

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OXYLABS, UAB,
Petitioner

v.

BRIGHT DATA LTD.
Patent Owner

Case IPR2023-01425
Patent 11,206,317

**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 11,206,317**

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<i>Valve Corp. v. Ironburg Inventions, Ltd.</i> , 8 F.4th 1364, 1374-75 (Fed. Cir. 2021).....	25

List of Exhibits

Exhibit No.	Exhibit Description
1001	U.S. Patent No. 11,206,317 (“Shribman”)
1002	Shribman’s prosecution history
1003	Declaration of Kevin C. Almeroth
1004	<i>Curriculum Vitae</i> of Kevin C. Almeroth
1005	“Perspective Access Networks,” by Geoffrey Goodell, dated July 2006 (“Goodell”).
1006	Network Working Group Request for Comments 2616 (“RFC 2616”) entitled “Hypertext Transfer Protocol – HTTP/1.1,” dated June 1999.
1007	Order dated February 8, 2021, from <i>Luminati Networks Ltd. v. Code200</i> , No. 2:19-CV-396 (E.D. Tex.), ECF No. 97
1008	Catalog entry from Harvard University’s HOLLIS system entitled “Perspective access networks.”
1009	Record from the ProQuest SciTech Premium Collection database entitled “Perspective access networks.”
1010	Excerpts from Volume 65, Number 5 of Dissertation Abstracts International B (Sciences and Engineering), dated November 2004
1011	“Design of a blocking-resistant anonymity system” by Roger Dingledine and Nick Mathewson, Tor Tech Report 2006-11-001, November 2006.
1012	Printout of https://research.torproject.org/techreports .
1013	Printout of 2006 capture history of afs.eecs.harvard.edu/~goodell/thesis.pdf from the Internet Archive’s Wayback Machine
1014	Printout of 2007 capture history of afs.eecs.harvard.edu/~goodell/thesis.pdf from the Internet Archive’s Wayback Machine
1015	Printout of capture of http://serifos.eecs.harvard.edu/cgi-bin/blossom.pl dated September 5, 2006, from the Internet Archive’s Wayback Machine
1016	Printout of https://ethanzuckerman.com/2006/04/06/blossom-tor-and-touring-the-internets/ , a blog post entitled “Blossom, Tor and touring the Internets,” dated April 6, 2006.
1017	Printout of search on Google Scholar for “Perspective Access Networks.”

Exhibit No.	Exhibit Description
1018	Printout of capture of http://afs.eecs.harvard.edu/~goodell/blossom/bib/author.html dated September 2, 2006, from the Internet Archive's Wayback Machine
1019	Printout of capture history of http://afs.eecs.harvard.edu/~goodell/blossom/bib/author.html from the Internet Archive's Wayback Machine
1020	Printout of capture of http://afs.eecs.harvard.edu/~goodell/blossom/ dated September 2, 2006, from the Internet Archive's Wayback Machine
1021	Order dated December 7, 2020, from <i>Luminati Networks, Ltd. v. Teso LT, UAB</i> , No. 2:19-CV-395 (E.D. Tex.), ECF No. 191
1022	Order dated June 24, 2021, from <i>Bright Data Ltd. v. Teso LT, UAB</i> , No. 2:19-CV-395 (E.D. Tex.), ECF No. 444
1023	Order dated August 6, 2021, from <i>Bright Data Ltd. v. Teso LT, UAB</i> , No. 2:19-CV-395 (E.D. Tex.), ECF No. 453
1024	U.S. Patent No. 6,477,581 to Carpenter
1025	Order dated February 28, 2023, from <i>Bright Data Ltd. v. Teso LT, UAB</i> , No. 2:19-CV-395 (E.D. Tex.), ECF No. 636
1026	Order dated September 7, 2022, from <i>Bright Data Ltd. v. Tefincom S.A.</i> , No. 2:19-CV-414 (E.D. Tex.), ECF No. 219
1027	Order dated September 7, 2022, from <i>Bright Data Ltd. v. Code200</i> , No. 2:19-CV-396 (E.D. Tex.), ECF No. 283
1028	Printout of capture of http://youtube.com/ dated August 29, 2005, from the Internet Archive's Wayback Machine
1029	Petition for <i>Inter Partes</i> Review, Paper 1, <i>Metaccluster LT, UAB v. Bright Data Ltd.</i> , IPR2022-000936
1030	Memorandum dated June 21, 2022, from Katherine K. Vidal
1031	U.S. Patent Publication No. 2003/0149720 (Aug. 7, 2003) ("Goldstein")
1032	U.S. Patent Publication No. 2006/0206586 (Sept. 14, 2006) ("Ling")
1033	Declaration of Dr. Geoffrey Goodell
1034	U.S. Patent No. 7,240,100 to Wein
1035	Order dated June 21, 2023, from <i>Bright Data Ltd. v. Oxylabs, UAB</i> , No. 2:23-CV-171 (E.D. Tex.), ECF No. 28
1036	Docket sheet downloaded on September 5, 2023, for <i>Bright Data Ltd. v. Oxylabs, UAB</i> , No. 2:23-CV-171 (E.D. Tex.)
1037	Declaration of Anthony M. Garza

Exhibit No.	Exhibit Description
1038	Declaration of Thomas Hyatt
1039	Declaration of Eagle H. Robinson
1040	Declaration of Daniel Leventhal
1041	Declaration of Valerie K. Barker

Mandatory Notices under 37 C.F.R. § 42.8

Real Party in Interest (37 C.F.R. § 42.8(b)(1))

Petitioner Oxylabs, UAB is a real party in interest, along with Metacluster LT, UAB; Code200, UAB; Teso LT, UAB; Oxysales, UAB; and coretech It, UAB.¹ No unnamed entity is funding, controlling, or directing this petition or has the opportunity to control or direct this petition or Petitioner's participation in any resulting *inter partes* review. Petitioner understands and believes that U.S. Patent No. 11,206,317 ("Shribman"; EX1001), is owned by Bright Data Ltd. ("Patent Owner").

Related Matters (37 C.F.R. § 42.8(b)(2))

Patent Owner has accused Petitioner of infringing Shribman in *Bright Data Ltd. v. Oxylabs, UAB*, No. 2:23-CV-171 (E.D. Tex.) ("*Bright Data* Litigation").

Shribman is related to a number of other Bright Data patents claiming common priority, including U.S. Patent No. 10,484,511 (the '511 Patent), U.S. Patent Nos. 10,257,319 (the '319 Patent), 10,484,510 (the '510 Patent), and 10,637,968 (the '968 Patent) ("Related Patents"). Patent Owner has accused Code200, Metacluster, and Oxysales of infringing claims of the '511 Patent and the '968 Patent in *Bright Data Ltd. v. Code200, UAB*, Case No. 2:19-cv-00396 (E.D. Tex.) ("*Code200*

¹ Metacluster, Oxysales, and Teso are no longer named operating companies. Metacluster and Oxysales were merged into Teso. Afterwards, Teso changed its name to Oxylabs (Petitioner). For completeness, Petitioner nevertheless names Metacluster, Oxysales, and Teso as RPIs.

Litigation”). Patent Owner has also accused Teso, Metacluster, and Oxysales of infringing claims of the ’319 and ’510 Patents in *Bright Data Ltd. v. Teso LT, UAB*, Case No. 2:19-cv-00395 (E.D. Tex.) (“*Teso* Litigation”). Together, these actions are the “Related Litigation,” and the patents asserted in the Related Litigation are referred to in this Petition as the “Related Patents.”

The table below lists litigation involving patents claiming common priority to Shribman:

Case	Subject matter	Status
<i>Bright Data Ltd. v. Teso LT, UAB et al.</i> , Case No. 2:19-CV-00395 (E.D. Tex.).	Related Patents	Stayed pending IPRs/EPR, <i>see</i> EX1025 at 3.
<i>Bright Data Ltd. v. Tefincom S.A.</i> , Case No. 2:19-CV-00414 (E.D. Tex.)	Related Patents	Stayed pending resolution of <i>Teso</i> Litigation, <i>see</i> EX1026.
<i>Bright Data Ltd. v. NetNut, Ltd.</i> , Case No. 2:21-CV-00225 (E.D. Tex.) (closed)	Related Patents	Dismissed after settlement.
<i>Luminati Networks Ltd. v. BI Science (2009) Ltd.</i> , Case No. 2:19-CV-00397 (E.D. Tex.) (closed)	Related Patents	Dismissed without prejudice.
<i>Bright Data Ltd. v. Code200, UAB et al.</i> , Case No. 2:19-CV-00396 (E.D. Tex.)	Related Patents	Stayed pending resolution of <i>Teso</i> Litigation, <i>see</i> EX1027.
<i>Luminati Networks Ltd. v. NetNut, Ltd.</i> , Case No. 2:20-CV-00188 (E.D. Tex.) (closed)	Related Patents	Dismissed after settlement.

Before the *Bright Data* litigation, in April 2022, RPI Metacluster filed an IPR petition challenging all of Shribman’s claims. *Metacluster LT, UAB v. Bright Data Ltd.*, No. IPR2022-00936, *see* EX1029 (petition). The Board did not institute an IPR

because Petitioner “ha[d] not demonstrated that there is a reasonable likelihood that it would prevail in showing the unpatentability of at least one of the challenged claims.” No. IPR2022-00936, Paper 8 at 2.

RPIs to this Petition previously sought review of Related Patents in IPR2021-00122, IPR2020-01266, IPR2021-00249, and IPR2020-01358, in which the Board exercised its discretion and declined to institute review based on the *Fintiv* factors. More recently, the Board granted institution of *inter partes* review of the ’319 and ’510 Patents in IPR2021-01492 (pending) and IPR2021-01493 (pending) filed by non-party NetNut.

Additionally, Petitioner and RPIs filed additional IPR petitions challenging patents claiming common priority with Shribman:

- IPR2022-00103 challenging U.S. Patent No. 11,044,342 (all challenged claims unpatentable, Paper 38),
- IPR2022-00353 challenging U.S. Patent No. 11,044,344 (all challenged claims unpatentable, Paper 38),
- IPR2022-00687 challenging U.S. Patent No. 11,190,622 (instituted, pending trial),

The table below lists IPR petitions for patents claiming common priority to Shribman.

IPR Proceeding	Subject Matter
<i>Teso LT, UAB v. Luminati Networks Ltd.</i> , Case No. IPR2021-00122	'511 Patent
<i>Teso LT, UAB v. Luminati Networks Ltd.</i> , Case No. IPR2021-00249	'968 Patent
<i>Code200, UAB et al. v. Luminati Networks Ltd.</i> , Case No. IPR2020-01266	'319 Patent
<i>Code200, UAB et al. v. Luminati Networks Ltd.</i> , Case No. IPR2020-01358	'510 Patent
<i>NetNut Ltd. v. Bright Data Ltd.</i> , Case No. IPR2021-01492	'319 Patent
<i>NetNut Ltd. v. Bright Data Ltd.</i> , Case No. IPR2021-01493	'510 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2022-00103	'342 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2022-00353	'344 Patent
<i>Data Company Techs. Inc. v. Bright Data Ltd.</i> , Case No. IPR2022-00135	'319 Patent
<i>Data Company Techs. Inc. v. Bright Data Ltd.</i> , Case No. IPR2022-00138	'510 Patent
<i>Metachuster LT, UAB v. Bright Data Ltd.</i> , Case No. IPR2022-00687	'622 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2022-00861	'319 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2022-00862	'510 Patent
<i>Major Data UAB v. Bright Data Ltd.</i> , Case No. IPR2022-00915	'319 Patent
<i>Major Data UAB v. Bright Data Ltd.</i> , Case No. IPR2022-00916	'510 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2022-01109	'319 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2022-01110	'510 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2023-00038	'319 Patent
<i>Code200, UAB v. Bright Data Ltd.</i> , Case No. IPR2023-00039	'510 Patent

To the extent not listed above, presently, U.S. applications and U.S. patents claiming, or which may claim, the benefit of the alleged priority of one or more of the patent applications to which the '317 Patent claims priority include:

1. U.S. Patent No. 8,560,604
2. U.S. Patent No. 10,069,936
3. U.S. Patent No. 10,225,374
4. U.S. Patent No. 10,257,319
5. U.S. Patent No. 10,313,484
6. U.S. Patent No. 10,469,628
7. U.S. Patent No. 10,484,510
8. U.S. Patent No. 10,484,511
9. U.S. Patent No. 10,491,712
10. U.S. Patent No. 10,491,713
11. U.S. Patent No. 10,523,788
12. U.S. Patent No. 10,582,013
13. U.S. Patent No. 10,582,014
14. U.S. Patent No. 10,616,375
15. U.S. Patent No. 10,637,968
16. U.S. Patent No. 10,785,347
17. U.S. Patent No. 10,805,429

18. U.S. Patent No. 10,931,792
19. U.S. Patent No. 10,958,768
20. U.S. Patent No. 10,986,216
21. U.S. Patent No. 11,038,989
22. U.S. Patent No. 11,044,341
23. U.S. Patent No. 11,044,342
24. U.S. Patent No. 11,044,344
25. U.S. Patent No. 11,044,345
26. U.S. Patent No. 11,044,346
27. U.S. Patent No. 11,050,852
28. U.S. Patent No. 11,089,135
29. U.S. Patent No. 11,128,738
30. U.S. Patent No. 11,178,258
31. U.S. Patent No. 11,190,622
32. U.S. Patent No. 11,206,217
33. U.S. Patent No. 11,228,666
34. U.S. Patent No. 11,233,879
35. U.S. Patent No. 11,233,880
36. U.S. Patent No. 11,233,881
37. U.S. Serial No. 17/019,267

38. U.S. Serial No. 17/146,728
39. U.S. Serial No. 17/194,336
40. U.S. Serial No. 17/331,980
41. U.S. Serial No. 17/332,001
42. U.S. Serial No. 17/332,023
43. U.S. Serial No. 17/395,526
44. U.S. Serial No. 17/563,578
45. U.S. Serial No. 17/563,616
46. U.S. Serial No. 17/563,497
47. U.S. Serial No. 17/563,531
48. U.S. Serial No. 17/518,601
49. U.S. Serial No. 17/518,603
50. U.S. Serial No. 17/332,077
51. U.S. Re-examination No. 90/014,875 (U.S. Patent No. 10,257,319)
52. U.S. Re-examination No. 90/014,827 (U.S. Patent No. 10,484,511)
53. U.S. Re-examination No. 90/014,816 (U.S. Patent No. 10,637,968)
54. U.S. Re-examination No. 90/014,652 (U.S. Patent No. 10,637,968)
55. U.S. Re-examination No. 90/014,624 (U.S. Patent No. 10,484,511)
56. U.S. Re-examination No. 90/014,876 (U.S. Patent No. 10,484,510)
57. U.S. Re-examination No. 90/019,041 (U.S. Patent No. 10,491,713)

58. U.S. Re-examination No. 90/014,940 (U.S. Patent No. 11,044,346)

59. U.S. Re-examination No. 90/014,920 (U.S. Patent No. 11,050,852)

Lead and Back-Up Counsel (37 C.F.R. § 42.8(b)(3))

Petitioner appoints Anthony M. Garza (Reg. No 57,334) of Charhon Callahan Robson & Garza PLLC as lead counsel, and George “Jorde” Scott (Reg. No. 62,859) and Christopher T. Bovenkamp (Reg. No. 44,551) with the same firm as back-up counsel.

Service Information (37 C.F.R. § 42.8(b)(4))

Service of any documents to lead and back-up counsel can be made via hand delivery to Charhon Callahan Robson & Garza PLLC, 3333 Lee Parkway, Ste. 460, Dallas, TX 75219. Petitioner consents to electronic service to the following addresses: agarza@ccrglaw.com, cbovenkamp@ccrglaw.com, jscott@ccrglaw.com.

I. INTRODUCTION

Petitioner seeks *inter partes* review of claims 1, 8, 16, 17, 22, 29, and 30 of Shribman (EX1001). The challenged claims, directed to requesting webpages while specifying a geographic location, are rendered obvious by a dissertation by Geoffrey Goodell entitled “Perspective Access Networks” (“Goodell”), as evidenced by this petition and the supporting declaration of Kevin Almeroth, EX1003.²

II. GROUNDS FOR STANDING

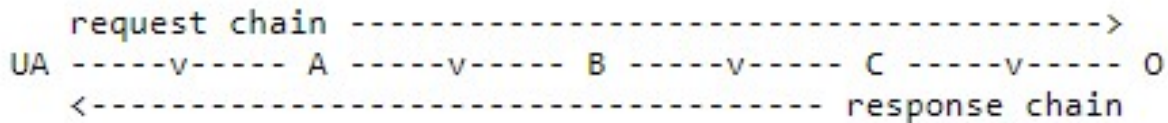
Petitioner certifies that Shribman is available for *inter partes* review. Petitioner is not barred or estopped from requesting *inter partes* review on the grounds identified herein. Patent Owner served the counterclaim that ultimately inured into the severed *Bright Data* Litigation on February 24, 2023, less than a year before the filing of this petition. Shribman has not been subject to a previous final written decision in an estoppel-based AIA action.

III. TECHNICAL BACKGROUND

Web communications and routing were well-known prior to the priority date. RFC 2616, which Shribman recognizes “define[s]” “the HTTP protocol,” was published a decade earlier, in 1999. EX1001, 16:21-22; EX1006, 1; EX1003 ¶¶44-45. In addition to describing “client” and “server” operations, RFC 2616 discloses multi-hop routing using “proxy” devices running an “intermediary program which acts as

² Dr. Almeroth’s CV is attached, EX1004.

both a server and a client for the purpose of making requests on behalf of other clients.” EX1006, 10. That is, while communication may be “accomplished via a single connection (v) between the user agent (UA) and the origin server (O),” “more complicated situation[s]” were also known “when one or more intermediaries are present in the request/response chain,” such as an illustrated chain with “three intermediaries (A, B, and C).” *Id.*, 12; EX1003 ¶45.



Shribman recognizes that converting URLs to IP addresses is “known by one having ordinary skill in the art,” and is thus not described in the patent. EX1001, 13:15-18; EX1003 ¶73.

One of skill in the art would understand, by 2009, that the geographic location of a user could be determined. EX1003 ¶48. For example, U.S. Patent No. 6,477,581 to Carpenter (filed April 9, 1996) states that many techniques are available to acquire the geographic location of a client, including accepting user input specifying the location of a client, and using an automated position-sensing system, such as GPS. EX1024, 2:34-52, 4:60-62, 5:20-28, 5:66-6:2, 6:46-7:23, 8:40, Fig. 2 block 50, cls. 1-4, 6-11. One of skill in the art would also understand, well before 2009, that the geographic location of a user could be used to help select an appropriate proxy through which to access the internet or web content. *Id.*, 5:23-43.

One of skill in the art would understand, well before 2009, that audio and video files may be requested and provided using HTML. EX1003 ¶46. For example, in 1999, RFC 2616 disclosed the HTML header field “Accept” which “can be used to specify certain media types that are acceptable for response.” EX1006, 100. An example disclosed in RFC 2616 specified “audio” in the field, which would request “any audio type.” *Id.*, 101. Further, the Internet Archive shows that YouTube allowed users to watch videos over HTML as early as 2005. EX1028.

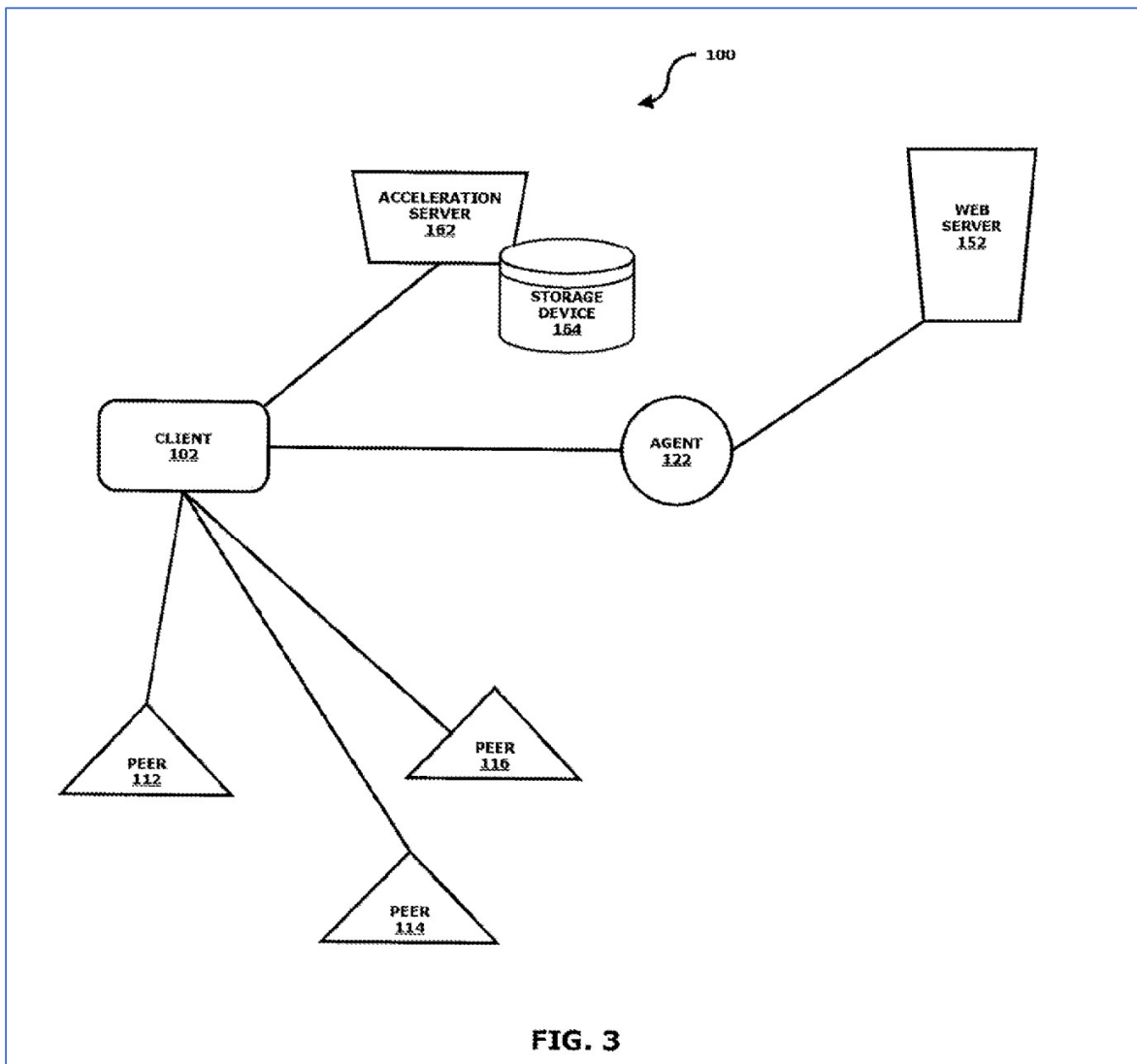
Content-delivery networks (“CDNs”) were well known to a POSITA before 2009. EX1003 ¶47. For example, companies like Akamai began providing commercial CDN services in the late 1990s. *Id.* CDNs are described, for example, in U.S. Patent No. 7,240,100 to Wein (filed in 2001). EX1034, 1:15-52. Wein discloses a network of “surrogate” origin servers, located at strategic locations, for delivering high-quality streaming-media delivery. *Id.* A POSITA would have been familiar with CDNs by 2009. EX1003 ¶47.

IV. THE CHALLENGED PATENT

A. Overview of Shribman

Shribman is entitled “System providing faster and more efficient data communication.” EX1001, cover. The “Summary of the Invention” discloses a system with (i) a **client communication device** requesting data from a **data server**, (ii) an **agent communication device**, assigned to the data server, that “keeps track of which

client communication devices have received responses to data requests,”(iii) a **peer communication device** for storing portions of data received in response to data requests, and (iv) an **acceleration server** for assigning agent communication devices to data servers and communicating that information the client communication devices. EX1001, 3:12-34. This system is shown at Figure 3:



Shribman further describes acceleration server 162 as maintaining a list of IP addresses of communication devices within the network. Ex.1001, 5:15-20, 10:25-33.

When an in-network communication device requests information (such as from web server 152), that communication device is designated as a “client.” *Id.*, 5:20-25. Software (on the client) routes these requests for information through the communication network, rather than querying the web server directly. *Id.*, 8:60-64, 9:27-36. A different in-network communication device is designated as an “agent.” *Id.*, 5:21-34. The client sends its request for information to the agent, and the agent obtains and returns (to the client) a list of in-network peer devices that may have the requested information. *Id.*, 9:44-50.

More particularly, Shribman discloses that, when a client requests a webpage (such as the URL www.aol.com/index.html), the client looks up the IP address of the appropriate web server and sends that IP address to the acceleration server. *Id.* 12:62-13:15. The acceleration server responds with a list of “suitable” agents. *Id.*, 13:16-30. The client next sends its original webpage request to the listed agents in order to evaluate which agent is “best suited to” assist with the request. *Id.*, 13:31-36. After selecting an agent, the client sends the agent requests for data. *Id.*, 14:10-23. The agent determines, on a data-chunk-by-data-chunk basis, whether it or other in-network peers have previously stored each chunk of the requested data. *Id.* 14:24-41. For each chunk, the agent either (i) sends the client a list of peers that have previously stored the chunk, sorted by geographic proximity to the client or (ii) loads and stores the information directly from the web server, and informs the client that

the agent is the only peer for that information. *Id.*, 14:52-67. The client then requests the data chunks from the agent and peers. *Id.*, 15:12-23.

The independent claim at issue has little to do with the disclosed system. Instead of the using the described four-role system (client, acceleration server, agent, peer) to interact with a web server, the claim discloses two devices: a first device that requests webpages and a second device that stores a list of IP addresses that are each associated with a geographical location. EX1001, cl. 1. The first device sends a URL along with a geographic location to the second device. *Id.* The first device then receives a webpage from the second device in response to the received URL and geographic location. *Id.* The claim then requires the first device to send a second URL and geographic location, which results in a second webpage. *Id.*

B. Prosecution History

The prosecution history includes no substantive analysis of any prior art. The Examiner initially rejected all claims for double patenting over the related '511 Patent. EX1002, 240-245. After Patent Owner filed an e-TD, *id.*, 420, the Examiner allowed all pending claims, *id.*, 422-430.

C. Person of Ordinary Skill in the Art

As of October 8, 2009 (Shribman's earliest claimed priority date) a POSITA would have had at least a bachelor's degree in computer science or related field (or equivalent experience), and at least two years' experience working with and

programming networked computer systems. EX1003, ¶41. The prior art and the '317 Patent evidence this level of skill. A POSITA would have been familiar with the field of technology described in Section III including the underlying principles of web, internet, network communication, data transfer, and content sharing across networks, including the HTTP and TCP/IP protocols. EX1003, ¶¶44-48.

V. CLAIM CONSTRUCTION

Claims should be given “their ordinary and customary meaning” as understood by a POSITA at the time of the claimed invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-1313 (Fed. Cir. 2015) (en banc); 37 C.F.R. § 42.100(b).

A. “Client device” (claims 16 and 29) and “server” (claims 1 and 29)

Certain challenged claims use the terms “client device” and “server,” which are also found in the '511 Patent and Related Patents. EX1007, 5; EX1021, 3-4. As discussed below, across three Orders the district court repeatedly confirmed that “client” and “server” refer to the role the device plays, not to particular hardware characteristics. The Board, in instituting IPRs on the '319 and '510 Patents, stated: “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.’” IPR2021-01493, Paper 11 at 22; *see also* IPR2021-01492, Paper 12 at 19 (“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”), 13 (“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”).

In each of the *Teso* (for the ’319 and ’510 Patents) and *Code200* (for the ’511 and ’968 Patents) Orders, the Court held that “client device” means “communication device that is operating in the role of a client” and rejected Patent Owner’s contention that the term required a “consumer computer.” EX1021, 10-12; EX1007, 11-13.

In the *Code200* Order, the Court, in construing the term “first server,” addressed “whether one component can simultaneously serve as more than one of: the client device, the first server[], and the web server,” concluded “[i]t cannot,” and construed “first server” as “server that is not the client device or the web server.” EX1007, 13-15. Subsequently, it became apparent that “server” required further construction, and Petitioner requested a clarified construction of: “a device that is operating in the role of a server and that is not the first client device or the web server.” EX1022, 2 (emphasis in original). The District Court declined to formally change the construction, but confirmed “Defendants’ understanding of the scope of the construction[], as represented by the requested clarification[] ..., is correct” and “already embedded in” the original construction. EX1023, 7-11. The Court confirmed 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.*, 10 (emphasis in original).

RFC 2616, which the ’317 Patent confirms “define[s]” “the HTTP protocol,” further confirms role-based constructions are correct: “Any given program may be capable of being both a client and a server; our use of these terms refers only to the role being performed by the program for a particular connection.” EX1001, 16:21-22; EX1006, 9; EX1003 ¶45.

RFC 2616 also provides further guidance on each of these “roles,” defining a “client” as “establish[ing] connections for the purpose of sending requests” and a “server” as “accept[ing] connections in order to service requests by sending back responses.” EX1006, 9. RFC 2616 explains that a “proxy” is an “intermediary program which acts as both a server and a client for the purpose of making requests on behalf of other clients.” EX1008, 10. These RFC 2616 statements would have carried significant weight with a POSITA. EX1003 ¶45.

VI. OVERVIEW OF THE PRIOR ART

Goodell (EX1005) is a Harvard University dissertation by Geoffrey Goodell, entitled “Perspective Access Networks.” EX1033 (Goodell Declaration) ¶ 6 & Ex. A (copy of dissertation attached to declaration). The dissertation is dated July 2006. EX1005.

A printout from the Harvard University Library card catalog shows that Goodell was indexed in 2006 under the subjects “internet” and “information networks,” and was thus publicly available. EX1008; EX1033 ¶¶7-10 & Ex. B (copy of card-catalog entry attached to declaration); *see In re Hall*, 781 F.2d 897, 899-900 (Fed. Cir. 1986).

Further, the ProQuest SciTech Premium Collection database shows that the abstract for Goodell was included in volume 67, number 12, supplement B (2006) of “Dissertation Abstracts International,” a publication that included abstracts of dissertations, classified those dissertations by subject, and invited readers to purchase those dissertations. EX1009, *see also* EX1010 at vi (pages from November 2004 issue showing how to order listed dissertations); EX1037 ¶¶4-5. The declaration of Thomas Hyatt, from ProQuest, confirms that Goodell was “fully loaded” into the ProQuest Digital Dissertations and Theses database and available for sale as of August 25, 2008. EX1038, 3. The database record shows that Goodell was classified as a “computer science” dissertation, and the record also included the keywords “Internet,” “overlay routing,” “peer-to-peer,” and “perspective access networks.” *Id.*, 3, 5. The dissertation was thus indexed in ProQuest’s electronic database and available for purchase more than a year before Shribman’s earliest claim of priority. *Id.* ¶¶ 6-11.

Additionally, the November 2006 paper entitled “Design of a blocking-resistant anonymity system” (EX1011, found in the Tor project’s collection of technical papers, EX1012, *see also* EX1037 ¶5) cited to Goodell, and provided a link to the website where the dissertation was publicly available. EX1011 at 24 n.15. The Internet Archive captured snapshots of this link, where the thesis was downloadable, on September 2, 2006, and February 5, 2007. EX1013; EX1014; EX1037 ¶7; *Valve Corp. v. Ironburg Inventions, Ltd.*, 8 F.4th 1364, 1374-75 (Fed. Cir. 2021) (approving judicial notice of Internet Archive), *see also* EX1033 ¶¶ 3-6 (declaration of Dr. Goodell showing posting of dissertation to same URL). Further, the website for the Blossom project (EX1020, explained in more detail below) included a link to an extensive bibliography, and as of September 2, 2006, a link to download Goodell was available there. EX1018; EX1019; EX1037 ¶¶8-10. Because Goodell was available for download, discussed in a TOR project technical paper along with a link, and available through the Blossom project website, Goodell was publicly available.

For at least these reasons, Goodell is a printed publication under 35 U.S.C. § 102(b), with a publication date at least as early as December 2006, well over a year before Shribman’s earliest claim of priority (October 8, 2009).

VII. GROUNDS OF UNPATENTABILITY

Claims 1, 8, 16, 17, 22, 29, and 30 are unpatentable for at least the reasons below. EX1003 ¶¶65-104.

A. Ground 1: claims 1, 8, 16, 17, 22, 29, and 30 are rendered obvious by Goodell

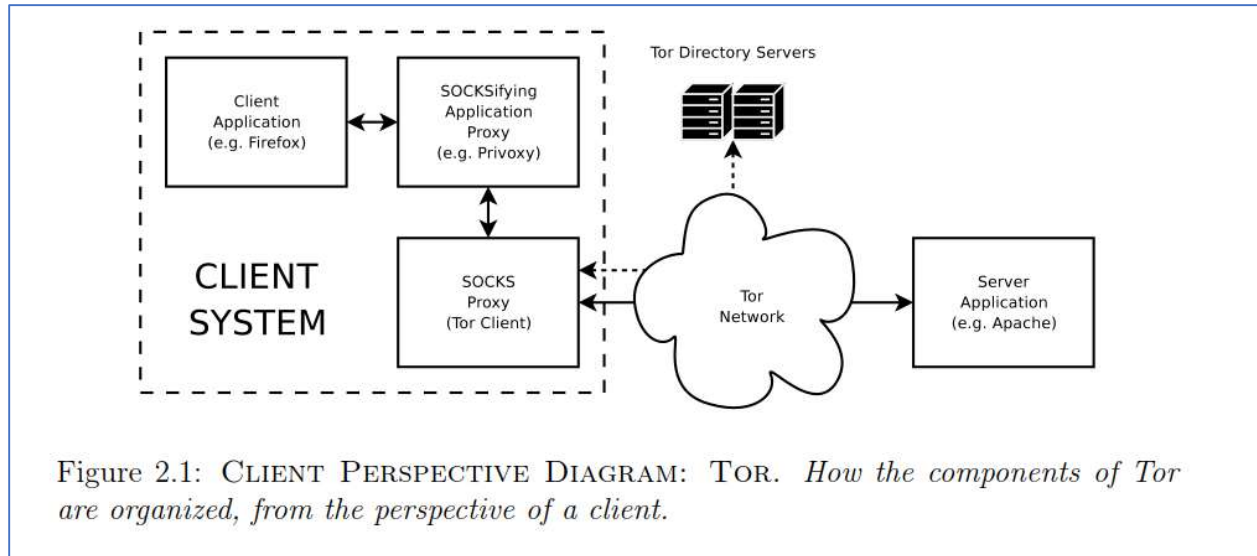
Although “anticipation is the epitome of obviousness, they are separate and distinct concepts.” *SK Hynix Inc. v. Netlist, Inc.*, IPR2017-00561, Paper 36, 11. Anticipation requires “a higher level of teaching requiring that references teach limitations of a claim explicitly or inherently.” *Id.* For single-reference obviousness, “the reference need only render a limitation obvious to one of skill in the art at the time of the invention.” *Id.*, 11-12; *see also Cisco Sys., Inc. v. Centripetal Networks, Inc.*, IPR2018-01760, Paper 9, 24 (“[A] party may contend a reference *teaches or suggests* each limitation of claim, but does not meet the more exacting requirement of explicit or inherent disclosure.”).

1. Overview: Goodell discloses a system by which users can view the Internet from a chosen location

As suggested by the title, Goodell focuses on “perspective access networks,” defined as “overlay network[s] that allows users to specify not only the resources that they want to view but the *perspectives* from which they want to view them.” EX1005, 2; *see also id.* at Abstract (“Perspective Access Networks provide an infrastructure from which users can specify the location from which they wish to view the internet.”) Goodell discusses both theoretical perspective access networks and a real-world prototype (named Blossom, *id.* at 5, 24) created by the author. Goodell

and Shribman both address methods of downloading web resources using the Internet, and are thus both in the same field of endeavor.

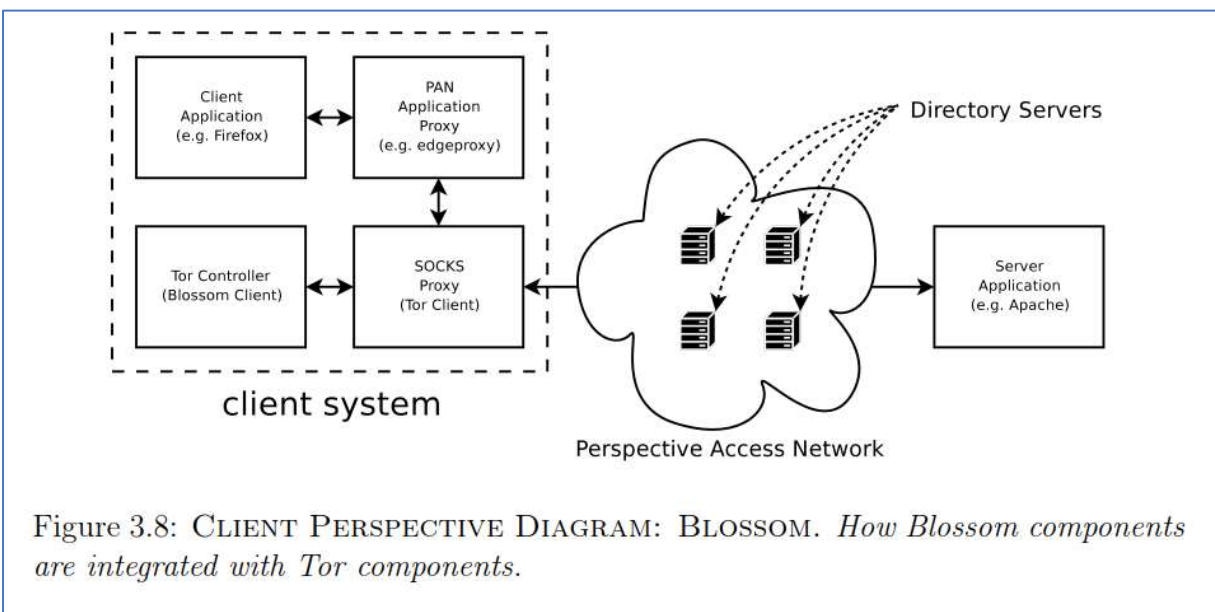
Goodell discloses that Blossom was built on the backbone of Tor, *id.* at 64, which is characterized as an “anonymity network,” *id.* at 61. As shown at Goodell Figure 2.1 (at 62), from a user’s perspective, the Tor network connects client systems to web servers through a network of forwarders (proxies, *id.*, 110) that communicate with Tor directory servers:



The directory servers publish, for each individual forwarder/proxy, “descriptors” that “carry all of the details a client needs to use the forward to build circuits,” (e.g., the forwarder’s identity, public key, and IP address), along with the forwarder’s “exit policy,” which specifies the set of IP addresses to which the forwarder is willing to provide access as an exit node. *Id.* at 63. When the client seeks to connect with a remote server, the Tor client software “uses descriptors obtained from the directory

server to build a random path through the Tor network to the application server it wishes to contact.” *Id.* Once the circuit is built, the “exit forwarder” can transmit data requests to the application server (e.g., an HTTP GET request), and send the received data response back to the client through the chain of forwarders. *Id.* at 63-64, Fig. 2.2. Importantly, with Tor, the choice of the “exit forwarder” is left to chance—Tor will choose a forwarder whose exit policy can access the requested website. *Id.* at 112 (“If the chosen exit forwarder happens to be in Germany, then Google search results will be skewed to assigned German-language pages higher by default.”).

An implementation of Blossom disclosed by Goodell shows a system similar to Tor at Figure 2.1, *id.* at 118, but with “Blossom client” software at the client system:



EX1005, 118; *see also id.* at 112 (“Both Blossom networks and Tor networks consist of interconnected proxies”). With Blossom, the user specifies both a web server and a location (or “perspective”). *Id.* at 118 (e.g., a web server from a perspective in Greece).³ The Blossom client parses the request to separate the hostname from the perspective request, and then constructs a circuit to an exit forwarder in Greece. *Id.* at 119, 146-47. The Blossom client uses Tor descriptors to build circuits using the underlying Tor system. *Id.* at 113. The client application may then exchange requests and responses with the web server via the circuit (where, from the web server’s point of view, the exit forwarder in Greece is the client). *Id.* at 119. Goodell confirms that, using Blossom, “the set of web pages accessible from some ISP in China differs from the set of web pages accessible from some ISP in Boston.” *Id.* at 147.

Goodell also discloses perspective access networks more generally through the use of four roles: resources (to which the network enables access), forwarders (that make up the peer-to-peer overlay network), clients (that establish circuits through the overlay network), and directory servers (that store information about the individual forwarders). EX1005, 28-29. At the client, the human users “interact with ordinary Internet-aware applications [e.g., web browsers], which in turn interact with

³ Blossom included a web interface that allowed a user to specify a URL and a country from which to view the URL, along with a page cataloguing Tor forwarders by country and exit policy. *Id.* at 119.

a perspective-access-networks client via a proxy interface. Applications treat the perspective-access-networks client as a generic transport-layer proxy.” *Id.*, 28.

Perspective-access-network directory servers store information about forwarders in the network, including (at a minimum) IP address, port for accepting circuit-building connection, exit policy, and public key. *Id.* at 141-43. The disclosed directory servers may also store metadata information that further describes the forwarders, such as geographic region or network name. *Id.*; *see also id.* at 104-06 (a forwarder [perspective] can be described by political location (e.g., US.Massachusetts. – Cambridge); ISP or private network (e.g., Harvard.EECS); or latitude-longitude coordinates (e.g., 42.3, -72.1, r: 3km), among others). The metadata may also explicitly include the network-address ranges that the forwarder “allows or restricts access.” *Id.*, 105. All directory servers also serve as forwarders, although most forwarders are not directory servers. *Id.*, 100, *see also id.*, 139. Perspective-access-network directory servers also store (i) a “master record” (containing attributes describing itself), and (ii) a set of “directory records,” describing other directory servers in the system. *Id.*, 136, 141 (“A directory server **must** publish a forwarder record for itself.”).

In general, a perspective-network-access client must be able to define the circuits to be constructed. *Id.*, 111. Clients “contact directory servers to obtain information necessary to route traffic[.]” *Id.*, 78, 101, 104 (“A client requests a

perspective matching a set of characteristics, and receives instructions for constructing a source route through the network that provides a perspective meeting the specification.”), 107. A client may issue a “perspective query” indicating “that the client wants to build a circuit that terminates at any last-hop forwarder whose forwarder record on some directory server matches some set of criteria.” *Id.* at 143-44, 151-152; *see also id.* at 107-108 (describing metadata queries based on political location or IP address (“explicit environmental filtering”)).

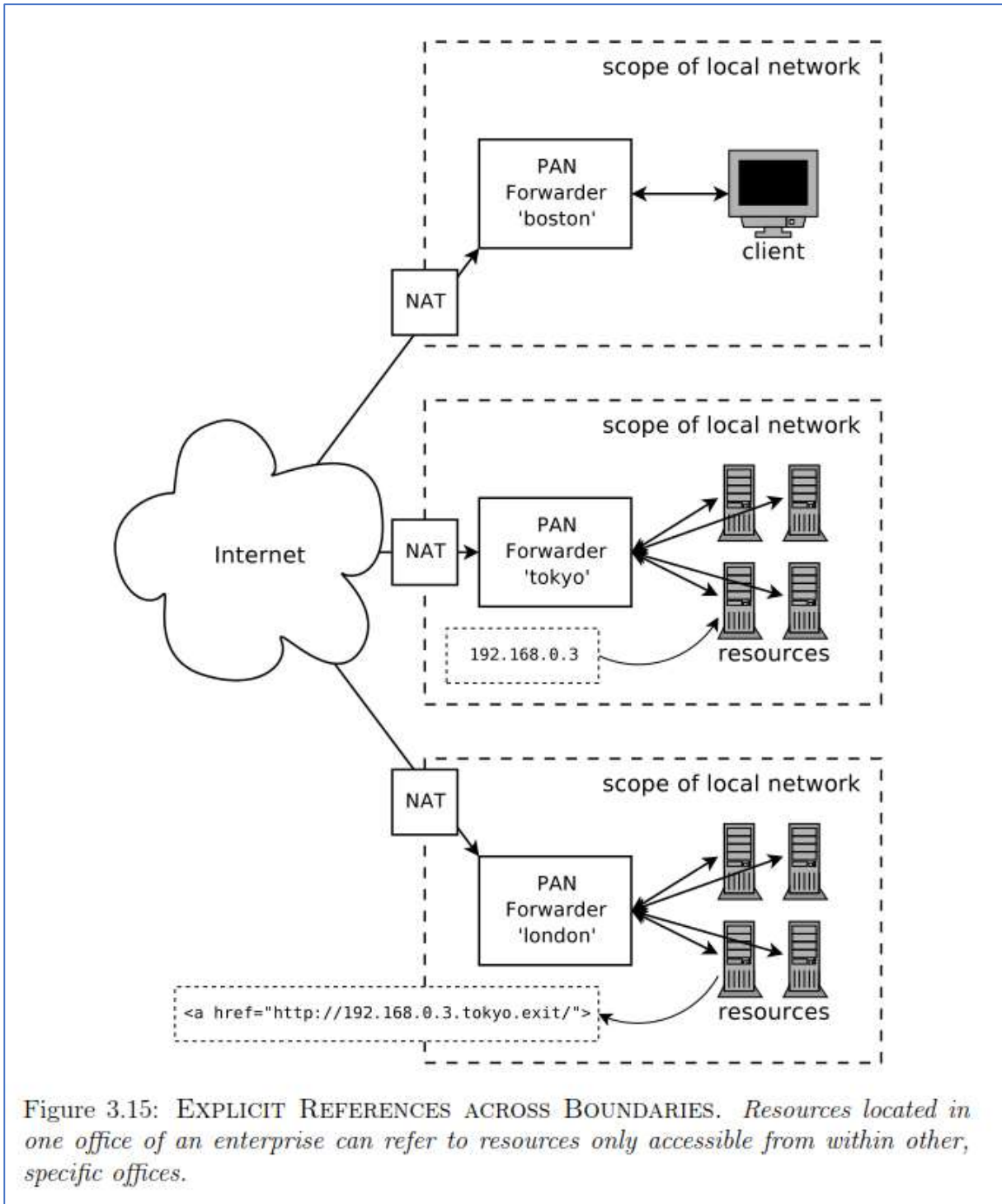
Goodell recognizes options to ensure “connection state,” i.e., ensuring that packets “be able to travel between the client and the resource in both the forward and reverse directions.” EX1005, 83. One way to achieve this goal is to “have the original requester specify the set of forwarders explicitly,” and have the application server “use the list of forwarders to direct the response.” *Id.*, *see also id.*, 81, 85 (“One approach is to have the client explicitly provide a means by which the exit forwarder can route replies back through the infrastructure to the client.”). A second way to achieve this goal (used by Blossom) is to “maintain connection state within the network” by “maintaining a mapping for individual connections that allow them to correctly route replies.” *Id.*, 84.

Goodell discloses the possibility of a “secret” overlay network of forwarders, rather than a “public” network of forwarders. EX1005, 87. “In a *secret* network, the identities of participating forwarders are deliberately obscured, so that while a

participant in the system must know the identities of a small number (possibly one) of other participants, it has no way of ascertaining the identities of other forwarders.”

Id. “In a *public* network, the identities of participating forwarders are exposed to public view, such that any party may determine the identities of all of the participating forwarders, or whether any given host is a participant in the network.” *Id.*

Goodell discloses a case where an enterprise uses the Internet to connect its various offices, as shown at Figure 3.15:



EX1005, 126, 132. In this case, “resources within one network can implicitly use PAN [perspective access networks] to refer to resources accessible via a PAN forwarder in a remote office, even if such resources are not available directly.” *Id.*, 126.

2. Independent claim 1

a. Preamble

[1.p] A method for fetching, by a first device, a first web-page that is identified by a first Uniform Resource Locator (URL) and is stored in a first web server and a second web-page that is identified by a second URL and is stored in a second web server, for use with a second device that stores a group of Internet Protocol (IP) addresses, each of the IP addresses is associated with a respective geographical location, the method comprising:

Goodell discloses the preamble. EX1003 ¶¶67-68. Disclosed perspective access networks allow clients [first devices] to access web content, accessible and identified by URL, stored in web servers. EX1005 at Abstract, 118-119, 146-147, EX1003 ¶68. Goodell discloses directory servers [second devices] that store information about forwarders/proxies in the network, including IP addresses and associated metadata, which includes geographic region, political location, or latitude-longitude coordinates. *Id.*, 104-06, 141-43. Goodell thus discloses a second device [directory servers] that stores a group of IP addresses where each of the IP addresses is associated with a respective geographical location. EX1003 ¶68.

b. First “identifying” step

[1.1] identifying, at the first device, the first URL and a first geographical location that is associated with at least one of the IP addresses in the group;

Goodell discloses the first “identifying” step. EX1003 ¶¶69-70. Disclosed perspective access networks allow a user at a client device to identify a URL and a geographical location associated with an IP address at the directory server. For example, Goodell discloses that users can specify, with Blossom, both a web server and a location (e.g., Greece) from which to access the web server, EX1005 at 118-119, which allows the construction of a circuit to an exit forwarder in that location, *id.*; EX1003 ¶70. Goodell discloses that perspective access networks allow users to specify the resources and the perspectives from which to view the resources, e.g., the “location from which they wish to view the internet.” *Id.*, Abstract, 2, 143-47 (perspective query), 151-152. For both Blossom and perspective-access networks more generally, in order for a circuit to be constructed with an exit forwarder in the requested location, the requested location must be associated with an IP address (forwarder) stored at the directory server. EX1003 ¶70. This would be obvious to a POSITA. EX1003 ¶70.

c. First “sending” step

[1.2] sending, by the first device to the second device, the first URL and the first geographical location;

Goodell discloses and renders obvious the first “sending” step. EX1003 ¶¶71-75. Goodell discloses that perspective-access-network clients [first device] contact directory servers [second device] to obtain the information necessary to construct a circuit to the requested data from the requested perspective. *See* EX1005, 78, 101, 104, 107, EX1003 ¶72. The directory servers include information about each forwarder’s IP address, exit policy (defined as the set of IP addresses and TCP port ranges to which a forwarder is willing to provide as an access node, EX1005, 63) and associated metadata, which includes geographic region, political location, or latitude-longitude coordinates. EX1005, 104-09, 141-43; *see also id.*, 135 (“PAN consists of a pairwise-connected overlay network of *forwarders*, each of which has access to some set of internet resources.”); EX1003 ¶72.

To choose a forwarder that can access the requested information from the requested perspective/location, a POSITA would understand that the directory server must receive (from the client) information about both the requested webpage and the requested geographical location, so that the directory server can choose a last-hop forwarder that has (i) an exit policy that allows it to access the requested webpage, and (ii) metadata that indicates that the forwarder is in the requested geographical

location. EX1003 ¶73. Because Goodell discloses that exit policies are expressed in the terms of a set of IP addresses, EX1005, 63, a POSITA would expect the client to transmit information sufficient to identify the target web server by IP address. EX1003 ¶73. Further, for a POSITA, it would be obvious to send a URL (rather than an IP address) to the directory server to identify the requested information, because Shribman recognizes (and a POSITA would understand) that converting URLs to IP addresses is “known by one having ordinary skill in the art.” EX1001, 13:15-18, EX1003 ¶73.

Further, Goodell discloses metadata queries whereby the client queries the directory server to return an appropriate forwarder. EX1005, 107-08, 143-46. In those queries, a client may send a request for a forwarder that (i) is from a particular geographical location [form 1, “political location”] and (ii) may access a particular IP address [form 4, “explicit environmental filtering”]. *Id.*, 107-108. For a POSITA, it would be obvious for a client to send a URL to the directory server instead of an IP address, because a POSITA would understand that a directory server could translate the URL into an IP address before running the disclosed metadata queries, especially in light of the disclosure in Shribman. EX1003 ¶74, EX1001, 13:15-18.

Thus, in light of Goodell, it would be obvious for the client device (the first device) to send the first URL and the first location to the directory server (the second device) so that the directory server could identify a last-hop forwarder that could

respond with the requested information from the requested perspective. EX1003 ¶75.

d. First “receiving” step

[1.3] receiving, by the first device from the second device, the first web-page, in response to the sending of the first URL and the first geographical location;

This claim term is disclosed and rendered obvious by Goodell. EX1003 ¶76-80. Goodell discloses a perspective-access-networks client device that can contact a directory server for an appropriate forwarder that can access a particular URL from a particular location. *See supra* claim term [1.2] (§ VII(A)(2)(c)). The disclosed perspective-access-network directory servers are also forwarders. EX1005, 100. The clients receive the requested web pages. *Id.*, Abstract, 120-21. In such a system, a POSITA would recognize three different ways that this claim term is disclosed and rendered obvious by Goodell, where the client device [first device] receives the first webpage from the directory server [second device] in response to the sending of the first URL and the first geographic location. EX1003 ¶77.

First, after the client device sends the first URL and the first geographic location, a POSITA would understand that the directory server may identify *itself* as a forwarder that can access the requested URL from the perspective of the first geographic location. EX1003 ¶78, EX1005, 100, 136, 139, 141 (directory server maintains forwarder record for itself). In that situation, to ensure connection state, a

POSITA would understand that either (i) the client device would explicitly specify a set of forwarders where the directory server is the “last hop” to transport requests to the web server and web pages back to the client, or (ii) the client device would maintain a connection state to the web server through the last-hop directory server. EX1003 ¶78, EX1005, 81, 83-85. In either situation, the client device would receive the requested web page from the directory server in response to sending the URL and the geographical location. EX1003 ¶78.

Second, Goodell discloses the use of a “secret” overlay network of forwarders, where “a participant in the system must know the identities of a small number (possibly one) of the other participants.” EX1005, 87. To use a secret perspective-access network where the client device knows only one other participant, as disclosed by Goodell, a POSITA would understand that the other participant would mediate all communications between the client system and the network, and would thus act as (i) the directory server, (ii) the first forwarder for passing requests from the client to the web server, and (iii) the last-hop forwarder for responsive web pages passing from the web server to the client device.⁴ EX1003 ¶79. In such a system, a POSITA would understand that the directory server would still receive a request for a URL

⁴ Goodell discloses an architecture where all of a client’s communications pass through a single forwarder, Figure 3.15. EX1005, 126, 132 (e.g., PAN forwarder “boston”). A POSITA would further rely on Figure 3.15 to conclude that it is possible for a client to interface with a single PAN forwarder. EX1003 ¶79 n.3.

and a geographic location from the client server and choose an appropriate last-hop forwarder with an appropriate exit policy and geographic location. EX1003 ¶79. To maintain secrecy, however, a POSITA would understand that the directory server would *not* be able to share that information with the client device, and would have to pass the requests and receive the responsive web pages on the client's behalf, acting as a proxy. EX1003 ¶79. In this second situation, a POSITA would understand that the client device would receive the requested web page from the directory server in response to sending the URL and the geographical location. EX1003 ¶79.

Third, Goodell also discloses that the client device may “specify the list of forwarders explicitly” and “use the list of forwarders to direct the response.” *Id.*, 81, 83, 85. A POSITA would thus understand that the disclosed perspective-access-networks client device may define the route (i.e., list of forwarders) to and back from the web server. EX1003 ¶80. Further, because the directory server is also a perspective-access-network forwarder, EX1005, 100, a POSITA would understand that the directory server could be included in the list of forwarders. EX1003 ¶80. As a result, a POSITA would understand that a client device [first device] may receive the requested web page from the directory server [second device] by including the directory server in the list of forwarders connecting the client and the web server. EX1003 ¶80. Further, based on this disclosure, a POSITA would see a benefit in including the directory server in the list of forwarders. The client device has recently contacted

the directory server; thus, the directory server has already proved itself as reliable and unlikely to break the transport chain, making the directory server a good choice for inclusion in the list of forwarders connecting the client and the web server. EX1003 ¶80. In this third situation, a POSITA would understand that the client device would receive the requested web page from the directory server in response to sending the URL and the geographical location. EX1003 ¶80.

e. Second “identifying” step

[1.4] identifying, at the first device, the second URL and a second geographical location that is associated with at least one of the IP addresses in the group;
--

This claim term is disclosed and rendered obvious by Goodell. EX1003 ¶¶81-83. As disclosed above, Goodell discloses the first “identifying” step. *See supra* § VII(A)(2)(b). A POSITA would understand that the same client [first device] could identify a second URL and a second geographical location. EX1003 ¶82. This is buttressed by the disclosure in Goodell confirming that the internet looks different from different locations, EX1005, 147, suggesting to a POSITA that the author executed multiple queries from the same computer. EX1003 ¶82.

Further, Goodell discloses that an HTTP proxy can automatically append the same metadata query (e.g., geographical location, EX1005, 104, 107-108, 141-43) to successive web content requests to make sure that links that are clicked on are viewed from the same perspective. EX1005, 121. The successive web-content

request is an identification of a second URL and a second geographical location. A POSITA would understand from this disclosure that a user could make successive requests for web pages specifying a URL and a location. EX1003 ¶83.

f. Second “sending” step

[1.5] sending, by the first device to the second device, the second URL and the second geographical location; and

This claim term is disclosed and rendered obvious by Goodell. EX1003 ¶¶84-86 As disclosed above, Goodell discloses and renders obvious the first “sending” step. *See supra* § VII(A)(2)(c). A POSITA would understand that the same client [first device] could send a second query to the same directory server [second device] with a second URL and a second geographical location. EX1003 ¶85.

Further, Goodell discloses that an HTTP proxy can automatically append the same metadata query (e.g., geographical location, EX1005, 104, 107-108, 141-43) to successive web content requests to make sure that links that are clicked on are viewed from the same perspective. EX1005, 121. The successive web-content request sends a second URL and a second geographical location to the second device. A POSITA would understand from this disclosure that a user could make successive requests for web pages specifying a URL and a location. EX1003 ¶86.

g. Second “receiving” step

[1.6] receiving, by the first device from the second device, the second web-page, in response to the sending of the second URL and the second geographical location;

This claim term is disclosed and rendered obvious by Goodell. EX1003 ¶¶87-89. As disclosed above, Goodell discloses and renders obvious the first “receiving” step. *See supra* § VII(A)(2)(d). A POSITA would understand that the same client [first device] could receive a second webpage from the same directory server [second device] in response to a second URL and a second geographical location. EX1003 ¶88. This is especially true when the second geographic location is the same as the first geographic location. EX1001, cl. 29 (“wherein the first and second geographical locations are the same geographical locations”).

Further, Goodell discloses that an HTTP proxy can automatically append the same metadata query (e.g., geographical location, EX1005, 104, 107-108, 141-43) to successive web content requests to make sure that links that are clicked on are viewed from the same perspective. EX1005, 121. The successive web-content request receives, by the first device from the second device, a second web page in response to the sending of the second URL and the second geographical location. A POSITA would understand from this disclosure that a user could make successive

requests for web pages specifying a URL and a location, and receive those webpages in response. EX1003 ¶89.

3. Dependent claim 8

[8] The method according to claim 1, for use with a plurality of devices, wherein each one of the devices out of the plurality of devices is addressable in the Internet using an IP address from the group.

Goodell discloses this dependent claim. EX1003 ¶¶90-91. Goodell discloses directory servers [second devices] that store information about forwarders/proxies in the network [a plurality of devices], including IP addresses and associated metadata, which includes geographic region, political location, or latitude-longitude coordinates. *Id.*, 104-09, 141-43. Goodell thus discloses a second device [directory server] for use with a plurality of devices [forwarders], where the plurality of devices are addressable in the Internet using an IP address in the group of IP addresses stored by the second device. EX1003 ¶91.

4. Dependent claim 16

[16] The method according to claim 1, wherein the first device comprises a client device.

Goodell discloses this dependent claim. EX1003 ¶¶92-93. Goodell discloses that the first device is the client device. *See, e.g.*, EX1005, 28-29, 107, 118. As

shown in the analysis for claim 1, the “first device” claim steps are performed by Goodell’s disclosed client device. EX1003 ¶93. The client device is “operating in the role of a client,” in that it requests webpages and receives (and displays) webpages from the second device. EX1003 ¶93.

5. Dependent claim 17

[17] The method according to claim 16, further comprising executing, by the first device, an application, and wherein the identifying in part of, or in response to, the executing.

Goodell discloses and renders obvious this dependent claim. EX1003 ¶¶94-95. Goodell discloses the client device [first device] executing an application. Goodell discloses both (i) a web browser which passes requests to the Tor client via the SOCKS protocol, and (ii) a web interface that allows a user to specify a URL and a country from which she wants to view the URL. EX1005, 118-19, EX1003 ¶95. In both cases, the user executes the application [the web browser or the web interface] to identify the first or second URLs. EX1003 ¶95. In the second case, the user also executes the application [the web interface] to identify the first or second geographical locations. EX1003 ¶95.

6. Dependent claim 22

[22] The method according to claim 1, wherein each of the IP addresses in the group is associated with a respective device that is identified over the Internet using a respective IP address.

Goodell discloses and renders obvious this dependent claim. EX1003 ¶¶96-97. Goodell discloses directory servers [second devices] that store information about forwarders/proxies in the network [respective devices], including IP addresses and associated metadata, which includes geographic region, political location, or latitude-longitude coordinates. EX1005, 104-09, 141-43. Each forwarder may be contacted through its respective IP address. EX1005, 141; EX1003 ¶97. Goodell thus discloses a second device [directory server] that stores a group of IP addresses where each of the IP addresses is associated with a respective device [a forwarder] that is identified over the Internet using a respective IP address. EX1003 ¶97.

7. Dependent claim 29

a. “HTTP server” limitation

[29.1] The method according to claim 1, wherein the first web server comprises a web server that is a Hypertext Transfer Protocol (HTTP) server responding to HTTP requests, wherein the first device comprises a client device, and

Goodell discloses and renders obvious this dependent-claim term. EX1003 ¶¶98-100. Goodell discloses both HTTP requests and HTTP servers. EX1005 at 120-21. In particular, (i) Blossom includes an HTTP proxy that sits between the web browser and Tor, (ii) the proxy handles GET and POST requests from the client, and (iii) the proxy parses HTTP responses received from the web server. *Id.*, *see also id.*, 143. Further, Goodell's Figure 2.2 (EX1005, 63) discloses a web server responding to an HTTP GET request. Goodell thus discloses a web server that is an HTTP server responding to HTTP requests. Further, a POSITA would understand from this disclosure that it would be obvious to use an HTTP server responding to HTTP requests as the web server. EX1003 ¶99.

As noted above, *see supra* § VII(A)(4), Goodell discloses and renders obvious the limitation that the first device comprises a client device. EX1003 ¶100.

b. “Same geographical location” limitation

[29.2] wherein the first and second geographical locations are the same geographical location.

Goodell discloses and renders obvious this dependent-claim term. EX1003 ¶¶101-102. Goodell discloses a network “from which users can specify the location from which they wish to view the internet.” EX1005, Abstract. Two successive requests seeking information from the same geographic location meet this claim limitation. Goodell discloses, for example, that an HTTP proxy can automatically

append the same metadata query (e.g., geographical location, EX1005, 104, 107-108, 141-43) to successive web content requests to make sure that links that are clicked on are viewed from the same perspective. EX1005, 121. Thus, Goodell discloses successive HTTP requests using the same geographic location. EX1003 ¶102. Further, a POSITA would understand, from the disclosure in Goodell, that a client could send successive requests with the same geographical location. EX1003 ¶102.

8. Dependent claim 30

[30] The method according to claim 1, wherein the first web-page comprises audio content, video content, or any combination thereof

Goodell discloses and renders obvious this dependent claim. EX1003 ¶¶103-105. Goodell discloses a network “from which users can specify the location from which they wish to view the internet.” EX1005, Abstract. Goodell discloses both HTTP requests and HTTP servers. EX1005 at 120-21. A POSITA would understand that web pages accessed through HTTP may pass audio content, video content, or any combination thereof. EX1003 ¶104.

VIII. DISCRETIONARY FACTORS

A. *General Plastic* does not support denying institution

Petitioner challenged Shribman last year. *Metacluster LT, UAB v. Bright Data Ltd.*, No. IPR2022-00936, EX1029. *General Plastic* sets forth a non-exhaustive seven-factor test to evaluate follow-on petitions. *General Plastic Indus. Co. v.*

Canon Kabushiki Kaisha, IPR2016-01357, Paper 19, at 15-16 (PTAB Sept. 6, 2017) (precedential as to § II.B.4.i) (“There is no *per se* rule precluding the filing of follow-on petitions[.]”).⁵ The factors “are not dispositive, but part of a balanced assessment of all relevant circumstances in the case, including the merits.” PTAB Consolidated Trial Practice Guide, November 2019, 58 (e.g., Board may consider district-court proceedings).

As explained in more detail below, a balanced assessment favors institution. The instant petition relies on prior art that Petitioner found only as a result of the district-court litigation instituted by Patent Owner, and the record does not support a finding that Petitioner strategically staged the petitions for unfair advantage. When, as here, the follow-on petition is responsive to litigation, resulting prejudice to the Patent Owner is minimized, because the Patent Owner will need to mount a defense against the reference in the litigation. Finally, under these circumstances, instituting review is relatively efficient. Petitioner only challenges the claims at issue in the litigation, and granting the petition may avoid unnecessary litigation over Shribman.

General Plastic Factor 1 favors denying institution. The same petitioner challenges claims that were at issue in the prior petition.

⁵ In that case, Petitioner had initially filed two petitions, each challenging a different patent. *Id.* at 6-7. The Board denied institution on the merits. *Id.* at 7. Two months later, Petitioner filed *five* additional petitions, two challenging one patent, and three challenging the second patent. *Id.* at 7-8.

General Plastic Factor 2 strongly favors institution. This factor relates to whether Petitioner knew or should have known of the prior art asserted here.

Petitioner did not know of Goodell at the time of the first petition. EX1039 ¶¶2-4, EX1040 ¶¶2-4, EX1041 ¶¶2-4. Although Petitioner had engaged a prior-art search focusing on printed publications usable in IPRs, that search did not locate Goodell, *id.*—when searching for only printed publications, Goodell is relatively difficult to find. Although Goodell is accessible on Google Scholar, that site shows only few papers citing it, EX1017, EX1037 ¶11, and Goodell was never published in an academic journal. Without more academic citations, or exposure through an academic journal, printed-publication prior-art searches are unlikely to find their way to relatively niche dissertations.

Because of the *Bright Data* litigation, however, Petitioner engaged a second prior-art search—the litigation is a “changed circumstance[]” that justified a second prior-art search. *General Plastic*, Paper 19 at 20, EX1037 ¶12. Petitioner expanded that search to include *product* art useable in a district-court case. EX1037 ¶12. One result of this search was Blossom, software written by Geoffrey Goodell that allowed users to “access a wide range of Internet resources from the perspective of participating Tor exit nodes.” EX1037 ¶12; EX1015 (screenshot of Blossom from the Internet Archive); *see also* EX1016 (blog entry explaining Blossom). After learning of Blossom, Petitioner searched for works by its author, and thereby located Goodell.

EX1037 ¶12. Petitioner relies on both Blossom and Goodell in the *Bright Data* litigation. EX1037 ¶12.

In sum, Petitioner did not know of Goodell at the time of the first petition, nor should have Petitioner's first prior-art search uncovered Goodell. As such, Factor 2 strongly favors institution.

General Plastic Factor 3 is neutral, even though Petitioner had received the Board's prior decision before filing the instant petition. In *General Plastic*, the Board expressed concerns about "shifts" in prior art responsive to the prior petitions leading to inefficiencies and the potential for abuse and prejudice. Paper 19 at 17.

Here, there is no question that Petitioner has shifted its prior art, but the shift was not responsive to the prior decision. There, the Board did not construe any claim terms, Order at 9, and the Board found that the petition did not show a motivation to combine the proposed references at issue (Goldstein and Ling), Order at 25. Neither Goldstein nor Ling is at issue here, and the current petition does not respond to or address the Board's findings. Instead, the shift is due to new art found in a district-court prior art search that was not limited to printed publications. EX1037 ¶12. As such, the Board should find that Oxylabs did not "strategically stage its prior art and arguments in order to gain an unfair advantage." *Microsoft Corp. v. Uniloc 2017 LLC*, IPR2019-01251, Paper 7 at 9.

Further, Patent Owner will not suffer undue abuse or prejudice. Because Patent Owner chose to litigate the challenged patent in district court, Patent Owner must mount a new defense to invalidity, whether here or in the district court. There is little abuse or prejudice in requiring Patent Owner to mount that defense here.

General Plastic Factor 4, directed to the time between learning of the art and the new petition, favors institution. Petitioner only learned of Blossom on May 22, 2023, and found Goodell in early June 2023. EX1037 ¶12.

General Plastic Factor 5 strongly favors institution. Petitioner has provided adequate explanation for the time elapsed between the filing of the multiple petitions—the petition relies on prior art that was only found after Petitioner engaged a second prior-art search responsive to Patent Owner’s district-court infringement contentions. EX1037 ¶12.

General Plastic Factor 6, relating to the finite resources of the Board, favors institution, but only slightly. Petitioner has carefully limited its challenges to match the claims at issue in the litigation, and no more.

General Plastic Factor 7, related to the requirement that a final determination issue not later than a year after review begins, is neutral.

Additional General Plastic Factor: IPR efficiencies. As a further factor, the Board should consider a principal purpose underlying the AIA—“improv[ing] patent quality and limit[ing] unnecessary and counterproductive litigation costs.” PTAB

Consolidated Trial Practice Guide, November 2019, 56; *see also* EX1030, 3-4. Because the AIA was designed, in part, to provide an alternative forum to district-court litigation, the Board should weigh more favorably, as an eighth factor, a follow-on petition filed in response to intervening district-court litigation. *General Plastic* at 16-17 (One objective of the AIA is “to provide an effective and efficient alternative to district-court litigation”); *Samsung Elecs. Am., Inc. v. Uniloc Lux’g S.A.*, IPR2017-01797, Paper 8 at 33 (recognizing need to make IPRs available to “parties accused of infringement”). Even in the context of a follow-on petition, instituting review of a petition responding to a patent-infringement claim may nevertheless efficiently avoid unnecessary litigation costs.⁶

Additional General Plastic Factor: noncumulative art. As shown below, the art and arguments asserted here are non-cumulative to those in the prior petition. The Board should not entertain follow-on prior art challenges that simply recycle the same arguments and references as prior petitions. *See Am. Well Corp. v. Teladoc Health, Inc.*, IPR2022-00038, Paper 10, 15-17 (PTAB Apr. 19, 2022) (collecting

⁶ As shown *infra* in relation to *Finitiv* factor one, there is a reasonable basis to expect that the district court will stay the ongoing litigation if the petition is approved. In this light, IPR efficiencies are heightened further, strengthening the import of this factor, because granting the IPR may result in the avoidance of parallel district-court litigation.

cases); *see also* 35 U.S.C. § 325(d). The noncumulative art asserted here is an additional factor that should be weighed towards institution under *General Plastic*.

As shown in the prior petition, **Goldstein** disclosed a two-proxy system where (i) a second proxy “transforms” the request before sending it to a first proxy, (ii) the first proxy “transforms the request back to HTTP and sends it to the destination server.” EX1029, 25; EX1031, [0042]. The server responds to the first proxy, which “transforms the reply to the optimized protocol and sends it back to the second proxy. EX1029, 25; EX1031, [0042]. The second proxy then transforms the reply to HTTP and sends it back to the browser. EX1029, 25; EX1031, [0042].

Ling focused on mobile networks. Ling disclosed a mobile user transmitting a geographic location along with internet requests to a “proxy service.” EX1029, 26-27; EX1032, [0055]. The proxy service uses the geographic location to determine an appropriate gateway server to which the information can be directed. EX1029, 27-28; EX1032, [0055]. The proxy service used a database storing IP addresses for potential gateway servers, along with latitude and longitude coordinates. EX1029, 28-29; EX1032, [0061-62].

Neither Goldstein or Ling capture or disclose the essential thrust of **Goodell**—disclosing an architecture that allows a user to select *both* a URL *and* a perspective/location from which to view that website. *See supra* § VII(A)(1). Goldstein focuses on internal transformation of requests between two proxies in order to increase

the speed of requests. Ling focuses on providing a gateway server that is *close* to the user instead of providing an internet perspective *chosen* by the user. Further, unlike Goodell, neither Goldstein nor Ling discloses a directory server that is also a forwarder. Goldstein does not disclose a directory server whatsoever, while Ling’s “directory” (the database of potential gateway server” is co-located with the mobile unit. Finally, neither Goldstein nor Ling touch on the concepts of secret networks or the flexibility of a client *either* expressly identifying a list of forwarders through which the web server’s response should pass *or* maintaining a mapping for individual connections that allow them to correctly route replies. These features of Goodell, which were referenced in the invalidity analysis, are not disclosed by Goldstein or Ling.

Further, the resulting arguments are undeniably new—the arguments based on Goodell apply the disclosure of perspective access networks, including Blossom, a prototype built by the author over the existing Tor network. Neither Goldstein nor Ling had anything to with perspective access networks, Blossom, or Tor. As a result, the arguments raised here are noncumulative to those in the prior petition.

Because the art and arguments asserted here are non-cumulative to those in the prior petition, the Board should find that the non-cumulative art factor supports institution.

In summary, six factors support institution (factors 2, 4-6, and the additional two factors related to IPR efficiencies and noncumulative art), two factors are neutral (factors 3 and 7), and one factor favors denying institution (factor 1). Especially in light of the strong obviousness case included in this petition, the Board should find that a balanced assessment of the General Plastic factors supports institution.

B. *Finitiv* does not support denying institution

The Vidal Memorandum dated June 21, 2022 (EX1030), confirms that institution should not be denied under *Finitiv*. *Apple v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6-16 (PTAB Mar. 20, 2020) (precedential). The “PTAB will not deny institution of an IPR or PGR under *Finitiv* (i) when a petition presents compelling evidence of unpatentability; . . . or (iii) where a petitioner stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition.” EX1030, 9. The Board should only consider the compelling-evidence test if it determines that *Finitiv* factors 1-5 favor a discretionary denial. *Commscope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23, 4-5 (PTAB Feb. 27, 2023).

Here, Petitioner stipulates that, if the instant petition is granted, Petitioner will not pursue in the parallel *Bright Data* litigation the same grounds as in the petition or any grounds that could have reasonably been raised in the petition. For this reason alone, the panel should refuse to deny institution under *Finitiv*.

Further, on balance, *Finitiv* factors 1-5 do not favor denial.

Finitiv Factor 1 does not support denial, as there is a reasonable basis to expect that the district court will stay the ongoing litigation if the petition is approved. Presently, there are three cases pending in district court involving patents related to Shribman; *Teso* is stayed pending IPRs/EPR (EX1025) while *Tenfincom* and *Code200* are stayed pending *Teso* (EX1026, EX1027). Given these stayed cases, there is a reasonable basis to expect that the district court will grant a motion to stay if this IPR is instituted.

Finitiv Factor 2 relates to the trial date. The district court has set jury selection for December 2024, but has not yet set a trial date. EX1035, 1. Jury selection will occur around 2-3 months before the Board would resolve the instant petition, which suggests that the district-court trial may conclude before the instant action. While this would ordinarily weigh in favor of exercising discretion to deny the Petition, given the reasonable basis to expect a stay before trial (which would suspend the scheduled jury selection), the Board should not consider this factor as particularly relevant.

Finitiv Factor 3, relating to the investment in the parallel proceeding, does not support discretionary denial. Here, the Court has not entered any orders resolving disputed motions, nor have the parties begun the *Markman* briefing process, which is scheduled to begin early next year. EX1035, 2; EX1036.

Factor 4 weighs strongly in favor of refusing discretionary denial. Oxylabs stipulates that, if the instant petition is granted, Petitioner will not pursue in the parallel *Bright Data* litigation the same grounds as in the petition or any grounds that could have reasonably been raised in the petition. This type of stipulation prevents the panel from discretionarily denying institution in view of parallel district-court litigation. *See* EX1030, 3, 9.

Factor 5 weighs “marginally in favor” of exercising discretion when, as here, the related district-court litigation involves the same parties. *Samsung Elecs. Co. v. CardWare Inc.*, No. PGR2023-00012, Paper 14, 22 (PTAB Aug. 11, 2023).

The first five *Finitiv* factors, considered together, do not support exercising discretion to deny the petition based on parallel district-court litigation.

Finally, even if the Board finds that *Finitiv* factors 1-5 favor denial, Petitioner has presented compelling evidence of unpatentability through its careful analysis of Goodell supported by expert testimony. This evidence and argument, “if unrebutted in trial, would plainly lead to a conclusion that [the challenged claims] are unpatentable by a preponderance of the evidence.” EX1030, 4. As a result, *Finitiv* should not prevent institution.

IX. CONCLUSION

Accordingly, for the reasons stated above, Petitioner respectfully requests that the Board institute a trial for *inter partes* review and invalidate claims 1, 8, 16, 17, 22, 29, and 30 of Shribman.

September 18, 2023

Respectfully submitted,

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CERTIFICATION OF WORD COUNT

Pursuant to 37 C.F.R. §§ 42.24(a)(1)(i) and (d), Petitioner certifies that the number of words in this paper as computed by the word-processing system used to prepare the paper (excluding the table of contents, table of authorities, mandatory notices under 37 C.F.R. § 42.8, certificate of service, and certificate of word count) is 8,770.

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e) and 37 C.F.R. § 42.105(a), the undersigned certifies that on September 18, 2023, a complete copy of this Petition for Inter Partes Review, Petitioner's power of attorney, and all exhibits were served on Patent Owner at the correspondence addresses of record listed below by FedEx®:

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