

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
Petitioner,

v.

JENAM TECH, LLC,  
Patent Owner.

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IPR2021-00869  
IPR2021-00870  
Patent 10,069,045 B1<sup>1</sup>

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Before DANIEL J. GALLIGAN, SCOTT B. HOWARD, and  
JASON M. REPKO *Administrative Patent Judges*.

HOWARD, *Administrative Patent Judge*.

JUDGMENT  
Final Written Decision  
Determining All Challenged Claims Unpatentable  
Dismissing Petitioner's Motions Regarding Estoppel  
35 U.S.C. § 318(a)

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<sup>1</sup> This Final Written Decision addresses issues that are identical in each of the above-identified cases. Accordingly, we exercise our discretion to issue one Decision to be filed in each case. The parties, however, are not authorized to use this style heading in any subsequent papers without prior authorization.

## INTRODUCTION

In these *inter partes* reviews, instituted pursuant to 35 U.S.C. § 314, Google LLC (“Petitioner”) challenges claims 1, 7–12, 34, and 64–69 (“the challenged claims”) of U.S. Patent No. 10,069,945 B1 (Ex. 1001,<sup>2</sup> “the ’945 patent”), owned by Jenam Tech LLC (“Patent Owner”).

As explained in detail below, the references applied against the challenged claims are identical in each of the cases. A joint hearing was held for these cases. The parties rely on the same declarants submitting substantially similar declarations in each case for testimonial evidence. In each of the proceedings, all of Patent Owner’s arguments are directed to the same independent claim (claim 1). Under the facts of these proceedings, it is within our discretion to issue a combined Final Decision to promote a just, speedy, and inexpensive resolution of these proceedings.

### A. IPR2021-00869 Procedural History

Petitioner filed a Petition requesting *inter partes* review of claims 1, 9, 10, 34, and 64–69 of the ’945 patent. Paper 1 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 7. With our authorization, Petitioner filed a Reply to the Preliminary Response (Paper 8) and Patent Owner filed a Preliminary Sur-Reply (Paper 9). We instituted an *inter partes* review of claims 1, 9, 10, 34, and 64–69 of the ’945 patent on all grounds of unpatentability alleged in the Petition. Paper 11 (“Institution Decision” or “Inst. Dec.”).

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<sup>2</sup> Unless otherwise noted, all citations are to papers and exhibits filed in IPR2021-00869. Similar papers with substantially the same arguments are also presented in IPR2021-00870. Unless specifically indicated, our findings of fact and conclusions of law are directed to both proceedings.

After institution of trial, Patent Owner filed a Response (Paper 19, “PO Resp.”), Petitioner filed a Reply (Paper 25, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 31, “PO Sur-reply”). With our permission, Petitioner filed a statement identifying what it believes are improper sur-reply arguments (Paper 32, “Pet. Statement”), and Patent Owner filed a statement showing what it argues is the support for those arguments (Paper 33, “PO Statement”).

With our authorization (Paper 37), Petitioner filed a motion requesting that Patent Owner be estopped from making certain arguments due to the adverse judgment in IPR2021-00629. Paper 38. Patent Owner filed an opposition. Paper 39.<sup>3</sup>

An oral hearing<sup>4</sup> was held on August 10, 2022, and the record contains a transcript of this hearing. Paper 40 (“Tr.”). With the parties’ consent, the transcript of an oral hearing in IPR2021-00627 (“627 Tr.”) was filed as Exhibit 3001. Tr. 16:8–24 (Petitioner’s consent), 17:14–22 (Patent Owner’s consent).

#### *B. IPR2021-00870 Procedural History*

Petitioner filed a Petition requesting *inter partes* review of claims 7, 8, 11, and 12 of the ’945 patent. IPR2021-00870, Paper 1 (“870 Pet.”). Patent Owner filed a Preliminary Response. IPR2021-00870, Paper 7. With our

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<sup>3</sup> Because we find that Petitioner has shown by a preponderance of the evidence that the challenged claims are unpatentable even when considering Patent Owner’s arguments on the merits, as set out below, we dismiss Petitioner’s motion seeking to preclude Patent Owner from making those arguments as moot.

<sup>4</sup> A single consolidated oral hearing was held for IPR2021-00867, IPR2021-00868, IPR2021-00869, and IPR2021-00870.

authorization, Petitioner filed a Reply to the Preliminary Response (IPR2021-00870, Paper 8) and Patent Owner filed a Preliminary Sur-Reply (IPR2021-00870, Paper 9). We instituted an *inter partes* review of claims 7, 8, 11, and 12 of the '945 patent on all grounds of unpatentability alleged in the Petition. IPR2021-00870, Paper 11.

After institution of trial, Patent Owner filed a Response (IPR2021-00870, Paper 18 (“870 PO Resp.”)), Petitioner filed a Reply (IPR2021-00870, Paper 24), and Patent Owner filed a Sur-reply (IPR2021-00870, Paper 30). With our permission, Petitioner filed a statement identifying what it believes are improper sur-reply arguments (IPR2021-00870, Paper 31, “870 Pet. Statement”), and Patent Owner filed a statement showing what it argues is the support for those arguments (IPR2021-00870, Paper 32, “870 PO Statement”).

With our authorization (Paper 37), Petitioner filed a motion requesting that Patent Owner be estopped from making certain arguments due to the adverse judgment in IPR2021-00629. IPR2021-00870, Paper 37. Patent Owner filed an opposition. IPR2021-00870, Paper 38.<sup>5</sup>

### *C. Real Parties in Interest*

Petitioner identifies itself as the real party in interest. Pet. 1. Petitioner further states “Google LLC is a subsidiary of XXVI Holdings Inc., which is a subsidiary of Alphabet Inc. XXVI Holdings Inc. and Alphabet Inc. are not real parties-in-interest to this proceeding.” *Id.* at 1 n.1.

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<sup>5</sup> Because we find that Petitioner has shown by a preponderance of the evidence that the challenged claims are unpatentable even when considering Patent Owner’s arguments on the merits, as set out below, we dismiss Petitioner’s motion seeking to preclude Patent Owner from making those arguments as moot.

Patent Owner identifies itself as the real party in interest. Paper 5, 1 (Patent Owner's Mandatory Notices).<sup>6</sup>

*D. Related Matters*

The parties identify the following district court proceedings in which the '945 patent is asserted: *Jenam Tech, LLC v. Google, LLC*, No. 6:20-cv-00453 (W.D. Tex.)<sup>7</sup> and *Jenam Tech, LLC v. Samsung Elecs. Co.*, Case No. 4:20-cv-279 (E.D. Tex.). Pet. 1; Paper 5, 1.

The parties also identify the following *inter partes* review proceedings: *Google LLC et al. v. Jenam Tech, LLC*, IPR2020-00845 (PTAB) ("845 IPR") (Final Written Decision previously entered); *Unified Patents, LLC v. Jenam Tech, LLC*, IPR2020-00742 (PTAB) ("742 IPR") (terminated); *Google LLC v. Jenam Tech, LLC*, IPR2020-00627 (PTAB) (Final Written Decision previously entered); *Google LLC v. Jenam Tech, LLC*, IPR2020-00628 (PTAB) (Final Written Decision previously entered); *Google LLC v. Jenam Tech, LLC*, IPR2020-00629 (PTAB) (Adverse Judgment previously entered); *Google LLC v. Jenam Tech, LLC*, IPR2020-00630 (PTAB) (Final Written Decision previously entered); *Google LLC v. Jenam Tech, LLC*, IPR2020-00867 (PTAB) (concurrently decided); and *Google LLC v. Jenam Tech, LLC*, IPR2020-00868 (PTAB) (concurrently decided). Pet. 2; Paper 5, 1.

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<sup>6</sup> Patent Owner did not add page numbers to its Mandatory Notices. We treat the first page after the cover page as page 1.

<sup>7</sup> Since the Petition was filed, this case was transferred to the U.S. District Court for the Northern District of California. Paper 10, 1.

*E. The '945 Patent*

The '945 patent states that some transmission control protocol (TCP) implementations support a keep-alive option, but the '945 patent states that “[e]ach node supports or does not support keep-alive for a TCP connection based on each node’s requirements without consideration for the other node in the TCP connection.” Ex. 1001, 1:48–50, 1:58–61. According to the '945 patent, “[t]o date no mechanism to allow two TCP connection endpoints to cooperate in supporting the keep-alive option has been proposed or implemented.” *Id.* at 2:19–22. Thus, the '945 patent states that “there exists a need for methods, systems, and computer program products for sharing information for detecting an idle TCP connection.” *Id.* at 2:26–28.

*F. Illustrative Claim*

Claim 1, reproduced below with annotations, is illustrative.

1. [1.a] A computer-implemented method, comprising:
  - [1.b] causing access to be provided to a server computer including:
    - a non-transitory memory storing a network application, and
    - one or more processors in communication with the non-transitory memory, wherein the one or more processors execute the network application to operate in accordance with a first protocol including a transmission control protocol (TCP);
  - [1.c] causing a TCP connection to be established with a client computer, by:
    - communicating a segment including at least one first synchronize bit,
    - communicating a first acknowledgement of the segment, and at least one second synchronize bit, and

communicating a second acknowledgement;

[1.d] causing first data to be communicated from the server computer to the client computer utilizing the TCP connection in accordance with the TCP protocol and a hypertext transfer protocol (HTTP), for being presented to a user of the client computer;

[1.e] causing the server computer to permit second data, from the user of the client computer, to be received at the server computer from the client computer utilizing the TCP connection in accordance with the TCP protocol and the hypertext transfer protocol (HTTP); and

[1.f] causing access to be provided, to the client computer, to code that causes the client computer to operate in accordance with a second protocol that is separate from the TCP, in order to establish a second protocol connection with another server computer, by:

[1.g] receiving a packet,

[1.h] detecting an idle time period parameter field in the packet,

[1.i] identifying metadata in the idle time period parameter field for an idle time period, where, after the idle time period is detected, the second protocol connection is deemed inactive, and

[1.j] creating or modifying, by the client computer and based on the metadata, a timeout attribute associated with the second protocol connection.

Ex. 1001, 24:9–50.

### *G. Prior Art and Asserted Grounds*

Petitioner asserts that claims 1, 7–12, 34, and 64–69 are unpatentable on the following grounds:

In IPR2021-00869:

Claim(s) Challenged	35 U.S.C. § <sup>8</sup>	Reference(s)/Basis
1, 9, 10, 34, 64–69	103(a)	Wookey, <sup>9</sup> Berg <sup>10</sup>

In IPR2021-00870:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
7, 8	103(a)	Wookey, Berg
11, 12	103(a)	Wookey, Berg, Eggert <sup>11</sup>

Petitioner also relies on the declaration testimony of Dr. Bill Lin (Ex. 1002; IPR2021-00870, Ex. 1002). Patent Owner relies on the declaration testimony of Dr. Michael Smith (Ex. 2011; IPR2021-00870 Ex. 2011).

## ANALYSIS

### A. *Legal Standards*

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under 35 U.S.C. § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and

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<sup>8</sup> The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. §§ 102 and 103 that became effective March 16, 2013. The application for the ’945 patent was filed on March 7, 2018. Petitioner “assumes for this proceeding only, without conceding, that the earliest effective filing date of the ’945 patent is February 27, 2010.” Pet. 3–4. Patent Owner does not assert a different effective filing date. *See* PO Resp. Accordingly, we apply the pre-AIA version.

<sup>9</sup> US 2007/0171921 A1, published July 26, 2007 (Ex. 1005).

<sup>10</sup> US 6,674,713 B1, issued Jan. 6, 2004 (Ex. 1007).

<sup>11</sup> L. Eggert, “TCP Abort Timeout Option,” Apr. 14, 2004 (IPR2021-00870, Ex. 1006).



(4) if in evidence, “secondary considerations” of non-obviousness such as “commercial success, long felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the U.S. Court of Appeals for the Federal Circuit has repeatedly emphasized that “it is error to reach a conclusion of obviousness until all those factors are considered,” *WBIP, LLC v. Kohler*, 829 F.3d 1317, 1328 (Fed. Cir. 2016).

*B. Level of Ordinary Skill in the Art*

*1. Identification of the Level of Ordinary Skill in the Art*

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham*, 383 U.S. at 17. “The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry.” *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991). The “person having ordinary skill in the art” is a hypothetical construct, from whose vantage point obviousness is assessed. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

Factors pertinent to a determination of the level of ordinary skill in the art include “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Envtl. Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 696–697 (Fed. Cir. 1983) (citing *Orthopedic Equip. Co. v. All Orthopedic Appliances, Inc.*, 707 F.2d 1376, 1381–82 (Fed. Cir. 1983)). “Not all such factors may be present in every

case, and one or more of these or other factors may predominate in a particular case.” *Id.*

Petitioner argues that a person having ordinary skill in the art “would have had an undergraduate degree in electrical engineering, computer engineering, computer science or a related field along with at least two years of work experience in the field of networking.” Pet. 4 (citing Ex. 1002 ¶¶ 16–18). Petitioner further argues that “[m]ore education can supplement practical experience and vice versa.” *Id.* (citing Ex. 1002 ¶¶ 16–18).

In the Institution Decision, “we adopt[ed] Petitioner’s proposed formulation of the level of ordinary skill in the art, except that we delete[d] the qualifier ‘at least’ to eliminate vagueness as to the amount of practical experience.” Inst. Dec. 7.

For purposes of this proceeding, “Patent Owner adopts and applies the Board’s formulation for a POSITA [person having ordinary skill in the art].” PO Resp. 4.

Accordingly, we find that a person having ordinary skill in the art would have an undergraduate degree in electrical engineering, computer engineering, computer science, or a related field along with two years of work experience in the field of networking. We have deleted Petitioner’s use of the qualifier “at least” to eliminate vagueness as to the amount of practical experience required. The qualifier expands the range indefinitely without an upper bound and thus precludes a meaningful indication of the level of ordinary skill in the art.

2. *Patent Owner’s Statement Based on the Level of Ordinary Skill in the Art*

In a footnote, Patent Owner states that “[t]he Board rightfully recognized that Petitioner’s articulation improperly encompasses individuals

of extraordinary skill in the art” and that “Petitioner’s expert testimony was not based on this narrowed formulation.” PO Resp. 4 n.3. Patent Owner did not further develop this statement in its brief. *See* PO Resp. We deem such conclusory statements raised only in footnotes and not further developed as forfeited.. *See SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1320 (Fed. Cir. 2006) (“[A]rguments raised in footnotes are not preserved.”).

In its Sur-reply, Patent Owner repeats its statement that “[Petitioner] has chosen to maintain its reliance on a person of extraordinary skill who provided opinions based on an unbounded definition that provides no meaningful indication as to the actual level of skill of a POSITA.” PO Sur-reply 1, 4–6. However, having forfeited the argument in the Response, Patent Owner cannot raise that argument in its Sur-reply. *See* Paper 14, 8 (“Patent Owner is cautioned that any arguments not raised in the response may be deemed [forfeited].”) (Scheduling Order); *In re NuVasive, Inc.*, 842 F.3d 1376, 1381 (Fed. Cir. 2016) (arguments not properly raised in the Patent Owner’s Response are forfeited).

Regardless, even if we did consider it, we do not agree with Patent Owner’s arguments. We understand Dr. Lin’s testimony to be broad enough to encompass anyone within his stated level of ordinary skill in the art. *See* Ex. 1002 ¶ 18 (“My analysis of the ’945 patent and my opinions in this declaration are from the perspective of one of ordinary skill in the art, as I have defined it above, at the time of the alleged invention for that patent.”). That would include someone who meets the minimum level of skill set forth in his declaration, which is identical to the level of skill we adopted. Thus, although Dr. Lin’s testimony encompasses those of more than ordinary skill (in terms of experience), it also addresses someone of ordinary skill.

Furthermore, we do not understand Petitioner’s and Dr. Lin’s position to be that a person of ordinary skill in the art would have had unlimited experience. Rather, we view the use of the language “at least” as imprecise, which is why we omitted it from our definition.

*C. Claim Construction*

We apply the same claim construction standard used in the federal courts, in other words, the claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), which is articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 42.100(b) (2020). Under the *Phillips* standard, the “words of a claim ‘are generally given their ordinary and customary meaning,’” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1312–13.

Petitioner argues that no terms need to be construed. Pet. 8–9. Similarly, Patent Owner does not request us to construe any claim terms in the Response. See PO Resp. Accordingly, we do not construe any terms of the ’945 patent. See *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))).

*D. Constitutional Challenge*

Patent Owner argues that the Director’s delegation of the institution decision to the Board violates the Constitution. PO Resp. 14–17. Specifically, Patent Owner argues that because “PTAB decisions must be

controlled by a principal officer, the current IPR process violates the Constitution” as the Director does not review institution decisions. *Id.* at 17 (citing *United States v. Arthrex, Inc.*, 141 S. Ct. 1970, 1982 (2021)). Patent Owner further argues that the PTAB has a structural bias that “violates Constitutional Due Process.” *Id.* at 17–25.

Petitioner responds that Patent Owner acknowledges that the Federal Circuit in *Mobility Workx, LLC v. Unified Patents, LLC* “declined to find that the IPR process violates Due Process on [the] basis’ Patent Owner advocates (Response, 25). Thus, precedent precludes Patent Owner’s argument.” Pet. Reply 10 (alteration in original).<sup>12</sup>

Patent Owner concedes that its constitutional arguments are premised on the dissent in *Mobility Workx* and those arguments were rejected by the majority. 627 Tr. 41:18–42:13. Accordingly, we find Patent Owner’s arguments unpersuasive. *See Mobility Workx*, 15 F.4th at 1150–57; *see also In re Palo Alto Networks, Inc.*, 44 F.4th 1369, 1377 (Fed. Cir. 2022) (“We conclude that the delegation of authority as to whether to institute IPR and PGR proceedings to the Board and the Director’s policy refusing to accept party requests for Director rehearing of decisions not to institute do not violate the Appointments Clause.”).

*E. Asserted Obviousness in View of Wookey and Berg*

Petitioner argues that claims 1, 7–10, 34, and 64–69 would have been obvious over Wookey and Berg. *See* Pet. 10–73; 870 Pet. 11–57. Based on the evidence and arguments presented during the trial, Petitioner has persuaded us that claims 1, 7–10, 34, and 64–69 are unpatentable.

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<sup>12</sup> Petitioner uses the phrase PO to denote Patent Owner. In our quotations, we substitute “Patent Owner” for “PO.”

1. *Wookey*

Wookey is generally directed to “providing access to computing environments” and, more specifically, “to methods and systems for making a hypermedium page interactive.” Ex. 1005 ¶ 2.

Wookey Figure 1 is reproduced below.

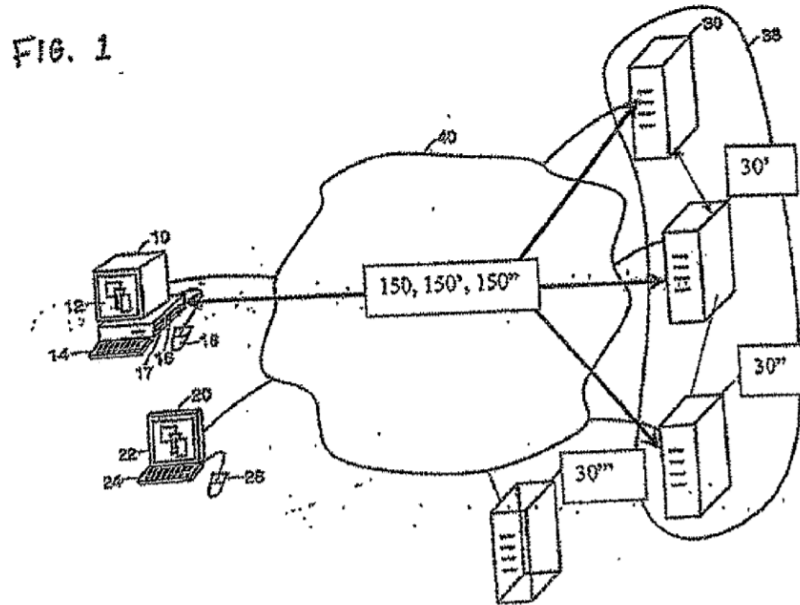


Figure 1 “is a block diagram of one embodiment of an environment in which a client machine accesses a computing resource provided by a remote machine.” Ex. 1005 ¶ 20. Figure 1 shows “a client machine 10, 10’ accesses a computing resource provided by a remote machine, 30, 30’, 30’’, 30'''.” *Id.* ¶ 135.

2. *Berg*

Berg relates to packet network communications and discloses negotiating various parameters when using Reliable User Datagram Protocol (RUDP). Ex. 1007, 17:9–17, 18:56–19:40. Berg discloses that a synchronization (SYN) segment “is used to establish a connection and synchronize sequence numbers between two hosts.” *Id.* at 18:57–58. The

SYN segment contains various negotiable parameters, including a “Null Segment Timeout Value,” which specifies “[t]he timeout value for sending a null segment if a data segment has not been sent.” *Id.* at 18:58–60, 20:36–38. Berg explains that a client sends a null segment to the server if a certain period of time (the null segment timeout) elapses with no data segment having been sent. *Id.* at 23:46–49.

### 3. *Analysis of Claim 1*

#### a) *The Undisputed Limitations*

Claim 1 recites “[1.a] [a] computer-implemented method,” “[1.b] causing access to be provided to a server computer including: a non-transitory memory storing a network application, and one or more processors in communication with the non-transitory memory, wherein the one or more processors execute the network application to operate in accordance with a first protocol including a transmission control protocol (TCP),” “[1.c] causing a TCP connection to be established with a client computer, by: communicating a segment including at least one first synchronize bit, communicating a first acknowledgement of the segment, and at least one second synchronize bit, and communicating a second acknowledgement,” “[1.d] causing first data to be communicated from the server computer to the client computer utilizing the TCP connection in accordance with the TCP protocol and a hypertext transfer protocol (HTTP), for being presented to a user of the client computer,” “[1.e] causing the server computer to permit second data, from the user of the client computer, to be received at the server computer from the client computer utilizing the TCP connection in accordance with the TCP protocol and the hypertext transfer protocol (HTTP),” and a client node which “[1.g] receiv[es] a packet,” “[1.h] detect[s] an idle time period parameter field in the packet,”

“[1.i] identif[ies] metadata in the idle time period parameter field for an idle time period, where, after the idle time period is detected, the second protocol connection is deemed inactive,” and “[1.j] creat[es] or modif[ies], by the client computer and based on the metadata, a timeout attribute associated with the second protocol connection.” Ex. 1001, 24:9–50.

Based on the undisputed evidence and reasons set forth in the Petition, including the Lin Declaration (*see* Pet. 10–25, 39–52; Ex. 1002 ¶¶ 98–140, 170–217), which are not addressed by Patent Owner (*see* PO Resp.), we find that the combination of Wookey and Berg teaches each of those limitations and that a person having ordinary skill in the art would have combined the references with a reasonable expectation of success.

*b) Disputed “Code” Limitation*

Claim 1 recites “causing access to be provided, to the client computer, to code that causes the client computer to operate in accordance with a second protocol that is separate from the TCP, in order to establish a second protocol connection with another server computer, by” performing a number of steps. Ex. 1001, 24:36–40.<sup>13</sup>

*(1) Petitioner’s Arguments*

Petitioner argues that the combination of Wookey and Berg teaches this limitation. Pet. 26–43; *see also id.* at 26 (arguing that “it would have been obvious in light of Berg’s teachings to configure Wookey’s HTML page 288 containing the encoded URLs such that the HTML page 288 containing the encoded URLs would cause client machine 10 to operate in accordance with an RUDP protocol (‘second protocol that is separate from

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<sup>13</sup> This is identified as limitation 1.f in the Petition.



the TCP’), in order to establish an RUDP connection (‘second protocol connection’) with remote machine 30’.” (citing Ex. 1002 ¶¶ 141–180)).<sup>14</sup>

Specifically, Petitioner argues that Wookey teaches that once client machine 10 has been authenticated, remote machine 30 transmits “an HTML page 288 that includes a Resource Neighborhood window 258 in which appears graphical icons 257, 257’ representing resources to which the client machine 10 has access.” Pet. 26–27 (quoting Ex. 1005 ¶ 196). According to Petitioner, “the HTML page including the encoded URLs disclose the claimed ‘code.’” *Id.* at 27 (citing Ex. 1002 ¶ 144).<sup>15</sup> More specifically, Petitioner argues that “an HTML page was known to comprise HTML code used to define, e.g., what is displayed on the screen of the client node.” *Id.* at 29 (citing Ex. 1002 ¶ 147).

Petitioner further argues that “[t]he HTML code used to display information relating to page 288 would include the icons associated with the encoded URLs.” Pet. 29–30. According to Petitioner, that code “causes client machine 10 to operate in accordance with a second protocol separate from the TCP to set up a second protocol connection with another server (e.g., remote machine 30’).” *Id.* Petitioner also argues that its mapping is consistent with Patent Owner’s assertion in a district court proceeding, which “similarly relates the claimed code to ‘HTML pages’ in its

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<sup>14</sup> The parties use color to denote various claim limitations and italics to denote prior art. The use of color and italics for the names of prior art references and claim limitations has been omitted from quotes in this Decision.

<sup>15</sup> Petitioner also argues that the encoded URL itself is code. Pet. 30 n.13. Because we find Petitioner’s argument based on the HTML page sufficient, we do not need to address the alternate argument and Patent Owner’s responses thereto.

infringement assertions for this and similar limitations. (EX1017, 8 (‘causing access to be provided, to the client computer (e.g., device that receives the HTML pages, etc.), to code.’)).” *Id.* at 30; *see also id.* (arguing Wookey teaches “remote machine 30 causing access to be provided, to client machine 10, to HTML page 288 including the encoded URLs, so client machine 10 can request access to a resource represented by the icons 257/257’ on the HTML page 288.” (citing Ex. 1005 ¶ 196; Ex. 1002 ¶ 148)).

Petitioner further argues that Wookey teaches that any type of protocol could be used between client machine 10 and remote machine 30’. Pet. 31 (citing Ex. 1005 ¶¶ 155, 159, 192–195). This includes non-TCP protocols. *Id.* (citing Ex. 1005 ¶¶ 155, 215–216, 225; Ex. 1002 ¶¶ 150–152; Ex. 1014 ¶ 19; Ex. 1013, 1:20–33). Petitioner also argues that “client machine 10 may use ‘a different type of protocol than the one used to send the request to the remote machine 30’” and that the machines can exchange messages to negotiate various parameters. *Id.* at 31–32 (quoting Ex. 1005 ¶ 732) (citing Ex. 1002 ¶¶ 153–155; Ex. 1005 ¶¶ 581, 721, 738, 739, 744, 751, 772–774, 1134–1136, 1153).

Petitioner further argues that although Wookey describes various protocols, it “does not expressly provide details regarding establishing and maintaining the second connection or the types of negotiable parameters used with those protocols for the second connection.” Pet. 32–33 (citing Ex. 1002 ¶ 158). According to Petitioner, Berg teaches a protocol that implements the desired characteristics identified in Wookey, and a person having ordinary skill in the art would have combined the teachings of the references. *Id.* at 33–36 (citing Ex. 1005 ¶¶ 13, 196, 581, 732, 1135, 1136, 1153, Figs. 1, 2C, 3D; Ex. 1002 ¶¶ 84–97, 159–163; Ex. 1007, 2:4–11, 2:54–60, 3:14–23, 5:27–55, 7:63–8:17, 8:24–31, Fig. 2). Specifically, Petitioner

argues that Berg teaches using a “Reliable User Datagram Protocol (RUDP) 206 [which] runs on top of the User Datagram Protocol (UDP) protocol software 204 at a transport layer.” Pet. 36 (citing Ex. 1007, 8:10–17, 16:66–17:17; Ex. 1002 ¶ 164). Petitioner also argues that “[t]he UDP is a non-TCP communications protocol (e.g., a protocol that is separate from the TCP) that is primarily used for establishing low-latency and loss-tolerating connections, especially time-sensitive transmissions, between applications.” *Id.* (citing Ex. 1002 ¶ 164; Ex. 1015 ¶ 110; Ex. 1016 ¶ 10). Petitioner further argues that unlike TCP, “RUDP is designed *to allow characteristics of each connection to be individually configured* so that many protocols with different transport requirements can be implemented simultaneously on the same platform.” *Id.* at 37–38 (quoting Ex. 1007, 17:42–46). According to the Petition, those negotiated parameters include “the timeout values associated with timers for the retransmission timeout, acknowledgement timeout, null segment, and transfer state.” *Id.* at 38 (citations omitted). Petitioner argues that, as a result of the negotiated parameters, “the RUDP is ‘a second protocol that is separate from the TCP’ (e.g., a non-TCP protocol), and operating in accordance with the RUDP would have caused a client to set up an RUDP connection (‘a second protocol connection’) with a server.” *Id.* (quoting Ex. 1002 ¶ 169).

Petitioner further argues that a person having ordinary skill in the art would have combined the teachings of Wookey and Berg and that the combination teaches or suggests disputed limitation 1.f. Pet. 39–43. Specifically, Petitioner argues that a person having ordinary skill in the art “would have been motivated to modify Wookey’s client machine 10 to use a protocol like Berg’s RUDP in order to set up an RUDP connection with remote machine 30’.” *Id.* at 39 (citing Ex. 1002 ¶ 171). Petitioner also

argues that a person having ordinary skill in the art would have incorporated the RUDP protocol into Wookey's code. *See* Pet. 40–42; Ex. 1002 ¶¶ 172–175.

(2) *Patent Owner's Arguments*

Patent Owner argues<sup>16</sup> that “Petitioner's arguments demonstrate a fundamental misunderstanding of the scope of this claim.” PO Resp. 6. Specifically, Patent Owner argues that the “claim language adds a *temporal* limitation (hereinafter the ‘Claimed Nexus’) as to *when* the ‘code’ ‘*results in*’ the client node to perform the aforementioned operations to establish the protocol connection.” *Id.* at 7 (citing Ex. 2011 ¶ 41).

Patent Owner argues that “Wookey's use of the ‘encoded URL’/‘HTML’ does *not* meet the foregoing Claimed Nexus, because Wookey's ‘encoded URL’/‘HTML’ is not configured to ‘after use by the client computer, *result[] in* the client computer operating’ to perform the abovementioned capabilities in the specific context claimed, for establishing the connection.” PO Resp. 9 (alteration by Patent Owner) (citing Ex. 2011 ¶ 43). “Instead,” Patent Owner argues, “a particular ‘address’ used in connection with Wookey's Fig. 25 is that which, after being used by the client, results in subsequent establishment of the protocol connection by the client machine (and *not* Wookey's ‘encoded URL’/‘HTML’ of Fig. 3D).” *Id.* at 9–10 (citing Ex. 2011 ¶ 43); *see also id.* at 12–13 (describing the Figure 25 embodiment). Thus, according to Patent Owner, “[b]y arguing

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<sup>16</sup> Patent Owner focuses its argument on claim 34. PO Resp. 6 n.5. Patent Owner further states that its arguments are equally applicable to claim 1. *Id.* at 13. We address the language of claim 1, which is more fully developed in the Petition. *See* Pet. 59 (relying on the arguments of claim 1 to demonstrate why the prior art teaches a similar limitation in claim 34).

that *Wookey*'s HTML is merely used to 'initiate' a 'process' for connection establishment, and not that such HTML, *itself* 'results in,' 'after use by the client computer,' performance of the aforementioned claimed capabilities to establish the connection, Petitioner has conceded that the HTML does not meet the Claimed Nexus." *Id.* at 11.

### (3) *Petitioner's Reply Arguments*

Petitioner replies, arguing that "Patent Owner's arguments are based on a fundamental misunderstanding of Petitioner's positions." Pet. Reply 2. Specifically, Petitioner argues that Patent Owner improperly focuses on Wookey as opposed to the combination of Wookey and Berg. *Id.* at 2–3.

Petitioner further argues that its reliance on Wookey paragraph 216 is unrebutted. Pet. Reply 4. Petitioner argues that paragraph 216 teaches that "[w]hen the user clicks the icon associated with the encoded URL, the process for establishing a second connection with remote machine 30' is initiated." *Id.* (citing Ex. 1005 ¶ 216; Pet. 27–28; Ex. 1002 ¶¶ 144–145).

Petitioner further argues that Patent Owner's focus on Figure 25 is a "red herring." Pet. Reply 7. Specifically, Petitioner argues that it relied on the embodiment shown in Figures 2C/3D, which "relate to client machine 10 using a web browser to interact with remote machine 30 to determine its resource neighborhood and the client machine accessing a resource (e.g., remote machine 30') from a resource neighborhood web page." *Id.* at 8 (citing Ex. 1005 ¶¶ 24, 26; Pet. 15–16, 19–32, 59). According to Petitioner, "Figure 25 is another embodiment describing a different aspect of communication features between client machine 10 and remote machine 30; specifically, 'a remote machine and client machine establishing a protocol stack from communication.'" *Id.* (quoting Ex. 1005 ¶ 57). Petitioner argues that it only relies on Figure 25 "to show additional support for its

obviousness rationale regarding client machine 10 using different protocols to connect to remote machine 30 and remote machine 30'.” *Id.* (citing Pet. 31–34).

(4) *Patent Owner’s Sur-reply Arguments*

Patent Owner argues that Petitioner is “disingenuous” in its arguments regarding Wookey’s Figure 25. PO Sur-reply 2–4. Specifically, Patent Owner argues that Petitioner references Wookey paragraph 732 (which describes Figure 25) on page 31 of the Petition, “*before* [Petitioner] switched gears to: a) admit what Wookey did *not* disclose (Petition, 32), b) argue what *Berg* allegedly did disclose (Petition, 33–38), and c) present its ‘ii. Reasons to Combine’ (Petition, 39–43).” *Id.* at 2. Patent Owner further argues that Petitioner made explicit mention of Wookey’s description of different protocols in paragraph 732. *Id.* at 2–3 (citing Pet. 32). According to Patent Owner, “Petitioner’s belated assertion that Wookey’s paragraph 732 describing Figure 25 was *not* relied upon to meet the claims (but *only* for its obviousness rationale) is belied by the record.” *Id.* at 3–4.

Patent Owner further argues that “the embodiment of Figs. 2C/3D teaches the *same* general concept as that taught in the embodiment of Fig. 25—neither of which meets the claims.” PO Sur-reply 6–7. According to Patent Owner, “Fig. 25 differs only in the level of detail as to how the general concept of Figs. 2C/3D may be implemented in accordance with one embodiment where an ‘address’ of Fig. 25 is presented as an example of the ‘location’ of Figs. 2C/3D.” *Id.* at 7.

Patent Owner argues that “Petitioner reli[es] on ‘the encoded URL’ disclosed in ¶ 216 of Wookey to satisfy the claimed ‘code,’ [but that] is unavailing.” PO Sur-reply 8; *see also id.* at 8–9 (discussing argument).

According to Patent Owner, “a ‘location’ or ‘address’ is not ‘code’” and, thus, “the Code Limitation is not met.” *Id.* at 8.

Instead, Patent Owner argues that Wookey teaches “that the ‘remote machine 30 receives a request for access to a resource,’ ‘the remote machine 30 returns the network address of a remote machine 30’ having the desired resource to the client machine 10,’ and then—fatal to Petitioner’s arguments—that ‘[t]he client machine 10 *then uses the information* received from the remote machine 30 to request connection to the specified remote machine 30’.” PO Sur-reply 9 (quoting Ex. 1005 ¶ 733). According to Patent Owner, Petitioner’s attempt to “side-step this foundational failure” is “irreconcilable with [the] Board’s interpretation of a less strict ‘causal’-related claim language in a parallel proceeding involving a related patent with the same specification.” *Id.* (citing IPR2020-00845, Paper 33 at 19–20).

Patent Owner further argues that Petitioner’s arguments are an attempt “to redirect attention away from its explicit reliance on the description of Wookey’s Fig. 25 in favor of its new overhauled argument focusing on Wookey’s Fig. 2C/3D and Berg.” PO Sur-reply 10. According to Patent Owner, “Petitioner’s expert admitted that the process of Fig. 25 *is used* by both Figs. 2C and 3D to establish the second protocol connection.” *Id.* at 10. Patent Owner presents the following as the admission: “Figure 25 illustrates . . . establishing a protocol stack for communication . . . which is a function that would also be performed in the other embodiments of Wookey . . . (e.g., Figures 1, 2C, and 3D.)” PO Sur-reply 10–11 (quoting Ex. 1002 ¶ 120) (alterations by Patent Owner). Patent Owner further argues that the Figure 25 embodiment does not teach the Claimed Nexus required by

claim 1. *Id.* at 11; *see also id.* at 12–15, 19–21 (restating argument regarding Figure 25 and Dr. Lin’s admission).

Patent Owner also argues that Petitioner’s arguments fail to address the requirement that the code causes a response. PO Sur-reply 15–19. That is, according to Patent Owner, “when Wookey actually *has* the necessary ‘information’ and the second protocol connection establishment is *actually* ‘cause[d]’ . . . , Wookey’s ‘encoded URL/HTML’ is *not* used. Wookey’s ‘information’/‘address’—which is not ‘code’—instead is used.” *Id.* at 17; *see also id.* at 21–22 (repeating causation argument). In further support of this argument, Patent Owner directs us to an annotated version of Wookey Figure 25 (not reproduced here). *See id.* at 18.

Patent Owner also argues that “this claim interpretation issue is remarkably similar to the one the Board dealt with in the related IPR2020-00845 (hereinafter ‘-845 IPR’) that involved a related patent with the same specification.” PO Sur-reply 22. Patent Owner argues that if we apply the same reasoning to this case, we must find that Wookey does not teach the causation requirement. *Id.* at 20–24.

#### (5) *Our Analysis*

Wookey’s HTML page 288 is code. *See* Ex. 1002 ¶¶ 144 (citing Ex. 1005 ¶ 216), 147 (citing Ex. 1012 ¶¶ 22, 24, 26, 79); *see also id.* ¶¶ 61–62 (describing HTML as a markup language that includes instructions). This is consistent with Patent Owner’s position in the district court litigation, in which Patent Owner argued that HTML pages are code. *See* Ex. 1017, 8 (Patent Owner’s First Set of Infringement Contentions) (“causing access to be provided, to the client computer (*e.g., device that receives the HTML pages, etc.*), to code that causes the client computer to operate in accordance with a second protocol (*e.g., QUIC, etc.*) that is separate from the TCP, in



order to establish a second protocol connection (e.g., a QUIC connection, etc.) with another server (e.g., site, etc.) computer . . .” (emphasis added)). Moreover, Patent Owner does not dispute that an HTML page is code. *See* PO Resp.

As discussed below, Wookey further teaches remote machine 30 (server computer) causing access to be provided to client machine 10 (client computer) to HTML page 288 and that Wookey in combination with Berg meets the rest of the requirements of the disputed “causing” step. Wookey Figure 2C is reproduced below.

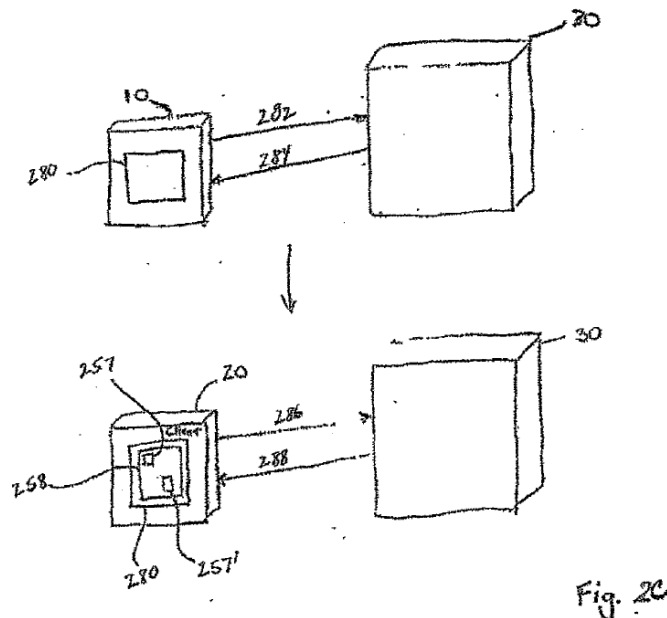


Figure 2C “is a block diagram of an embodiment in which a client machine uses a web browser application to determine its resource neighborhood.”

Ex. 1005 ¶ 24. Wookey describes that remote machine 30 (server computer) provides HTML page 288 to client machine 10 (client computer). Ex. 1005 ¶ 196; *see also* Ex. 1002 ¶¶ 114, 143.

HTML page 288 “includes a Resource Neighborhood window 258 in which appears graphical icons 257, 257’ representing resources to which the

client machine 10 has access. A user of client machine 10 requests access to a resource represented by icon 257 by clicking that icon 257.” Ex. 1005 ¶ 196. In other words, in this two-computer system, remote machine 30 (server computer) provides HTML page 288 (code), which includes all the information needed for the user of client machine 10 (client computer) to access a resource. That resource is accessed by the user pressing icon 257 or 257’. *See id.*

Wookey Figure 3D is reproduced below.

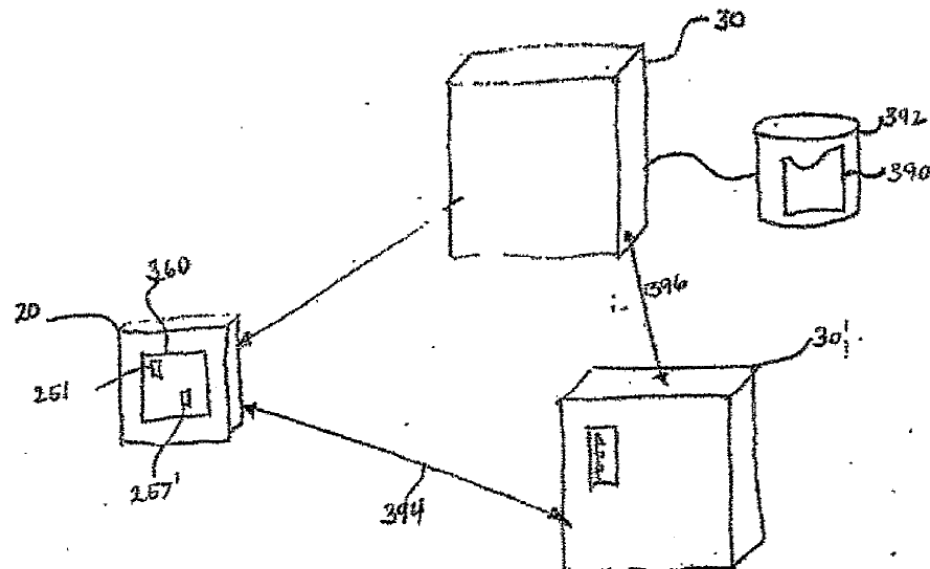


Fig. 3D

Figure 3D “is a block diagram of one embodiment of a system in which a client machine can access a resource from a resource neighborhood web page displayed at that client machine.” Ex. 1005 ¶ 26. Figure 3D is similar to Figure 2C,<sup>17</sup> except that the remote machine 30 “acts as a web server” and

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<sup>17</sup> Petitioner treats Figures 2C and 3D as examples of related embodiments. *See, e.g.,* Pet. 10–12. Patent Owner never disputes that characterization. *See* PO Resp. Based on the use of identical reference numbers and from reading

there is a second remote machine 30' which houses the resource. *See id.*

¶ 207, Fig. 3D. Wookey describes how HTML page 288—which is provided by remote machine 30 (remote computer) to client machine 10 (client computer)—can be used to establish a second communication link with remote machine 30' (another server computer):

A user of the client machine 10 can access a resource by clicking icon 257, 257' displayed in the Resource Neighborhood web page. In some embodiments, each icon 257, 257' is associated with an encoded URL that specifies: the location of the resource (i.e., on which remote machines it is hosted or, alternatively, the address of a master remote machine, a gateway, or other remote machine 30); a launch command associated with the resource; and a template identifying how the results of accessing the resource should be displayed (i.e., in a window “embedded” in the browser or in a separate window). In some embodiments, the URL includes a file, or a reference to a file, that contains the information necessary for the client to create a connection to the remote machine hosting the resource. . . . The client machine 10 establishes a connection (arrow 394) with the remote machine 30' identified as hosting the requested resource and exchanges information regarding access to the desired resource.

*Id.* ¶ 216. That is, as in Figure 2C, remote machine 30 sends HTML page 288 to client machine 10. *See id.* ¶ 216, Fig. 3D. A user of client machine 10 accesses a resource by clicking icon 257, 257', which is associated with an encoded URL that is associated with, *inter alia*, the location of the resource on remote machine 30'. *Id.* ¶ 216; Ex. 1002 ¶ 121. That is, by clicking icon 250, 257'—which is part of HTML page 288—the user

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Wookey, we find that the description of elements in Figure 2C applies equally to Figure 3D. Accordingly, references to the Figure 2C/3D embodiment refer to the Figure 3D embodiment with some elements described with respect to Figure 2C.

initiates a process that establishes a new connection with remote machine 30'. Ex. 1005 ¶ 216; Ex. 1002 ¶ 144. Accordingly, Wookey teaches a server computer (remote machine 30) causing access, to the client computer (client machine 10), to code (HTML page 288, including the Resource Neighborhood web page displaying icons 257, 257') that, in response to being used by the client computer (initiated by a user clicking icon 257, 257'), causes the client node to establish a communication using a protocol with remote machine 30' (another server computer). *See* 627 Tr. 22:7–17 (summarizing argument).

Moreover, that communication will use a second non-TCP protocol. Specifically, Wookey teaches that “the client machine 10 includes an ‘HTTP client agent,’ such as a web browser application, which ‘can use any type of protocol.’” Ex. 1002 ¶ 150 (quoting Ex. 1005 ¶ 159). Wookey further teaches that client machine 10 (the client computer) can have a different connection protocol for communication with remote machine 30 (server computer) and remote machine 30' (another server computer). *See* Ex. 1002 ¶ 153; Ex. 1005 ¶ 732. A person having ordinary skill in the art would have understood that the second connection protocol—the protocol used by client machine 10 and remote machine 30'—is established based on the encoded URLs associated with the icons of HTML page 288. *See* Ex. 1002 ¶ 156.

Furthermore, a person having ordinary skill in the art would have used Berg's RUDP as the second protocol. *See* Ex. 1002 ¶¶ 157–169. Specifically, a person having ordinary skill in the art would have understood that “TCP [was] unsuitable for various applications” and used RUDP because it allows the nodes (computers) “to negotiate various parameters including the timeout values associated with timers for the retransmission timeout, acknowledgment timeout, null segment timeout, and transfer state

timeout.” *Id.* ¶¶ 166–167 (citations omitted). A person having ordinary skill in the art would have combined the teachings of Wookey and Berg so that a TCP connection is used to transmit HTML page 288 from remote machine 30 to client machine 10 and that, based on HTML page 288, client machine 10 would use Berg’s RDP protocol to communicate with remote machine 30’. *See id.* ¶¶ 170–179.

In making these findings, we credit the testimony of Dr. Lin, whose testimony is consistent with the disclosures of Wookey and Berg.

As part of the communication link, client machine 10 performs claim limitations [1.g.], [1.h.], [1.i.], and [1.j.]. *See* section E.3.a; *see also* Ex. 1002 ¶¶ 181–217. Accordingly, Wookey teaches the disputed “causing” step recited in claim 1.

We do not agree with Patent Owner’s arguments. For the most part, Patent Owner’s arguments focus on whether Wookey’s Figure 25 embodiment teaches this “causing” step. However, both parties agree that Figure 25 is not the same embodiment as that shown in Figure 3D, which Petitioner relies upon for this step. *See* Pet. Reply 8 (“Figure 25 is another embodiment describing a different aspect of communication features between client machine 10 and remote machine 30 . . . .”); 627 Tr. 31:9–32:10 (Patent Owner’s counsel stating that it is “not our position” that “Figure 25 describ[es] the same embodiment that’s being shown in Figures 2C and 3D.”). Because Figure 25 is a different embodiment, its disclosure of the particular mechanics by which a communication link is created in that embodiment does not dictate how the communication link is created in the Figure 3D embodiment.

Nor does Petitioner’s use of Figure 25 to teach a second protocol connection require a different result. Specifically, Petitioner argues that

Wookey teaches using a variety of different protocols. Pet. 31 (citing Ex. 1005 ¶¶ 155, 159, 215, 216, 225). Petitioner then cites paragraphs that discuss Figure 25 for the proposition that different protocols can be used for connections between a client and various remote servers. *See* Pet. 31 (“Wookey further explains that client machine 10 may use ‘a different type of protocol than the one used to send the request to the remote machine 30.’” (citing Ex. 1005 ¶ 732)). Petitioner and Dr. Lin then use that disclosure to support the argument that “it would have been obvious to a POSITA to consider and implement a protocol . . . which may be ‘a different type of protocol than the one used to send the request to the remote machine 30.’” Pet. 33 (quoting Ex. 1005 ¶ 732); *see also* Ex. 1002 ¶ 158 (quoting same).

Although Petitioner relies on Figure 25, it does so for a limited purpose. Petitioner does not rely on Figure 25 for how a connection is established; instead, Petitioner only relies on it for the broad teaching that different protocols can be used for different connections. *See* Pet. 31–33. Given such a limited use of the Figure 25 embodiment, we are persuaded that a person having ordinary skill in the art would have applied the broad teaching of using different protocols without needing to adopt all of Figure 25, including how connections are established. Such a bodily incorporation of all of Figure 25 into the Figure 2C/3D embodiment, as Patent Owner argues, mischaracterizes the Petition.

Moreover, Patent Owner does not accurately describe Petitioner’s use of Figure 25. Although Petitioner cites Wookey paragraph 732 at various points in its discussion of the disputed claim limitation, (*see* Pet. 31, 33), each of those discussions focuses on different protocols to be used. Read in context, it is clear that Petitioner is relying on paragraph 732 not for any

specific protocol (such as that used with Figure 25), but for the broad teaching of using a different protocol, such as the one disclosed in Berg:

However, it would have been obvious to a POSITA to consider and implement a protocol following Wookey's desired characteristics (e.g., such as those identified above) for the second connection between client machine 10 and remote machine 30', which may be "a different type of protocol than the one used to send the request to the remote machine 30." (EX1005 ¶[0732].)

Berg describes such a protocol (a "*protocol that is separate from the TCP*") that allows nodes to negotiate or modify timeout timers on a per-connection basis to provide a reliable and efficient network connection. Accordingly, based on the teachings of Berg, a POSITA's knowledge, and guidance from Wookey, it would have been obvious to configure Wookey's client machine 10 such that when the "code" (e.g., the encoded URL(s) in HTML page 288 pointing to a resource on remote machine 30', or the HTML page 288 including such URL(s)) is used, the code causes client machine 10 (e.g., by way of browser application 280) to operate per a second protocol such as the one described by Berg (which would have been separate from the TCP protocol used to send the request to remote machine 30) having at least some characteristics contemplated by Wookey for such a second connection between client machine 10 and remote machine 30'. (EX1002 ¶¶159–160.)

Pet. 33–34.

We also do not agree with Patent Owner that the Figure 2C and 3D embodiments function the same as the Figure 25 embodiment. In support of its position, Patent Owner relies on attorney argument, not evidence. *See* PO Sur-reply 6–7 (making argument without citing any evidence). It is well settled that mere attorney arguments and conclusory statements, which are unsupported by factual evidence, are entitled to little probative value. *See Johnston v. IVAC Corp.*, 885 F.2d 1574, 1581 (Fed. Cir. 1989) ("Attorney's argument is no substitute for evidence."); *Gemtron Corp. v. Saint-Gobain*

*Corp.*, 572 F.3d 1371, 1380 (Fed. Cir. 2009) (unsworn attorney argument is not evidence).

Recognizing that Figure 25 is a distinct embodiment, in its Sur-reply, Patent Owner cites to Dr. Lin's testimony to argue that the Figures 2C, 3D, and 25 embodiments all function the same way. *See* PO Sur-reply 14 (citing Ex. 1002 ¶ 120).

However, we do not agree with Patent Owner's characterization of the evidence. Looking at the relevant section of Dr. Lin's testimony, it is clear that Dr. Lin was testifying that the similarity between the embodiments was the use of a TCP connection between server machine 10 and remote machine 30. Specifically, the claim limitation in dispute requires using a TCP connection. Ex. 1002 ¶ 105 (heading for the relevant section: "one or more processors in communication with the non-transitory memory, wherein the one or more processors execute the network application to operate in accordance with a first protocol including a transmission control protocol (TCP)"). Dr. Lin describes how remote machine 30 and client machine 10 communicate with each other. *Id.* ¶¶ 113–117. Then, Dr. Lin discusses Wookey's teaching of a TCP connection and opines that a person having ordinary skill in the art would have understood that the Figure 2C embodiment uses a TCP connection. *Id.* ¶¶ 118–119. Finally, in paragraph 120, the paragraph that Patent Owner relies on, Dr. Lin simply cites to Figure 25 as a confirmatory example of using a TCP connection, which is similar between the various embodiments: "The above understanding regarding Wookey's features [using TCP] is further confirmed by other disclosures in Wookey, such as the disclosures related to Figure 25." *Id.* ¶ 120. After describing how Figure 25 operates using a TCP connection, Dr. Lin concludes with his opinion that "a person of ordinary skill the art would



have understood that the communication between the client machine 10 and remote machine 30, where the remote machine 30 acts as a web server, would have operated in accordance with TCP.” *Id.* Thus, it is clear that Dr. Lin was discussing the similarity of using TCP between the embodiments and Patent Owner reads too much into Dr. Lin’s testimony. While the testimony notes broad similarity between the embodiments in that the servers communicate and exchange data, we do not read the testimony as saying they use the same method to establish a communication link. In this proceeding, we credit Dr. Lin’s testimony, which describes how Figure 3D operates with specific citations to the record (Ex. 1002 ¶¶ 106–119), because it is consistent with Wookey’s disclosure of how HTML page 288 is used to cause the communication link between client machine 10 and remote server 30’ in the Figure 3D embodiment.

We also do not agree with Patent Owner’s attempted distinction between “initiate” and “causes”/“results in.”<sup>18</sup> *See* PO Resp. 9–11. Patent Owner has not asked for a specific construction of the term “causes”/“results in” and we do not see a difference between “initiate” and “causes”/“results in” in the present context. As described in Wookey, the user will use the icon on HTML page 288 (code) to begin the process of establishing a communication link with remote server 30’. Ex. 1005 ¶ 216. HTML page 288 “contains the information necessary for the client to create a connection to the remote machine hosting the resource.” *Id.* And in response to the

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<sup>18</sup> Claim 1 recites “causes” and claim 34 recites “results in.” Ex. 1001, 24:36–40 (claim 1), 27:31–35 (claim 34). Patent Owner presents substantially the same argument for both terms. *Compare* PO Resp. 9–11 (claim 34 and “results in”), *with* IPR2021-00870 PO Resp. 9–10 (claim 1 and “cause”).

user clicking the icon (which is part of HTML page 288 (*id.* ¶ 196)), client machine 10 establishes a connection with remote machine 30' (*id.* ¶ 216). Thus, the interaction with HTML page 288 (code) causes/results in the communication link to be created, which leads to the client performing claim limitations [1.g.], [1.h.], [1.i.], and [1.j].

We also are not persuaded by Patent Owner's argument that our finding in IPR2020-00845 is inconsistent with the finding discussed above. *See, e.g.*, PO Sur-reply 22. As discussed above, in this proceeding we find that when a user presses icon 257, 257', it causes the code to initiate the communication link between client machine 10 and remote client 30'. As part of the communication link being formed, client 10 performs claim limitations [1.g.], [1.h.], [1.i.], and [1.j]. That is, every time a user presses the icon, the code causes the remaining steps to happen.

That is unlike the situation in IPR2020-00845. In that case, we found that, if retransmission packets are sent in Eggert, they are not packets "to keep the TCP-variant connection active," and we explained this finding in the context of a network disconnection scenario, in which a retransmission packet does not cause the connection to be kept alive. 845 IPR, Paper 33, 18–22 (PTAB Aug. 27, 2021) (Final Written Decision). Thus, Patent Owner's attempted comparison fails.

Moreover, in this case, there is no limitation or restriction relating to the function "cause." *See* Ex. 1001, 24:17–20. However, in the 845 IPR, we rejected Patent Owner's argument that there were no limits on the packet, recognizing that the plain language of the claim recited a significant qualifier: "to keep the TCP-variant connection active." 845 IPR, Paper 33 at 7–8. Our determination in that proceeding was based, in part, on the fact that Eggert does not teach, and Patent Owner did not argue, that

“retransmitting data resets the original timeout timer that started upon sending the data the first time.” *Id.* at 19. Thus, regardless of what the retransmission packet might cause in some circumstances, the sending of the retransmission packet falls outside of the qualifier in the claim language. Therefore, we do not see the similarity between the two arguments.

*c) Conclusion Regarding Claim 1*

We have considered the evidence submitted by the parties and determine that Petitioner has shown by a preponderance of the evidence that claim 1 of the '945 patent would have been obvious over Wookey and Berg.

*4. Analysis of Claims 7–10, 34, and 64–69*

Petitioner argues that the combination of Wookey and Berg teaches the limitations recited in claims 7–10, 34, and 64–69 and that a person having ordinary skill in the art would have combined the teachings of the two references with a reasonable expectation of success. *See* Pet. 52–73; 870 Pet. 50–57.

Besides the challenges discussed above with regard to claim 1, Patent Owner does not dispute in this proceeding Petitioner’s argument regarding dependent claim 7–10, 34, and 64–69. *See* PO Resp; 870 PO Resp.

Based on the evidence and arguments presented in the Petition, which are not otherwise argued by Patent Owner, we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 7–10, 34, and 64–69 would have been obvious over the combined teachings of Wookey and Berg.

*F. Asserted Obviousness in View of Wookey, Berg, and Eggert*

Petitioner argues that claims 11 and 12 would have been obvious over Wookey, Berg, and Eggert. *See* 870 Pet. 57–66. Based on the evidence and

arguments presented during the trial, Petitioner has persuaded us that the challenged claims are unpatentable.

*1. Eggert*

Eggert “specifies a new TCP option - the Abort Timeout Option - that allows conforming hosts to negotiate per-connection abort timeouts. This allows mobile hosts to maintain TCP connections across disconnected periods that are longer than their system’s default abort timeout.” IPR2021-00870 Ex. 1006, 3.

*2. Analysis of Claims 11 and 12*

Petitioner argues that the combination of Wookey, Berg, and Eggert, teaches the limitations recited in claims 11 and 12 and that a person having ordinary skill in the art would have combined the teachings with a reasonable expectation of success. *See* 870 Pet. 57–66.

Based on the evidence and arguments presented in the Petition, which are not separately argued by Patent Owner (*see* 870 PO Resp. 12), we determine that Petitioner has demonstrated by a preponderance of the evidence that claims 11 and 12 would have been obvious over the combined teachings of Wookey, Berg, and Eggert.

*G. Allegedly Improper Arguments in Patent Owner’s Sur-reply*

Petitioner argues that several of the arguments contained in the Sur-reply are improper. Pet. Statement; 870 Pet. Statement. Patent Owner responds that its arguments either were made in the Patent Owner Response or were responsive to new arguments in the Reply. PO Statement.; 870 PO Statement.

Because we find the challenged claims unpatentable even if we consider Patent Owner’s arguments, we need not address whether any of the arguments in the Sur-reply are improper.

### CONCLUSION<sup>19</sup>

For the foregoing reasons, we conclude that Petitioner has demonstrated by a preponderance of the evidence the unpatentability of claims 1, 7–12, 34, 64–69 of the '945 patent. Specifically, Petitioner has demonstrated by a preponderance of the evidence that claims 1, 7–10, 34, and 64–69 would have been obvious under 35 U.S.C. § 103(a) in light of Wookey and Berg and that claims 11 and 12 would have been obvious under 35 U.S.C. § 103(a) in light of Wookey, Berg, and Eggert.

### ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1, 7–12, 34, and 64–69 of the '945 patent are held unpatentable;

FURTHER ORDERED that Petitioner's Motion in IPR2021-00869 Regarding Estoppel (Paper 38) is dismissed;

FURTHER ORDERED that Petitioner's Motion in IPR2021-00870 Regarding Estoppel (Paper 37) is dismissed; and

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

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<sup>19</sup> 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. 16,654 (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).

In summary:

IPR2021-00869

<b>Claims</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Claims Shown Unpatentable</b>	<b>Claims Not shown Unpatentable</b>
1, 9, 10, 34, 64– 69	103(a)	Wookey, Berg	1, 9, 10, 34, 64–69	

IPR2021-00870

<b>Claims</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Claims Shown Unpatentable</b>	<b>Claims Not shown Unpatentable</b>
7, 8	103(a)	Wookey, Berg	7, 8	
11, 12	103(a)	Wookey, Berg, Eggert,	11, 12	
<b>Overall Outcome</b>			7, 8, 11, 12	

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