

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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NETNUT LTD.,  
Petitioner,

v.

BRIGHT DATA LTD.,<sup>1</sup>  
(f/k/a LUMINATI NETWORKS, LTD.)  
Patent Owner.

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IPR2021-00465  
Patent 9,742,866 B2

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Before THOMAS L. GIANNETTI, SHEILA F. McSHANE, and  
RUSSELL E. CASS, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

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

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<sup>1</sup> Patent Owner filed updated disclosures on May 19, 2021 indicating that it changed its name from Luminati Networks, Ltd. to Bright Data Ltd. See Paper No. 7, 1.

## I. INTRODUCTION

### A. *Background and Summary*

NetNut Ltd. (“NetNut” or “Petitioner”) filed a Petition requesting *inter partes* review of claims 15–20, 23, 24, 27, and 28 of U.S. Patent No. 9,742,866 B2 (Ex. 1001, “the ’866 patent”), along with the supporting Declaration of Keith J. Teruya. Paper 2 (“Pet.”); Ex. 1003. Bright Data Ltd. (“Bright Data” or “Patent Owner”) filed a Preliminary Response to the Petition, along with the supporting Declaration of Dr. V. Thomas Rhyne. Paper 8 (“Prelim. Resp.”); Ex. 2001. With the Board’s allowance, Petitioner also filed a Pre-Institution Reply (Paper 9, “Pet. Pre-Inst. Reply”), with Patent Owner filing a Pre-Institution Sur-Reply (Paper 10, “PO Pre-Inst. Sur-Reply”), which further address discretionary denial under 35 U.S.C. § 314(a).

We have authority under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless . . . the information presented in the petition . . . 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.”

For the reasons that follow, we determine that Petitioner has demonstrated that there is a reasonable likelihood that it would prevail in showing the unpatentability of at least one of the challenged claims. For the reasons set forth below, and pursuant to 35 U.S.C. § 314, we institute *inter partes* review of claims 15–20, 23, 24, 27, and 28 of the ’866 patent.

### B. *Related Matters*

The parties identify several district court litigations concerning the ’866 patent that are terminated or are entering the appeal stage. Pet. 3–4;

Paper 4, 2–3. The parties also identify a district court case, *Luminati Networks Ltd. v. NetNut Ltd.*, No. 2:20-cv-00188 (E.D. Tex.), involving patents other than the '866 patent. Pet. 3; Paper 4, 3.

*C. The '866 Patent*

The '866 patent is titled “System And Method For Improving Internet Communication By Using Intermediate Nodes” and issued on August 22, 2017, from an application filed on November 3, 2015. Ex. 1001, codes (22), (45), (54). The patent is subject to a terminal disclaimer. *Id.* at code (\*). The application for the '866 patent claims priority to U.S. Provisional Application No. 61/870,815, filed August 28, 2013. *Id.* at code (60).

The '866 patent is directed to a method for fetching content from a web server to a client device using tunnel devices serving as intermediate devices. Ex. 1001, code (57). The client device accesses an acceleration server to receive a list of available tunnel devices. *Id.* Requested content may be partitioned into slices, with the client device sending a request for the slices to the available tunnel devices. *Id.* The tunnel devices may, in turn, fetch slices from the data server and send the slices to the client device, where the content is reconstructed from the received slices. *Id.*

A client device may also serve as a tunnel device, which serves as an intermediate device to other client devices. Ex. 1001, code (57). The selection of tunnel devices to be used by a client device may be made in the acceleration server, in the client device, or in both. *Id.* Partitions into slices may be overlapping or non-overlapping, and the same slice, or the whole content, may be fetched via multiple tunnel devices. *Id.*

Claim 15 is the only independent challenged. This claim of the '866 patent is reproduced below.

15. A method for fetching a content over the Internet from a first server identified in the Internet by a second identifier via a group of multiple devices, each identified in the Internet by an associated group device identifier, the method comprising the step of partitioning the content into a plurality of content slices, each content slice containing at least part of the content, and identified using a content slice identifier, and for each of the content slices, comprising the steps of:

(a) selecting a device from the group;

(b) sending over the Internet a first request to the selected device using the group device identifier of the selected device, the first request including the content slice identifier and the second identifier;

(c) in response to receiving the sent first request by the selected device, receiving over the Internet the content slice from the selected device; and

wherein the method further comprising the step of constructing the content from the received plurality of content slices,

and wherein each of the devices in the group is a client device.

Ex. 1001, 173:41–174:14.

*D. Asserted Grounds of Unpatentability*

Petitioner challenges the patentability of claims of the '866 patent on the following grounds:

Claim(s)	35 U.S.C. §	References/Basis
15–17, 23, 24	102(a) <sup>2</sup>	Sharp KK <sup>3</sup>
18	103	Sharp KK, MPEG DASH <sup>4</sup>

<sup>2</sup> The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), which amended 35 U.S.C. §§ 102 and 103, was effective on March 16, 2013 and applies here.

<sup>3</sup> EP 2 597 869 A1, published on May 29, 2013 (Ex. 1018, “Sharp KK”).

<sup>4</sup> Information technology–Dynamic adaptive streaming over HTTP (DASH)–Part 1: Media Presentation Description and Segment Formats, ISO/IEC JTC 1/SC 29, January 5, 2012 (Ex. 1027, “MPEG DASH”).

Claim(s)	35 U.S.C. §	References/Basis
19, 20, 27, 28	103	Sharp KK, Shribman <sup>5</sup>
15, 17, 18	103	Luotonen <sup>6</sup> , RFC 2616 <sup>7</sup>
15, 17, 18	103	Luotonen, RFC 2616, RFC 3040 <sup>8</sup>

Pet. 10.

## II. DISCRETIONARY DENIAL

Patent Owner requests that the Board exercise its discretion pursuant to 35 U.S.C. § 314(a) and deny institution. Prelim. Resp. 4–20; PO Pre-Inst. Sur-Reply 1–5. Patent Owner urges that institution should be denied based on the factors identified in *General Plastic*, as well as the consideration of additional factors. Prelim. Resp. 4–20; PO Pre-Inst. Sur-Reply 1–5; *Gen. Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i, pages 15–19) (“*General Plastic*”).

As background, *General Plastic* identifies factors to be considered by the Board in evaluating whether to exercise discretion, under § 314(a), to deny a petition that challenges a patent that was previously challenged before the Board, which are:

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;

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<sup>5</sup> U.S. Patent Application No. 2011/0087733 A1, filed July 14, 2010, published April 14, 2011 (Ex. 1017, “Shribman”).

<sup>6</sup> Ari Luotonen, WEB PROXY SERVERS, Prentice Hall Web Infrastructure Series, 1998 (Ex. 1014, “Luotonen”).

<sup>7</sup> Hypertext Transfer Protocol–HTTP/1.1, Network Working Group, RFC 2616, The Internet Society, 1999 (Ex. 1007, “RPC 2616”).

<sup>8</sup> Internet Web Replication and Caching Taxonomy, Network Working Group, RFC 2616, The Internet Society, 2001 (Ex. 1020, “RPC 3040”).

2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;

3. whether at the time of filing of the second petition the 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;

4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;

5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;

6. the finite resources of the Board; and

7. the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review.

*Gen. Plastic*, Paper 19 at 15–16; *see also* Consolidated Trial Practice Guide, 56–58.<sup>9</sup>

Petitioner argues that *General Plastic* should not be considered in this proceeding. Pet. 11. Petitioner points out that there has only been one other *inter partes* proceeding filed, IPR2020-00167, that is related to the '866 patent, and BI Science, Ltd. was the Petitioner. *Id.* Petitioner asserts that it was not a party in the prior *inter partes* review and it has no real-party-in-interest or privity relationship with BI Science. *Id.*

Patent Owner argues that *General Plastic* applies here because the Board decision in *United Fire Protection Corp. v. Engineered Corrosion Solutions* used the *General Plastic* factors in a situation with a different second petitioner. Prelim. Resp. 11–12 (citing *United Fire Protection Corp.*

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<sup>9</sup> Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

*v. Engineered Corrosion Solutions, LLC*, IPR2018-00991, Paper 10 (PTAB November 15, 2018) (Decision Denying Institution) (“*United Fire*”).

Patent Owner applies the *General Plastic* factors and contends that factors 2–6 weigh against institution, and factors 1 and 7 are neutral. *Id.* at 12–17. Patent Owner asserts that although a lawsuit has not been filed against Petitioner on the ’866 patent, Petitioner had been sued for infringement of other patents owned by Patent Owner. *Id.* at 4. As such, Patent Owner argues that Petitioner does not appear to have any interest in the patentability of the ’866 patent other than using this *inter partes* review proceeding “as a tool for settlement of the district court litigation involving only the ’511 and ’968 patents.” *Id.* at 4–5, 19. Related to this issue, Patent Owner argues that other factors weigh against instituting review: 1) Petitioner gained an advantage as a result of retaining the same lawyers and expert that had prepared first petitions on behalf of another Petitioner, BI Science; and 2) Petitioner is using the Board as a tool to settle the district court litigation concerning patents other than the ’866 patent. *Id.* at 17–19.

*General Plastic*, a precedential decision, applied to an instance where a party filed initial petitions asserting certain art, preliminary responses were filed, and the Board denied institution on the earlier petitions. *Gen. Plastic* at 6, 10. The same party then filed follow-on petitions challenging the same patents and used the information provided in the previous filings as a roadmap for the later petitions. *Id.* at 17–18. Here, Petitioner NetNut has not previously filed any petitions challenging the ’866 patent. The Board’s precedential decisions using *General Plastic* factors recognize a discrete circumstance that is not limited to instances where multiple petitions are filed by the same petitioner. In *Valve Corp. v. Elec. Scripting Prods., Inc.*,

the Board found that there was a significant relationship between a petitioner and a previous petitioner because they had been co-defendants in a district court litigation, both were sued on the same products, and there was a license agreement between the parties related to the technology of the product. *Valve Corp. v. Elec. Scripting Prods., Inc.*, Case IPR2019-00062, -00063, -00084 (PTAB Apr. 2, 2019) (Paper 11, 9–10) (precedential). Due to the significant relationship between the prior petitioner and the petitioner at issue, *Valve* applied the *General Plastic* factors. *Id.* at 9–10. *General Plastic* and *Valve* do not apply to the circumstances here—Patent Owner does not allege that there is *any* relationship between NetNut and the previous petitioner, BI Science. *See generally* Prelim. Resp.; PO Pre-Inst. Sur-Reply.

We do not agree with Patent Owner that *United Fire* applies to the circumstances of this case. *Unified Fire* acknowledges that *General Plastic* is typically applied to analyze situations in which the same party files multiple petitions challenging the same patent, but employs the *General Plastics* factors as a “useful framework.” *Unified Fire* at 11. *Unified Fire* does not serve as binding precedent in this case and, moreover, it is distinguishable from the circumstances of this case. As Petitioner argues, the circumstances of *Unified Fire*, as well as *General Plastic*, are substantially different from those here. Pet. Pre-Inst. Reply 1. In *Unified Fire* and *General Plastic*, there were prior patent owner preliminary responses and non-institution decisions issued that were available to serve as a strategic roadmap for the later challenges. Those responses and decisions are not available here because the prior case with BI Science was terminated due to a settlement before a patent owner preliminary response was filed.

Pet. Pre-Inst. Reply 1; *Unified Fire* at 13–15. Instead, Petitioner asserts the same prior art here as that presented in the BI Science proceeding, but neither the Patent Owner nor the Board had addressed the merits of the prior challenge. Pet. Pre-Inst. Reply 1. Under these circumstances, we decline to extend *General Plastic* and *Valve* to the situation here: where a follow-on petition is filed by a petitioner who is not the same as previous petitioners and does not have any relationship, much less a significant relationship, with previous petitioners.

Application of the *General Plastic* factors would also not persuade us to exercise discretionary denial in this proceeding. Because Petitioner was not a petitioner in previous proceedings, factor 1 weighs against the exercise of discretionary discretion. Likewise under factor 2, whether Petitioner knew of or should have known of the asserted references at the time of the prior petition, is of little probative value. As discussed above, settlement occurred before a patent owner preliminary response was filed or a Board decision issued in the prior proceedings, so factor 3 weighs against the exercise of discretionary denial.

Patent Owner argues that factors 4 and 5 favor discretionary denial of institution because Petitioner has not disclosed when it became aware of the previously-asserted prior art or provide an explanation for the time elapsed between the filings of the respective petitions. Prelim. Resp. 15–16; PO Pre-Inst. Sur-Reply 1–4. Patent Owner also asserts that Petitioner does not explain the delay between filing its petition and the previous BI Science petition, and “[i]f Petitioner was truly interested in protecting the public interest, Petitioner could have filed the instant IPRs sooner.” PO Pre-Inst. Sur-Reply 1–2.

*General Plastic* is directed to shifts in the prior art asserted and strategic road mapping for follow-on petitioners, and factors 4 and 5 concern whether a petitioner could have raised the new challenges of the later petition at an earlier time. *Gen. Plastic* at 17–18. But here, as Petitioner points out, the Petition relies on the same prior art as that asserted in the BI Science petition—so we determine that factors 4 and 5 do not favor discretionary denial under the instant circumstances. *See* Pet. Pre-Inst. Reply 2 n.2. Additionally, Petitioner is not subject to the one-year time bar to file a petition under 35 U.S.C. § 315(b) because it was not a party in an infringement action associated with the '866 patent, and we are not aware of any other petition filing deadlines that apply. Further, and contrary to Patent Owner's assertion that Petitioner should have earlier filed its Petition under these circumstances, we are not aware that there is an affirmative duty for a party to file a petition.

Under factors 6 and 7, we do not discern that the institution of this proceeding would tax unduly the resources of the Board or that we could not meet the requirement of 35 U.S.C. § 316(a)(11) to issue a final determination within one year after institution, so those factors do not provide support for discretionary denial.

Patent Owner argues that in the *General Plastic* analysis we should also consider as additional factors that Petitioner gained an advantage as a result of retaining the same lawyers and expert as BI Science from the earlier petition and, additionally, that Petitioner is attempting to use this proceeding as a way to settle the district court litigation concerning patents other than the '866 patent. Prelim. Resp. 17–19.

*General Plastic* permits other factors be considered in evaluating discretionary denial. *Gen. Plastic* at 16 (noting that the listed factors are non-exhaustive). However, we do not find that hiring the same lawyers and expert as a previous petitioner should be a factor that should be considered to favor discretionary denial. Petitioner points out that its counsel was knowledgeable about the patent and the prior art, which may be an incentive for these lawyers being retained. Pet. Pre-Inst. Reply 3. In any event, a party is free to choose their own legal representation and expert, and, accordingly, we decline to consider a party's choice of a law firm and expert as a factor that favors discretionary denial. Moreover, we do not find that strategies alleged to be in play among different proceedings should be a negative factor considered against Petitioner under these circumstances. As Petitioner asserts, 37 C.F.R. § 42.101 allows Petitioner to file a petition, and there is no requirement that a party has to state their motivations and legal strategy associated with the petition filing; to so require could potentially introduce additional burden and possibly invade attorney-client privilege. *Id.* at 4.

Accordingly, considering all the *General Plastic* factors, we decline to exercise our discretion to deny institution.

### III. ANALYSIS

#### *A. Level of Ordinary Skill in the Art*

Petitioner asserts that a person of ordinary skill in the art the time of the invention would have had “a bachelor's degree or equivalent in a field such as Electrical Engineering, Computer Engineering, or Computer Science, or an equivalent field that includes network engineering as a topic of study.” Pet. 19. Petitioner further contends that one of skill would have

also had “at least one years [*sic.*] of practical academic or industry technical experience in the computer network field,” and presents examples of experience types meeting those qualifications. *Id.* at 19–20 (citing Ex. 1003 ¶¶ 25–27).

Patent Owner’s expert, Dr. Rhyne, testifies that a person of skill would have had “a Master’s Degree or higher in the field of Electrical Engineering, Computer Engineering, or Computer Science or as of that time had a Bachelor’s Degree in the same fields and two or more years of experience in Internet-related data communications.” Ex. 2001 ¶ 23.

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

Although the qualifications proposed by the parties are similar, considering the subject matter of the ’866 patent, the background technical field, and the prior art, we adopt Petitioner’s proposed qualifications for the purposes of this Decision. Accordingly, the acceptable qualifications for one of ordinary skill in the art would be possession of a bachelor’s degree or equivalent in a field such as Electrical Engineering, Computer Engineering, or Computer Science, or an equivalent field that includes network

engineering as a topic of study. Further, additional education may substitute for lesser work experience and vice-versa.<sup>10</sup>

*B. Claim Construction*

For petitions filed after November 13, 2018, the Board interprets claim terms in accordance with the standard used in federal district court in a civil action involving the validity or infringement of a patent. 37 C.F.R. § 42.100(b) (2020). Under the principles set forth by the Federal Circuit, the “words of a claim ‘are generally given their ordinary and customary meaning,’” as would be understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Petitioner presents arguments for several claim terms, relying, for the most part, on claim construction rulings on ’866 patent terms issued in *Luminati Networks Ltd. v. UAB Tesonet*, No. 2:18-CV-299 (E.D. Tex.) (Ex. 1023) and *Luminati Networks Ltd. v. BI Science Inc.*, No. 2:18-CV-453 (E.D. Tex.) (Ex. 1033). Pet. 20–29. Dr. Rhyne, Patent Owner’s expert,

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<sup>10</sup> The parties are encouraged to address the impact, if any, of differences in the level of qualifications on the obviousness analysis in any subsequent briefing.

testifies that the claim constructions in these court orders are those he considered in forming his opinions. Ex. 2001 ¶ 22.

Although the parties do not dispute the construction of any claim terms at this juncture, we include a discussion of the phrase “wherein each of the devices in the group is a client device” here because its interpretation is relevant to some disputed issues discussed below. Petitioner refers to District Court’s discussion (Pet. 27–28) which states that “[t]he specification explains that being a ‘client’ is a ‘role’ assumed by a device” (Ex. 1023, 50). The District Court refers to the ’866 specification, which states:

Any network element in the system may be a dedicated device that assumes only a single role, and thus being only a client (using tunnels), a tunnel, a client (using agents/peers), an agent, or a peer device. Alternatively or in addition, *a network element may be capable of assuming two or more roles, either at different times or simultaneously*, from the list of roles including a client (using tunnels), a tunnel, a client (using agents/peers), an agent, or a peer device. Alternatively or in addition, *a device may be capable of assuming all of the above roles.*

Ex. 1001, 125:33–42 (emphasis added).

Referring to Figure 5b of the ’866 patent, which shows interactions between “Acceleration Server,” “Client Device,” “Tunnel Device,” and “Data Server,” the District Court declined to limit the term “client device” to a “tunnel, agent, or peer devices serving as intermediate devices to fetch content in the method.” Ex. 1023, 51. Instead, the District Court construed the term “client device” in accordance with its function, that is, “a device that is operating in the role of a client by requesting services, functionalities, or resources from other devices.” Based on the record developed in the

District Court, we adopt this construction for the purposes of this Decision. Additionally, in accordance with the disclosure of the '866 patent, we note that a network element, such as a client device, may be capable of assuming two or more roles, either at different times or simultaneously. *See* Ex. 1001, 125:33–42.

*C. Alleged Anticipation of Claims 15–17, 23, and 24 by Sharp KK*

Petitioner contends that claims 15–17, 23, and 24 would have been anticipated by Sharp KK. Pet. 37–45. To support its contentions, Petitioner provides explanations as to how Sharp KK discloses each claim limitation. *Id.* Petitioner also relies upon the Teruya Declaration (Ex. 1003) to support its positions.

We begin our discussion with a brief summary of Sharp KK and then address the evidence and arguments presented.

*1. Sharp KK (Ex. 1018)*

Sharp KK describes a content distribution service in which a server distributes content to the client in response to a request from a client for playing the content. Ex. 1018 ¶ 1. Figure 20 is reproduced below, and illustrates the schematic configuration of a content distribution center described in Embodiment 3 (*id.* ¶ 16):

FIG. 20

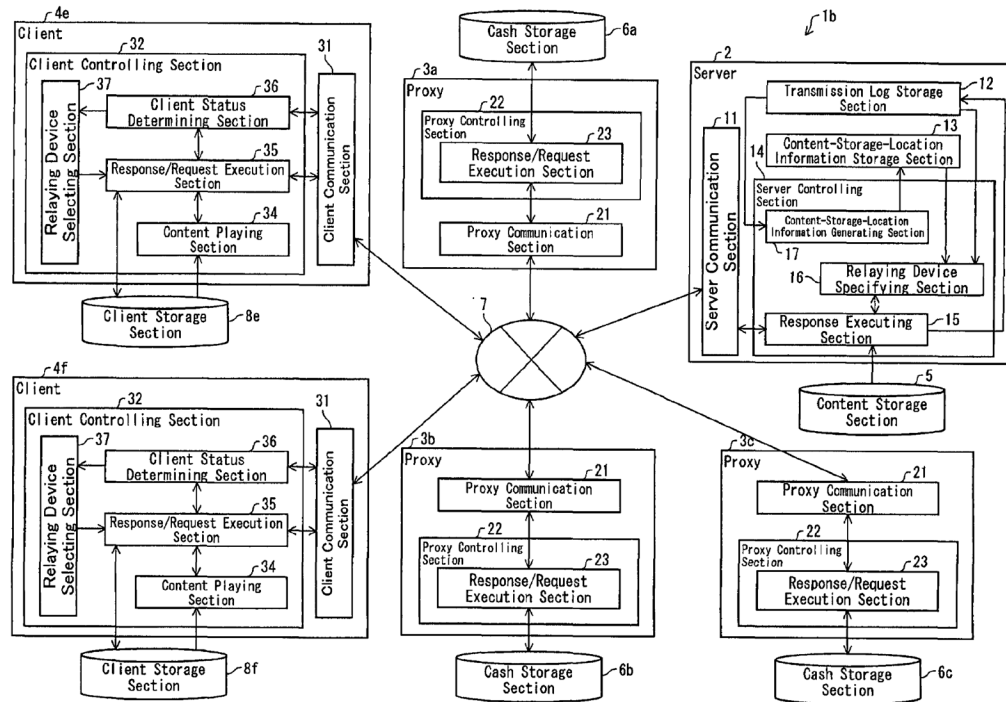


Figure 20, above, is a schematic showing the configuration of a content distributing system. Ex. 1018 ¶ 16. As illustrated in Figure 20, content distributing system 1b includes server 2, proxies 3b and 3c, and clients 4e and 4f. *Id.* ¶ 18. The content distributing system also includes content storage section 5 connected to server 2, and cache storage sections 6b and 6c connected to respective proxies 3b and 3c. *Id.* ¶ 220. As illustrated in Figure 1, server 2, proxies 3b and 3c, respectively, and clients 4e and 4f are connected to client storage sections 8e and 8f. *Id.* In the system, relaying device specifying section 16 of server 2 specifies a plurality of relaying devices which may possess content that is created. *Id.* ¶ 225.

Sharp KK describes several embodiments for different processes that may be utilized in the invention for content distribution, identified as Embodiments 1–5. Ex. 1018 ¶¶ 17–480.

## 2. Analysis

A claim is unpatentable under 35 U.S.C. § 102 if a prior art reference discloses each and every limitation of the claimed invention, either explicitly or inherently. *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047 (Fed. Cir. 1995); see *MEHL/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999) (“To anticipate, a claim a prior art reference must disclose every limitation of the claimed invention . . .;” any limitation not explicitly taught must be inherently taught and would be so understood by a person experienced in the field); *In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991) (the dispositive question is “whether one skilled in the art would reasonably understand or infer” that a reference teaches or discloses all of the limitations of the claimed invention).

### a. Claim 15

The Petition asserts that Sharp KK discloses all the limitations of claim 15. Pet. 37–45.

For the preamble of claim 15<sup>11</sup>, Petitioner contends that Sharp KK discloses a method of fetching content from a “first server” which is mapped to server 2 as shown in Figure 20. Pet. 37. More specifically, Petitioner asserts that server 2 is identified in the Internet by a domain name

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<sup>11</sup> The District Court in the *BI Science* litigation found that the preamble of claim 15 was limiting because it provides antecedent basis for several terms and defines attributes of those terms. Ex. 1033, 35–36; Ex. 1023, 15. At this juncture, we agree with the District Court on this issue.

“example.com,” which is the claimed “second identifier.” *Id.* (citing Ex. 1018 ¶ 220). Petitioner argues that Sharp KK discloses that client 4e uses multiple proxies 3a–3c, which are identified by Petitioner as the claimed “group of multiple devices,” to download content from server 2. *Id.* Petitioner contends that client 4e requests content from server 2 (“GET /content1/0 HTTP/1.1”), and server 2 responds with a list of proxies, which are identified by the domain name, from which client 4e can obtain content. *Id.* at 37–38 (citing Ex. 1018 ¶¶ 290, 293, 294–297, 566, Fig. 27; Ex. 1003 ¶¶ 66–68).

Petitioner additionally asserts that Sharp KK discloses partitioning, or fracturing, the content into content slices which have predetermined units, such as a group of pictures, and numerals are assigned to the fragments. Pet. 38 (citing Ex. 1018 ¶¶ 240, 245, 247, Fig. 21; Ex. 1003 ¶ 69).

Petitioner asserts that limitation 15(a) is disclosed in Sharp KK. Pet. 38–40. Petitioner argues that the client provides a content identifier for desired content to server 2, and server 2 responds with a list of proxies, or clients acting as proxies. *Id.* at 39 (citing Ex. 1018 ¶¶ 229, 290–293, Fig. 27). Then, Petitioner contends, Sharp KK discloses that client 4 selects a proxy and the proxy may be used for each of the content slices, or the proxy may be changed in the retrieval process. *Id.* (citing Ex. 1018 ¶¶ 229, 232–235, 283; Ex. 1003 ¶ 72). Petitioner asserts that, although the claim does not require repeated proxy selection for each chunk, Sharp KK also discloses repeated proxy selections. *Id.* at 39–40 (citing Ex. 1018, Fig. 23; Ex. 1003, ¶ 72).

Petitioner argues that limitation 15(b) is disclosed in Sharp KK by client 4e transmitting an instruction to acquire content from a selected device

(proxy 3) using the group device identifier address, and the transmission includes a media segment number (“the content slice identifier”) and the domain name of server 2 (the “second identifier”). Pet. 40–41 (citing Ex. 1018 ¶¶ 229, 232, 259, 270, 272, 281, 291, 302; Fig. 27; Ex. 1003 ¶ 73).

For limitation 15(c), Petitioner contends that in response to the first request from the selected proxy, the proxy transmits the requested media segment to client 4. Pet. 41 (citing Ex. 1018 ¶ 281, Figs. 21, 24, 27 (message “F”); Ex. 1003 ¶ 74).

For the first “wherein” limitation (“comprising the step of constructing the content from the received plurality of content slices”), Petitioner asserts that Sharp KK discloses that the content playing device 4 plays content received in the form of segments and the media being played is constructed from the content of the media segments. Pet. 41 (citing Ex. 1018 ¶¶ 302, 364, 559–561, Figs. 23, 32; Ex. 1003 ¶ 75).

For the second “wherein” limitation (“wherein each of the devices in the group is a client device”), Petitioner contends that Sharp KK’s Embodiment 2 discloses that clients can “function as and act as a proxy” and further: “in Embodiment 2, the client 4 acts both (i) as a device that requests a content and then acquires the content and (ii) as (a) a relaying device (proxy) that stores the content thus requested and then transfers the content to another device or (b) a playing device that acquires the content thus requested and then plays the content.” Pet. 41–42 (citing Ex. 1018 ¶¶ 142, 144). Petitioner also refers to Sharp KK’s disclosure that “a process which is carried out by the client 4 functioning as a relaying device of Embodiment 3 is identical to that of Embodiment 2,” and asserts that, just as Embodiment

2, the clients of Embodiment 3 can also act as proxies. *Id.* at 42–43 (citing Ex. 1018 ¶¶ 251, 283; Ex. 1003 ¶¶ 76–77).

We have reviewed the record and find that Petitioner provides sufficient evidence that Sharp KK discloses the preamble and limitations of claim 15.

Patent Owner argues that the '866 patent invention discloses a two device/one server architectural structure. Prelim. Resp. 22–23 (citing Ex. 1001, code (57), Fig. 5; Ex. 2001 ¶¶ 25–27). Patent Owner refers to, *inter alia*, the Abstract of the '866 patent, and its disclosure of two devices (a client device and a tunnel device) to allow a first device to obtain content, as well as Figure 5b depicting content retrieval and identifying an “Acceleration Server,” “Client Device,” “Tunnel Device,” and “Data Server.” *Id.* at 24–26 (citing Ex. 1001, code (57), Fig. 5b). Patent Owner contends that Petitioner “resorts” to “recharacterizing the invention to suggest that one of the two ‘devices’ is a conventional proxy or proxy server.” *Id.* at 26. Patent Owner argues that Sharp KK’s disclosed proxies 3a/3b/3c “are distinct and perform completely different roles than the claimed ‘devices.’” Patent Owner also argues that a person of ordinary skill in the art would not equate “devices” with “proxies” or “tunneling proxies.” *Id.* at 27 (citing Ex. 2001 ¶ 33).

At this juncture, we do not agree with Patent Owner’s arguments. Patent Owner’s allegations on required architecture impermissibly attempt to introduce limitations into the claim that are not recited. Although Patent Owner refers to the '866 specification at some length concerning system architecture, Patent Owner fails to explain how these requirements are recited in the limitations of claim 15. Claim 15 is a method claim reciting

certain steps. Patent Owner does not provide an explanation of how Sharp KK, as interpreted by Petitioner, does not disclose the claimed steps, and, as discussed above, we find that the disclosures that Petitioner relies upon are sufficiently supported by Sharp KK.

Patent Owner's argument that one of ordinary skill would not equate "devices" with "proxies" or "tunneling proxies" does not rebut Petitioner's arguments and evidence. Prelim. Resp. 27. The terms "proxies" and "tunneling proxies" are not recited in the claim. Dr. Rhyne testifies, as part of "My Understanding of Claim Construction," that he "considered them [the District Court claim constructions] in forming my opinions"—so Dr. Rhyne did not identify disputes with the Court's claim interpretations. *See* Ex. 2001 ¶ 22. No claim construction analysis is expressly set forth by Patent Owner or Dr. Rhyne, and, short of general references to the '866 patent specification, Dr. Rhyne provides no explanation of his view of the term "devices." Ex. 2001 ¶ 33. Instead, the term "devices," as construed by the District Court, broadly means "a physical device." Ex. 1023, 15. Further, as explained above in discussing claim construction, the '866 patent specification discloses that a network element, such as a device, may be capable of assuming different roles, which would include roles such as proxies. *See* Ex. 1001, 125:33–42.

Patent Owner additionally asserts that at the time of the invention there were known proxy server systems that are referred to in the literature and in the '866 patent: (a) client-server proxy systems, which included VPN proxies and other types of proxy connections; (b) peer-to-peer networking systems which included proxies; and (c) content distribution/delivery systems which included proxies. Prelim. Resp. 30–31. More specifically,

Patent Owner argues that Content Delivery Networks (CDNs) were known, and were referenced in the '866 patent. *Id.* at 34 (citing Ex. 1001, 165:62–65; Ex. 2001 ¶ 42). Patent Owner asserts that a person of ordinary skill in the art would have understood that the purpose of a CDN is to provide content quickly and efficiently without overloading a centralized content server. *Id.* at 35 (citing Ex. 2001 ¶ 44). Patent Owner appears to argue that, similar to peer-to-peer systems, CDN systems, such as Sharp KK, disclose a closed system, where the content requested by a client must already be within the system. *Id.* at 31–36. In contrast, Patent Owner asserts that “the two device/one server network of the '866 patent enables un-traceability coupled with the ability to obtain fresh content slices via a specifically-selected tunnel device,” which Sharp KK does not provide. *Id.* at 37. We do not agree with that argument because, again, the features that Patent Owner argues, such as the use of a tunnel device, do not appear in the limitations of claim 15.

Patent Owner also contends in its discussion in support of the lack of merits that several of the references that Petitioner asserts in its challenges, including Sharp KK, were before the Examiner during the prosecution of the '866 patent. Prelim. Resp. 27–28. We do not find that this assertion undercuts Petitioner’s anticipation arguments and evidence at this juncture. The portion of the prosecution history in the record does not indicate that Sharp KK was applied by the Examiner, nor is there any discussion of the reference. *See* Ex. 1002. Instead, the Examiner’s stated reason for granting allowance is distinguishing features of the claims over the Zuckerman, Bacher, and NPL documents. *Id.* at 8. Additionally, there is no evidence in the record that the Examiner performed claim construction for any of the

claim terms, and, as discussed above, the '866 patent specification supports broad interpretations of, for instance, the term “client device.” *See generally* Ex. 1002.

Accordingly, after considering Patent Owner’s responses, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 15 would have been anticipated by Sharp KK.

*b) Claims 16, 17, 23, and 24*

Claims 16, 17, 23, and 24 all depend directly from claim 15. Claim 16 recites “wherein the content is composed of bits, nibbles, bytes, characters, words, or strings, and the partitioning is based on bit, nibble, byte, multi-byte, number, character, word, or string level.” Ex. 1001, 174:15–18. Petitioner asserts that Sharp KK discloses that media may be fragmented along any suitable unit, and each segment in Sharp KK contains one or more pictures that are divided at the byte level, and so this limitation is disclosed. Pet. 43 (citing Ex. 1018 ¶ 240; Ex. 1003 ¶ 79).

Claim 17 recites “wherein the content is composed of files, or programs, and the partitioning is based on file or program level.” Ex.1001, 174:19–20. Petitioner refers to Sharp KK’s Embodiment 3 and asserts that it discloses a scenario where the client device is unable to process a multipart MIME format of the default media fragments, and the resulting exchange is a request for a file. Pet. 44 (citing Ex. 1018 ¶¶ 246, 307–308, Fig. 21; Ex. 1003 ¶¶ 81–82).

Claim 23 recites “wherein the partitioning is sequential in the content.” Ex. 1001, 174:33–34. Petitioner asserts that Sharp KK discloses

sequential fragments in each media segment, where the sequential ordering continues across segments. Pet. 44 (citing Ex. 1018 ¶ 250; Ex. 1003 ¶ 84).

Claim 24 recites “wherein the partitioning is non-sequential in the content.” Ex. 1001, 174:35–36. Petitioner asserts that Sharp KK discloses that fragmentation of the content generally “has consecutive playing time,” but also discloses “two or more movie fragments each of which has no consecutive playing time.” Pet. 45 (citing Ex. 1018 ¶ 248; Ex. 1003 ¶ 85).

We have reviewed the record and find that Petitioner provides sufficient evidence that Sharp KK discloses the limitations of claims 16, 17, 23, and 24. Patent Owner makes no arguments specifically directed to these claims. Prelim. Resp. 22–37.

Accordingly, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claims 16, 17, 23, and 24 would have been anticipated by Sharp KK.

*D. Alleged Obviousness of Claim 18 Over Sharp KK and MPEG DASH*

Claim 18 depends from claim 17 and further recites “wherein the content is a website content comprising multiple webpages, and the partitioning is based webpages level.” Ex. 1001, 174:19–21.

Petitioner contends that claim 18 would have been obvious over the combination of Sharp KK and MPEG DASH. Pet. 45–47. To support its contentions, Petitioner provides explanations as to how Sharp KK and MPEG Dash teach each claim limitation. *Id.*

We begin our discussion with a brief summary of MPEG DASH, and then address the evidence and arguments presented.

*1. MPEG-DASH (Ex. 1027)*

MPEG-DASH is an ISO-TEC standard for dynamic adaptive streaming over HTTP (MPEG-DASH). Ex. 1027, 6<sup>12</sup>. MPEG-DASH explains that it “specifies XML and binary formats that enable delivery of media content from standard HTTP servers to HTTP clients and enable[s] caching of content by standard HTTP caches.” *Id.* at 12.

*2. Analysis*

A patent claim is unpatentable under 35 U.S.C. § 103 if “the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective date of the claimed invention to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103 (2011); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The 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) objective indicia of nonobviousness.<sup>13</sup> *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Petitioner asserts that a web page can constitute a content slice where it is part of web pages comprising web site. Pet. 45. Petitioner contends that Sharp KK discloses a video on demand (VOD) system, but it is not limited to that application, and its applications include responding to web page

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<sup>12</sup> Our citations to exhibits refer to the page numbering provided by the parties and not the original page numbers.

<sup>13</sup> No evidence of objective indicia of nonobviousness is presented in Patent Owner’s Preliminary Response. *See generally* Prelim. Resp.

requests. *Id.* (citing Ex. 1018 ¶¶ 22, 462). Petitioner assert that it was known in the art at the time of the '866 invention that websites can be comprised of webpages, with the webpages in the form of files. *Id.* at 46 (citing Ex. 1003 ¶ 90; *see also* Ex. 1003 ¶ 87 (citing Ex. 1027, 121)). Mr. Teruya testifies that it would be obvious to a person of ordinary skill in the art that an ordinary website would comprise multiple webpages and their related files, and storing them in the content storage of the website, such as section 5 of server 2 of Sharp KK, would be beneficial as it would reduce loading on both the network and the website server. Ex. 1003 ¶ 93 (citing Ex. 1018 ¶¶ 14, 485).

We have reviewed the record and find that Petitioner provides sufficient evidence that Sharp KK and MPEG-DASH teach the limitations of claim 18 and sufficient rationale to combine the references has been provided. Patent Owner makes no arguments specifically directed to this claim. Prelim. Resp. 22–37.

Accordingly, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 18 would have been rendered obvious by Sharp KK and MPEG-DASH.

*E. Alleged Obviousness of Claims 19, 20, 27, and 28 Over Sharp KK and Shribman*

Claim 19 depends from claim 15 and further recites “wherein all of the parts of the content are included in all of the content slices.” Ex. 1001, 174:19–21. Claim 20 depends from claim 15 and further recites “wherein all of the content slices have the same size.” *Id.* at 174:27–28. Claim 27 depends from claim 15 and further recites “wherein the number of content slices is higher than the number of devices in the group.” *Id.* at 174:43–45. Claim 28 depends from claim 15 and further recites “wherein the number of

content slices is lower than the number of devices in the group.” *Id.* at 174:46–48.

Petitioner contends that claims 19, 20, 27, and 28 would have been obvious over the combination of Sharp KK and Shribman. Pet. 48–50. To support its contentions, Petitioner provides explanations as to how Sharp KK and Shribman teach each claim limitation. *Id.*

We begin our discussion with a brief summary of Shribman, and then address the evidence and arguments presented.

### *1. Shribman (Ex. 1017)*

Shribman describes a communications system designed for increasing network communication speed for users, while lowering network congestion for content owners and ISPs. Ex. 1017, code (57). The system employs network elements including an acceleration server, clients, agents, and peers. *Id.* The configuration of the system is illustrated in Figure 3, reproduced below.

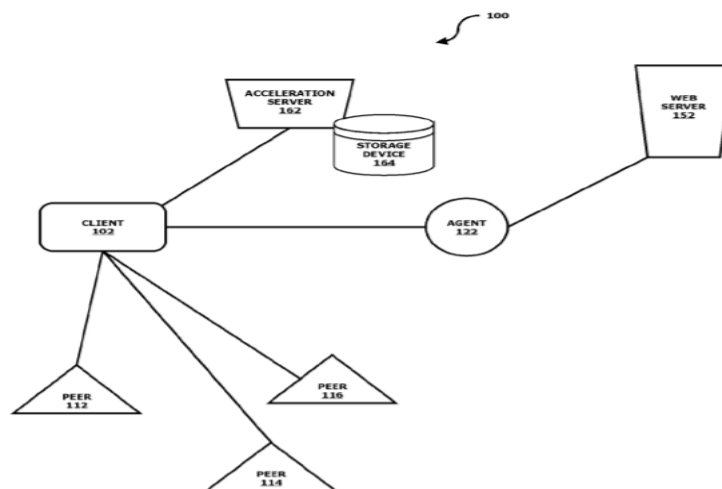


FIG. 3

Figure 3 is a schematic diagram of communication network 100. Ex. 1017 ¶ 22. Shribman’s network includes client 102; peers 112, 114, 116; agent

122; acceleration server 162 with associated storage device 164; and web server 152. *Id.* ¶¶ 36–38.

In operation, when client 102 requests information from web server 152, the IP address of the server is transmitted to the acceleration server, which provides a list of agents to use for this IP address. Ex. 1017, code (57). The communication request is sent to the agents. One or more of the agents respond with a list of peers that have previously seen some or all of the content which is the response to this request (after checking whether this data is still valid). *Id.* The client then downloads the data from these peers in parts and in parallel. *Id.*

## 2. Analysis

For claim 19, Petitioner asserts that Sharp KK, in view of Shribman’s disclosure that “[c]hunks in the present description are defined as equally sized pieces of data that together form the whole content of the URL,” teaches the limitations of the claim. Pet. 48 (citing Ex. 1017 ¶ 55).

Petitioner argues that it would have obvious to a person of ordinary skill in the art to have slices over the entire content because retrieving the content is an objective for a content retrieval system. *Id.* (citing Ex. 1003 ¶¶ 94–95).

For claim 20, Petitioner refers to Shribman’s disclosure of content being partitioned into fragments of equal size. Pet. 49 (citing Ex. 1017 ¶ 55). Petitioner asserts that a person of ordinary skill in the art would have found it obvious to partition the media fragments into equal sizes and doing so would ensure a more even distribution of loading on the proxies across the system. *Id.* (citing Ex. 1003 ¶ 97). Petitioner argues that this change would be a trivial change to Sharp KK’s partitioning algorithm. *Id.*

For claim 27, Petitioner refers to Shribman's embodiment in which an agent device retrieves content and thereby becomes the only agent with the requested content, and contends that this, along with Shribman's disclosure of a plurality of slices, in combination with Sharp KK, serves to teach the limitation of the claim. Pet. 49–50 (citing Ex. 1017 ¶ 89; Ex. 1003 ¶ 98).

For claim 28, Petitioner asserts that content may only be a few web pages and the equal content distribution teaching of Shribman does not require more than two equal slices. Pet. 50. Petitioner asserts that in view of this, it would have been obvious to have situations in which the number of slices would be lower than the number of devices in the group. *Id.* (citing Ex. 1003 ¶ 99).

We have reviewed the record and find that Petitioner provides sufficient evidence that Sharp KK and Shribman teach the limitations of claims 19, 20, 27, and 28 and sufficient rationale to combine the references has been provided. Patent Owner makes no arguments specifically directed to these claims. Prelim. Resp. 22–37.

Accordingly, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claims 19, 20, 27, and 28 would have been rendered obvious by Sharp KK and Shribman.

*E. Alleged Obviousness of Claims 15, 17, and 18 Over Luotonen and RFC 2616, with or without RFC 3040*

Petitioner contends that claims 15, 17, and 18 would have been obvious over the combination of Luotonen and RFC 2616, with or without RFC 3040. Pet. 50–57. To support its contentions, Petitioner provides explanations as to how Luotonen and RFC 2616 teach each claim limitation. *Id.*

We begin our discussion with a brief summary of Luotonen, RFC 2616, and RFC 3040 and then address the evidence and arguments presented.

*1. Luotonen (Ex. 1014)*

Luotonen is a textbook entitled “Web Proxy Servers.” Ex. 1014, 1. Luotonen contains sections on overviews of firewalls and proxy servers, protocols, caching, access control, and performance. *Id.* at 7–14. Luotonen describes methods for fetching a content over the Internet from a server identified in the Internet with the use of proxies. *Id.* at 28. Luotonen also discusses the use of “proxy arrays,” that is, pools of proxy servers, which are proxies set up in parallel, in order to increase effective cache size and eliminate redundancy between individual proxy caches. *Id.* at 325. Luotonen describes failover mechanisms which include auto-configuration. *Id.* at 325–26. Luotonen also provides a list of terminology associated with proxies and their use. *Id.* at 22.

*2. RFC 2616 (Ex. 1007)*

RFC 2616 is version 1.1 of “Hypertext Transfer Protocol – HTTP/1.1,” which defines the HTTP protocol for Internet communications. Ex. 1007, 1, 7. RFC 2616 explains that the HTTP protocol is a request/response protocol. *Id.* at 10.

*3. RFC 3040 (Ex. 1020)*

RFC 3040 is titled “Internet Web Replication and Caching Taxonomy” and “specifies standard terminology and the taxonomy of web replication and caching infrastructure.” Ex. 1020, 1. In particular, the document provides definitions for terminology associated with proxies and caches. *Id.* at 4–8.

*4. Analysis*

*a) Claim 15*

Petitioner asserts that Luotonen discloses methods for fetching a content over the Internet from a first server, that is, any origin server, by an identifier, which the server inherently has. Pet. 51 (citing Ex. 1048, 28, Fig. 1.4). Patent Owner argues that Luotonen discloses having a pool of proxy servers, with each proxy identified in the Internet by an associated group device identifier, that is, an IP address. *Id.* (citing Ex. 1014, 325–326; Ex. 1003 ¶ 101). Petitioner further contends that per the HTTP 1.1 protocol of 2013, an HTTP request may be partitioned into byte ranges so that HTTP clients may partition the requested content by byte ranges. *Id.* at 51–52 (citing Ex. 1007, 85, 102). Mr. Teruya testifies that “[s]uch partitioning is a standard and widely used facility of HTTP, and it would have been obvious to use it with proxies as described in Luotonen.” Ex. 1003 ¶ 102.

For limitation 15(a), Petitioner asserts that Luotonen discloses the use of a proxy by selecting a proxy from a pool by the configuration of the user’s browser and/or computer. Pet. 39. Mr. Teruya testifies that this can be by the proxy autoconfiguration features of Luotonen. Ex. 1001 ¶ 103 (citing Ex. 1014, 395–396, App. A). Mr. Teruya further testifies that the selection of the proxy from the pool applies for each of the content slices. *Id.*

For limitation 15(b), Petitioner asserts that this limitation is met under the standard HTTP request under RPC 2616 because an HTTP request contains at least a path, in combination with a byte range header, that constitutes a “content slice identifier.” Pet. 53 (citing Ex. 1007, 24–26). Petitioner contends that the request may contain an authority, which

corresponds to a domain name or IP address of the target server, that is, the claimed second identifier. *Id.* Further, the request is directed to the selected device by its IP address. *Id.* (citing Ex. 1003 ¶ 104).

Petitioner argues that limitation 15(c) is taught by the combination of Luotonen and RFC 2616 when the selected device responds to the first request. Pet. 54 (citing Ex. 1003 ¶ 105). Petitioner asserts that the desired content is expected to be constructed from the successive byte requests. *Id.* (citing Ex. 1003 ¶ 1006). Petitioner also contends that the final “wherein” clause is taught by Luotonen because its proxies are also client devices. *Id.* (citing Ex. 1014, 22; Ex. 1003 ¶ 107).

Petitioner relies upon Luotonen and RFC 2616 in combination with RFC 3040 in the alternative for the teaching of claim 15 where the partitioning step is met by content retrieval at the webpage level of pages from a web site. Pet. 55. Petitioner refers to RFC 3040 for its understanding of caches for the teaching of constructing the content from the content slices. *Id.* at 56–57 (citing Ex. 1020, 7; Ex. 1003 ¶ 113). We have reviewed the record and find that Petitioner provides sufficient evidence that the combination of Luotonen and RFC 2616 with or without RFC 3040 to teach the preamble and limitations of claim 15 and adequate rationale to combine the references has been provided. We note that Luotonen’s terminology for web proxy server systems contains some definitions that support Petitioner’s contentions. For instance, Luotonen describes a “proxy” as “an intermediary server that accepts requests from clients and forwards them to other proxy servers, the origin server, or services the request from its own cache.” Ex. 1014, 22. The definition further states that “[a] proxy acts both as a server as well as a client; the proxy is a server to the client connecting to it, and a

client to servers it connects to” where “a proxy server acting as a client may also be referred to as a ‘client.’” *Id.*

We do not agree that the combination of Luotonen and RFC 2616 fails to teach a two device/one server architectural structure or the mapped components do not perform the roles of the claimed devices to the extent that Patent Owner is making these arguments for this combination of prior art. Prelim. Resp. 22–27. As discussed above for the Sharp KK challenge, we do not agree with these arguments because they impermissibly attempt to introduce limitations into the claim that are not recited and/or appear to rely on unarticulated claim constructions that are not consistent with the claim constructions adopted here or in the district court.

Patent Owner also argues that Luotonen is directed to “Web Proxy Servers,” but proxy servers were known and discussed at length in the ’866 patent specification. Prelim. Resp. 35 (citing Ex. 1001, 27:25–54; Ex. 2001 ¶ 45). We do not find that this assertion undercuts Petitioner’s obviousness arguments and evidence at this juncture. The ’866 patent states the general knowledge that proxy servers were known at the time and there is no doubt that Luotonen discusses web proxy servers. *See* Ex. 1001, 27:25–54. But, Patent Owner does not direct us any portions of ’866 patent specification that identify or recognize the known use of pools of parallel proxy of servers as disclosed in the descriptions of Luotonen, nor to how HTTP protocol for Internet communications, as reflected in RFC 2616, could be used with those pools of proxy servers.

Similarly, as part of the discussion in support of the lack of merits, Patent Owner argues that Luotonen is an example of prior art on proxy servers, which Petitioner recognizes, and the Examiner had considered prior

art of this type during prosecution. Prelim. Resp. 29. Again, Patent Owner overstates the argument and does not direct us to specific evidence on proxy server pools in the prosecution history. Although there were prior art references on proxy servers before the Examiner, Luotonen, which specifically discloses pools of parallel proxy of servers, was not. *See* Ex. 1002. Moreover, although Patent Owner argues that the art here is cumulative to that already of record before the Examiner, Patent Owner does not point us to evidence that disclosures of proxy server pools as referred to in Luotonen were discussed in references in the prosecution history. Prelim. Resp. 29–30. As noted, Luotonen was not before the Examiner, and the stated reason for granting allowance were the distinguishing features of the claims over the Zuckerman, Bacher, and NPL documents. Ex. 1002, 8. Further, there is no evidence in the present record that the Examiner performed any claim construction for any of the claim terms, and, as discussed above, the '866 patent specification supports broad interpretations of, for instance, the term “client device.”

Accordingly, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 15 would have been obvious over the combination of Luotonen and RFC 2616, with or without RPC 3040.

*b) Claims 17 and 18*

For claim 17, Petitioner assert that, according to the Microsoft Computer Dictionary, a web site as taught by the prior art is “a group of related HTML documents and associated files, scripts and databases,” so the limitation of claim 17 is taught. Pet. 54 (citing Ex. 1029 at 4; Ex. 1003 ¶ 108). For claim 18, Petitioner contends that web sites comprise multiple

webpages, partitioned based on webpage level, and the webpages serve as the content slice, thus teaching the limitations of claim 18. *Id.* at 55 (citing Ex. 1003 ¶ 109).

We have reviewed the record and find that Petitioner provides sufficient evidence that Luotonen and RFC 2616 with or without RFC 3040 teach the limitations of claims 17 and 18 and sufficient rationale to combine the references has been provided. Patent Owner makes no arguments specifically directed to these claims. Prelim. Resp. 22–37.

Accordingly, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claims 17 and 18 would have been rendered obvious by Luotonen and RFC 2616 with or without RFC 3040.

#### IV. CONCLUSION

For the foregoing reasons, we determine that the information presented establishes a reasonable likelihood that Petitioner would prevail in showing at least one of claims 15–20, 23, 24, 27, and 28 of the '866 patent is unpatentable under 35 U.S.C. § 103.

#### V. ORDER

Accordingly, it is:

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted as to claims 15–20, 23, 24, 27, and 28 of the '866 patent on the grounds set forth in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this decision.

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Patent 9,742,866 B2

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