

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NETNUT LTD.,

Petitioner

v.

BRIGHT DATA LTD.,

Patent Owner

Case IPR2021-00465

U.S. Patent No. 9,742,866

**PATENT OWNER'S PRELIMINARY RESPONSE
UNDER 37 CFR §42.107**

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Patent Trial and Appeal Board
United States Patent and Trademark Office
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| EXHIBIT LIST | |
|--------------|---|
| 2001 | Expert Declaration of Dr. V. Thomas Rhyne |
| 2002 | CV of Dr. V. Thomas Rhyne |
| 2003 | Exhibits Considered by Dr. V. Thomas Rhyne |
| 2004 | Reserved |
| 2005 | U.S. Patent No. 7,203,741 to Marco <i>et al.</i> |
| 2006 | U.S. Pat. App. Pub. No. 2003/0204602 to Hudson <i>et al.</i> |
| 2007 | Internet Engineering Task Force (IETF) RFC 2547 “BGP/MPLS VPNs,” Mar. 1999 |
| 2008 | Internet Engineering Task Force (IETF) RFC 4026 “Provider Provisioned Virtual Private Network (VPN) Terminology,” Mar. 2005 |
| 2009 | Reserved |
| 2010 | A Brief History of P2P Content Distribution |
| 2011 | Peer-to-peer - Wikipedia |
| 2012 | Content delivery network - Wikipedia |
| 2013 | Declaration of Mr. Thomas Dunham |

I. INTRODUCTION

Bright Data Ltd. (formerly Luminati Networks, Ltd.) (“Patent Owner”) hereby submits this Patent Owner’s Preliminary Response to the Petition for *Inter Partes* Review (“Petition,” Paper 2) filed by NetNut Ltd. (“Petitioner”) requesting *inter partes* review of claims 15-20, 20-23, and 27-28 of U.S. Patent No. 9,742,866 (“the ’866 patent”).¹ As noted in the Petition, the ’866 patent is a divisional of an application that eventuated in U.S. Patent No. 9,241,044, which Petitioner is also challenging in IPR2021-00458. (Petition at 1)

Patent Owner respectfully requests that the Patent Trial and Appeal Board (“PTAB”) exercise its discretion and deny institution for two separate reasons as discussed herein.²

¹ On May 19, 2021, Patent Owner filed updated disclosures (Paper No. 7) indicating its name change from Luminati Networks, Ltd. to Bright Data Ltd.

² In this Patent Owner Preliminary Response (“POPR”), Patent Owner is only addressing select issues demonstrating that review should not be instituted. In so doing, Patent Owner is not acquiescing to other issues raised by Petitioner and reserves the right to address all issues and to challenge all points raised by Petitioner in any future response if proceedings are instituted. *See* PTAB Office Trial Practice

First, under the *General Plastic* factors,³ which broadly apply here notwithstanding Petitioners' arguments to the contrary, the Board should exercise its discretion not to institute this second set of *inter partes* reviews (IPRs) on the '044 and '866 patents.

Second, the Challenged Claims of the '866 patent are novel and non-obvious when compared to the prior art relied on by Petitioner. A primary embodiment of the '866 patent uses a two device/one server network for fetching content from a web server – more specifically, a client device, a tunnel device, and an intermediary acceleration server that provides a list of online tunnel devices to the client device - whereby the tunnel device obtains fresh original content directly from the specified web server. This is distinguishable from a conventional one device/one server network system – more specifically, a client device and a VPN/Proxy server - where the VPN/Proxy server (rather than a tunnel device) requests content from a web server. The prior art cited by Petitioner does not teach or suggest using “client

Guide, July 2019 Update, p. 18-21 (Docket No. PTO-P-2019-0025, Federal Register 33925-33926).

³ *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR2016-01357 *et al.*, Paper 19 (Sept. 6, 2017, precedential).

devices” as claimed in the sole independent claimed that Petitioner is challenging, further to obtain content slices and also constructing the content also as claimed.

Moreover, the prior art raised in the Petition has either already been considered by the PTO and/or is also entirely cumulative of prior art that the PTO has already considered and allowed the challenged claims over, namely: (i) client-server proxy systems, including VPN proxies and other types of proxy connections; (ii) peer-to-peer networking systems; and (iii) content distribution/delivery network (CDN) systems. Because the prior art raised in the Grounds fails to teach or suggest the claimed inventions, the Petition should not be instituted.

II. THE BOARD SHOULD EXERCISE ITS DISCRETION NOT TO INSTITUTE

Petitioner NetNut is ostensibly using its IPR petitions directed to US Patent Nos. 9,241,044 and 9,742,866 (hereafter, the ‘044 and ‘866 patents, IPR2021-00458 and IPR 2021-00465, respectively) as PTAB tools to pressure Bright Data to settle its ongoing Eastern District of Texas litigation with Netnut involving, *not the ‘044 and ‘866 patents*, but different patents, namely, Bright Data’s US Patent Nos. 10,484,511 and 10,637,968 (“the ‘511 and ‘968 patents”). For this reason alone, the Board should exercise its discretion to deny institution.

A. The Board has Discretion, But is Never Compelled, to Institute an IPR under Section 314(a)

The Board has authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Under 35 U.S.C. § 314(a), the Board may not authorize an *inter partes* review unless the information in the petition and the preliminary response “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” *See Harmonic Inc. v. Avid Tech, Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (under § 314(a), “the [U.S. Patent and Trademark Office] is permitted, but never compelled, to institute an [*inter partes* review] proceeding”); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2140 (2016) (“[T]he agency's decision to deny a petition is a matter committed to the Patent Office's discretion”); *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 (PTAB Sept. 12, 2018) (precedential).

B. The Relevant Facts

The facts here compel the conclusion that NetNut is interested only in settling its ongoing district court litigation with Bright Data on the ‘511 and ‘968 patents, and that NetNut only filed its ‘044 and ‘866 IPRs to increase pressure on Bright Data to settle that district court case. NetNut does not appear to have any personal interest in the patentability or unpatentability of the ‘044 and ‘866 patents other than using

the IPRs as a tool for settlement of the district court litigation involving only the '511 and '968 patents.

Chronologically, the supporting facts are as follows:

- In 2018, Bright Data sued *BI Science* in the Eastern District of Texas for infringement of the '044 and '866 Patents. On November 22, 2019, BI Science filed IPR petitions challenging certain claims of the '044 and '866 patents. Those IPRs were terminated in response to a “Joint Motion To Terminate Pursuant To 35 U.S.C. 317” that was filed in each case in April of 2020,⁴ before a POPR was filed and before any institution decision was made by the Board.⁵
- Approximately a month and a half later on June 11, 2020, Bright Data filed a district court infringement action against NetNut in the Eastern District of Texas, asserting infringement of only the '511 and '968 patents, not the '044 and '866 patents.⁶

⁴ See, e.g., Case IPR2020-00166, Paper 13; and Case IPR2020-00167, Paper 13.

⁵ Shortly, after the original joint motion to terminate was filed in the -00166 IPR, the parties submitted a “Corrected” joint motion to terminate. Case IPR2020-00167, Paper 15.

⁶ Bright Data also alleged trade secret violations by NetNut.

- NetNut retained the same lawyers and the same expert that BI Science had used to prepare and file the November 22, 2019 '044 and '866 IPRs. On December 4, 2020 and January 12, 2021, respectively, those lawyers and expert then filed *ex parte* reexamination requests on the '511 and '968 patents (the patents involved in the ongoing Bright Data-NetNut litigation) on behalf of NetNut. Those requests for reexamination have been granted.

- The NetNut (formerly BI Science) lawyers and expert then filed IPR petitions against the '044 and '866 patents on behalf of NetNut. Those were filed on January 22, 2021 for the '044 patent and January 25, 2021 for the '866 patent, ***JUST SHORTLY AFTER*** they filed the '511 and '968 requests for reexamination on December 4, 2020 and January 12, 2021, respectively. The Petitions admit that the NetNut IPRs on the '044 patent and '866 patent present “substantially the same grounds” as those previously presented by BI Science that had been terminated. ('044 Petition at 8, '866 Petition at 10). The NetNut IPRs challenge the same claims of the '044 patent and '866 patent as those earlier filed by BI Science IPRs, and assert exactly the same prior art that was asserted in the BI Science IPRs. However, in the new '044 petition, NetNut changed one basis for challenging claims 81 and 82

from Section 102 anticipation by the Prince reference to Section 103 obviousness over Prince in view of another reference.

- NetNut filed these IPR petitions on the '044 and '866 patents even though there is no ongoing district court litigation between Bright Data and NetNut (or anyone else) involving the '044 and '866 patents. Bright Data has also not accused NetNut of infringing the '044 or '866 patents.

As explained further below, these facts plainly show that NetNut filed these IPRs on the '044 and '866 patents to use the PTAB as a tool to put settlement pressure on Bright Data with respect to the existing litigation involving the '511 and '968 patents, two completely different patents from the '044 and '866 patents at issue in these IPRs.

C. Argument

a. NetNut is Only Concerned About Settling the Ongoing Litigation with Bright Data on the '511 and '968 Patents, And Has Little Other Interest In Filing the '044 and '866 Patent IPRs

As described above, Petitioner NetNut appears to be seeking to use the PTAB as a tool in an attempt to apply pressure on Bright Data to settle the district court litigation involving the '511 and '968 patents. There is no other reason for NetNut to file IPRs on the '044 and '866 patents - NetNut has not been sued for infringement of the '044 or '866 patents by Bright Data and NetNut has not been accused of

infringement of the '044 or '866 patents by Bright Data. There are also no other active district court cases involving the '044 or '866 patents other than a residual appeal relating to the settlement of the BI Science district court case.⁷

Filing the '044 and '866 IPRs was a relatively inexpensive option for NetNut to try to put additional settlement pressure on Bright Data. NetNut hired the same lawyers and expert that BI Science had used to file the November 2019 IPRs on the '044 and '866 patents. NetNut was able to use these lawyers and expert to basically re-file IPRs challenging '044 and '866 patents, challenging all of the same claims as the BI Science IPRs and using exactly the same prior art asserted in the BI Science IPRs on the basis of "substantially the same grounds." NetNut thus took advantage of the experience and knowledge the BI Science lawyers had with the '044 and '866 patents and claims and the arguments regarding the same prior art they had previously proffered to the PTAB on behalf of BI Science, substantially saving fees that would have been incurred by retaining new lawyers and an expert or experts who did not already have this substantial experience preparing the November 2019 '044 and '866 patent IPRs on behalf of BI Science.

⁷ As discussed above, the IPR petitions that BI Science had filed against the '044 and '866 patents were terminated by *joint* motions to terminate those proceedings.

Yet NetNut waited a significant amount of time after the BI Science IPRs on the '044 and '866 IPRs were terminated in April 2020 before filing its '044 and '866 IPR petitions – the NetNut '044 patent IPR wasn't filed until January 22, 2021, and the '866 patent IPR wasn't filed until January 25, 2021. These were quick, inexpensive IPRs to prepare based on the same patents, claims and asserted prior art set forth in the BI Science '044 and '866 IPRs, so they could not have taken long to prepare and file.

NetNut does not explain why it took so long to file the '044 and '866 IPRs. If NetNut had a *genuine* interest in the validity of the challenged claims of the '044 and '866 patents, NetNut could have filed the petitions shortly after the BI Science settlement in April 2020, shortly after Bright Data filed suit against NetNut in June 2020, and in any event long before NetNut filed its *ex parte* reexamination requests against the '511 and '968 patents in January of 2021.

The timing of NetNut's filing of the petitions confirms that NetNut lacks any genuine interest in the validity of the '044 or '866 patents. Accordingly, Patent Owner respectfully requests that the PTAB exercise its discretion, conserve its resources, and decline to institute the '044 and '866 petitions.

b. *General Plastic* Applies, But Requires Consideration of Additional Factors Due To The Specific Facts At Issue Here

Under *General Plastic*,⁸ when determining whether to exercise its discretion under § 314(a), the Board considers the following non-exhaustive factors:

1. whether the same petitioner previously filed a petition directed to the same claims of the same patent;
2. whether at the time of filing of the first petition the petitioner knew of the prior art asserted in the second petition or should have known of it;
3. whether at the time of filing of the second petition the petitioner already received the patent owner's preliminary response to the first petition or received the Board's decision on whether to institute review in the first petition;
4. the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition;
5. whether the petitioner provides adequate explanation for the time elapsed between the filings of multiple petitions directed to the same claims of the same patent;
6. the finite resources of the Board; and

⁸ *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR2016-01357 *et al.*, Paper 19 (Sept. 6, 2017, precedential); *See also United Fire Protection Corp. v. Engineered Corrosion Solutions, LLC*, IPR2018-00991, Paper 10, 2018 Pat. App. LEXIS 10739.

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

i. ***General Plastic* Applies Here**

Petitioner acknowledges that the *General Plastic* factors apply when a party files serial petitions involving the same patent. However, Petitioner argues that the *General Plastic* factors do not apply here where a different petitioner files the second petition. Petitioner states:

“Situations in which a petitioner files serial petitions against the same patent are addressed in *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR2016-01357 *et al.*, Paper 19 (Sept. 6, 2017, precedential). However, *General Plastic* does not apply herein, in that the Petitioner herein is not the same as in the prior IPR, and there is no real-party-in-interest or privity relationship with BI Science.

‘866 Petition at 11.

Petitioner’s argument that *General Plastic* does not apply when there is a different second petitioner was explicitly rejected by the Board in *United Fire Protection Corp. v. Engineered Corrosion Solutions, LLC*, IPR2018-00991, Paper 10, 2018 Pat. App. LEXIS 10739:

The Board in *General Plastic* established a framework, delineated by the factors listed above, to balance the equities between a petitioner and a patent owner when information from prior Board proceedings challenging a patent is available for a subsequent proceeding challenging the same patent. *General Plastic*, slip op. at 15-19. **We recognize that these *General Plastic* factors**

typically have been used to analyze situations in which the same party files multiple petitions challenging the same patent. Our discretion under 35 U.S.C. § 314(a), however, is not limited to situations where the same party files multiple petitions. Indeed, only the first *General Plastic* factor presumes the petitions are filed by the same party. Accordingly, we find that the *General Plastic* factors provide a useful framework for analyzing the facts and circumstances present in this case, in which a different petitioner filed a petition challenging a patent that had been challenged already by previous petitions. (Citations omitted).

United Fire Protection, 2018 Pat. App. LEXIS 10739, *15. (Emphasis added).

Accordingly, Patent Owner analyzes the *General Plastic* factors below.

ii. The *General Plastic* Factors Favor Discretion Not To Institute

1. Factor 1

General Plastic Factor 1 is whether the same petitioner previously filed a petition directed to the same claims of the same patent. This did not occur here, as this is NetNut's first petition against the '044 and '866 patents. However, as stated above in *United Fire Protection*, the *General Plastic* factors also apply to circumstances where the same party does not file multiple petitions – in other words, when a second party files a second petition directed to the claims of the same patent that is the subject of the first petition. Thus, this factor is neutral.

2. Factor 2

General Plastic Factor 2 relates to whether at the time of filing of the first petition the second petitioner knew of the prior art asserted in the first petition or

should have known of it. As previously noted, the NetNut's petitions on the '044 and '866 patents expressly state that they present "substantially the same grounds" as BI Science's petitions on the '044 and '866 patents, asserting the same body of prior art to challenge the same set of claims.

NetNut has not explained when it became aware of the BI Science IPRs on the '044 and '866 patents including the prior art asserted therein, or when NetNut began speaking with the former lawyers for BI Science about those IPRs and the possibility of filing substantially similar petitions on behalf of NetNut.

However, if NetNut had a genuine interest in the validity of the '044 and '866 patent claims, the facts reveal that NetNut could have essentially replicated the BI Science IPR petitions (which it ultimately did) anytime after BI Science filed them in late 2019. Moreover, NetNut could certainly have filed its petitions immediately after BI Science settled in April of 2020 or immediately after Bright Data filed suit against NetNut (on different patents) in June of 2020.

Because NetNut's delay in filing its petitions is unexplained and appears calculated only to apply settlement pressure, Bright Data submits that this Factor 2 weighs against institution.

3. Factor 3

General Plastic Factor 3 relates to whether the second petitioner gained an advantage from the first petition by filing the second petition after the POPR was

filed in the first IPR, or after the Board issued a decision on whether to institute the first IPR.

Here, the first '044 and '866 IPRs (filed by BI Science) were settled before POPRs were filed, and there was no Board decision on institution.

However, NetNut gained a *significant advantage* in preparing the second IPRs on the '044 and '866 patents by retaining the same lawyers BI Science had used to prepare its IPRs on the '044 and '866 patents, and by filing IPRs with substantially the same grounds as those filed by BI Science, including asserting the same body of prior art against the same sets of claims of the '044 and '866 patents.

While NetNut's hiring the BI Science lawyers and expert to file IPRs asserting substantially the same grounds may not expressly fall within the scope of Factor 3, it nevertheless provided a significant advantage to NetNut to quickly and cheaply prepare its IPRs on the '044 and '866 patents.

Finally, the fact that NetNut waited until long after the BI Science IPR petitions had been terminated raises serious questions as to the reason for NetNut's extended delay.

On the facts underlying this petition, Bright Data submits that Factor 3 weighs against institution.

4. Factor 4

General Plastic Factor 4 is the length of time that elapsed between the time the petitioner learned of the prior art asserted in the second petition and the filing of the second petition. As explained above, NetNut has not disclosed when it first became aware of the prior art asserted in the second petition, which is the same prior art asserted in the first petition. Presumably that occurred when NetNut became aware of the first petition, but NetNut has not disclosed when it learned of the asserted prior art. NetNut has also not explained when it first became aware of the IPR petitions that Bi Science had filed challenging the '044 and '866 patents. Instead, the record shows only what NetNut did do - It waited until January 22 and 25, 2021 to file IPRs challenging the '044 and '866 patents, only *after* it filed requests for reexamination on the '511 and '968 patents.

On the facts underlying this petition, Bright Data submits that Factor 4 weighs against institution.

5. Factor 5

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

Because NetNut has not explained when it became aware of the first petitions (filed by BI Science) on the '044 and '866 patents and the prior art cited therein, it

has not explained why it waited so long after the first petition was terminated in April 2020, to file, on January 22 and January 25, 2021, respectively, its IPR petitions on the '044 and '866 patents asserting the same prior art against the same claims.

On the facts underlying this petition, Bright Data submits that Factor 5 weighs against institution.

6. Factor 6

General Plastic Factor 6 is the finite resources of the Board. Patent Owner submits that this is not a case in which the Board should utilize its finite resources.

NetNut has not been accused of or sued for infringement of the '044 or '866 patents by Bright Data so it has no direct interest in the patentability of the '044 and '866 patents. Nor has NetNut otherwise alleged any direct interest in the patentability or unpatentability of the '044 and '866 patents, other than Bright Data has pending litigation involving other patents. (Petition at 11-12).

Importantly, NetNut's actions confirm that it is primarily interested in using these '044 and '866 IPRs to put settlement pressure on Bright Data with respect to its ongoing district court litigation involving the '511 and '968 patents. This became apparent when NetNut filed its IPRs on the '044 and '866 patent on January 22 and 25, 2021, respectively, **ONLY AFTER** it filed its *ex parte* requests for reexamination on the '511 and '968 patents on December 4, 2020 and January 12, 2021. And that

was even though the '044 and '866 IPRs were relatively inexpensive for NetNut to prepare using the same counsel and expert and prior art that BI Science had used. Thus, NetNut's own actions demonstrate that it has prioritized its Patent Office filings to address the '511 and '968 patents that are in litigation rather than the '044 and '866 patents.

On the facts underlying this petition, Bright Data submits that Factor 6 weighs against institution.

7. Factor 7

General Plastic Factor 7 is the requirement under 35 U.S.C. § 316(a)(11) to issue a final determination not later than 1 year after the date on which the Director notices institution of review. This factor appears to be neutral under the present facts.

8. Additional Factors

General Plastic and *United Fire Protection* both explicitly state that the seven *General Plastic* factors are non-exhaustive. (See, e.g., *General Plastic* at 16, "Such a non-exhaustive list of factors informs practitioners and the public of the Board's considerations in evaluating follow-on petitions.") Thus, the Board fully contemplated that situations may arise in which consideration of additional factors may be appropriate in deciding whether or not to institute. Patent Owner suggests that this is just such a case and proposes two additional factors.

First, under Factor 3 above, which is whether the second petitioner gained an advantage from the first petition by filing the second petition after the POPR was filed in the first IPR, or after the Board issued a decision on whether to institute the first IPR, Patent Owner described additional advantages gained by Second Petitioner NetNut as a result of retaining the same lawyers and expert that had prepared the first petitions on behalf of BI Science. These include the lawyers and expert already being knowledgeable about the patents, the challenged claims, the prior art and the way the prior art might be applied to the claims in the context of an IPR. This made filing the second petitions much less time consuming and much less expensive than if attorneys without this knowledge and experience had been retained by NetNut. If the Board believes that these advantages do not expressly fall within the scope of Factor 3, Bright Data respectfully requests that these factors nevertheless be considered under a new factor, named something along the lines of “Additional advantages gained by the second petitioner from the first IPR in filing the second petition.” For the purposes of this POPR, Patent Owner will refer to this factor as “Factor 8.” For the reasons explained above, Patent Owner submits that this Factor 8 weighs against institution.

Similarly, in considering Factor 6, the finite resources of the Board, Patent Owner included a series of facts showing that NetNut's primary concern appears to be the '511 and '968 patents asserted against it in the litigation filed by Bright Data

in the Eastern District of Texas, and that NetNut is therefore using the Board and these IPRs on the '044 and '866 patents, which it has not been accused of infringing nor sued on for infringement, as a tool to put pressure on Bright Data to settle the district court litigation. If the Board believes that these facts do not expressly fall within the scope of *General Plastic* Factor 6, Patent Owner respectfully requests that the Board nevertheless consider such facts and analysis under an additional factor, such as, "Whether there is parallel district court litigation involving the patent(s) subject to the second petition, and if not, whether the second petitioner appears to be using the second petition as a means to settle other litigation between the parties." For the purposes of this POPR, Patent Owner will refer to this factor as "Factor 9."

For the reasons explained above, Patent Owner submits that this Factor 9 weighs against institution.

D. *General Plastic* Factors Summary

As explained above, Petitioner failed to explain numerous facts relevant to the determination of whether to institute IPR, including when it knew of the prior art underlying its Petitions, when it knew of the earlier petitions that BI Science had filed, when it knew that the BI Science PTAB proceedings had been terminated, and when it decided to retain the same firm and expert to prepare and file petitions presenting "substantially the same grounds" against patents it had not been sued on. Because counsel for NetNut knew or should have known about the applicability of

the *General Plastic* factors when it filed its Petitions, and knowingly chose not to provide this information, Patent Owner respectfully submits that Factors 2, 3, 4, 5 and 6 favor discretion not to institute.

Additionally, if the Board determines that the facts of this case do not fall squarely within existing Factor 3 or Factor 6, Patent Owner respectfully requests that the facts be considered under proposed new Factors 8 and 9 as discussed above.

In summary, five factors (2, 4, 5 and 3 or 8, and 6 or 9) favor non-institution, while Factor 1 and Factor 7 appear neutral. The *General Plastic* factors thus strongly support discretion not to institute.

E. Petitioner NetNut Improperly Attempts to Apply The *Fintiv* Factors, Which are Inapplicable Because There is No Parallel District Court Litigation Involving the '044 and '866 Patents

Petitioner has also misapplied the *Fintiv*⁹ factors to the present scenario when they clearly do not apply. (See Petition at 13). Specifically, the *Fintiv* factors apply where an IPR is filed and an underlying parallel district court action is pending with respect to the same patent(s). (*Fintiv* at 2-3). That is not true here. Under the present facts, Patent Owner sued Petitioner for infringement of the '511 and '968 patents,

⁹ *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential)

but Petitioner filed IPRs with respect to the '044 and '866 patents, which are not being asserted against any entity in any pending district court case.¹⁰ Petitioner is therefore wrongfully attempting to apply *Fintiv* by comparing the '511 and '968 district court action to the IPRs involving the '044 and '866 patents. The Petition, for example, discusses the prospects of: (i) a district court stay (Petition at 13) (which is the *Fintiv* Factor 1 consideration) when there is no pending district court action involving the '044 and '866 patents; (ii) conflicting decisions (Petition at 13) (a *Fintiv* Factor 4 consideration as to the overlap between the issues addressed by the district court and IPR with respect to the same patent); (iii) as well as the merits of the challenges (Petition at 12), which is an example of a *Fintiv* Factor 6 consideration. (*Fintiv* at 14). This cross-comparison of the details of district court and IPR proceedings involving different patents makes no sense whatsoever.

¹⁰ Presumably, NetNut filed *ex parte* reexamination requests against the patents being asserted in the lawsuit to avoid the risk of estoppel that might attach if IPR petitions were filed and then instituted.

III. THE '866 PATENT INVENTION CLAIMS A TWO DEVICE/ONE SERVER NETWORK TOGETHER WITH CONTENT SLICING THAT IS DISTINGUISHABLE FROM THE PRIOR ART CITED BY PETITIONER

The '866 patent describes a novel network using two devices and one server to allow a client device to fetch web content from a specific web server via intermediate tunneling devices. Ex. 2001, ¶ 25. The Challenged Claims further recite content slicing as an element of the claims. *Id.* As the Abstract of the '866 patent explains, the patent discloses and claims:

A method for fetching a content from a web server to a client device is disclosed, using tunnel devices serving as intermediate devices. The client device access[es]-sic an acceleration server to receive a list of available tunnel devices. The requested content is partitioned into slices, and the client device sends a request for the slices to the available tunnel devices. The tunnel devices in turn fetch the slices from the data server, and send the slices to the client device, where the content is reconstructed from the received slices. A client device may also serve as a tunnel device, serving as an intermediate device to other client devices. Similarly, a tunnel device may also serve as a client device for fetching content from a data server. The selection of tunnel devices to be used by a client device may be in the acceleration server, in the client device, or in both. The partition into slices may be overlapping or non-overlapping, and the same slice (or the whole content) may be fetched via multiple tunnel devices.

Ex. 1001, at Abstract; Ex. 2001, ¶ 25.

Further, specification of the '866 patent describes its technical field at Column 1, lines 13-19 (patent cites hereinafter recited in format 1:13-19). Ex. 2001, ¶ 26.

Fig. 5 of the '866 patent, copied below, depicts one embodiment disclosed in the "Detailed Description of the Invention."

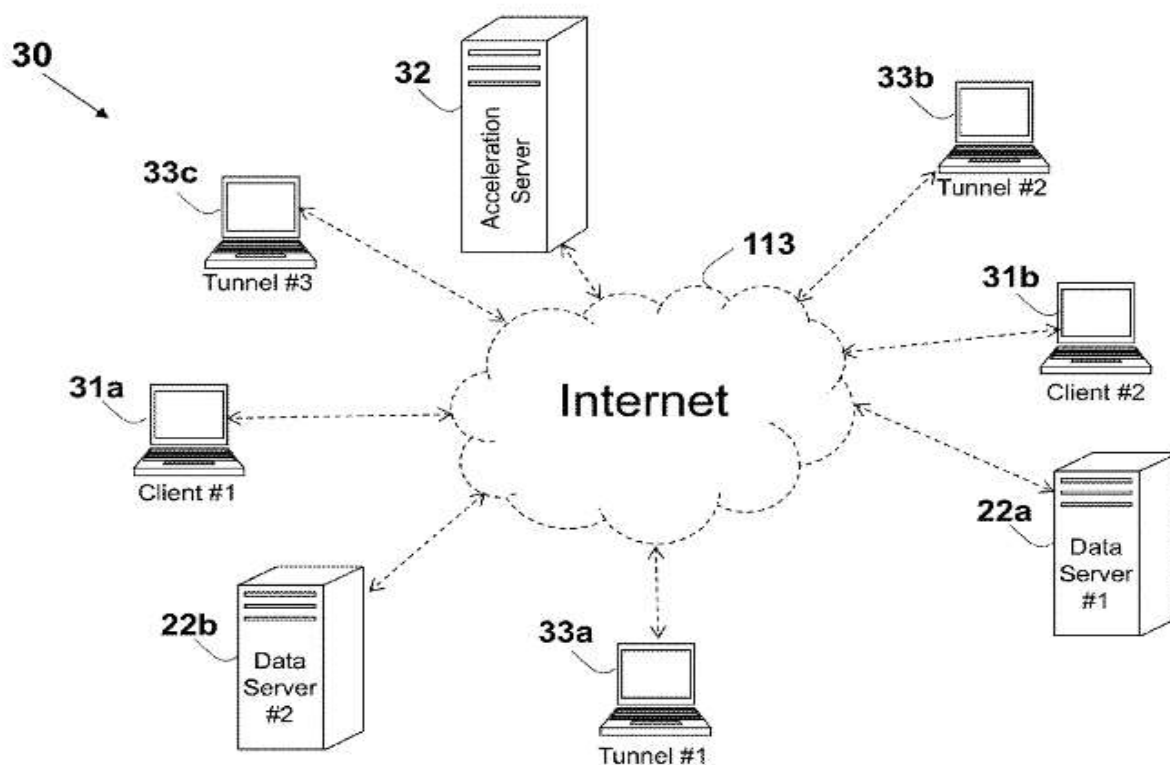


FIG. 5

Fig. 5 of the '866 patent.

Ex. 2001, ¶ 26.

Importantly, Fig. 5 depicts the architecture that is referenced in the methods recited in the Challenged Claims. Ex. 2001, ¶ 27. Notably, the architecture includes:

(i) client #1 31a; (ii) tunnel #1 33a; and (iii) acceleration server 32. *Id.* Data server #1 22a, which is outside of the network and which holds content sought by client #1 31a, is also shown. *Id.* This two device/one server architecture (client #1 31a, tunnel #1 33a, and acceleration server 32) is novel and unique and differs significantly from the references cited and discussed by Petitioner. *Id.*

As the Abstract of the '866 patent explains, “[a] method for fetching a content from a web server to a client device is disclosed, using tunnel devices serving as intermediate devices.” Abstract; Ex. 2001, ¶ 28. Importantly, the Abstract explains that the method is used to “fetch” content “from” a web server using one or more “tunnel devices serving as intermediate devices.” *Id.* (Emphasis added). The Abstract further explains that “[a] client device may also serve as a tunnel device, serving as an intermediate device to other client devices.” *Id.*

The Abstract clarifies that the disclosed methods use two “devices” (*i.e.*, a “client device” and a “tunnel device”) to allow the first device to obtain content from a web server via the second device. Ex. 2001, ¶ 29. A POSA would understand that the patent's use of the terms “device” and “tunnel device,” as opposed to other term such as “proxy” or “proxy server,” has meaning within the '866 patent, clarifying the different nature of those elements. *Id.* Thus, the inventions of the '866 patent contemplate a two device/one server architecture over which the claimed methods can be practiced. *Id.*

Fig. 5b, copied below, and associated discussion in the '866 patent at 83:25-86:11, generally describe one embodiment of the inventions of the '866 patent. Ex. 1001, at 83:25-86:11, Fig. 5b; Ex. 2001, ¶ 30.

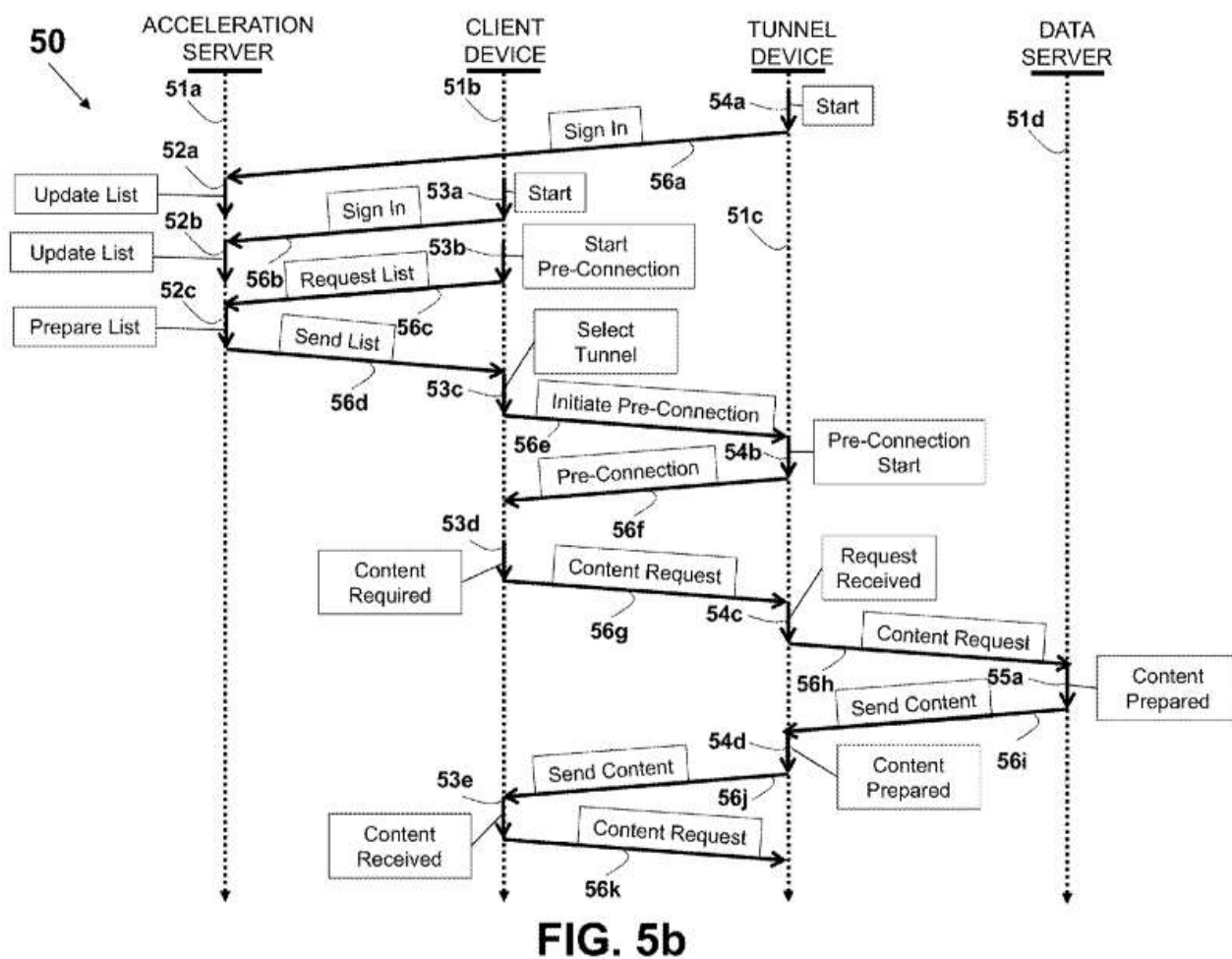


Fig. 5b of the '866 patent.

Id.

As shown in Fig. 5b and as discussed in the accompanying description, a Client Device desires content to be fetched from a Data Server. Ex. 2001, ¶ 31. The

Client Device signs in (53a) to an Acceleration Server and then sends a request (53b) to the Acceleration Server. *Id.* The Client Device receives the IP address of an appropriate Tunnel Device (56d). *Id.* The Client Device then sends a fetch content request (56g) to the Tunnel Device. *Id.* The Tunnel Device fetches the requested content from the Data Server (56h, 56i) and then provides the requested content to the Client Device (53e). *Id.*

The '866 patent further provides the ability to obtain and to reconstruct content from content slices. Ex. 2001, ¶ 32. As the '866 patent explains, the content requested by the client device may be portioned into multiple parts or slices (the '866 patent at 53:37-38) and the devices may be organized in groups (the '866 patent at 54:30-49). *Id.*

Petitioner recognizes that its cited prior art does not disclose this novel two devices/one server data retrieval network for fetching content slices. Petitioner has therefore resorted to recharacterizing the invention to suggest that one of the two “devices” is a conventional proxy or proxy server, thereby improperly attempting to reconstitute the network as having one device and two servers (and then ignoring the remaining specifics of the claims).

For example, the Petition (Paper 5 at 37) states that “Sharp KK discloses a client 4e using multiple proxies 3a-3c (‘a group of multiple devices’) to download content originating from server 2 (‘a first server’).” Likewise, Petitioner’s own

expert, Mr. Teruya, cites to “Embodiment 3” of Sharp KK as allegedly disclosing the claimed “devices.” Ex. 1003 at ¶66. Reviewing Sharp KK, and in particular Figure 30 (which depicts Embodiment 3), it is clear that the disclosed “proxies” 3a/3b/3c are distinct and perform completely different roles than the claimed “devices.”

Based on the foregoing, and for additional reasons discussed below, a POSA would not equate the “devices” disclosed and claimed in the ‘866 patent with “proxies” or “tunneling proxies” as those terms may have been known or understood at the time of the invention.¹¹ Ex. 2001, ¶ 33.

The prior art cited by Petitioner in Grounds I to V is also already of record and/or cumulative of art considered by the Examiner during prosecution.¹²

¹¹ In IPR Petition IPR2021-00458 challenging US Patent No. 9241,044 *which shares the same specification as the ‘866 Patent*, Petitioner admitted that the use of the term “tunnel device” used in the specification “is not a term of art.” (‘044 Petition at 13, fn. 3).

¹² See PTAB Consolidated Trial Practice Guide (November 2019) at 61 (discussing 35 U.S.C 325(d)): “...[T]he Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.”

Beginning at page 29 of the Petition is a section entitled, “OVERVIEW OF PRIOR ART REFERENCES.” In addition to more general comments, Petitioner discusses the following alleged prior art: (a) Sharp KK, EP Pat. Pub. No. 2597869 A1 – which appears on the face of the ‘866 patent;¹³ (b) “Shribman” – the ‘866 patent inventors’ own prior published patent application, which the PTO has already considered; (c) Internet RFCs¹⁴ 2616 and 3040 – RFC 2616 is listed on page 4 of the ‘866 patent under “Other Publications” and it discussed in the specification; (d) ISO/EIC 23009-1:2012(E), “MPEG-DASH” standard, Jan. 5, 2012; and (e) Prior Art Proxies, e.g., “SQUID” and “Luotonen.” Petitioner acknowledges that such “proxy servers” are already recited in the ‘866 patent (Petition at 35-36).

Notably, by Petitioner’s own admission, only RFC 3040 and Item “d” (“MPEG-DASH”) constitute “new” art that was not already of record or encompassed within art of record when the PTO allowed the claims of the ‘866

¹³ The Petition asserts that “Sharp KK was not considered by the Patent Office during prosecution of the ‘866 patent.” (Petition at 29). However, the Sharp KK reference DOES appear on the face of the ‘866 patent among the “Foreign Patent Documents” that were considered by the Examiner.

¹⁴ “RFC” is a commonly used acronym in standards activities and stands for “Request For Comment.”

patent. Neither RFC 3040 nor the MPEG-DASH reference are applied as primary references in the Grounds. In fact, searching Petitioner's Grounds for any discussion of MPEG-DASH reveals that *the reference is mentioned in the title of Ground 2 but then not discussed at all in the analysis – Not One Word*. Petition at 45-47. Similarly, RFC 3040 is only mentioned in Ground 5 of the Petition as part of a 3-way obviousness combination and the only citation to RFC 3040 is for a definition – “defining ‘user agent cache’ and ‘The cache within a user agent program.’” Petition at 57.

Similarly, although Petitioner identified a “Luotonen” publications as part of its discussion of “Prior Art Proxies” (Item e, above), Petitioner's discussion of Luotonen (Ex. 1014) in Grounds 4 and 5 confirms that Petitioner is only citing Luotonen as an example of prior art proxy servers *of the type already of record in the ‘866 patent* (See, e.g., “Chunking of content as recited in claim 15 is simply routine, and such requests are regularly proxied by garden variety prior art proxies, and such proxies are extremely well document in references such as Luotonen, Web Proxy Servers.” (Petition at 50-51); “Luotonen further discloses having a pool of proxy servers ...” (Petition at 51)).

The Examiner responsible for allowing the claims of the ‘866 patent already considered prior art of each of these types asserted by Petitioner (including several of the very same references), thus rendering Petitioner's arguments *cumulative of*

art already of record. By way of example, the Examiner already allowed the claims of the '866 patent over: (a) numerous RFCs, including RFC 2016 (*See, e.g.*, 4:58-5:4); (b) data center and server proxies (*See, e.g.*, 27:25-47); (c) the Shribman patent publication (issued as U.S. 8,560,604 cited on Page 2 of the '866 patent); (d) VPN and proxy server services (such as disclosed in '866 specification 27:25-47 and 30:15-67); and (e) content distribution/delivery systems (such as disclosed in Sharp KK which is cited on the face of the '866 patent).

At the time of invention of the '866 patent, the prior art included three general types of systems: (i) client-server proxy systems, which included VPN proxies and other types of proxy connections; (ii) peer-to-peer networking systems which included proxies; and (iii) content distribution/delivery systems which included proxies. Ex. 2001, ¶ 34. Each of these types of systems is discussed below.

Client-server proxy systems generally involve using a “server” as a proxy to obtain content for a requesting “client.” Ex. 2001, ¶ 35. Luotonen (Ex. 1014) (addressed in more detail below) is merely another example of this type of system. *Id.* Traditional proxy server systems like Luotonen were already disclosed to the Patent Office during prosecution of the '866 patent, including, for example: (i) as disclosed in '866 specification 27:25-47 and 30:15-67; (ii) “Internet Engineering Task Force (IETF) RFC 2547 ‘BGP/MPLS VPNs’, Mar. 1999” (Ex. 2007); and (iii)

“Internet Engineering Task Force (IETF) RFC 4026 ‘Provider Provisioned Virtual Private Network (VPN) Terminology’, Mar. 2005” (Ex. 2008). *Id.*

The second type of content acquisition involves obtaining information from a peer-to-peer network to access information that does not need to be current and preferably is obtained from cached content. Ex. 2001, ¶ 36. Unlike peer-to-peer networking, the inventions of the ‘866 patent solves the problem of obtaining *fresh* content slices from a target web server via an innovative tunnel network. *Id.* The tunnel network of the ‘866 patent, by acting differently from a peer-to-peer network, prevents the content source from blocking content or sending “spoofed” content based on the requester’s identifying information, thereby providing access to fresh content. *Id.*

Using a peer-to-peer network infrastructure to obtain content was already disclosed to the Patent Office during prosecution of the ‘866 patent, including, for example, in:

- U.S. Patent No. 7,203,741 to Marco *et al.* (Ex. 2005); and
- U.S. Pat. App. Pub. No. 2003/0204602 to Hudson *et al.* (Ex. 2006).

Ex. 2001, ¶ 37.

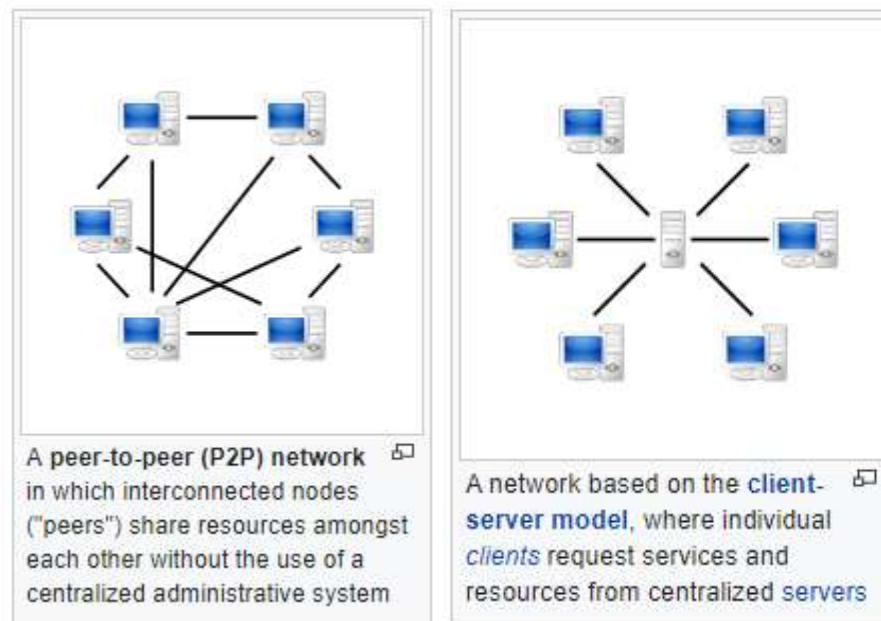
Peer-to-peer networks were known by POSAs as of the priority date of the ‘866 patent, and articles regarding peer-to-peer networks describe them as an alternative to client-server architecture. Ex. 2001, ¶ 38. See, for example, “A Brief

History of P2P Content Distribution.”¹⁵ Ex. 2010; Ex. 2001, ¶ 38. As that article notes, “In a server-based architecture, the more demand for a file, the more bandwidth cost it consumers [*sic* likely “to its consumers”]. In a peer to peer system, the more a file is requested, the more nodes are seeding it, lowering the delivery cost per-file distributed. The role of audience in the equation is inverted.” *Id.*

Also, the Wikipedia entry on “peer-to-peer” networks characterizes such networks in essentially the same way, stating, “A peer-to-peer network is designed around the notion of equal peer nodes simultaneously functioning as both ‘clients’ and ‘servers’ to the other nodes on the network.”¹⁶ Ex. 2011; Ex. 2001, ¶ 39. This model of network arrangement differs from the client–server model where communication is usually to and from a central server.” *Id.* Wikipedia illustrates the difference between peer-to-peer networks and a client-server model:

¹⁵ See <https://medium.com/paratii/a-brief-history-of-p2p-content-distribution-in-10-major-steps-6d6733d25122> (Last visited on May 22, 2021). Ex. 2010.

¹⁶ See <https://en.wikipedia.org/wiki/Peer-to-peer> (Last visited on May 22, 2021). Ex. 2011.



Graphic from Wikipedia entry for “peer-to-peer” networks. Ex. 2011.

Id.

A POSA as of the priority date of the ‘866 patent would have understood that a peer-to-peer network was used to distribute a particular content widely, and that users could obtain the content from one or more sources within such a network. Ex. 2001, ¶ 40. A POSA further would have understood the distinction between a peer-to-peer network and a client-server model. *Id.*

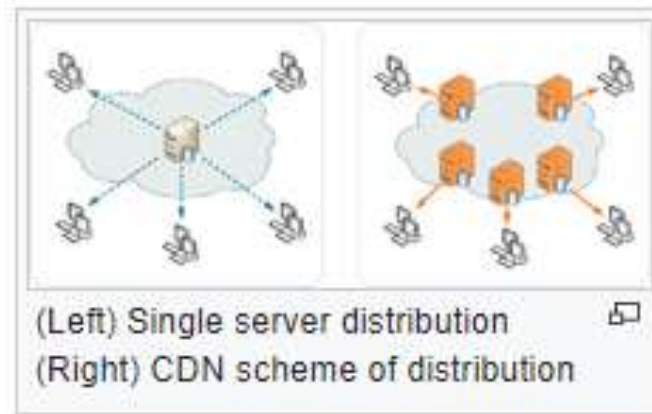
In a peer-to-peer network, the user is not concerned with the first origination of a particular content, but instead seeks a content such as a song or video file from any available source or sources in the network. Ex. 2001, ¶ 41. The prior art asserted in the Grounds shows that the same is true for the references cited therein, *i.e.*, the

intent remains to obtain content from somewhere *inside* that network rather than from a targeted and specifically identified source *outside* the network. *Id.*

Content Delivery Networks (“CDNs”) were also known as of the priority date of the ‘866 patent, given that a CDN is referenced in the ‘866 patent at 165:62-65. Ex. 1001, at 165:62-65; Ex. 2001, ¶ 42.

Further, the Wikipedia entry for “Content delivery network” states that “The goal [of such networks] is to provide high availability and high performance by distributing the service spatially relative to end-users. CDNs serve a large portion of the Internet content today, including web objects (text, graphics and scripts), downloadable objects (media files, software, documents), applications (e-commerce, portals), live streaming media, on-demand streaming media, and social media sites. CDNs are a layer in the internet ecosystem. Content owners such as media companies and e-commerce vendors pay CDN operators to deliver their content to their end users. In turn, a CDN pays ISPs, carriers, and network operators for hosting its servers in their data centers.”¹⁷ Ex. 2012; Ex. 2001, ¶ 43. That Wikipedia entry also includes a graphical representation of a CDN versus a traditional client-server model as follows:

¹⁷ See https://en.wikipedia.org/wiki/Content_delivery_network (Last visited on May 22, 2021). Ex. 2012.



Graphic from Wikipedia entry for “Content delivery network.” Ex. 2012.

Id.

A POSA as of the priority date of the ‘866 patent would have understood CDNs in keeping with their high-level definition such as that provided by Wikipedia. Ex. 2001, ¶ 44. Further, a POSA would have understood that the purpose of a CDN is to provide content quickly and efficiently without overloading a centralized content server. *Id.*

As mentioned above, the Luotonen reference relied upon by Petitioner (Ex. 1014) adds nothing to the art that the ‘866 patent claims were already allowed over. Ex. 2001, ¶ 45. In fact, by its own terms, Luotonen is about “Web Proxy Servers.” Ex. 1014, at Title; Ex. 2001, ¶ 45. In fact, proxy servers are discussed at length in the specification of the ‘866 patent at 27:25-54. Ex. 1001, at 27:25-54; Ex. 2001, ¶ 45.

Similarly, Petitioner's citation to Sharp KK (Ex. 1018) is unconvincing as Sharp KK (which, as noted above, is already of record), differs significantly from the claimed inventions. Ex. 2001, ¶ 46. For example, Sharp KK discloses a "content distribution system" (Title, Page 1) which is configured to reduce load on the ultimate content server. *Id.* Importantly, because it is a CDN, Sharp KK discloses a closed system – all available content resides on the server(s) within the system, with previously cached copies (possibly) stored on one or more of the proxies (3a/3b/3c of Embodiment 3 as shown in Fig. 20). *Id.* In every case, the content that can be requested by a client must already be within the system of Sharp KK as there is no provision to issue requests for content not already within the system. Ex. 1018, at Figs. 20 and 24 (showing content originates from server 2). *Id.* Additionally, as mentioned above, the proxies 3a/3b/3c are also not "tunnel devices" or "client devices" which is evident even from the depictions of the proxies in Fig. 20. Challenged Claim 15 – the only challenged independent claim – expressly recites "wherein each of the devices in the group is a client device." *Id.* By its own express terms, the "proxies" 3a/3b/3c of Sharp KK are not "client devices" as devices of that

general nature are shown and described as elements 4e/4f (which perform very different roles).¹⁸ *Id.*

None of these known systems includes the features recited in the Challenged Claims to address the problems solved by the '866 patent. Ex. 2001, ¶ 47. A key innovation of the '866 patent is that it uses a new type of network that differs substantially from a peer-to-peer network or CDN to solve different problems and to achieve different benefits. *Id.* The two device/one server network of the '866 patent enables un-traceability coupled with the ability to obtain fresh content slices via a specifically-selected tunnel device. *Id.* This may permit, for example, a user to fetch content from a server as if the user were using a particular residential device in a particular geographic location, an important activity in industry for data collection. *Id.*

As explained above, the Grounds merely include systems of the types already considered by the original Examiner. Ex. 2001, ¶ 48. Additionally, the alleged prior art advanced by Petitioner fails to teach or suggest the specific elements of the Challenged Claims. Accordingly, Patent Owner respectfully requests that the PTAB deny institution. *Id.*

¹⁸ Elements 4e/4f shown in Fig. 20, although labeled as “clients,” likewise perform very different roles than the “client devices” recited in Claim 15.

IV. CONCLUSION

As explained above, Patent Owner submits that under consideration of all appropriate discretionary factors, the Board should decline to institute the requested IPR. Moreover, because the Grounds merely rely on systems of the types already considered by the original Examiner, the Board should decline to institute on that basis as well. For the reasons set forth above, Patent Owner respectfully requests that the Board deny institution.

Respectfully submitted,

Date: May 24, 2021

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

The undersigned hereby certifies that the portions of this Patent Owner's Preliminary Response ("POPR") specified in 37 C.F.R. § 42.24 has 7990 words, in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word/Office 365 and includes words added to images as annotations.

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