex. 1002 ¶¶ 240–251). Accordingly, we conclude that Petitioner also has demonstrated a reasonable likelihood of prevailing in its challenge to those claims as unpatentable over the combination of Siler and Davis.

IV. CONCLUSION

For the foregoing reasons, we determine that Petitioner has established a reasonable likelihood of prevailing in its challenge to at least one claim of the ’609 patent. Accordingly, we institute an *inter partes* review of the challenged claims on the asserted grounds.

Our determination in this Decision is not a final determination on either the patentability of any challenged claims or the construction of any claim term and, thus, leaves undecided any factual or legal issues necessary

to determine whether sufficient evidence supports Petitioner's contentions by a preponderance of the evidence in the final written decision. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that "there is a significant difference between a petitioner's burden to establish a 'reasonable likelihood of success' at institution, and actually proving invalidity by a preponderance of the evidence at trial" (quoting 35 U.S.C. § 314(a) and comparing *id.* § 316(e))).

V. ORDER

It is:

ORDERED that an *inter partes* review is instituted on all of the challenged claims, i.e., claims 1–3 of the '609 patent, on all corresponding grounds of unpatentability as specified in the Petition and identified in the Table in Section I.B. of this Decision; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '609 patent shall commence on the entry date of this Decision, and notice is hereby given of the institution of a trial.

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