

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CODE200, UAB, TESOLT, UAB, METACLUSTER LT, UAB, and
OXYSALES, UAB,
Petitioner,

v.

BRIGHT DATALTD.,
Patent Owner.

IPR2022-00103
Patent 11,044,342 B2

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

I. INTRODUCTION

Code200, UAB; Teso LT, UAB; Metacluster LT, UAB; and Oxysales, UAB (collectively, “Petitioner”)¹ filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1, 2, 6–11, 13, 15, 16, and 18–23 (the “challenged claims”) of U.S. Patent No. 11,044,342 B2 (Ex. 1001, “the ’342 patent”). Patent Owner, Bright Data Ltd., filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

The Board has authority to determine whether to institute an *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 ’342 patent and all of the asserted grounds of unpatentability in the Petition.

II. BACKGROUND

A. Related Matters

The parties identify several court proceedings that involve patents related to the ’342 patent. Pet. 5–6; Paper 4, 2. In particular, the parties identify *Luminati Networks Ltd. v. Teso LT, UAB, et al.*, No. 2:19-cv-395

¹ Petitioner identifies coretech lt, UAB as another real party-in-interest. Pet. 4–5.

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(E.D. Tex.) (“the Teso district court litigation”). The parties do not, however, identify any district court cases that involve the ’342 patent. *Id.*

The parties also identify several *inter partes* reviews for patents related to the ’342 patent, but similarly, none of these cases challenged claims of the ’342 patent. Pet. 6–7; Paper 4, 1. In addition, Patent Owner identifies *ex parte* reexaminations ordered for related patents, Control No. 90/014,875 and Control No. 90/014,876. Paper 4, 1.

B. The ’342 Patent

The ’342 patent is titled “System Providing Faster And More Efficient Data Communication” and issued on June 22, 2021, from an application filed on October 13, 2019. Ex. 1001, codes (22), (45), (54). The patent is subject to a terminal disclaimer. *Id.* at code (*). The application for the ’342 patent claims priority to several applications, including U.S. Provisional Application No. 61/249,624, filed October 8, 2009. *Id.* at code (60).

The ’342 patent is directed to addressing the “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.” Ex. 1001, 1:54–56. The ’342 patent states that other “attempts 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 1:58–3:3. The ’342 patent provides 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 3:13–16, 4:3–5.

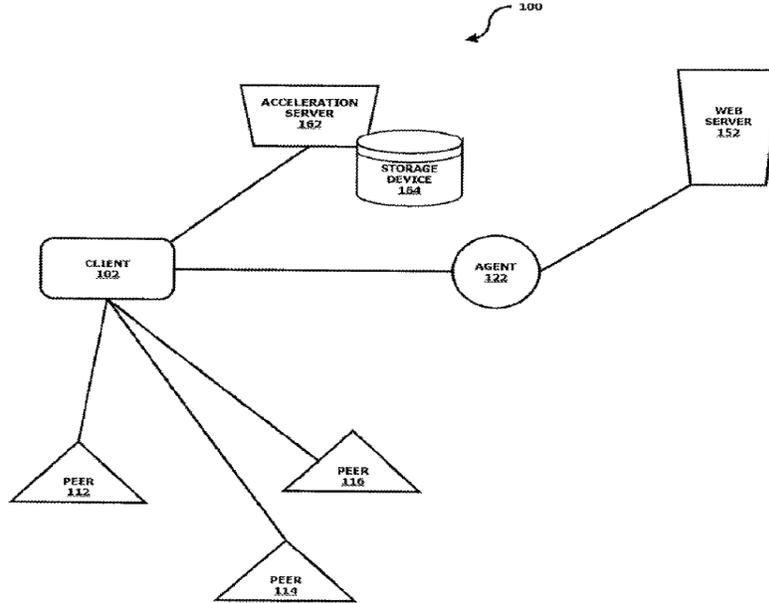


FIG. 3

Figure 3, above, is a schematic diagram depicting communication network 100 including a number of communication devices. Ex. 1001, 4:54–61. 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 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 5:11–16.

In operation, a client may request a resource on the network, for example, through the use of an Internet browser. Ex. 1001, 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 13:8–13. 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. The connection established between the agent and client may be a Transmission Control Protocol [TCP] connection. *Id.* at 17:61–64.

Each agent responds to the client with information as to “whether the agent has seen a previous request for this resource that has been fulfilled,” and “which can help the client to download the request information from peers in the network.” Ex. 1001, 13:51–58. 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 13:64–14:1, 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.

C. Illustrative Claim

The ’342 patent has 24 claims. Claim 1, the only independent claim in the ’342 patent, is illustrative of the claimed subject matter and is reproduced below, with bracketed designations added to the limitations for reference purposes.

1. [pre] A method for use with a web server that responds to Hypertext Transfer Protocol (HTTP) requests and stores a first content

that is identified by a first Uniform Resource Locator (URL), the method by a first client device comprising:

[a] executing, by the first client device, a web browser application or an email application;

[b] establishing a Transmission Control Protocol (TCP) connection with a second server;

[c] receiving, the first content from the web server over an Internet; and

[d] sending the received first content, to the second server over the established TCP connection, in response to the receiving of the first URL.

Ex. 1001, 19:18–31.

D. Asserted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1, 2, 6–11, 13, 15, 16, and 18–23 of the '342 patent on the following grounds:

Claims Challenged	35 U.S.C. §²	Reference(s)
1, 2, 6, 7, 15, 16, 18–23	102(b)	Crowds ³
1, 2, 6, 7, 15, 16, 18–23	103(a)	Crowds
8, 9	103(a)	Crowds, RFC 1122 ⁴ ,

² The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103, effective March 16, 2013. Because the '342 patent claims priority to a provisional application that was filed before this date, with Petitioner not contesting that priority, the pre-AIA versions of §§ 102 and 103 apply. See Ex. 1001, code (60).

³ Michael K. Reiter, *Crowds: Anonymity for Web Transactions*, ACM Transactions on Information and System Security, Vol. 1, No. 1, November 1998, at 66–92 (Ex. 1004).

⁴ Requirements for Internet Hosts – Communication Layers, Network Working Group, RFC 1122, October, 1989 (Ex. 1040).

Claims Challenged	35 U.S.C. § ²	Reference(s)
10, 11, 13	103(a)	Crowds, RFC 2616 ⁵

Pet. 12–14.

III. DISCRETIONARY DENIAL

Under 35 U.S.C. § 325(d), when determining whether to institute an *inter partes* review, “the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” In evaluating arguments under § 325(d), we use

[a] two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 6 (PTAB Feb. 13, 2020) (precedential) (“*Advanced Bionics*”); *see also Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to Section III.C.5, first paragraph) (listing factors to consider in evaluating the applicability of § 325(d)) (“*Becton Dickinson*”).

Both parties acknowledge that Crowds, RFC 1122, and RFC 2616 were considered before the Patent Office during the prosecution of the ’342 patent, so the first part of the two-part *Advanced Bionics* framework applies.

⁵ Hypertext Transfer Protocol—HTTP/1.1, Network Working Group, RFC 2616, The Internet Society, 1999 (Ex. 1006).

Under part two of the *Advanced Bionics* framework, *Becton Dickinson* factors (c), (e), and (f) are considered in the evaluation of whether the examiner erred during prosecution. *Advanced Bionics*, Paper 6 at 10–11. *Becton, Dickinson* identifies these factors as (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection; (e) whether Petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or argument. *Becton, Dickinson*, Paper 8 at 17–18.

Petitioner argues that although Crowds, RFC 1122, and RFC 2616 were considered by the Patent Office during the prosecution of the '342 patent, the examiner materially erred in allowing the claims. Pet. 60–67. More specifically, Petitioner asserts that the examiner did not issue prior art rejections, only obviousness-type double patenting rejections, which were overcome with a terminal disclaimer filed by the applicant. *Id.* at 61–62. Petitioner refers to the Notice of Allowance issued by the examiner, which stated that the claims were allowed “in view of the Applicant’s arguments.” *Id.* at 62–63. Petitioner contends this was an error by the examiner because there were no applicant arguments made during prosecution of the '342 patent. *Id.* (citing Ex. 1007, 11–12). Petitioner contends further with the supporting testimony of Dr. Freeman (which was unavailable to the examiner), that the Petition demonstrates that Crowds discloses and teaches the claims at issue, and therefore also demonstrates the examiner’s material error. *Id.* at 63.

Petitioner additionally refers to the prosecution history of related patent, U.S. Patent No. 10,484,510, a parent application to the application for the '342 patent, which similarly only had obviousness-type double patenting rejections with a terminal disclaimer filed, and with a similar Notice of Allowance issued. Pet. 64 (citing Ex. 1017, 4, 9, 10, 12, 13, 35, 36). Petitioner also refers to the prosecution history of related U.S. Patent No. 10,257,319 (“the '319 patent”), a grandparent application, which had claims with some similar steps to the '342 patent claims, as well as some steps that are different, and which had a prior art obviousness rejection over Fang and Zaid. *Id.* at 64 (citing Ex. 1018, 33–46). Petitioner argues that Crowds is more material than either Fang or Zaid. *Id.* at 64–65. More specifically, the examiner found that Fang taught some of the steps of claim 1 of the '319 patent, but relied on Zaid for teaching others. *Id.* at 64 (citing Ex. 1018, 30. 35–37). Petitioner asserts that in the '319 patent prosecution, the applicant argued to the examiner that “the prior art rejection was unclear, the references were ‘directed towards respectively different fields and purposes[] and are based on respectively different structures,’ and the rationale for combining the references was improperly conclusory.” *Id.* at 64–65 (citing Ex. 1018, 13, 19–22).

Patent Owner responds that we should deny the Petition under § 325(d) because Petitioner fails to demonstrate that the examiner erred in a manner material to the patentability of the challenged claims. Prelim. Resp. 6–31. Patent Owner asserts that the examiner was familiar with the '342 patent specification, which was common to 32 of the 36 patent applications in the '342 patent family, because the same examiner was involved in all their prosecutions. *Id.* at 8–9. Patent Owner argues also that the examiner

was also familiar with Crowds, RFC 1122, and RFC 2616 because those references had been cited in many of the prosecutions of the applications in the family of the '342 patent. *Id.* at 9–16. Patent Owner contends that the examiner was familiar with the claim language in the family of cases because the examiner had issued a double-patenting rejection in this case over some of the claims of the related patents. *Id.* at 16–17. Patent Owner asserts that the rejections show that the examiner was aware that the patents operated “within the same second server ↔ first client device ↔ web server architecture, which Examiner Nguyen recognized as being unique.” *Id.* at 17. Patent Owner additionally asserts that, although Petitioner argues that the examiner’s basis for the Notice of Allowance in the '342 patent prosecution referred to applicant arguments when there were no arguments presented, “this alleged lack of clarity does not rise to the level of material error by Examiner.” *Id.*

Patent Owner provides a table comparing the claim language of claim 1 of the '342 patent to that of other related patents. Prelim. Resp. 18–22. Patent Owner argues that the prosecution histories of the patents that it identifies as related are relevant to the second part of *Advanced Bionics* framework, and the same examiner had considered similar claim limitations in the related patent as well as the Crowds, RFC 1122, and RFC 2616 references. *Id.* at 22. Patent Owner argues that Petitioner fails to show material error in its arguments related to Fang and Zaid because the fact that the examiner did not issue rejections as set forth in the grounds is not material error. *Id.* at 23. Patent Owner also refers to the prosecution of U.S. Patent No. 10,491,712 (“the '712 patent”), which is alleged to have similar claim limitations to the claims of the '342 patent. *Id.* at 24. In that

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prosecution, the examiner issued a rejection over Yu and Barth, alleging that Petitioner never addressed the fact that the examiner allowed claims in the '712 patent that correspond to claims of the '342 patent. *Id.* Patent Owner additionally refers to U.S. Patent No. 11,044,344 (“the '344 patent”), which is alleged to have claims that are similar to those of the '342 patent, where the same examiner allowed its claims after a terminal disclaimer was filed. *Id.* Patent Owner also asserts that it was the novel use of a client device that led to the allowance of the claims in that application. *Id.* at 18.

Under factor (c) and based on the record before us, the fact that Crowds was not the basis of rejection in the prosecution of the '342 patent nor was identified by the parties as the basis of rejection of in any of the related patents weighs strongly against exercising our discretion to deny institution under 35 U.S.C. § 325(d). *See Becton, Dickinson*, Paper 8 at 17; *see also Kayak Software Corp. v. Int'l Bus. Machs. Corp.*, CBM2016-00075, Paper No. 16 at 11 (PTAB Dec. 15, 2016) (informative). As such, the record does not demonstrate the extent to which the Examiner considered Crowds alone or in combination with RFC 1122 and RFC 2616, as asserted in this Petition and applied to the challenged claims. Under factor (f), and as discussed *infra* at Section IV.D, Petitioner has provided sufficient evidence that Crowds discloses every limitation of the independent claim of the '342 patent. Additionally, the examiner did not have the benefit of the claim construction of the district court, which we have adopted here (*infra* Section IV.B), which included broad construction of the terms “client device” and “second server.”

We also determine that Crowds, asserted here, is more material than the combination of Fang and Zaid, which were the basis of a rejection in

prosecution of the related '319 patent. As Petitioner points out, the basis of the applicant's arguments regarding the examiner's rejection over Fang and Zaid includes that the rejection was not clear, the prior art was non-analogous, and there was improper rationale for combining the references.⁶ Pet. 64–65 (citing Ex. 1018, 13, 19–22). The examiner's basis for allowance of the claims of the '319 patent application, while lacking specificity, does state that allowance was granted “in view of the Applicant's arguments.” Ex. 1018, 9. Here, the applicant's arguments, that include assertions of non-analogous art and improper rationale to combine, with the examiner identifying applicant's arguments as a reason for allowance, persuade us that the single reference Crowds is more material than the combination of Fang and Zaid. Or, in other words, we do not discern that the combination of Fang and Zaid is stronger prior art than Crowds.

Additionally, we do not find persuasive Patent Owner's arguments that Petitioner should have addressed the Yu and Barth references, which were the basis of rejection in the prosecution of the '712 patent, and also should have also addressed the prosecution of the '344 patent. Prelim. Resp. 24–25. The '712 and '344 patents are not in the direct history of continuations of the '342 patent and do not appear on the face of the '342 patent. *See* Ex. 1001, code (60). And, as Patent Owner notes, there are 36 issued patents that all claim priority to Provisional Application No. 61/249,624 and have a common specification (Prelim. Resp. 8). Under these

⁶ The applicant also argued that Fang did not disclose two limitations of claim 1 of the '319 patent application (which claim 1 of the '342 patent does not recite), and that the examiner misinterpreted claim language. Ex. 1018, 10, 21–22.

circumstances, we find that Petitioner was not required to search and address all of these file histories. Accordingly, Petitioner has sufficiently addressed issues under factor (e).

Considering the issues addressed above, we determine that the evidence supports, and Petitioner demonstrates, that the Office erred in a manner material to the patentability of challenged claims.

For the foregoing reasons, we are not persuaded to exercise our discretion under § 325(d) to deny institution.

IV. ANALYSIS

A. Level of Ordinary Skill in the Art

According to Petitioner, a person of ordinary skill in the 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 date of the invention. Pet. 14–15 (citing Ex. 1003 ¶ 29).

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. 31–32 (citing Ex. 2017 ¶ 21). Patent Owner acknowledges, however, that the parties’ respective proposed qualifications “are not materially different, at least in terms of affecting an institution decision in this IPR.” *Id.* at 32.

For the purposes of this Decision, we adopt the assessment offered by Petitioner as it is consistent with the '342 patent and the prior art before us.⁷ See *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). We note that, at this juncture, we agree with Patent Owner that the proposed qualifications are not materially different and our assessment of the merits of the Petition, as discussed below, would remain the same under either parties' proposed qualifications.

B. Claim Construction

In this *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b) (2021). Under the principles set forth by our reviewing court, 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. Conceptor, 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*,

⁷ The parties are encouraged to address the impact, if any, of differences in the level of qualifications on the anticipation and obviousness analyses in any subsequent briefing.

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Inc., 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Petitioner asserts that the district court’s constructions in the Teso district court litigation should apply in this case. Pet. 19. In particular, Petitioner points to two claim construction orders in that case—an original order (Ex. 1011) and a supplemental order (Ex. 1014). As Petitioner notes, the district court construed “client device” as “communication device that is operating in the role of a client.” Pet. 18. As Petitioner further notes, the district court construed “second server” as “server that is not the client device.” *Id.* Petitioner contends that Patent Owner asserted that “‘interchangeable’ devices could not be both a ‘client device’ and a ‘server.’” *Id.* at 17 (citing Ex. 1026, 20). Petitioner also contends that Patent Owner relied on its “server” scope argument as the sole basis to distinguish Crowds from the independent claims. *Id.* at 17–18 (citing Ex. 1046, 2). Petitioner argues that the district court repeatedly addressed and rejected Patent Owner’s arguments on the claim construction for these terms. *Id.* at 18 (citing Ex. 1011, 11–12).

Petitioner asserts that the district court’s claim interpretations for “client device” and “server” means that the “device *operat[es] in the role of* a client or server, respectively.” Pet. 19–20 (citing Ex. 1003 ¶ 48) (emphases in original). Petitioner refers to RFC 2616, which defines clients and servers based on the roles being performed. *Id.* at 20 (citing Ex. 1006, 8).

Petitioner contends that the specification of the ’342 patent is consistent with the plain meaning of the terms, as interpreted by the district court. Pet. 20 (citing Ex. 1001, 14:67–15. 1, Fig. 3). Petitioner refers to

Figure 3 of the '342 patent where “client 102 is the *only* device that that the patent discloses forwarding URLs to agent 122 (as performed by the claimed ‘second server’).” *Id.* at 21 (citing Ex. 1001, 13:31–36, Fig. 3) (emphases in original). Petitioner argues that Patent Owner acknowledged this in the Teso district court litigation. *Id.* (citing Ex. 1009, 20; Ex. 1003 ¶ 49). Petitioner asserts, consistent with the district court’s interpretation of the claim terms, that “client 102” can be considered a “second server” in accordance with the '342 specification disclosure, “agent 122” can be considered a “client device,” and “web server 152” is the “first server.” *Id.* at 20–21. Petitioner also refers to other portions of the specification which are alleged to support that client and agent are distinguished solely based on role, and not separate hardware or operating system. *Id.* at 21–22 (citing Ex. 1001, 5:52–57, 9:20–25; Ex. 1003 ¶ 50).

Petitioner further asserts that the district court considered Patent Owner’s argument ““that a client device is specifically not a server’ is ‘not supported by the specification’ and ‘[t]he patents do not include servers as a type of ‘communication device,’” and found that this argument “is not sufficient to construe ‘client device’ as unable to act as a server in all cases.” Pet. 23 (citing Ex. 1011, 11–12). Petitioner also refers to the district court’s decision that Patent Owner’s seeking to treat client devices and servers interchangeably is an oversimplification of the issue, and the issue is rather that a component can be configured in different roles, so long as they do not “simultaneously serve as more than one of: the client device, the first

server/second server, and the web server.” *Id.* at 23–24 (citing Ex. 1014, 10).

Patent Owner agrees that the district court’s claim constructions should apply for the preamble, “client device,” and “second server” terms. Prelim. Resp. 37–38. Patent Owner asserts that the district court indicated that “[t]he patents do not include servers as a type of ‘communication device,’” and confirmed “that servers must be configured to be servers.” *Id.* at 38–39 (citing Ex. 1014, 10). Patent Owner refers to the district court’s statement that “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.* at 39 (citing Ex. 1014, 10). Patent Owner argues that Petitioner is “seeking a broader construction for the term ‘second server’ to remove the requirement that it be a server.” *Id.* In support, Patent Owner refers to the district court’s supplemental claim construction order, which states that “[t]he Court is not changing the construction of ‘first server’ and ‘second server,’ as this understanding is already embedded in those terms’ construction.” *Id.* at 39–40 (citing Ex. 1014, 11). Patent Owner also disagrees with Petitioner’s assertion that the issue of the scope of the server was the sole basis that Patent Owner used to distinguish Crowds from the independent claims because the district court referred to the use of non-traditional client servers. *Id.* at 40–41.

Patent Owner also disagrees with Petitioner’s description of the elements of Figure 3 of the ’342 patent. Prelim. Resp. 49. Patent Owner contends that Figure 3 was “only used to illustrate the lines of communication showing the steps performed by the proxy client device.”

Id. (citing Ex. 2007, 7–8). Patent Owner refers to Figure 1 of the '342 patent wherein “a server can be used as an additional intermediary between the proxy client device of the claims and a second client device originating the requests for content.” *Id.* at 49.

Patent Owner has failed to consider some of the district court’s statements on the construction of terms. Specifically, the district court stated 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. 1014, 10. That is, although the district court determined that a single component could not simultaneously serve more than one function at any particular time, it stated that different components could operate in different roles. *Id.* More particularly, in the discussion of “server” terms, the district court indicated that the function of a component, not its structure, serves to define the term. *Id.* at 7–10. For instance, the district court adopted the language “a device that is operating in the role of” for the term “client device.” *See id.* at 10. Further, the district court found that the contention “that a client device is specifically not a server—is not supported by the specification.” Ex. 1011, 11. The district court also stated that “[t]he patents do not include servers as a type of ‘communication device,’ *but that is not sufficient to construe ‘client device’ as unable to act as a server in all cases.*” *Id.* at 12 (emphasis added).

We credit the district court’s interpretation of the claim terms. Accordingly, for the purposes of this decision we adopt the construction of a “client device” as “communication device that is operating in the role of a client.” Ex. 1011, 12. Additionally, we construe the term “second server”

as “server that is not the client device” (*id.* at 14), consistent with the district court’s clarification (Ex. 1014, 8, 11).

We determine that we need not expressly construe any other claim terms to resolve the parties’ disputes on the current record. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. Principles of Law

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 patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *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) when in evidence, objective indicia of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

D. Anticipation of Claims 1, 2, 6, 7, 15, 16, and 18–23 By Crowds

Petitioner contends that claims 1, 2, 6, 7, 15, 16, and 18–23 are anticipated by Crowds. Pet. 24–48. To support its contentions, Petitioner provides explanations as to how Crowds discloses each claim limitation. *Id.* Petitioner also relies upon the Freeman Declaration (Ex. 1003) to support its positions. Patent Owner argues that Crowds is inconsistent with the claims and does not disclose all the claim limitations. Prelim. Resp. 41–47.

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

1. Crowds (Ex. 1004)

Crowds is an article that “introduce[s] a new approach for increasing the privacy of web transactions.” Ex. 1004, 2.⁸ 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

⁸ Unless otherwise stated, citations to exhibits use the page numbers identified by the parties.

computer called a *jondo* (pronounced ‘John Doe’ and meant to convey the image of a faceless participant).” *Id.* at 13. “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, reproduced below:

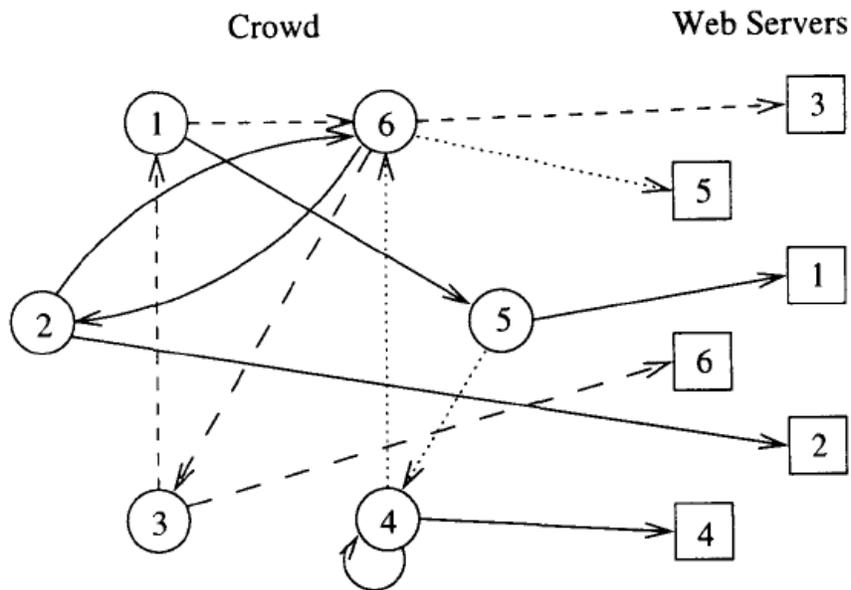


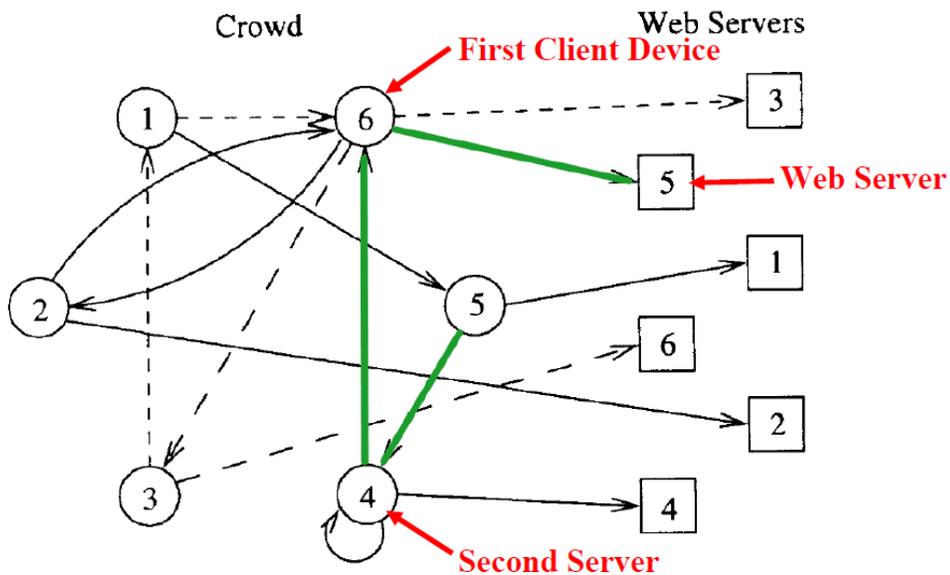
Fig. 2. Paths in a crowd (the initiator and web server of each path are labeled the same).

In Figure 2 of Crowds, above, 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.” Ex. 1004, 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. Discussion

a. Claim 1

Petitioner asserts that Crowds discloses the claimed web server of the preamble that responds to HTTP requests and stores a first content identifier identified by a first URL. Pet. 27–29. Petitioner refers to annotated Figure 2 of Crowds, reproduced below.



As shown in Petitioner’s annotated version of Figure 2 of Crowds, above, Petitioner refers to the path 5→4→6→server (highlighted in green), with boxed “5” mapped to the web server. Pet. 28–29. As shown, Petitioner identifies jondo 6 as the first client device (jondo 6). *Id.* at 28.

Petitioner argues that Crowds discloses limitation 1[a] because a person of ordinary skill in the art would understand that jondo 6 is operating in the role of a client executing a web browser application. Pet. 29 (citing Ex. 1003 ¶ 75). More specifically, Petitioner asserts that “jondo 6 is a communication device because it is a device (user’s computer) that, due at

least in part to the jondo application residing on it, facilitates communication between other devices, including web server 5 and jondo 4.” *Id.* (citing Ex. 1004, 8–9). Petitioner contends that Crowds discloses the use of a web browser by jondos. *Id.* at 30 (citing Ex. 1003, 8, 13–15, 23–24).

Petitioner asserts that limitation 1[b] is performed by Crowds because a person of ordinary skill in the art would understand that jondo 6 would establish of a TCP connection between jondo 6 (first client device) and jondo 4 (the second server). Pet. 31 (citing Ex. 1003 ¶ 79). In support Petitioner refers to Crowds’s disclosure that each jondo in the path “receives the [first user] request” from the prior jondo and determines whether to forward the request to another jondo or complete the path and “submit[] the request to the end server for which the request was destined.” *Id.* at 32 (citing Ex. 1003 ¶ 81; Ex. 1004, 8). Petitioner argues that a person of ordinary skill in the art would have recognized that jondo 4 and jondo 6 communicate with each other using a TCP connection, with Crowds disclosing “detect[ion] by the TCP/IP connection to the jondo breaking or being refused.” *Id.* (citing Ex. 1003 ¶ 81; Ex. 1004, 16).

For limitation 1[c], Petitioner asserts that Crowds discloses jondo 6 receiving the web page (requested initially by jondo 5) from web server 5. Pet. 34 (citing Ex. 1003 ¶ 84). Petitioner argues that Crowds discloses that users request web pages and the web servers in Figure 2 return the requested content to initiators, including jondo 5. *Id.* at 34–35 (citing Ex. 1003 ¶¶ 86–87; Ex. 1006, 8–9, 17). Petitioner also contends that Crowds discloses that devices running jondos identify requests by URLs. *Id.* at 35 (citing Ex. 1006, 24).

For limitation 1[d], Petitioner asserts that Crowds discloses “jondo 6 sending the web page it receives from web server 5 to jondo 4 over the established TCP connection, in response to jondo 4 receiving the URL identifying the web page from jondo 5.” Pet. 37 (citing Ex. 1003 ¶ 91; Ex. 1006, 8–9). Petitioner further argues that “when jondo 6 sends content to jondo 4 upon receiving that content from server ‘5,’ it does so ‘in response to the receiving of the first content identifier.’” *Id.* at 38 (citing Ex. 1003 ¶ 92).

At this juncture, we determine that Petitioner has provided sufficient evidence that Crowds discloses the preamble of claim 1 and limitations 1[a]–1[d].⁹

Patent Owner argues that Petitioner’s assertions that Crowds’s jondo 6 corresponds to the claimed “first client device” and jondo 4 corresponds to the claimed “second server” fail for several reasons. *See* Prelim. Resp. 44–46

First, Patent Owner contends that Crowds only discloses a peer-to-peer system that uses only client devices that are generic user computers. Prelim. Resp. 44. Patent Owner argues that the claims “operate within a specific second server ↔ first client device ↔ web server architecture, which is not disclosed in Crowds.” *Id.* Patent Owner further asserts that the district court’s claim constructions distinguish a “second server” and “first client device.” *Id.* at 45. Patent Owner contends that Petitioner arbitrarily

⁹ The parties appear to agree that the preamble of claim 1 is limiting. *See* Prelim. Resp. 38, n.13.

identifies jondo 4 as a server and jondo 6 as a client device, and this is contrary to the district court's construction. *Id.*

The arguments are based on the premise that Crowds's client devices cannot be considered to be the claimed second server. We do not agree. As we discuss above in Section IV.B, the district court determined, and we concur based on the present record, that a "second server" functions only as "a device that is operating in the role of a server and that is not the requesting client device or the first web server," and the district court did not endorse a construction where a client device could not act as a server. Ex. 1011, 11–12. Additionally, under Petitioner's analysis, Crowd's jondo 6 functions as a first client device and element 5 acts as a web server. We find that Petitioner has provided sufficient explanation and support for the different functions and roles of Crowds's elements.

Second, Patent Owner asserts that Crowds does not disclose configuring user computers to operate as servers. Prelim. Resp. 45. Here again, Patent Owner's argument appears to be based on an interpretation of the term "second server" which we have not adopted here. *See supra* Section IV.B. Additionally, we find that Petitioner has provided sufficient explanation and support for the different functions and roles of Crowds' elements.

Third, Patent Owner argues that Petitioner fails to address "whether the jondos simultaneously operate in different roles," which would be contrary to the district court's claim construction. Prelim. Resp. 45. Patent Owner asserts that Petitioner rely on a "contradictory treatment" of a jondo as a client device versus a server because in certain situations, jondo 4 in Figure 2 will first pick itself from the crowd to receive a request and then

forward the request to the server. *Id.* (citing Ex. 1004, 8, Fig. 2). We do not agree that Petitioner’s position is contradictory because Crowds discloses “when a jondo receives a request from a user’s browser, ‘the jondo picks a jondo from the crowd’” and the selected jondo could be another jondo. Ex. 1004, 8. Additionally, whether jondo 4 receives the request from itself or from another jondo is immaterial, as it still forwards the request to the web server.

Fourth, Patent Owner contends that because of the architecture and operation of Crowds, the initiator of a request is not necessarily anonymous as to the target web server, and rather there is only “some degree of deniability” to the initiator who originated the request. Prelim Resp. 46. Patent Owner makes this assertion under the option in Crowds where the jondo picks itself for forwarding the request. *Id.* (citing Ex. 1004, 8). Again, we do not find this argument persuasive because Crowds discloses that the selected jondo could be another jondo, which is sufficient. *See* Ex. 1004, 8. Additionally, Patent Owner argues limitations that do not appear in the claim.

Patent Owner further argues that the architecture of Crowds leads to “unpredictable or particularly pronounced latency.” Prelim. Resp. 46 (citing Ex. 1004, 19). We are not persuaded by this argument because it does not address the Petition’s showing that the reference sufficiently discloses the claim limitations.

Additionally, Patent Owner asserts that Dr. Freeman has taken inconsistent positions in mapping Crowds onto different network architectures in different related patents, and there is no explanation for his contradictory testimony on Crowds. Prelim. Resp. 46–48. We do not find

this argument persuasive. We find no inconsistency in applying different patent claims to different aspects of Crowds's disclosed system that may operate in different roles. *See* Ex. 1004, 2, 8–9.

Accordingly, we are persuaded that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 1 is anticipated by Crowds.

b. Claims 2, 6, 7, 15, 16, and 18–23

Claims 2, 6, 7, 15, 16, and 18–23 depend directly or indirectly from claim 1. Petitioner provides evidence and argument that each of these claims is anticipated by Crowds. Pet. 38–48. We find this evidence and argument is sufficient at this juncture. *Id.* Patent Owner presents no additional arguments directed to these claims. *See generally* Prelim. Resp.

On this record, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its assertion that claims 2, 6, 7, 15, 16, and 18–23 are anticipated by Crowds.

E. Obviousness Contentions

Petitioner contends that claims 1, 2, 6, 7, 15, 16, and 18–23 would have been obvious over Crowds; claims 8 and 9 would have been obvious over Crowds and RPC 1122; and claims 10, 11, and 13 would have been obvious over Crowds and RFC 2616. Pet. 48–60. To support its contentions, Petitioner provides explanations as to how the references teach each claim limitation and why there is a rationale to combine different references. *Id.*

We have considered the evidence and argument presented and find it to be sufficient at this juncture. Patent Owner presents no additional arguments specifically directed to these claims. *See generally* Prelim. Resp.

On this record, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its assertion that claims 1, 2, 6–11, 13, 15, 16, and 18–23 would have been obvious over these references.

V. CONCLUSION

For the foregoing reasons, we have determined that there is a reasonable likelihood that the 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, 6–11, 13, 15, 16, and 18–23 of the '342 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.

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