

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OXYLABS LT, UAB,
Petitioner,

v.

BRIGHT DATA LTD.,
Patent Owner.

Case IPR2024-00126
Patent 11,616,826

PETITIONER'S REPLY TO PATENT OWNER RESPONSE

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PETITIONER'S EXHIBIT LIST

Ex. #	Shorthand	Description
1001	'826 Patent	U.S. Patent No. 11,616,826
1002	Olivier	Declaration of Dr. James Olivier
1003	Kocherlakota	U.S. Patent No. 6,785,705 (issued Aug. 31, 2004)
1004	Cohen	U.S. Patent No. 6,389,462 (issued May 14, 2002)
1005	RFC 2616	Internet Engineering Task Force, <i>Hypertext Transfer Protocol – HTTP/1.1</i> , June 1999
1006	RFC 1122	Internet Engineering Task Force, <i>Requirements for Internet Hosts – Communication Layers</i> , October 1989
1007	'826 FH	Prosecution History of U.S. Patent No. 11,616,826
1008	'341 FH	Prosecution History of U.S. Patent No. 11,044,341
1009		Reserved
1010	<i>Teso</i> CC Order	Claim Construction Opinion and Order, Document 191, <i>Luminati Networks Ltd. v. Teso LT et al.</i> , Case No. 2:19-cv-00395 (E.D. Tex.)
1011	<i>Code200</i> CC Order	Claim Construction Memorandum Opinion and Order, Document 97, <i>Luminati Networks Ltd. v. Code200 et al.</i> , Case No. 2:19-cv-00396 (E.D. Tex.)
1012	Motion for Hearing	Defendants' Motion for Hearing Regarding O2 Micro Issue, Document 444, <i>Bright Data Ltd. v. Teso LT et al.</i> , Case No. 2:19-cv-00395 (E.D. Tex.)
1013	Supplemental CC Order	Supplemental Claim Construction Order, Document 453, <i>Bright Data Ltd. v. Teso LT et al.</i> , Case No. 2:19-cv-00395 (E.D. Tex.)
1014		Reserved
1015	RFC 791	Internet Engineering Task Force, Request for Comments 1122 <i>Internet Protocol</i> , September 1981
1016	RFC 793	Internet Engineering Task Force, Request for Comments 1122 <i>Transmission Control Protocol</i> , September 1981
1017	RFC 1123	Internet Engineering Task Force, Request for Comments 1123 <i>Requirements for Internet Hosts - Application and Support</i> , October 1989
1018	Coley	U.S. Patent 5,826,014 (issued Oct. 20, 1998)
1019	Haverstock	U.S. Patent No. 6,449,640 (issued Sep. 10, 2002)
1020	RFC Index	August 3, 2001 archived Internet Society webpage for RFC Index from Internet Archive (Wayback Machine),

Ex. #	Shorthand	Description
		available at: http://web.archive.org/web/20010803120225/http://www.rfc-editor.org:80/rfc-index2.html
1021	Keepalive HowTo	June 11, 2008 archived Internet Society webpage for TCP KEEPALIVE HOWTO, available at https://web.archive.org/web/20080611153148/https://tldp.org/HOWTO/TCP-Keepalive-HOWTO/index.html
1022	Masters	U.S. Patent No. 8,108,554 to Masters (filed Oct. 27, 2008)
1023	Definitive Guide	Gourley, D., et al. (2002). HTTP: The Definitive Guide. Germany: O'Reilly Media, Incorporated. Available at https://archive.org/details/httpdefinitivegu00gour/page/n9/mode/2up
1024	RESERVED	
1025	'622 Patent	U.S. Patent No. 11,190,622
1026	'622 POR	<i>Metaccluster LT, UAB v. Bright Data LTD.</i> , IPR2022-00687, Paper 18 (Patent Owner Response) (PTAB Oct. 4, 2023).
1027	'622 Reply	<i>Metaccluster LT, UAB v. Bright Data LTD.</i> , IPR2022-00687, Paper 25 (Petitioner's Reply) (PTAB Oct. 4, 2023).
1028	'622 FWD	<i>Metaccluster LT, UAB v. Bright Data LTD.</i> , IPR2022-00687, Paper 38 (PTAB Oct. 4, 2023).
1029	Williams	Transcript of December 19, 2024, Deposition of Tim A. Williams, Ph.D.
1030	'622 Williams Dec	Declaration of Dr. Tim A. Williams in IPR2022-00687
1031	Claim Comparison	Table comparing challenged claims of '826 Patent with invalidated claims of '622 Patent
1032	Petitioner's Request	March 29, 2024, email to the Board from Petitioner requesting preliminary reply

I. INTRODUCTION

Patent Owner (PO) primarily attempts to re-litigate issues that were already decided by the Board. PO's main arguments attempt to distinguish its claims by advancing its flawed, hardware-based claim construction for the terms "client device" and "server" that is not disclosed in the '826 Patent. Not only has this construction been rejected multiple times by both the Board and the district court, but PO's construction would also render the terms indefinite as PO's expert can only define the hardware in relative characteristics that would nevertheless depend on the role the hardware is playing. All of PO's arguments are untimely, precluded by collateral estoppel, or plainly incorrect.

II. PATENT OWNER IS ESTOPPED FROM ARGUING THAT CLAIMS 1, 2, 5-17, 21, 22, 24 AND 25 ARE PATENTABLE

The '826 Patent shares a common specification with U.S. Patent No. 11,190,622 (the '622 Patent). Pet., 3. Claims 1–14, 16, 17, 20–24, and 26–32 of the '622 Patent were found to be unpatentable in view of Kocherlakota and RFC 1122 in IPR2022-00687, which became final on December 6, 2023. EX1028, 1,59-60; 37 CFR § 90.3(a)(1). Despite conceding that that these similar claims were invalidated over "[t]he same asserted references (Kocherlakota, Cohen, and RFC 1122) and the same expert (Dr. Olivier)" (POPR, 15 n.11) and having notice that the final decision in IPR2022-00687 "implicates collateral estoppel" (EX1032, 1), PO re-advances the same arguments that have been repeatedly rejected by the Board and the Courts

without any explanation that it is entitled to do so. As explained herein, the findings in IPR2022-00687 preclude most, if not all, of the issues raised in the POR.

It is well established that collateral estoppel applies to IPR proceedings. *Papst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.*, 924 F.3d 1243, 1251 (Fed. Cir. 2019) (“[T]he issue preclusion doctrine can apply in this court to the Patent Trial and Appeal Board’s decision in an IPR once it becomes final.”). Issue preclusion (i.e., collateral estoppel) is appropriate if: “(1) the issue is identical to one decided in the first action; (2) the issue was actually litigated in the first action; (3) resolution of the issue was essential to a final judgment in the first action; and (4) [the party being estopped] had a full and fair opportunity to litigate the issue in the first action.” *In re Freeman*, 30 F.3d 1459, 1465 (Fed. Cir. 1994).

Elements (2)-(4) cannot be disputed as: (2) the validity of claims 1–14, 16, 17, 20–24, and 26–32 of the ’622 Patent was “actually litigated” in IPR2022-00687; (3) the resolution of the issue (the validity of the claims) was essential to the finding of unpatentability in the final written decision, and (4) Patent Owner had a full and fair opportunity, as illustrated in its briefs and oral arguments. *Metacluster*, IPR2022-00687, Papers 7, 18, 26, 36.

Further, the issues here (the validity of claims 1, 2, 5-17, 21, 22, 24 and 25 of the ’826 Patent) are materially identical to the issues decided in IPR2022-00687 (the validity of the claims of ’622 Patent). *See* POPR, 15 (“Petitioner relies on the *same*

art and *substantially similar arguments* in this IPR as compared to IPR2022-00687 involving a related patent.”¹; EX1031, 1-9/15. It is well settled that patent claims need not be identical for collateral estoppel to apply; rather, collateral estoppel requires only that the *issues* of patentability be identical. *Ohio Willow Wood Co. v. Alps S., LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013); *Google LLC v. Hammond Dev. Int’l, Inc.*, 54 F.4th 1377, 1381 (Fed. Cir. 2022). As is the case here, collateral estoppel applies “even if the patent claims ‘use slightly different language to describe substantially the same invention,’ so long as ‘the differences between the unadjudicated patent claims and adjudicated patent claims do not materially alter the question of invalidity.’” *Google*, 54 F.4th at 1381 (quoting *Ohio Willow Wood*, 735 F.3d at 1342).

Claims 1, 2, 5-17, 21, 22, 24 and 25 of the ’826 patent are materially identical to claims 1, 2, 6, 7, 11-14, 16, 17, 20, 22-24, 26, and 28-32 of the ’622 Patent. Compare EX1001, 19:15-21:5 with EX1025, 19:15-22:16; see also EX1031, 1-9/15. The only differences PO’s expert was able to identify between the arguments advanced in this proceeding and those from IPR2022-00687 are that the claims use “[d]ifferent words.” See EX1029, 58:17-63:10. Specifically, claim 1 of the ’826 Patent utilizes the terms “list of IP addresses” and “first content identifier” where

¹ All emphasis added unless otherwise noted.

the claims of the '622 Patent utilize the terms “group of IP addresses” and “first Uniform Resource Locator (URL),” respectively. EX1031, 1-2/15. But this different wording does not materially alter the question of patentability. EX1029, 65:13-66:15 (no difference for “list of IP addresses”), 62:4-63:10 (no difference for “first content identifier”); *see also id.*, 59:14-72:10.

III. PO’S PROPOSED CONSTRUCTIONS ARE INCORRECT

A. “selecting, an IP address”

In attempt to relitigate the Board’s finding that Kocherlakota discloses selecting an IP address, PO advances that the term “selecting, an IP address” “means making a choice in preference to another or others.” POR, 7. PO is estopped from re-advancing this argument. EX1028, 34-36 (“We do not agree with Patent Owner’s arguments because they are not commensurate in scope with the limitations of claim 1.”); *infra*, §IV.D.

Nevertheless, there is nothing in claim 1 or the cited portions of the '826 Patent’s specification (EX1001, 13:25-29) that support PO’s proposed interpretation. *See* EX1028, 36 (rejecting construction and citing EX1001, 13:25–29). As the Board explained when it rejected a similar argument made by Patent Owner in the counterpart '622 Patent:

The limitations of claim 1 do not preclude the use of an applet with a predefined selection of an IP address based on the receipt of a particular URL. Claim 1 merely requires that the act of selecting of an IP address

from the group occurs in response to the receipt of the URL from the client device.

EX1028, 36. PO offers nothing to justify departing from the Board’s prior—and final—rejection of the same argument. PO instead simply references examples of “selecting” in the ’826 Patent, but that does not limit the term “selecting” as recited in claim 1 to some undisclosed, narrower interpretation. D.I., 26 (rejecting arguments “because they are not commensurate in scope with the limitations of claim 1.”).

B. “Client Device” and “First Server”

The Challenged Claims use the same “client device” and “first server” terms as the claims of the ’622 Patent, the ’511 Patent, and other Related Patents. EX1025, 19:16-33; Pet., 17-19. Across multiple venues, the Board and the Court have repeatedly confirmed that “client” and “server” refer to the role the device plays, not any hardware characteristics or label. PO, again, advances the same failed arguments that are precluded by collateral estoppel (*see* §§II, IV.A) and also fail substantively. EX1010, 10-12 (court rejecting PO’s construction); EX1011, 11-13/37 (same); EX2023, 12-16 (same); EX1028, 9-26 (Board rejecting PO’s construction); *see also* IPR2022-00103, Paper 37, 20-38 (Board rejecting PO’s same construction and arguments). Moreover, PO’s expert concedes there are no substantive differences between these previously rejected arguments and the arguments advanced in this proceeding. EX1029, 48:19-72:11 (identifying no

differences aside from the “[d]ifferent words”); *Compare* EX2041, 2-3/180 (listing headings of arguments) *with* EX1030, 2-3/156 (previous declaration listing same headings). And PO’s expert even concedes that its proposed hardware-based constructions ultimately rely on the role of that hardware. EX1029, 17:2-18:4 (PO’s expert conceding a consumer computer can be server hardware or client hardware depending on how its configured).

PO provides seven reasons for its proposed construction, each of which fails.

First, the reference to a *prior art* peer-to-peer file transfer network 50 in the *background* section of the ’826 Patent (EX1001, 2:43-46) fails to meet the “exacting” standard of demonstrating an “intent” to define “client device.” *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (To act as his own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “‘clearly express an intent’ to redefine the term.”).²

Second, the reference to the prosecution history of three related patents and a preliminary response in of a fourth related patent fails to meet the “exacting” standard of demonstrating an “intent” to define “client device.” *Hill-Rom Servs.*,

² This same theory was explicitly rejected by the district court (EX1010, 11/24) and tacitly rejected by the Board (EX1026, 41-47/89(PO making same argument); EX1028, 10 (declining to construe client device as consumer computer)).

Inc. v. Stryker Corp., 755 F.3d 1367, 1371 (Fed. Cir. 2014) (“The standards for finding lexicography and disavowal are exacting.”).

PO initially points to “predecessor Patent No, 10,069,936” but this was already considered and rejected by the Board. EX1028, 21-23 (Board rejecting claim construction argument and stating that “we discount the significance of statements made by the applicant during prosecution of the ’936 Patent”); EX1027, 15-17/32. PO next references U.S. Patent Nos. 10,469,628 and 11,044,341 (POR, 18-19) in which Patentee overcame a Yu-Barth obviousness rejection by arguing non-combinability and that the mapped prior art “first content” sent to the client device is a manipulation of the user request rather than content requested or addressed by the user. EX1008, 124-127; EX2003, 2-5. Nothing in the cited prosecution history makes any clear disavowal of the term “client device” as meaning a consumer computer having specific hardware that distinct from the hardware of a “server.”³

³ Dr. Williams’ reference to the examiner statements in Notice of Allowances (EX2041, ¶¶137, 141) does not involve any disclaimer that might help PO. *Salazar v. Proctor & Gamble Co.*, 414 F.3d 1342, 1345-1347 (Fed. Cir. 2005) (holding that examiner statements in reasons for allowance did not disavow claim scope because “the applicant has disavowed nothing”).

PO finally cites to the preliminary response in IPR2020-01266, where PO advanced a “proposed construction” that “client device” means a “consumer computer.” POR, 20. This also fails as a patentee cannot change the scope of related patent claims by making an argument that was never accepted, or even considered by the Board.⁴ In fact, the Board rejected this same proposed construction when finding all claims of the ’622 Patent invalid. EX1028, 13, 19-26 (Board rejecting proposed construction based on intrinsic evidence, prosecution history of related patents, and extrinsic evidence). PO cannot now circumvent the Board’s rejection of this proposed construction simply because PO advanced this same construction in another IPR where it was never considered.

Third, PO contends the specification supports its construction; but the Board already rejected this argument based on the identical specification of the ’622 Patent. EX1028, 12-13, 18-20 (“We also find that the ’622 Patent Specification fails to provide sufficient support for Patent Owner’s construction for ‘first server’ as ‘server that is not a client device.’”). The reliance on Dr. Williams’s expert declaration—which has little evidentiary support and never cites the ’622 Patent—

⁴ The Board discretionarily denied institution without addressing any claim construction issues. *Teso LT Uab et al. v. Luminati Networks Ltd.*, IPR2020-01266, Paper 18 at 12.

cannot save this theory. *See* POR, 22-23 (citing only EX2041 and not the '826 Patent); EX2041, ¶¶106-120 (not citing to any portion of the detailed description).

Fourth and Fifth, the Board already rejected PO's "express claim language" arguments. *Compare* POR, 23-25 with EX1026, 29-30/89 and 46-49/89; *see* EX1028, 13-20 (acknowledging and rejecting arguments of express claim language and POSITAs understanding); EX1027, 6-15/32.

Sixth, PO contends that Petitioner's construction eliminates any meaningful distinction between client devices and servers and readvances the same arguments discussed above. POR, 29-32 (asserting Petitioner's construction contradicts, express claim language, specification, and prosecution history). Thus, this argument fails for the same reasons as explained above.

Additionally, PO contends that Petitioner's construction contradicts the findings by the district court. This is false.⁵ EX1028, 11, 16-17 (Board explaining the district court confirmed Petitioner's construction as correct). The district court explicitly rejected PO's argument, stating that "[t]he patents do not include servers as a type of 'communication device,' *but that is not sufficient* to construe 'client

⁵ PO's contention is nonsensical as the district court adopted the role-based constructions that the Petition applies (Pet., 17-18) and, therefore, PO is contending that the district court's *own constructions* "contradict" the district court's findings.

device’ as unable to act as a server in all cases.” EX1010, 12. PO attempts to create a conflict by blatantly misquoting the district court—omitting the remainder of the sentence where the district court explicitly stated its argument was “not sufficient.” *See id.*; POR, 27. And, in the referenced *NetNut* Litigation, the district court explicitly stated it had already “rejected a proposal that ‘client device’ refers to a ‘consumer computer,’” and that “[PO] does not justify revisiting the Court’s rejection of a proposal to construe a ‘client device’ to be a ‘consumer’ device.” EX2023, 13.

Seventh, PO contends that RFC 2616 does not support the role-based constructions, but this argument was already rejected by the Board. EX1026, 39-41/89; EX1027, 8-9/32; EX1028, 31-33.

C. “Server operating system”

To start, PO is estopped from relitigating that Kocherlakota does not disclose a “server operating system.” *Infra*, §IV.C. Nevertheless, PO’s proposed construction is merely duplicative of the hardware based construction as proposed for the term “first server,” as discussed above, and is incorrect for the same reasons. *Supra*, §III.B; *see* POR, 10; EX1029, 8:16-20.

PO’s reference to the Masters reference (EX1022) does not fix the issues with the proposed “server” construction. Masters discloses that in “yet ***another embodiment*** of the server computer ***can be*** implemented as a “blade” server.”

EX1022 at 9:36-51. Masters’ identification of a specific server in one embodiment does not limit the claimed “server” to specific type of hardware. PO fails to show that the Masters’ server is specific hardware that cannot be utilized as a client device. In fact, Masters contradicts PO’s hardware theory as it expressly notes that clients are *not* limited to specific hardware—i.e., ‘consumer computers’—and can “include *any device* capable of sending information to or receiving information from a network” and can include “personal computers” *in addition to* “multiprocessor systems, microprocessor-based or programmable consumer electronics, network PCs, minicomputers, mainframe computers, and the like.” EX1022, 6:65-7:3.

IV. PO FAILS TO DISTINGUISH KOCHERLAKOTA UNDER THE PROPER CONSTRUCTION OF “CLIENT DEVICE” AND “FIRST SERVER”

A. Kocherlakota Discloses a “first server”

The Board made a final ruling on this issue in IPR2022-00687 by finding that Kocherlakota discloses a “first server.” EX1028, 30-33. Thus, PO is estopped from re-litigating this issue and its arguments should be disregarded. *See supra*, §III.B; EX1031, 1/15.

Nevertheless, PO’s arguments distinguishing Kocherlakota under “role-based” constructions fail because they rely on an improper “at that point in time” qualifier. EX1027, 19-20/32. PO contends proxy server 17 operates in the role of a client for Limitations 1b and 1f and in the role of a server for Limitations 1d. POR,

35. As recognized by the Board and the district court, “a component could operate in different roles, such as the ‘first server’ that operates as a server for [some] steps ... and operates as a client for [some other] steps ... as recited in claim 1.” EX1028, 16. In other words, “[t]he plain language of claim 1 also does not preclude the first server from operating in a role of a client for some of the limitations of claim 1.” D.I., 29. Thus, PO’s argument is irrelevant.

Even under PO’s proposed hardware-based constructions, the distinction between the server and client ultimately relies on the role of that hardware. EX1029, 17:2-18:4 (PO’s expert conceding a consumer computer can be server hardware or client hardware depending on how its configured). Further, the proposed ‘characteristics’ to define server hardware would render the claims indefinite. EX2041, ¶73 (describing distinctions in only vague and relative terms of how a system “is optimized” or characteristics that “typically” occur); EX1029, 10:8-11:11 (confirming client computers can include the identified ‘server’ characteristics), 12:9-15:12 (confirming ‘server’ hardware can be configured to not meet the identified ‘server’ characteristics). In fact, PO’s expert concedes that a server and client can have the same components, and the server can only be identified “by its superior capabilities” as compared to a client. EX1029, 36:3-40:22. But all of these ‘capabilities’ are relative or abstract and could not be readily determined. *See id.* (“Depends on what year it is, what ... you’re trying to design”).

B. Kocherlakota Discloses “a list of IP addresses stored in the first server”

The Board made a final ruling on this issue in IPR2022-00687 by finding that Kocherlakota discloses a “first server that stores a group of IP addresses.” EX1028, 30-33. The slight change in claim language from “group” to “list” does not create a new issue of invalidity. *See* EX1029, 65:13-66:15. Thus, PO is estopped from re-litigating this issue and its arguments should be disregarded. *See supra*, §II; EX1031, 1/15.

Nevertheless, PO’s arguments fail. The thrust of PO’s argument is that the IP addresses are “stored at client computer 11, not proxy server 17.” POR, 36 (citing EX1003, 3:10-20). Kocherlakota describes that session information can be stored in the client computer when the client and a proxy establish a relationship. EX1003, 3:10-20. However, storing information in the client computer does not preclude that same information to be stored in a different computer (e.g., proxy server 17). In fact, Kocherlakota explains that establishing a session with proxy server 17 “causes the applet to access the session information (cookie) associated with each named proxy server and *returns* the cookies and *all entered information to the first proxy* [17] in step 107 (FIG. 3).” EX1003, 3:61-4:2 (“session information is then received by ... proxy server [17]”).

Further, PO’s argument that “there is no DNS resolution performed by proxy server 17” (POR, 38) is irrelevant as DNS resolution is not required to store IP

addresses. EX1029, 78:17-81:10. Nothing in PO's arguments rebut the fact that proxy 17 would store the IP addresses of the proxies in the established chain so that "[a]fter the establishment of proxy sessions the client can surf the web through the established chain of proxy servers," as explained in the Petition. Pet., 25-27; EX1002, ¶83-84.

C. Kocherlakota Discloses "a server operating system"

The Board previously found that Kocherlakota discloses "storing, operating, or using, by the first server, a server operating system." EX1028, 44-45 ("Having considered both parties' arguments and the evidence, we are persuaded that the subject matter of claims 2-7, 10, 14, 16, 17, 20-24, and 26-32 is disclosed or taught by Kocherlakota"); EX1025, 22:5-7 (claim 30 reciting "server operating system"); EX1031, 1/15. Thus, PO is estopped from re-litigating this issue and its arguments should be disregarded. *Ohio Willow Wood*, 735 F.3d 1333, 1342.

Regardless, PO's assertion of hindsight bias is overtly deficient. PO does not dispute that "computers, such as proxy 17, use an operating system." EX1002, ¶105 (citing EX1005, 71/114 and EX1016, 14/191). PO takes issue with Dr. Olivier's testimony that the specific operating system (e.g., UNIX, LINUX, Microsoft Windows, etc.) is immaterial to Kocherlakota's operation. *See* POR, 39. But the claims do not require a specific operating system and the use of any of the known server operating systems would meet the claimed limitation, as explained by Dr.

Olivier. EX1002, ¶61; *see also* EX1002, ¶¶105-106 (listing known server operating systems); EX1029, 24:2-7 (“Linux ... is a server operating system”). Indeed, an operating system is inherent in Kocherlakota’s disclosure, and an operating system enabling the identified server functionality is necessarily a server operating system. EX1002, ¶104. At a minimum, and as explained in the Petition and Dr. Olivier’s declaration, it would have been obvious to use a known server operating system in Kocherlakota’s servers. *Id.*, ¶¶105-106.

D. Kocherlakota Discloses “selecting, an IP address...”

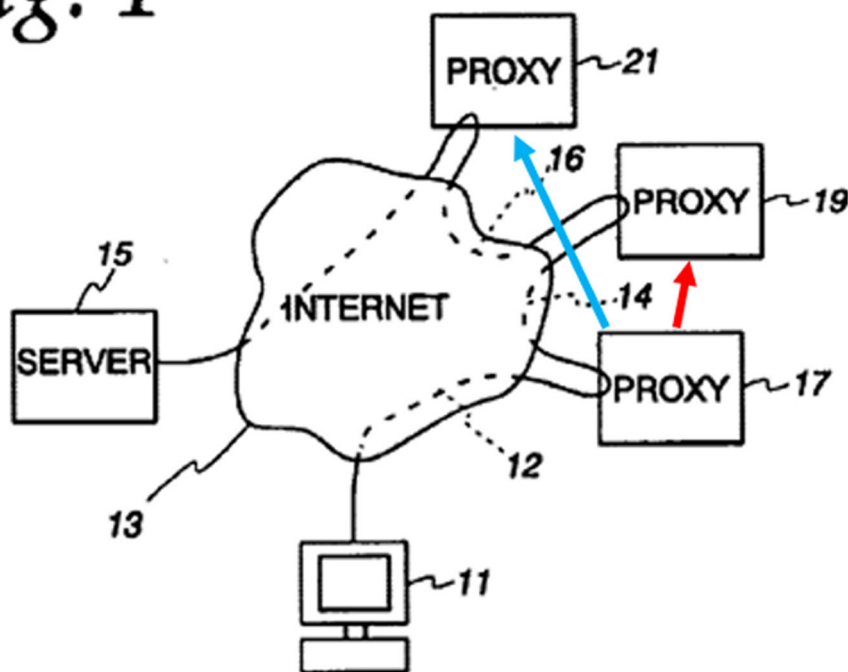
The Board made a final ruling on this issue in IPR2022-00687 by finding that Kocherlakota discloses “selecting ... an IP address.” EX1028, 34-36; EX1031, 2/15. PO concedes that the Board made this finding and that the Board was not persuaded by PO’s arguments, which it continues to advance. POPR, 17 (“the Board was not persuaded by Patent Owner’s arguments with respect to the “selecting” step in ... IPR2022-00687”). Thus, PO effectively concedes that it is estopped from advancing such arguments, but nevertheless does so.

Regardless, PO’s arguments also fail. EX1027, 20-22/32. PO contends that proxy server 17 is not selecting an IP address because the selection has already been pre-defined in the applet. POR, 40. PO does not dispute Kocherlakota’s relevant disclosure—proxy 17 using different IP addresses based on the URL sent from client computer—and only disputes its application to the claimed “selecting” term. But

PO's argument makes little sense; particularly in computing where decisions are necessarily pre-defined (*i.e.*, programmed).

It is undisputed that proxy server 17 compares received URLs using matching rules and utilizes the IP address of a next proxy based on that logic. Pet., 23-26; EX1002, ¶¶76-81. That is, proxy 17 uses a particular IP address from a group of IP addresses based on an analysis of received URLs. EX1002, ¶¶112-113. As shown in the annotated FIG. 1 of Kocherlakota below, proxy 17 will use one IP address when receiving a first URL from the client (e.g., IP address of proxy 19 shown by the red arrow) and will use another IP address when receiving a second URL (e.g., IP address of proxy 21 shown by the blue arrow). This is unequivocally a selection of an IP address.

Fig. 1



EX1003, FIG. 1.

PO contends that proxy server 17 choosing the IP address of the identified proxy is not “selecting” because proxy server 17 makes its routing decisions using pre-defined logic that a user enters via an applet. First, PO is technically incorrect as Kocherlakota only discloses defining the *criteria* for performing selection in advance. *See* EX1002, ¶113; EX1003, 4:29-31, 5:10-23, FIGs. 6-7. But because those criteria require a specific URL as an input, proxy server 17 cannot perform the actual analysis *until* that URL arrives—after the user has already configured the applet. *See* EX1027, 21/32. Therefore, proxy 17 cannot “select” until after the URL arrives.

Second, the claim language does not preclude “selecting” based on predefined logic. *See* D.I., 26; EX1028, 36. Even if “[p]roxy server 17 merely applies [the selection made in] the applet” (POPR, 41), it is still making a selection. *Id.* To operate as Kocherlakota describes, proxy 17 must analyze the URL, apply any routing rules, and select an IP address to route the URL from multiple potential (*i.e.*, stored) IP addresses, such as proxies 19 and 21. *See* EX1002, ¶81. This operation clearly falls within PO’s proposed construction of making a choice in preference to another or others. That is, in at least some scenarios, proxy 17 chooses an IP address of proxy 21 over (or in preference to) proxy 19.

E. Dependent Claims 2-5, 12, and 18-19

For claims 2-4 and 12, PO repeats the same arguments advanced for claim 1. POR, §§V.C-D. For the reasons above, Kocherlakota discloses “client devices.” *Supra*, §§III.B, IV.A.

For claim 5, PO is estopped from arguing that Kocherlakota does not teach “storing an IP address ... in response to the communicating.” EX1028, 44-45 (Board finding “Kocherlakota discloses or teaches the limitations of dependent claim[7]”); EX1025, *cl* 7 (storing the IP addresses “in response to the communicating”); EX1031, 4/15.

For claim 18, PO asserts that proxy 17 does not “select” multiple IP addresses because it “selects” either proxy server 19 OR proxy server 21, but not both. POR, 45. As conceded by PO, proxy server 17 selects proxy server 19 in the default and skip pathways and proxy server 17 selects proxy server 21 in the jump pathway. POR, 45. Thus, proxy server 17 selects the IP address of proxy server 19 AND proxy server 21, which is multiple (two) IP addresses. PO appears to be arguing that Kocherlakota does not disclose selecting multiple IP addresses *simultaneously*. But the claim language does not require simultaneous selection of multiple IP addresses and PO cannot dispute that server 17 selects two (i.e., multiple) IP addresses.

For claim 19, PO does not appear to dispute that a POSITA would have been motivated to send an IP address of either proxy server 19 or proxy server 21 from

proxy 17 to client computer 11. POR, 46. Instead, PO takes issue with the timing of this transmission, contending that this IP address is not sent *after* analysis of the URL and, therefore, is not the selected IP address at the time it is sent. *Id.* However, the claim does not require the IP address to be sent after it is selected. *Compare* claim 19 (“sending of the selected IP address[.]”) *with* claim 18 (“sending ... in response to the selecting”). Instead, antecedent basis requires the use of the term “selected IP address” to identify the specific IP address identified in claim 1. Using the required antecedent basis to identify the IP address referenced in claim 1 does not impart a temporal limitation to the claim. Because the IP address identified in claim 1 (IP address of proxy server 19) is sent to the client device (client 11) in the Petition’s mapping (Pet., 44-45), it discloses the features in Limitation 19.

F. Ground 2

The Board previously found that it would have been obvious “to use the TCP keep-alive functionality of RFC 1122 when maintaining the TCP sessions disclosed by Kocherlakota.” EX1028, 56 (quotations omitted). Thus, PO is estopped from arguing against this modification. *See* EX1028, 54-58; EX1031, 4-6/15.

PO’s connection header argument does not negate this finding. There is no evidence that Kocherlakota’s servers 17, 19, or 21 would *not* support the Connection header or that a POSITA implementing the TCP keep-alive functionality of RFC 1122 would not be able to guarantee support of the connection header. In fact, PO

and its expert do not even allege proxy servers 17, 19, or 21 would *not* support the Connection header. POR, 47-48. Thus, PO’s hypothetical scenario—where a proxy server is not guaranteed to support the connection header—is not applicable to the proposed modification.

For claim 7, PO’s remarks are deficient. PO attacks the disclosure of Kocherlakota, individually, but does not address the combination advanced in the Petition, which modifies Kocherlakota in view of RFC 1122. Pet., 47-53. PO also contends that the Petition fails to explain “how a POSA” would have done certain things. However, this explanation is provided in the Petition (Pet., 51-52) and supported by Dr. Olivier’s declaration (EX1002, ¶¶159-160).

V. COHEN

A. Role-Based Construction

PO advances the same “point in time” argument that the Board previously rejected. POR, 48-49; EX1028, 18, 32-33, 38, 45. PO’s arguments are deficient for the same reasons explained above. *Supra*, §§III.B, IV.A.

B. Hardware-Based Construction

Even under PO’s hardware-based construction—which has been repeatedly rejected by the Court and the Board (*supra*, §III.B)—PO’s arguments must fail.⁶

⁶ PO’s hardware-based construction would also render the claims indefinite. *Supra*, §IV.A.

PO asserts Cohen's proxy redirector 104 is not a server because a POSA would have understood that a switch and router, individually, are not servers. POR, 49-50. This is because "a switch uses less computation resources and less storage than a server" and "is typically less expensive than a server and operates at a lower OSI layer than server." While these 'attributes' lack evidentiary support, there is also no evidence or explanation applying these attributes to Cohen's proxy redirector 104. EX2041, ¶310 (comparing "a switch," not Cohen's proxy redirector, to a server); EX1029, 10:8-11:15 (confirming switches and routers meet some of the 'characteristics' of server hardware). PO does not establish Cohen's proxy redirector 104 is less expensive than the '826 Patent's server or that has less storage or uses less computation resources. *See generally* EX1001 (providing no details for the expense, computation resources, or storage of a "server"). Even so, Cohen explains that "the proxy redirector of the present invention could be implemented through other means, using hardware, software, or a combination of both." EX1004, 16:21-24. Thus, Cohen provides its proxy redirector could be implemented via any suitable hardware or software, such as server hardware and a server operating system. *See id.*

C. Teaching Away

PO broadly contends Cohen teaches away from the "claimed methods," but fails to identify any specific claim language that is not taught by Cohen. POR, 53-

55. PO's analysis is inapplicable and based on a misunderstanding of the law. First, "whether a reference 'teaches away' from an invention is inapplicable to an anticipation analysis." *Clearvalue, Inc. v. Pearl River Polymers, Inc.*, 668 F.3d 1340, 1344 (Fed. Cir. 2012) (quotations omitted). PO does not assert that Cohen teaches away from any of the proposed modifications and, thus, PO's alleged teaching away from the features that Cohen explicitly discloses are irrelevant. *Id.*

Further, PO's arguments are, again, not commensurate with the claims. *See* POR, 53-55 (failing to cite to or identify a single claim). To illustrate, PO states that Cohen teaches using an additional intermediary and "claim 1 does not require the use of additional intermediaries." POR, 54. However, because the claim also "does not require" the absence of an additional intermediary, whether Cohen uses an additional intermediary is irrelevant. *See* EX1001, 19:15-21 (claim 1 using open ended "comprising" term). Similarly, PO argues that Cohen teaches away because "client 101 thinks its request is being sent directly to the origin server," but none of the claims require the client device to 'think' otherwise.

VI. PATENT OWNER IS ESTOPPED FROM ARGUING SECONDARY CONSIDERATIONS

PO's secondary consideration argument is substantively the same as that advanced in IPR2022-00687. *Compare* POR, 58-65 (describing Bright Data's SuperProxy) *with* EX1026 75-86/89 (same). The Board has already rejected this

argument, and PO is estopped from re-litigating this issue. EX1028, 45-53 (finding that PO failed to sufficiently support either of nexus or commercial success).

PO fails to do anything differently here to justify a finding of nexus or commercial success. *Compare* Paper 13, 58-65 *with* EX1026, 75-86/89; *compare* EX2041, ¶¶343-351 *with* EX1030, ¶¶265-272. PO has not addressed, much less rectified, the shortcomings previously identified by the Board in its Final Written Decision rejecting the same arguments for the counterpart '622 Patent. *See* EX1028, 48-52. The Board's findings from that proceeding should therefore be left undisturbed here; in particular, that (1) "Patent Owner fails to show that the purported commercial success of its product is the 'direct result' of the claimed invention's unique characteristics," and (2) "Patent Owner's evidence of commercial success is lacking." *Id.*, 53.

VII. CONCLUSION

For the above reasons, all Challenged Claims are invalid.

Dated: December 30, 2024

/Eagle H. Robinson/
Eagle H. Robinson
Reg. No. 61,361

Lead Counsel for Petitioner

CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(a)(i), the undersigned certifies that this Paper—exclusive of the table of contents, mandatory notices under § 42.8, certificate of service, and this certificate of word count—includes 5,096 words.

/Eagle H. Robinson/
Eagle H. Robinson (Reg. No. 61,361)

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that on December 30, 2024, a complete copy of this Petitioner's Reply and EX1025-EX1032 were served on Patent Owner via email (by consent) to:

tomd@cherianllp.com

elizabetho@cherianllp.com

/Eagle H. Robinson/
Eagle H. Robinson (Reg. No. 61,361)