

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETNUT LTD.,
Petitioner,

v.

BRIGHT DATA LTD.,
Patent Owner.

IPR2021-01492
Patent 10,257,319 B2

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

GIANNETTI, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

NetNut Ltd. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1, 2, 12, 14, 15, 17–19, and 21–29 (the “challenged claims”) of U.S. Patent No. 10,257,319 B2 (Ex. 1001, “the ’319 patent”). Patent Owner, Bright Data Ltd.,¹ filed a Preliminary Response (Paper 9, “Prelim. Resp.”). With authorization from the panel, Petitioner filed a preliminary Reply (Paper 10, “Pet. Prelim. Reply”), and Patent Owner filed a preliminary Sur-reply (Paper 11, “PO Prelim. Sur-reply”).

The Board has authority to determine whether to institute *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Under 35 U.S.C. § 314(a), we may not authorize an *inter partes* review unless the information in the petition and the preliminary response “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons stated below, we determine that Petitioner has established a reasonable likelihood that it would prevail with respect to at least one claim. We therefore institute *inter partes* review as to all of the challenged claims of the ’319 patent and all of the asserted grounds of unpatentability in the Petition.

II. BACKGROUND

A. Related Matters

The parties identify several district court proceedings involving the ’319 patent and a related patent, U.S. Patent No. 10,484,510 (“the ’510 patent”), including *Bright Data Ltd. v. NetNut Ltd.*, No. 2:21-cv-225 (E.D.

¹ Bright Data Ltd. was formerly known as Luminati Networks, Ltd. *See* Pet. 1; Prelim. Resp. 11 n.8.

Tex.) (the “NetNut Litigation”);² and *Luminati Networks Ltd. v. Teso LT, UAB, et al.*, No. 2:19-cv-395 (E.D. Tex.) (the “Teso Litigation”). Pet. 2–3; Paper 4, 1–2.

The parties also identify a number of district court actions involving patents related to the ’319 patent. *See* Pet. 3–4; Paper 4, 2–3.

The ’319 patent was previously before the Board in IPR2020-01266 (institution denied). Pet. 4; Paper 4, 1. The ’510 patent is involved in IPR2021-01493 (pending), and was previously before the Board in IPR2020-01358 (institution denied). Pet. 5; Paper 4, 1. The parties also identify a number of other USPTO proceedings involving patents related to the ’319 patent. *See* Pet. 4–5; Paper 4, 2.

In addition, Patent Owner identifies *ex parte* reexaminations requested for the ’319 and ’510 patents, respectively, Control No. 90/014,875 and Control No. 90/014,876. Paper 6, 1–2; Prelim. Resp. 17.

B. Real Parties-in-Interest

Petitioner identifies NetNut Ltd. as the only real party-in-interest. Pet. 2. Patent Owner identifies Bright Data Ltd. as the only real party-in-interest. Paper 4, 1. At this stage, neither party challenges those identifications.

C. The ’319 Patent (Ex. 1001)

The ’319 patent is titled “System Providing Faster and More Efficient Data Communication.” Ex. 1001, (54). According to the ’319 patent, there is a “need for a new method of data transfer that is fast for the consumer, cheap for the content distributor and does not require infrastructure investment for ISPs.” *Id.* at 1:54–56. The patent states that other “attempts

² Patent Owner alternatively refers to this case as the “NetNut II Litigation.” *See* Prelim. Resp. 25.

at making the Internet faster for the consumer and cheaper for the broadcaster,” such as proxy servers and peer-to-peer file sharing, have various shortcomings. *Id.* at 1:58–59; 2:24–2:32; 2:59–3:3.

The '319 patent describes a system and method “for faster and more efficient data communication within a communication network,” such as in the network illustrated in Figure 3, reproduced below (*id.* at 4:41–44):

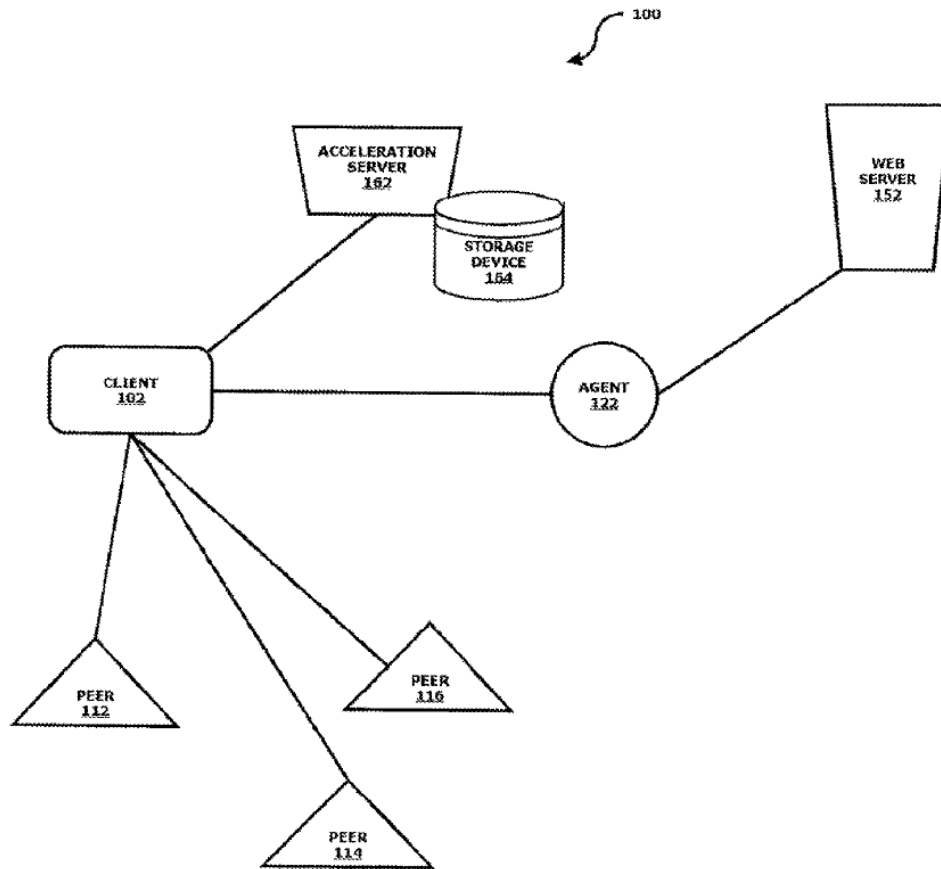


FIG. 3

Figure 3 is a schematic diagram depicting communication network 100 including a number of communication devices. *Id.* at 4:43–45. Due to the functionality provided by software stored within each communication

device, “each device may serve as a client, peer, or agent, depending upon requirements of the network 100.” *Id.* at 4:46–50.

Client 102 is capable of communicating with peers 112, 114, and 116, as well as with one or more agents 122. *Id.* at 4:56–58. Web server 152 may be “a typical HTTP server, such as those being used to deliver content on any of the many such servers on the Internet.” *Id.* at 4:63–67.

Acceleration server 162 includes an acceleration server storage device 164 with an acceleration server database, which “stores Internet Protocol (IP) addresses of communication devices within the communication network 100 having acceleration software stored therein.” *Id.* at 5:8–14.

In operation, a client may request a resource on the network, for example, through the use of an Internet browser. *See id.* at 12:62–13:3. If server 152 is the target of the request, the client sends the IP address of server 152 to acceleration server 162. *Id.* at 13:8–15. Acceleration server 162 then prepares a list of agents that can handle the request, which includes communication devices “that are currently online, and whose IP address is numerically close to the IP of the destination Web server 152.” *Id.* at 13:19–29. The client then sends the original request to the agents in the list to find out which “is best suited to be the one agent that will assist with this request.” *Id.* at 13:31–36.

Each agent responds to the client with information which “can help the client to download the requested information from peers in the network.” *Id.* at 13:53–57. “Specifically, each agent responds with whether the agent has seen a previous request for this resource that has been fulfilled. In such a case, the agent may then provide the client with the list of peers and checksums of the chunks that each of them have.” *Id.* at 13:57–61.

The client selects an agent based on a number of factors, and the selected agent determines whether data stored in its memory or the memory of the peers “still mirrors the information that would have been received from the server itself for this request.” *Id.* at 13:62–14:1, 14:35–38. If the selected agent does not have the necessary information to service a request, it may “load the information directly from the server in order to be able to provide an answer to the requesting client.” *Id.* at 14:62–67.

D. Illustrative Claim

The '319 patent has 29 claims. As noted, claims 1, 2, 12, 14, 15, 17–19, and 21–29 are challenged in the Petition. Pet. 1. Claim 1, the only independent claim in the '319 patent, is illustrative of the claimed subject matter and is reproduced below:³

1. [Preamble] A method for use with a first client device, for use with a first server that comprises a web server that is a Hypertext Transfer Protocol (HTTP) server that responds to HTTP requests, the first server stores a first content identified by a first content identifier, and for use with a second server, the method by the first client device comprising:

[a] receiving, from the second server, the first content identifier;

[b] sending, to the first server over the Internet, a Hypertext Transfer Protocol (HTTP) request that comprises the first content identifier;

[c] receiving, the first content from the first server over the Internet in response to the sending of the first content identifier; and

[d] sending, the first content by the first client device to the second server, in response to the receiving of the first content identifier.

³ Paragraph references in brackets added tracking Petitioner's analysis.

Ex. 1001, 19:16–32.

E. Prior Art References and Other Evidence

Petitioner relies on the following references:

1. Michael Reiter & Aviel Rubin, *Crowds: Anonymity for Web Transactions*, ACM Transactions on Information and System Security, Vol. 1, No. 1 (Nov. 1998) (Ex. 1006, “Crowds”);
2. Border, et al., U.S. Patent No. 6,795,848 B1 (Sep. 21, 2004) (Ex. 1012, “Border”);
3. Marc Rennhard, *MorphMix – A Peer-to-Peer-based System for Anonymous Internet Access* (2004) (Ex. 1008, “MorphMix”);
4. Fielding, et al., RFC 2616, *Hypertext Transfer Protocol -- HTTP/1.1*, Internet Engineering Task Force, Network Working Group (June 1999) (Ex. 1013, “RFC 2616”).

In addition to these references, Petitioner relies on a Declaration of Keith J. Teruya. Ex. 1005 (“Teruya Decl.”). Patent Owner submitted a Declaration of Dr. V. Thomas Rhyne with the Preliminary Response. Ex. 2006 (“Rhyne Decl.”).

E. The Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability. Pet. 10.

Claim(s) Challenged	Basis 35 U.S.C. §	Reference(s) ⁴
1, 19, 21–29 ⁵	102 ⁶	Crowds
1, 2, 14, 15, 17–19, 21–29	103	Crowds, RFC 2616
1, 12, 14, 21, 22, 24, 25, 27–29	102	Border
1, 12, 14, 15, 17–19, 21, 22, 24, 25, 27–29 ⁷	103	Border, RFC 2616
1, 17, 19, 21–29	102	MorphMix
1, 2, 14, 15, 17–9, 21–29	103	MorphMix, RFC 2616

⁴ Petitioner’s obviousness challenges additionally refer to the “[k]nowledge of [a person of ordinary skill in the art].” Pet. 10. We understand this to refer to a person of ordinary skill in the art’s understanding of the applied references and not to supplying missing limitations or incorporating an unspecified disclosure by reference to supply missing claim limitations. General knowledge in the art, unsupported by the references, cannot supply a missing limitation. Patent Trial and Appeal Board Consolidated Trial Practice Guide 36 (Nov. 2019), *available at* <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

⁵ Although Petitioner’s listing of the asserted grounds excludes claim 23 for this ground (*see* Pet. 10), Petitioner includes claim 23 in its analysis of anticipation based on Crowds (*see id.* at 38). Accordingly, we include claim 23 here.

⁶ Because the application from which the ’319 patent issued has an earliest effective filing date before March 16, 2013 (Ex. 1001, (60)), citations to 35 U.S.C. §§ 102 and 103 are to the pre-AIA versions. Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29.

⁷ Although Petitioner’s listing of the asserted grounds does not identify claim 19 for this ground (*see* Pet. 10), Petitioner includes claim 19 in its analysis of obviousness based on Border (*see id.* at 58). Accordingly, we include claim 19 here.

III. DISCRETIONARY DENIAL

A. Denial Based on Fintiv

Patent Owner contends the Board should deny the Petition under § 314(a) because “the *Fintiv* factors overwhelmingly favor denial of institution.” Prelim. Resp. 18.

The Board’s precedential decision in *Apple Inc. v. Fintiv Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”), identifies a non-exclusive list of factors parties may consider addressing where there is a related, parallel district court action to determine whether such action provides any basis for discretionary denial. *Fintiv*, Paper 11 at 5–16. Those factors include:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

Id. at 5–6.

In evaluating the *Fintiv* factors, we take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* at 6.

Although Patent Owner asserts that “there are five sets of other proceedings involving the ’319 and ’510 Patents” (Prelim. Resp. 10), Patent

Owner focuses its *Fintiv* analysis on the parallel district court litigation between Patent Owner and Petitioner pending in the Eastern District of Texas, referred to as the “NetNut Litigation.” *Id.* at 18–31. *See infra*, Section II.A. Referring to the NetNut Litigation, Patent Owner contends, “the parties are the same, the challenged claims are substantially the same, the primary prior art references are exactly the same, and the district court trial is scheduled to begin in September 2022, compared to an institution decision expected in this IPR in March 2022 and a final written decision in March 2023.” Prelim. Resp. 18. For the reasons that follow, we decline to exercise our discretion to deny the Petition on that basis.

1. *Factor 1 (Stay)*

Neither party has requested a stay in the NetNut Litigation. Prelim. Resp. 19. Thus, whether the presiding judge, Judge Gilstrap, would grant a stay if one were requested is speculative. This factor is neutral.

2. *Factor 2 (Proximity of Trial Date)*

If trial in the NetNut Litigation proceeds as scheduled, in September 2022, it would occur approximately six months before the due date for the final written decision. Petitioner points out that trial dates in the Eastern District of Texas have slipped, and cites the docket sheet for a trial involving Patent Owner in which the jury selection date was delayed by almost six months. Pet. Prelim. Reply. 2 (citing Ex. 1101, docket items 65, 509). Furthermore, Petitioner asserts that Patent Owner has requested extensions in related proceedings. *Id.* (citing Ex. 1102, docket items 79, 80; Ex. 1103). The scheduled trial date is approximately six months away. In that time period, it is possible that this trial date also could slip, making the final

written decision due much closer to the trial. This factor, therefore, only slightly favors exercising our discretion to deny the Petition.

3. *Factor 3 (Investment in NetNut Litigation)*

Patent Owner contends that by the date of institution, “the parties will have invested significant resources in the NetNut Litigation.” Prelim. Resp. 22. However, according to Petitioner, “[t]he parties have completed only limited work in the district court proceeding, for example, only recently exchanging infringement and invalidity contentions and claim constructions.” Pet. Prelim. Reply 2. Further, Petitioner asserts “[n]o depositions have been taken or noticed. The majority of work in fact discovery remains ahead.” *Id.*

To support its argument that significant resources have been invested, Patent Owner cites the Docket Control Order (Ex. 2003). Prelim. Resp. 10. That Order shows that a *Markman* hearing has not been held, nor has fact or expert discovery ended. Ex. 2003, 3.⁸ Filing of dispositive motions is not scheduled until June 2022. *Id.* In the absence of more specific information from Patent Owner about the status of the case, we are not persuaded that “significant resources” have been devoted to the invalidity case in the NetNut Litigation.

Moreover, Petitioner has been reasonably diligent, filing the Petition here on September 3, 2021, less than three months after being sued on June 18, 2021 and over nine months before the one-year deadline. Pet. 10; Pet. Prelim. Reply 1. We agree with Petitioner that Patent Owner’s references to proceedings involving different patents or different parties do not prove a

⁸ Unless otherwise stated, citations to exhibit pages use the page numbers assigned by the parties and not the original page numbers.

lack of diligence in filing the Petition in this proceeding. *See* Prelim. Resp. 25–26; Pet. Prelim. Reply 3. We therefore determine that this factor strongly favors not exercising our discretion to deny the Petition.

4. *Factor 4 (Overlap of Issues)*

Petitioner asserts that there are “four dependent claims in this proceeding and five in the related proceeding (IPR2021–01493), which are not at issue in the district court litigation.” Pet. Prelim. Reply 3. Moreover, the NetNut Litigation involves “additional grounds of invalidity.” *Id.* at 3–4. Patent Owner responds that “the majority of challenged claims of the ‘319 Patent, including independent claim 1 (i.e., the only independent claim), will be resolved by the district court in the NetNut II Litigation long before the Board issues a final written decision.” Prelim. Resp. 29. In addition, Patent Owner argues Petitioner relies on the “same exact references” here as in the NetNut Litigation. *Id.* at 29–30. We determine that this factor weighs at least moderately in favor of exercising our discretion to deny the Petition.

5. *Factor 5 (Petitioner and Defendant are Same Party)*

“If a petitioner is unrelated to a defendant in an earlier court proceeding, the Board has weighed this fact against exercising discretion.” *Fintiv* at 13–14. The parties in the litigation are the same. We assess this factor as favoring the exercise of our discretion to deny institution.

6. *Factor 6 (Other Circumstances, Including the Merits)*

We agree with Petitioner that the merits of this case are particularly strong. Pet. 12; Pet. Prelim. Reply 4–5. As discussed in greater detail *infra*, the merits of the case are determined by the construction of the terms “client device,” “first server,” and “second server.” Pet. 21–22; Prelim. Resp. 49–52. These terms appear in all challenged claims. Petitioner has proposed

certain constructions for those terms based, in part, on the district court’s constructions of those terms in the NetNut Litigation, and in IPR2021–00458 and IPR2021–00465, which involved parents similar to the ’319 patent. Pet. 22–23.

Petitioner argues that the merits are strong because Patent Owner’s argument construes the claims such “that clients and servers are mutually exclusive categories, and that a ‘communication device’ must somehow do something more than communicate.” Pet. Prelim. Reply 4. Petitioner asserts that these arguments “have repeatedly been rejected by the court,” as well as by the Board in IPR2021–00458 and IPR2021–00465. *Id.* at 4–5.

As discussed *infra*, in Section IV.C, in our analysis instituting *inter partes* review in this proceeding, at this stage we agree with Petitioner’s claim constructions, specifically, that “the devices in question may be configured to operate in different roles and are characterized by the function they perform (*i.e.*, sending or receiving), not by any physical properties.” Pet. 4–5. More specifically, we adopt the district court’s construction, with the clarification that the second server is “a device that is operating in the role of a server and that is not the first client device.” *See infra*, Section IV.C. This construction is consistent with the extrinsic evidence offered by Petitioner (Ex. 1018, 5), as well as the construction of “server” adopted by the Board in IPR2021-00458, involving a patent similar to the ’319 patent. *See* IPR2021-00458, Paper 11, 21. As this claim construction is central to this controversy and favors Petitioner, we determine that the merits of the Petition are strong. Thus, this factor strongly favors not exercising our discretion to deny institution.

7. Conclusion

In summary, after weighing the factors and taking a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review, we are not persuaded to exercise our discretion to deny review. The strong showing on the merits in the Petition and relatively minor investment in the merits of the validity challenge in district court persuade us that efficiency and integrity of the system would not be served by denying review.

B. Denial Based on Multiple Petitions

The Petition preemptively addresses an anticipated argument that the Petition should be denied under *General Plastic Indus. Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19 (PTAB Sept. 6, 2017) (precedential) (“*General Plastic*”). Pet. 12–15. In *General Plastic*, the Board set out a list of seven factors to consider when asked to exercise its discretion to deny review of follow-on petitions. Those factors are the following:

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

General Plastic, Paper 19 at 16. In setting forth these factors, the Board made it clear that “[t]here is no *per se* rule precluding the filing of follow-on petitions after the Board’s denial of one or more first-filed petitions on the same patent.” *Id.* at 15.

We have reviewed Petitioner’s arguments and Patent Owner’s brief response. Prelim. Resp. 41–43. For the most part, Patent Owner relies on its *Fintiv* analysis, discussed *supra*. For example, for the first factor (“whether the same petitioner previously filed a petition directed to the same claims of the same patent”), Petitioner contends that “Petitioner was not involved with the prior IPR challenging the [’319] Patent.” Pet. 12. Patent Owner responds that “[a]lthough NetNut was not involved in the Code200/Teso IPR proceedings, Patent Owner respectfully disagrees that this factor ‘strongly favors institution’ in view of the detailed *Fintiv* analysis above.” Prelim. Resp. 42. Similarly, for *General Plastic* factors 2–6, Patent Owner refers to its *Fintiv* analysis. *Id.* at 42–43. For factor 7, Patent Owner responds that “Patent Owner is not presently aware of any risk that the Board will be unable to meet the one-year deadline under 35 U.S.C. § 316(a)(1).” *Id.* at 43.

After considering the Petition and Patent Owner’s response, for the reasons discussed in connection with *Fintiv*, *supra*, and for the reasons given

by Petitioner, we are not persuaded to exercise our discretion to deny the Petition under *General Plastic*.

IV. ANALYSIS OF THE CHALLENGED CLAIMS

A. Anticipation and Obviousness

The Federal Circuit addressed the legal standard for anticipation in *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331 (Fed. Cir. 2016):

Under 35 U.S.C. § 102(b), a prior art reference will anticipate if it “disclose[s] each and every element of the claimed invention . . . arranged or combined in the same way as in the claim.”

815 F.3d at 1341 (citation omitted) (footnote omitted). The Federal Circuit went on to explain:

However, a reference can anticipate a claim even if it ‘d[oes] not expressly spell out’ all the limitations arranged or combined as in the claim, if a person of skill in the art, reading the reference, would at ‘once envisage’ the claimed arrangement or combination.

Id. (quoting *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015))

A claim is unpatentable as obvious under 35 U.S.C. § 103 “if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains.” 35 U.S.C. § 103 (2011). 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 skill in the art; and (4) so-called “secondary considerations,” including commercial success, long-felt but unsolved needs, failure of others, and

unexpected results. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). At this stage, neither party has presented any evidence on the fourth *Graham* factor.

B. Level of Ordinary Skill in the Art

According to Petitioner, a person of ordinary skill in the pertinent art “would have at least a bachelor’s degree in Computer Science or related field (or equivalent experience), and two or more years’ experience working with and programming networked computer systems as of the Priority Date.” Pet. 20 (citing Teruya Decl. ¶¶ 25–27). Petitioner continues that “[s]uch a person would be familiar with the underlying principles of Web, Internet, or network communication, data transfer, and content sharing across networks, including the HTTP and TCP/IP protocols.” *Id.*

Patent Owner submits that a person of ordinary skill in the art “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 Communications.” Prelim. Resp. 47. But Patent Owner acknowledges that this definition and Petitioner’s definition of a person of ordinary skill in the art “are not materially different, at least in terms of affecting an institution decision in this IPR.” *Id.* (footnote omitted).

We regard Petitioner’s more specific definition as consistent with the ’319 patent and the prior art before us. See *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (prior art itself may reflect an appropriate level of skill). Therefore, for the purpose of this decision, we adopt Petitioner’s formulation. We agree, however, that this definition and Patent Owner’s

definition of a person of ordinary skill in the art “are not materially different,” and that our decision would be the same using either definition.

C. Claim Construction

For this *inter partes* review, the Board applies the same claim construction standard as that applied in federal courts. *See* 37 C.F.R. § 42.100(b) (2019). Under this standard, claim terms “are generally given their ordinary and customary meaning” as 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, 1312–13 (Fed. Cir. 2005) (en banc) (citations omitted). “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). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317 (citation omitted).

Petitioner asserts that the district court’s constructions in *Luminati Networks Ltd. v. Teso LT, UAB, et al.*, No. 2:19-cv-395 (E.D. Tex.) (Teso Litigation)⁹, are appropriate in this case. Pet. 21. In particular, Petitioner points to two claim construction orders in that case—the “*Teso Order*” (Ex. 1017) and the “*Teso Supplemental Order*” (Ex. 1020). Pet. 21–22. In the Teso Litigation, the parties agreed to certain constructions adopted by the district court. *Id.* at 21. Thus, the district court construed the preamble of

⁹ The case caption in this litigation was later changed to identify plaintiff as Bright Data Ltd. Ex. 1020, 1.

claim 1 of the '319 patent to be limiting, and construed certain other terms to have their “plain and ordinary meaning.” *Id.* In addition, the district court construed certain disputed terms, including “client device” and “second server.” *Id.* at 21–22. The district court construed “client device” as “communication device that is operating in the role of a client.” Ex. 1017, 12. The district court initially construed “second server” as “server that is not the client device.” *Id.* at 14. Later, the court granted the defendants’ request for clarification as to the scope of this construction, and determined that a “second server” is “a device that is operating in the role of a server and that is not the first client device.” Ex. 1020, 8, 11.

At this stage, Patent Owner agrees that we should apply the claim constructions in the *Teso* Order for the preamble, “client device,” and “second server.” Prelim. Resp. 48. For “second server,” Patent Owner proposes that we apply the district court’s construction of that term from the *Teso* Order (“server that is not the client device”). *Id.* (citing Ex. 1017, 14). Patent Owner quotes from the Supplemental Order, which states that the district court “is not now changing the scope of the terms in any way,” and alleges Petitioner is “seeking a broader construction of the term ‘second server’ to remove the requirements that it be a server.” *Id.* at 49.

For the purposes of this decision, we adopt the district court’s construction for the “second server” as clarified in the *Teso* Supplemental Order. Ex. 1020, 11. Thus, we adopt the district court’s original construction, with the clarification that the second server is “a device that is operating in the role of a server and that is not the first client device.” *Id.* at 8. This construction is consistent with the extrinsic evidence offered by Petitioner (Ex. 1018, 5), as well as the construction of “server” adopted by

the Board in IPR2021-00458, involving a patent similar to the '319 patent. *See* IPR2021-00458, Paper 11. 21. Specifically, we adopt the district court's clarification that "a component can be *configured* to operate in different roles—so long as it does not simultaneously serve as more than one of: the client device, the first server/second server, and the web server." Ex. 1020, 10 (internal quotation marks omitted).

We only construe terms that are necessary to resolve disputed disputes. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017); *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy."). At this stage, no other terms require explicit construction. To the extent we need to interpret any other terms, we will do so in the context of the analysis of the prior art that follows.

D. Description of the Principal Prior Art References

1. Crowds (Ex. 1006)

Crowds is an article that "introduce[s] a new approach for increasing the privacy of web transactions." Ex. 1006, 2. In this approach, a user joins a "crowd" of other users, wherein the user's request to a web server is passed to a random member of the crowd, and possibly forwarded to one or more other members, prior to being submitted to the end server. *Id.* In this way, "[w]hen the request is eventually submitted, it is submitted by a random member, thus preventing the end server from identifying its true initiator." *Id.* In Crowds, "[a] user is represented by a process on her computer called a *jondo* (pronounced 'John Doe' and meant to convey the image of a faceless participant)." *Id.* at 8. "When the jondo is started, it

contacts a server called the *blender* to request admittance to the crowd.” *Id.* Exemplary paths for web requests from crowd users are shown in Figure 2 (*id.* at 9), reproduced below:

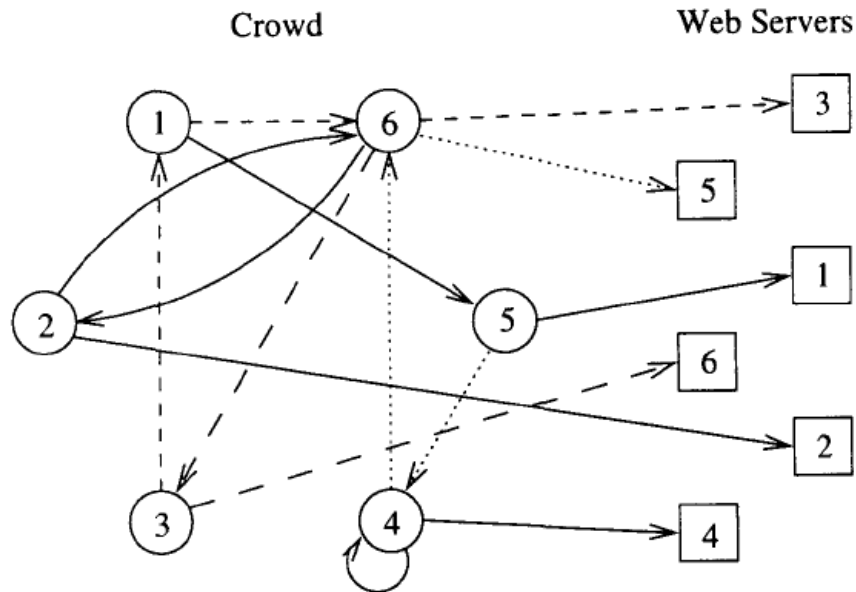


Fig. 2. Paths in a crowd (the initiator and web server of each path are labeled the same).

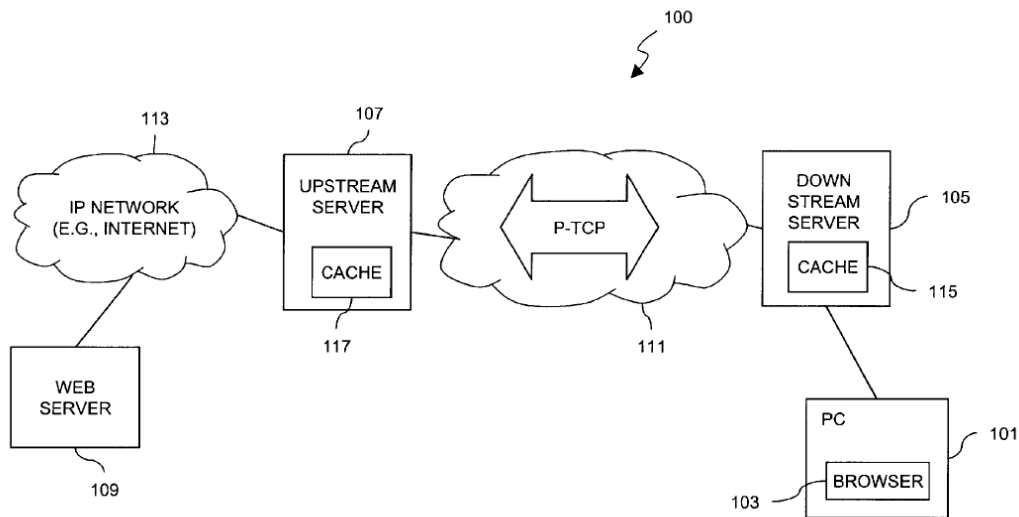
In Figure 2 of Crowds, when a jondo receives a user request from a browser, it “initiates the establishment of a random *path* of jondos that carries its users’ transactions to and from their intended web servers.” *Id.* at 8. For example, the paths in Figure 2 among the jondos labeled 1 to 6 are as follows: “1 → 5 → server; 2 → 6 → 2 → server; 3 → 1 → 6 → server; 4 → 4 → server; 5 → 4 → 6 → server; and 6 → 3 → server.” *Id.* “[S]erver replies traverse the same path as the requests, only in reverse.” *Id.* at 9.

2. Border (Ex. 1012)

Border is a patent titled “System and Method of Reading Ahead of Objects for Delivery to an HTTP Proxy Server.” Ex. 1012, (54). Border describes “a system for retrieving web content.” *Id.* at (57). In Border, “[a] downstream proxy server receives a URL request message from a web

browser. *Id.* at 3:35–36. Thereafter, “[a]n upstream proxy server receives the URL request message from the downstream proxy server” and “selectively forwards the URL request message to a web server and receives the URL content from the web server.” *Id.* at 3:38–42. Then, “[t]he upstream proxy server forwards the URL content to the downstream proxy server.” *Id.* at 3:42–43. An exemplary system employing downstream and upstream proxy servers for accessing a web server is shown in Figure 1, reproduced below:

FIG. 1



As depicted in Border’s Figure 1, user station 101, for example, a personal computer, uses standard web browser 103. *Id.* at 3:55–61. User station 101 is connected to downstream proxy server 105, which communicates over network 111 with upstream proxy server 107. *Id.* at 3:61–66. Proxy servers 105 and 107 are HTTP proxy servers with HTTP caches 115 and 117. *Id.* at 4:8–11. Upstream proxy server 107 is connected to web server 109 through IP network 113, for example, the Internet. *Id.* at 4:5–7. In this system,

proxy servers 105 and 107 “act as an intermediary between one or more browsers and many web servers (e.g., server 109).” *Id.* at 4:30–31.

3. *MorphMix (Ex. 1008)*

MorphMix is a doctoral thesis that identifies the lack of anonymity on the Internet as a problem that “limits the privacy protection of Internet users.” Ex. 1008, Abstract. Accordingly, MorphMix is focused on “achieving anonymous Internet access for low-latency applications such as web browsing.” *Id.* MorphMix describes “a peer-to-peer-based mix network” where “[e]very node joining the system can itself establish circuits via other nodes to access a server anonymously, but can also be part of circuits established by other nodes and relay data for them at the same time.” *Id.* at 118. An exemplary system is illustrated in Figure 5.1, reproduced below:

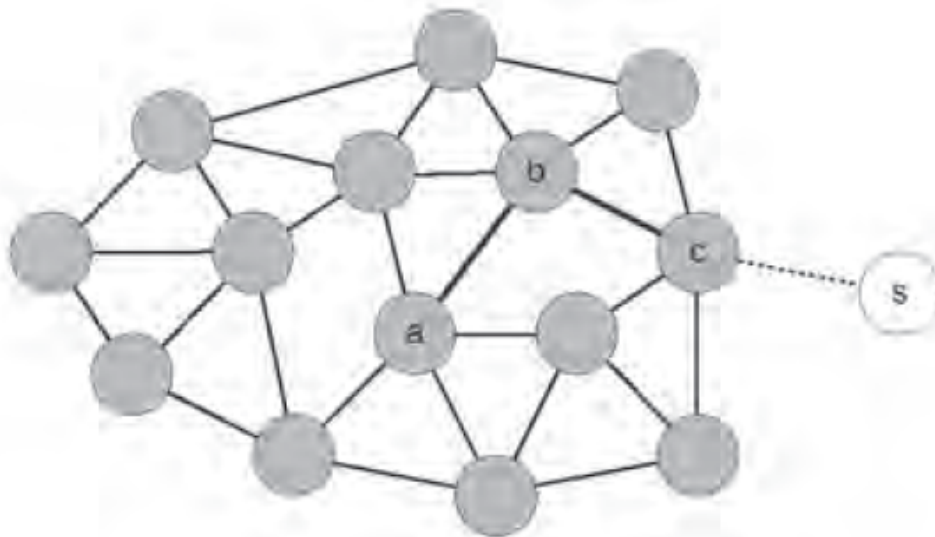


Figure 5.1: *Basic idea of MorphMix.*

As depicted in Figure 5.1 of MorphMix, participating nodes have a virtual link to one or more other nodes at any time. *Id.* at 119. This “means that (1)

there is a TCP [Transfer Control Protocol] connection between the two nodes and (2) they share a symmetric key that is only known to these two nodes.” *Id.* In Figure 5.1, node *a* has five neighbors with which it has established virtual links. *Id.* In the example shown, “node *a* has established an anonymous tunnel via *b* and *c*.” *Id.* “Within an anonymous tunnel, anonymous connections can be set up to anonymously communicate with a server.” *Id.* at 120.

4. *RFC 2616 (Ex. 1013)*

This RFC (Request for Comments) documents version 1.1 of the HTTP protocol, which is “foundational to the World Wide Web.” Pet. 27; Teruya Decl. ¶ 53.

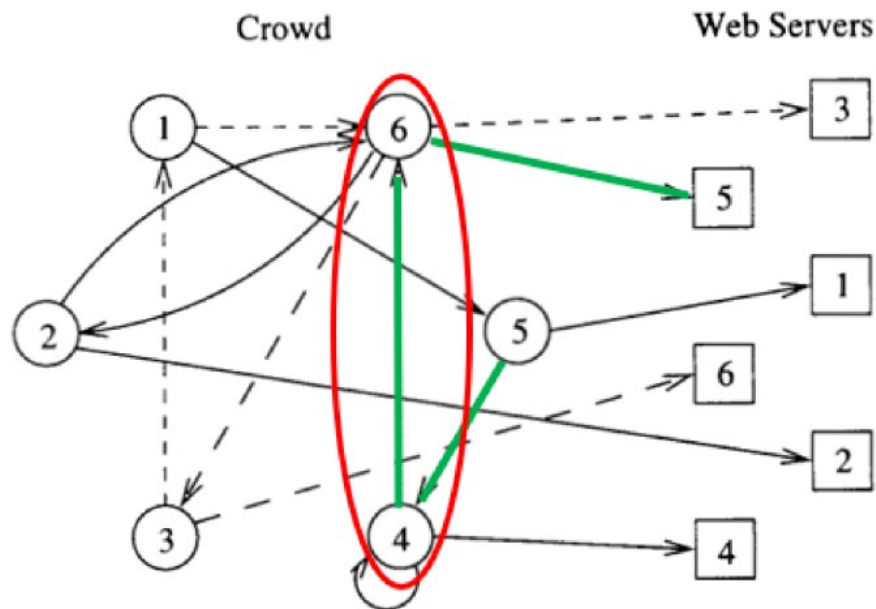
E. Anticipation Based on Crowds

Petitioner asserts that claims 1, 19, and 21–29 are anticipated by Crowds. Pet. 28–39. Petitioner provides an element-by-element claim analysis, supported by expert testimony, in relation to Crowds. *Id.*; Teruya Decl. ¶¶ 55–89.

1. *Claim 1*

Preamble

Petitioner contends the preamble of claim 1 is disclosed in Crowds. Pet. 29–31. Petitioner asserts “Crowds discloses a layout in which (e.g., in one instance) jondo 6 serves as the first client device, jondo 4 serves as the second server, and Web Server 5 is the first server.” *Id.* at 29. Petitioner provides an annotated version of Crowds’s Figure 2, *supra*, to illustrate this correspondences between Crowds’s disclosure and certain of the preamble elements recited in claim 1. *Id.* at 30. This annotated figure is reproduced below:



Id. Annotated Figure 2 of Crowds is a diagram showing multiple paths between jondos and Web servers. *Id.* at 30. Figure 2 has been annotated by Petitioner to show the elements in Crowds corresponding to the “first client device,” “first server,” and “second server” recited in claim 1. *Id.* at 29. Specifically, Petitioner identifies the recited “first client device” with jondo 6. *Id.* Petitioner identifies the “first server” with Web server 5. *Id.* Petitioner identifies the “second server” with jondo 4. *Id.* Petitioner explains that “[j]ondo 4 may be regarded as a server (and thus the second server) for at least the reason that jondo 4 provides a service to requesting jondo 5.” *Id.* at 30.

Petitioner addresses each step of claim 1 in relation to Crowds as follows (Pet. 31–36):

(a) receiving, from the second server, the first content identifier

Petitioner contends this step is disclosed by the path “5→4→6→server” in Figure 2 of Crowds. Pet. 31. Petitioner explains that “Crowds discloses that jondo 6 (first client device) receives a ‘request’ (first content

identifier or ‘FCI’) from jondo 4 (the second server).” *Id.* Petitioner further explains that “[t]he arrows in Fig. 2 of Crowds each represent ‘requests,’ i.e., requests for content residing on a web server, originating from one of the jondos and forwarded over a randomized path of jondos to the web server.” *Id.* (citing Ex. 1006, 8; Teruya Decl. ¶¶ 58–59).

(b) sending, to the first server over the Internet, a Hypertext Transfer Protocol (HTTP) request that comprises the first content identifier

Petitioner contends that this step is disclosed when “[j]ondo 6, having received the FCI per step (a), then sends it in an HTTP request to the web server, according to step (b).” Pet. 33. Petitioner explains that the jondos “operate as HTTP proxies.” *Id.* at 33–35. Petitioner explains further, “[i]n the example ‘5→4→6→server’ path discussed above, the ‘first client device’ (jondo ‘6’) sends the web request via HTTP to the target web server, or ‘first server.’” *Id.* at 34.

(c) receiving, the first content from the first server over the Internet in response to the sending of the first content identifier

Petitioner contends this step is disclosed by Crowds: “Having made the content request of the web server per step (b), jondo 6 now receives the requested content in response, per step (c).” Pet. 35. Petitioner explains further, “the ‘first client device’ (jondo ‘6’ above) sends the FCI to the first server, or target web server ‘5’. The last jondo in the path then receives the ‘first content,’ such as the user specified web page.” *Id.* at 35–36.

(d) sending, the first content by the first client device to the second server, in response to the receiving of the first content identifier

Petitioner contends this step is met in Crowds when “[a]s discussed regarding step (c) above, the first client device (jondo 6) receives the first

content from the web server. In response, it then sends the content on to the requester, jondo 4, per step (d).” Pet. 36.

Patent Owner disputes Petitioner’s arguments based on Crowds. Prelim. Resp. 61–64. Patent Owner responds that Petitioner’s argument identifying jondo 6 as the claimed first client device and jondo 4 as the claimed second server “fails” for several reasons. First, Patent Owner contends Crowds is “merely discloses a peer-to-peer system that uses only client devices. Crowds’ jondos are generic, user computers.” *Id.* at 62. According to Patent Owner, Petitioner’s analysis identifying jondo 4 as a server and jondo 6 as a client device is “arbitrary.” *Id.* Patent Owner argues “[i]n fact, the jondos are identical and interchangeable devices that have identical overall roles.” *Id.*

We do not agree with this argument. The district court’s claim construction for the “server” terms, which we adopted, makes it clear that a server is defined by its function, not its structure. Ex. 1020, 7–11. Thus, the district court clarified that the second server is “a device that is *operating in the role of a server* and that is not the first client device.” *Id.* at 11 (emphasis added); *see also* discussion *supra*, Section IV.C. Patent Owner’s argument is unavailing because it is focused on the alleged need for devices that are not identical or interchangeable, *i.e.*, on differences in structure between the server and the client device. This same argument was dismissed by the district court as “an oversimplification of the issue.” Ex. 1020, 10. As noted *supra*, the district court went on to state that “a component can be *configured* to operate in different roles—so long as it does not simultaneously serve as more than one of: the client device, the first

server/second server, and the web server.” *Id.* (internal quotation marks omitted.)

Petitioner’s anticipation analysis is persuasive because it is based on the operation of jondos 4 and 6, and whether this operation meets the steps of the claimed method. In contrast, Patent Owner’s opposition is based on a construction rejected by us and the district court.

Next, Patent Owner contends Crowds does not disclose “configuring user computers to operate as a servers.” Prelim. Resp. 62. Patent Owner contends that the “multiple pathways” in Crowds are “not sufficient to show that a user’s computer is *configured to be a server* under the Court’s claim constructions.” *Id.* Implicit in this argument is the requirement for a structural distinction between user computers and servers. As discussed *supra*, we do not agree with that argument. For the reasons given, it is contrary to the claim construction we have adopted and the recited steps of the method claim. Under this analysis, supported by the claim construction we have adopted, a computer that can “operate as a server” is, therefore, configured to be a server. Moreover, the ’319 patent discloses that with software, each communication device may serve as a client, peer, or agent. Ex. 1001, 4:46–50.

For similar reasons, we reject Patent Owner’s third argument, that Petitioner “fails to address whether the jondos simultaneously operate in different roles, contrary to the Court’s claim constructions.” Prelim. Resp. 62. As discussed, we do not interpret our construction as restricting devices to operate in only one mode (which is the implication of Patent Owner’s argument). Nor did the district court: “[A] component can be *configured* to operate in different roles—so long as it does not simultaneously serve as

more than one of: the client device, the first server/second server, and the web server.” Ex. 1020, 10 (internal quotation marks omitted). Neither the claims nor our construction requires that the jondos operate in different roles at the same time, or “simultaneously.”

Finally, Patent Owner contends Petitioner “misrepresents the disclosure of Crowds,” because in Crowds, “[a] user’s request to a web server is not passed directly to the web server.” Prelim. Resp. 63 (emphasis omitted). Patent Owner explains that when a jondo receives a request from a user’s browser, “the jondo picks a jondo from the crowd (*possibly itself*) at random, and forwards the request to it.” *Id.* (citing Ex. 1006, 8). As a result, “a jondo may decide to forward a user’s request directly to a web server, without forwarding the request to any other user/jondo.” *Id.*

We do not agree that this argument demonstrates any misrepresentation by Petitioner. When a jondo forwards a user’s request first sent to itself, the user request is not being forwarded “directly” to the web server. This is consistent with Petitioner’s description of Crowds. *See* Pet. 28 (“A user’s request to a web server is not passed directly to the web server, but instead to a random member of the crowd who either submits the request directly to the web server or forwards it again.”). Patent Owner apparently recognizes this flaw in its argument, for it qualifies its statement that a jondo receiving a user request may decide to *directly* forward it to a web server, by adding the jondo does not forward it “without forwarding the request to any *other* user/jondo.” Prelim. Resp. 63 (emphasis added).

In summary, we have considered Petitioner’s showing that each step of claim 1 is disclosed by Crowds and Patent Owner’s response. For the reasons given by Petitioner, and those summarized *supra*, we determine that

that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claim 1 as anticipated by Crowds.

2. *Claims 19, 21–29*

These claims depend, directly or indirectly, from claim 1. Petitioner provides a claim-by-claim analysis for each of these claims in relation to Crowds. Pet. 37–39. Petitioner’s analysis shows that Crowds discloses the additional limitations of these claims. For example, Petitioner demonstrates that Crowds discloses (and states how a user could download from the Internet for installation) a software package that implements a jondo, whose operation meets the limitations of claims 19, 28, and 29. *See* Ex. 1006, 26; Teruya Decl. ¶¶ 76–77. Patent Owner does not respond separately to Petitioner’s analysis of these dependent claims. At this stage, we are persuaded by Petitioner’s analysis that Petitioner has demonstrated reasonable likelihood of prevailing on this challenge to claims 19 and 21–29 as anticipated by Crowds.

F. Obviousness Based on Crowds and RFC 2616

Petitioner contends that the claims anticipated by Crowds (claims 1, 19, and 21–29), as well as claims 2, 14, 15, 17, and 18, would have been obvious in light of Crowds and RFC 2616. Pet. 39–44.

Petitioner refers to RFC 2616 and contends that “[s]ince Crowds was directed at improving the same types of communications, a [person of ordinary skill] developing software for like applications would have had a powerful motivation to combine its disclosure with knowledge of Internet standards governing HTTP.” *Id.* at 40.

Regarding Patent Owner’s proposed claim construction, Petitioner contends that “[e]ven if the Board were to construe ‘second server’ as

requiring a specialized data-center class device, such an adaptation would have been obvious.” *Id.* at 41 (citing Ex. 1006, 15–19). Petitioner contends “[a person of ordinary skill] would have been aware, in 2009, of equipment commonly used as ‘servers,’ including workstation computers and computers running UNIX and Microsoft operating systems as disclosed by Crowds.” *Id.* (citing Ex. 1006, 17). For support, Petitioner relies on testimony from Dr Teruya. Teruya Decl. ¶¶ 98–99.

Patent Owner does not respond separately to Petitioner’s analysis of this claim. At this stage, we are persuaded by Petitioner’s analysis that Petitioner has demonstrated reasonable likelihood of prevailing on this challenge to claim 1.

Similarly, Petitioner presents analyses of claims 2, 14, 15, 17–19, and 21–29 in light of Crowds and RFC 2616. Pet. 41–44. Petitioner relies of RFC 2616 for disclosures such as the validity check in claims 14 and 15. *See id.* at 42.

Patent Owner does not respond separately to Petitioner’s analysis of these claims. At this stage, we are persuaded by Petitioner’s analysis that Petitioner has demonstrated reasonable likelihood of prevailing on this challenge to claims 2, 14, 15, 17–19, and 21–29.

G. Anticipation Based on Border

Petitioner asserts that claims 1, 12, 14, 21, 22, 24, 25, and 27–29 are anticipated by Border. Pet. 44–46. Petitioner provides an element-by-element claim analysis, supported by expert testimony. *Id.* at 46–55; Teruya Decl. ¶¶ 107–123.

1. Claim 1

Petitioner contends that Border anticipates claim 1. Pet. 46–51. Petitioner asserts that the preamble is disclosed by Border. *Id.* at 46. For example, Petitioner identifies the first client device recited in the preamble as upstream server 107 in Border. *Id.* Petitioner identifies the recited second server as downstream server 105. *Id.* Petitioner identifies the recited first server as web server 109. *Id.* Petitioner identifies the recited first content identifier as the requested URL. *Id.* And Petitioner identifies the recited first content as the requested web page at the requested URL. *Id.* (citing Teruya Decl. ¶¶ 107–108).

Petitioner’s analysis continues by showing that each step of claim 1 is disclosed in Border. *Id.* at 46–52. For example, Petitioner asserts that the “receiving” step (step a) is met when “[w]eb content is retrieved from a web server that stores the web content by forwarding a ‘URL request message to a web server and receiv[ing] the URL content from the web server.’” *Id.* at 47 (citing Ex. 1012, 2:52–54). Similarly, the “sending” step (step b) is met when “[u]pstream server 107 (the first client device) issues a GET request to web server 109 for the content at a specified URL.” *Id.* at 49 (citing Ex, 1012, Fig. 2, 5:33–36) (footnote omitted). Petitioner provides similar analyses for the additional steps (steps c and d) of claim 1. Dr. Teruya provides supporting testimony. Teruya Decl. ¶¶ 109–123.

Patent Owner’s response to this challenge echoes its response to the challenges based on Crowds. *See* Prelim. Resp. 64–66; *supra*, Section IV.E.1. Patent Owner contends Border does not disclose a “first client device” because “NetNut arbitrarily designates server 105 as a server and server 107 as a client device in order to argue invalidity based on Border.”

Id. at. 64. Patent Owner alleges that Petitioner “fails to distinguish or otherwise explain any differences between server 105 and server 107.” *Id.* Patent Owner asserts Petitioner “fails to sufficiently explain why server 107, and not server 105, is to be understood as a client device.” *Id.* at 65. Further, Patent Owner asserts Petitioner “fails to address whether the servers 105, 107 simultaneously operate in different roles.” *Id.* We have addressed these or similar arguments in connection with the challenge based on Crowds. *See supra*, Section IV.E. We do not agree with Patent Owner’s assertions for the reasons given there.

Finally, Patent Owner asserts that “Border is not directed to addressing the problem of initiator deniability or anonymity.” *Id.* at 65–66. We disagree. Border discloses the use of HTTP proxy servers 105 and 107. Ex. 1012, 4:8–11. Each HTTP proxy server “acts as an intermediary between one or more browsers and many web servers.” *Id.* at 4:29–31. The proxy server protects the identity of the browsers by requesting content from the web servers on behalf of the browsers. *Id.* at 4:31–33 (“A web browser 103 requests a URL from the proxy server (e.g., 105) which in turn ‘gets’ the URL from the addressed web server 109.”).

For the reasons given by Petitioner, including those summarized *supra*, we determine that that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claim 1 as anticipated by Border.

2. *Claims 12, 14, 21, 22, 24, 25, and 27–29*

These claims depend, directly or indirectly, from claim 1. Petitioner provides an analysis for each of these claims in relation to Border. Pet 52–55; Teruya Decl. ¶¶ 124–134. Petitioner’s analysis shows that Border discloses the additional limitations of these claims. For example, Petitioner

demonstrates that Border discloses storing the received content in claim 12: “In response to receiving the web page at the requested URL from web server 109, upstream server 107 stores the first content in HTTP cache 117.” *Id.* at 52 (citing Ex. 1012, 5:36–38).

Patent Owner does not respond separately to Petitioner’s analysis of these dependent claims. At this stage, for the reasons given we are persuaded by Petitioner’s analysis that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claims 12, 14, 21, 22, 24, 25, and 27–29.

H. Obviousness Based on Border and RFC 2616

Petitioner contends that the claims anticipated by Border alone (claims 1, 12, 14, 19, 21, 22, 24, 25, and 27–29), as well as claims 15 and 17–19, would have been obvious in light of Border and RFC 2616. Pet. 55–59.

Petitioner contends claim 1 would have been obvious in light of Border and RFC 2616: “Since Border is also directed at improving those communications . . . within the same standards-defined environment, a [person of ordinary skill] developing software for like applications would have had a powerful motivation, for the same reasons, to combine its disclosure with other knowledge of Internet standards and/or RFC 2616 governing HTTP.” Pet. 56 (citing Teruya Decl. ¶¶ 135-137).

Addressing claim 1, Petitioner contends “[t]here is no question that downstream server 105 (the ‘second server’) is disclosed as a ‘server’ and that the GET request disclosed in Border transmits a content identifier (URL).” Pet. 56. Petitioner explains further that “[a]s for the ‘first client device’—Border expressly discloses that its proxy servers can be

implemented on personal computers.” *Id.* Furthermore, Petitioner contends “[t]o the extent that is deemed insufficient disclosure of a consumer computer (should that even be required), it would have been obvious to a [person of ordinary skill], based on general Internet knowledge, that any computing device capable of operating a ‘proxy’ as defined in RFC 2616, could serve as a first client device, and that this would include most consumer computers with a network interface.” *Id.* (citing Teruya Decl. ¶¶ 140–142).

Addressing dependent claims 12, 14, 15, 17–19, 21, 22, 24, 25, and 27–29, Petitioner demonstrates that Border and RFC 2616 disclose the additional limitations of those claims. Pet. 57–59; Teruya Decl. ¶¶ 143–151.

Patent Owner does not separately address this obviousness ground, except to state that “Border alone or in combination [with RFC 2616] does not teach or suggest the Challenged Claims of the ‘319 Patent.” Prelim. Resp. 66. At this stage, for the reasons given, we are persuaded by Petitioner’s analysis that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claims 1, 12, 14, 15, 17–19, 21, 22, 24, 25, and 27–29.

I. Anticipation Based on MorphMix

Petitioner asserts that claims 1, 17, 19, and 21–29 are anticipated by MorphMix. Pet. 59–61. Petitioner provides an element-by-element claim analysis, supported by expert testimony. *Id.* at 61–71; Teruya Decl. ¶¶ 152–193.

1. Claim 1

Petitioner contends claim 1 is disclosed by MorphMix. Pet. 61–67. For example, Petitioner identifies the claimed first client device as last node

(c) in MorphMix. *Id.* at 61. Petitioner identifies the claimed second server as intermediate node (b). *Id.* at 62. Petitioner identifies the claim’s first server as server (s). *Id.* Petitioner identifies the claimed first content identifier as “the ‘application data’ or the requested URL it contains.” *Id.* And Petitioner identifies the first content as the “requested web page at the requested URL.” *Id.* (citing Teruya Decl. ¶¶ 159–160).

Petitioner’s analysis continues by showing that each step of claim 1 is disclosed in MorphMix. *Id.* at 61–67. For example, the “receiving” step (step a) is met because “Figure 5.4 of MorphMix shows that in the course of servicing a request from node a, ‘application data’ (for the request) is passed from node b (second sever) to node c (first client device), which then connects with the web server.” *Id.* at 62. Further, the “sending” step (step b) is met because “[n]ode c (first client device) sends a HTTP request comprising the FCI (AD and/or the URL within the AD) to the first server (s).” *Id.* at 65. Petitioner provides analyses for the additional steps (steps c and d) of claim 1. *Id.* at 66–67. Dr. Teruya provides supporting testimony. Teruya Decl. ¶¶ 152–180.

Patent Owner responds with many of the arguments previously discussed. Prelim. Resp. 66–68. For example, Patent Owner alleges that Petitioner “arbitrarily calls MorphMix’s node (b) a server and node (c) a client device, in contradiction with the Court’s claim constructions.” *Id.* at 66. Patent Owner alleges that because it describes a “peer-to-peer based” network, “MorphMix does not disclose configuring user computers to operate as servers.” *Id.* at 67. And Patent Owner alleges that Petitioner “fails to address whether the nodes simultaneously operate in different roles,

contrary to the Court’s claim constructions.” *Id.* For the reasons previously given above, we do not agree with these arguments.

For the reasons presented by Petitioner, including those summarized *supra*, we determine that that Petitioner has demonstrated a reasonable likelihood of prevailing on its challenge to claim 1 as anticipated by MorphMix.

2. *Claims 17, 19, and 21–29*

Petitioner provides an analysis for each of these claims in relation to MorphMix. Pet. 67–71; Teruya Decl. ¶¶ 181–193. Petitioner’s analysis shows that MorphMix discloses the additional limitations of these claims. For example, Petitioner demonstrates that MorphMix discloses the periodically communication step in claim 17: “The ‘second server’ and ‘first client device’ of MorphMix are nodes, and each communicates via the MorphMix protocol for establishing and maintaining virtual tunnels. Each sends HTTP protocol messages through this tunnel to handle web requests.” *Id.* at 67–68 (citation omitted).

Patent Owner does not respond separately to Petitioner’s analysis of these dependent claims. At this stage, for the reasons given, we are persuaded by Petitioner’s analysis that Petitioner has demonstrated reasonable likelihood of prevailing on this challenge to claims 17, 19, and 21–29.

J. Obviousness Based on MorphMix and RFC 2616

Petitioner contends that the claims anticipated by MorphMix alone (claims 1, 17, 19, and 21–29), as well as claims 2, 14, 15, and 18, would have been obvious in light of MorphMix and RFC 2616. Pet. 71–76.

Petitioner contends that claim 1 would have been obvious in light of MorphMix and RFC 2616. Pet. 71–72. Petitioner explains, because MorphMix is also directed at improving communications (in this case, providing anonymity) using standard protocols such as TCP/IP, “within the same-standards defined environment, a [person of ordinary skill] developing software for like applications would have had a powerful motivation, for the same reasons, to combine its disclosure with other knowledge of Internet standards and/or RFC 2616 governing HTTP.” *Id.* at 71 (citing Teruya Decl. ¶¶ 194–195).

Addressing claim 1, Petitioner contends that “Patent Owner sought to construe ‘client device’ as a ‘consumer computer.’” *Id.* at 72. Petitioner continues, “[t]here is no § 102 issue with MorphMix on that score, as MorphMix (expressly called a ‘peer-to-peer’ based system) clearly contemplates the use of consumer-class computers.” *Id.* at 72. Petitioner further explains that “[a]s for the ‘second server,’ . . . node b acts in the role of a server to node a.” *Id.* Still further, addressing the claimed “first content identifier,” Petitioner points out that MorphMix discloses a “continuous series of user activity via URL requests.” *Id.* at 72 (citing Ex. 1008 at 94). Furthermore, “the [person of ordinary skill] would know from RFC 2616 § 5.1.2 that a URL includes a content identifier.” *Id.*

Addressing dependent claims 2, 14, 15, 18, 19, and 21–29, Petitioner demonstrates that MorphMix and RFC 2616 disclose the additional limitations added by those claims. *Id.* at 71–76; Teruya Decl. ¶¶ 200–211.

Patent Owner does not separately address this obviousness ground, except to state that “MorphMix alone or in combination [with RFC 2616] does not teach or suggest the Challenged Claims of the ‘319 Patent.”

Prelim. Resp. 68. At this stage, for the reasons given, we are persuaded by Petitioner's analysis that Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge to claims 1, 2, 14, 15, 17–19, and 21–29.¹⁰

V. CONCLUSION

For the foregoing reasons, we have determined that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of the claims challenged in the Petition. We therefore institute trial as to all challenged claims on all grounds stated in the Petition.

VI. ORDER

Upon consideration of the record before us, it is:

ORDERED that *inter partes* review of claims 1, 2, 12, 14, 15, 17–19, and 21–29 of the '319 patent is instituted on all grounds in the Petition;

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.

¹⁰ Petitioner does not directly address claim 17 in this analysis of obviousness, but does address claim 18, from which claim 17 depends. *See* Pet. 75. Previously, we determined that claim 17 is reasonably likely to be anticipated by MorphMix. *See* Section IV.I, *supra*. For this reason, and also because claim 17 depends from a claim (claim 18) that Petitioner has demonstrated is reasonably likely to be determined obvious, we conclude that Petitioner has sufficiently demonstrated that claim 17 is reasonably likely to be determined obvious also over MorphMix and RFC 2616.

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