

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BRIGHT DATA LTD.,
Petitioner,

v.

METACLUSTER LT, UAB,
Patent Owner.

IPR2021-00983
Patent 10,601,948 B1

Before DEBRA K. STEPHENS, BRYAN F. MOORE, and
BARBARA A. PARVIS, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION

Denying Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

A. *Background and Summary*

Bright Data LTD. (“Petitioner”) filed a petition for *inter partes* review (Paper 1 (“Pet.” or “Petition”)) challenging claims 1–20 of U.S. Patent 10,601,948 B1 (Ex. 1001 (“’948 Patent”)). Metacluster Lt, UAB (“Patent Owner”) timely filed a Preliminary Response (Paper 6 (“Prelim. Resp.”)). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides as follows:

(a) THRESHOLD.—The Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 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

(35 U.S.C. § 314(a)).

Petitioner challenges claims 1–20 as unpatentable under 35 U.S.C. § 103 or § 103 (Pet. 3). Generally, Patent Owner contends that the Petition should be denied as to all challenged claims (*see* Prelim. Resp.). Based on our review of the record, we conclude Petitioner is not reasonably likely to prevail in demonstrating that at least one of the challenged claims is not patentable.

B. *Real Parties in Interest*

Patent Owner states that Metacluster Lt, UAB is the real-party-in-interest (Paper 5, 1).

Petitioner states that Bright Data LTD is the real-party-in-interest (Pet. 1).

C. Related Matters

According to Petitioner, the '948 Patent “is not currently the subject of any federal court litigation or any allegation of invalidity” (Pet. 1). Patent Owner does not identify any proceedings related to the '948 Patent (*see generally* Paper 5).

D. The '948 Patent

The '948 Patent, titled “Smart Proxy Rotator,” issued March 24, 2020 (Ex. 1001, codes (45), (54)). The '948 Patent describes a system for rotating which proxy a client will use (*id.* at 3:28–34). By way of background, the '948 Patent explains that, “[w]hen a client sends a web request,” e.g., a request for a web page from a web server, “the request goes to [a] proxy server first” (*id.* at 2:2–6). Acting as an intermediary between the client and web server, the “proxy server . . . makes the web request on the client's behalf, collects the response from the web server, and forwards the web page data so that the client can see the page in the browser” (*id.* at 1:29–31, 2:3–6). The '948 patent describes issues arising with the use of proxies, e.g., “[i]f the same proxy is used for too many requests, the proxy will ultimately be banned by the Internet service provider or the web page” or “[i]f too many requests come in from one IP address in a short period of time, then the site will return some sort of error message and disallow the requests from that proxy” (*id.* at 2:46–53). The '948 Patent states that rotating proxies addresses such problems and, further, purports to disclose an improved “efficient manner” of rotating proxies using a Smart Proxy Rotator (SPR) (*id.* at 2:53–55, 3:28–31, 6:62–55). Figure 1 of the '948 Patent, reproduced

below, is a component diagram showing the architecture of a system including such an SPR (*id.* at 4:42–44, 8:23–24).

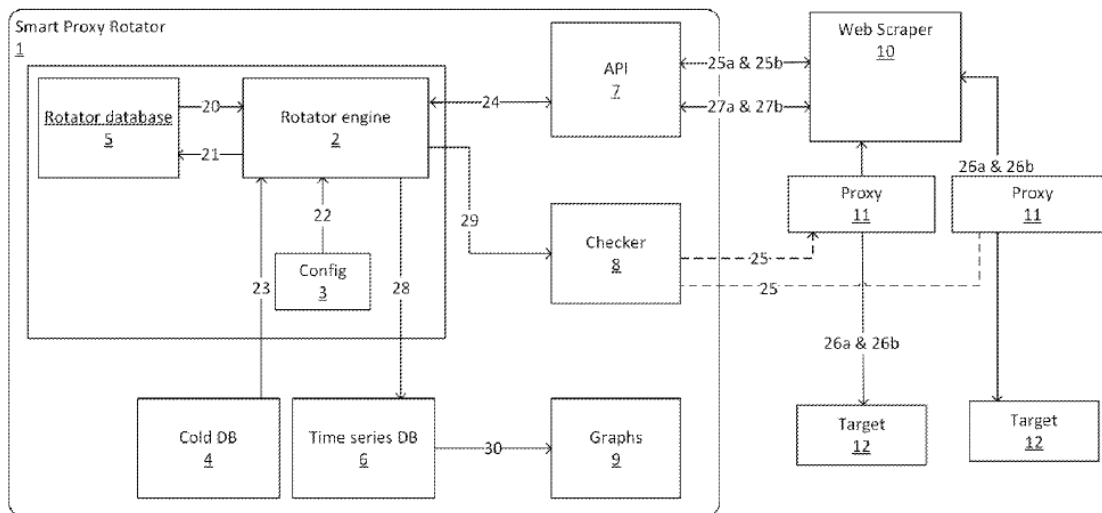


Figure 1

As shown in Figure 1, “elements 1 through 9 are the comprising parts of [a] Smart Proxy Rotator” (*id.* at 5:1–2) while “elements 10 through 12 are external systems” (*id.* at 5:2–3). Specifically, external system element 10 is a “Web Scraper,” element 11 is a “Proxy,” and element 13 is a “Target” or “Target Server” (*id.* at 5:48, 5:64, 6:24). Web Scraper 10 accesses web content provided by Target 12, i.e., a web server, through intermediary Proxy 11, i.e., a proxy server, (*id.* at 5:48–6:8, 6:24–25). There may be multiple Proxies 11; the particular Proxy 11 which Web Scraper 10 uses is selected by SPR 1 (*id.* at 8:13–15, 8:26–29). Moreover, SPR 1 selects that particular proxy to “avoid[] using proxies with a higher error rate” by “balanc[ing] proxies 11 in the list [of proxies] and prevent[ing] the proxies from going down when the proxies are over-used or the Error rate 15 [from a proxy] is increased” (*id.* at 3:65–66, 6:52–55).

Figure 2, reproduced below, is a sequence, or flow, diagram illustrating “two primary functionalities” of SPR 1: first, selecting a proxy

for Web Scraper 10 to use to request web data from Target 12; and second, monitoring and updating the selected proxy's service quality (*id.* at 4:45–46, 8:24–45).

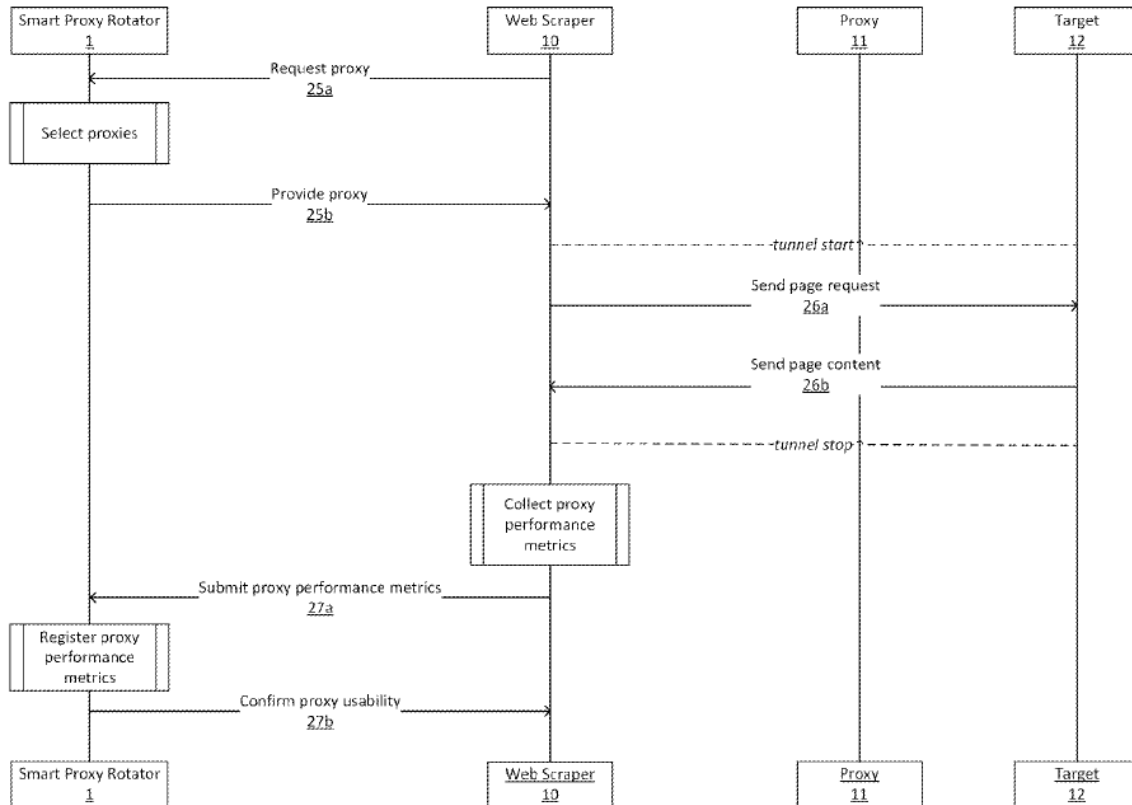


Figure 2

Regarding SPR 1's first primary functionality, shown in the top half of Figure 2, the

use of the SPR 1 begins with the Client's Web scraping 10 software connecting to SPR 1 making a web scraping or other data gathering request. Web Scraper 10 contacts SPR 1, requesting a proxy for every request for the target content, e.g. a web page. The process further comprises: SPR 1 accepting a request for a proxy from a client's Web [S]craper 10 (step 25a), [and] selects a proper proxy

(*id.* at 9:4–12; *see id.* at 8:26–29). SPR 1 “select[s] a proper proxy” from a proxy provider “according to the currently valid operational settings”

(*id.* at 8:26–29, 9:17–23). Operational settings include, amongst other

settings, a “proxy provider’s weights,” i.e., “provider utilization priorities” (*id.* at 8:31–37, 9:17–20). Then, “SPR 1 send[s] the selected proxy’s identification and connectivity information to the client’s Web [S]craper 10 . . . (step 25b)” (*id.* at 9:26–31). After Web Scraper 10 receives the selected proxy information from SPR 1, Web Scraper 10 uses “the [selected] proxy to perform a request (step 26a) and obtain[s] the target data through the provided proxy (step 26b)” (*id.* at 9:26–34).

Regarding SPR 1’s second primary functionality, shown in the bottom half of Figure 2, Web Scraper 10 captures “relevant quality/performance metrics for the [previous] proxy session and collect[s] the performance and availability information of the proxy” and sends that information to SPR 1 (*id.* at 9:34–40). Using that collected proxy performance information, SPR 1 performs “quality metrics analysis and dynamic modification of . . . operations settings,” for example, “modifying the load directed at the [proxy] provider” by “reducing or increasing the utilization threshold relative to other [proxy] providers or disabling the [proxy] provider” (*id.* at 9:46–48, 9:61–65). The utilization threshold for a proxy provider is modified by calculating a weight for the proxy provider, which the proxy provider’s utilization threshold is based on (*id.* at 13:65–14:2, 14:27–30). For example “if one provider has a weight equal to 10, and the other provider has a weight equal to 20, the proxy rotator should use the second provider 66.6% of the time and the first provider 33.3% of the time,” and those “percentages are the utilization thresholds of each provider” (*id.* at 8:2–8). By “changing the utilization threshold of proxy providers that is based at least in part upon usage history and availability of the proxies,” the system purports to avoid “possible overuse of [a] proxy provider” (*id.* at 15:21–25).

Additionally, the '948 Patent further explains, in its background that a “proxy can encrypt the client's data so that the client's data becomes unreadable in transit” (*id.* at 2:11–12). In some embodiments, “a Web Scraper “obtain[s] a first proxy” and the Web Scraper “establish[es] an encrypted connection with the target server through the first proxy, to request and receive the content designated within the request through the encrypted connection” (*id.* at 14:3–11).

E. Challenged Claims

Challenged claims 1, 10, and 17 are independent. Claim 1 is reproduced below.

1. A computer-implemented method for dynamically configuring a utilization threshold of a proxy provider, the method comprising:

running a smart proxy rotator (SPR) on a computing device connected to a network;

obtaining a proxy from the SPR, according to currently valid SPR operational settings, by a Web Scraper to use for a request for content;

establishing, by the Web Scraper, an encrypted connection to a target server through the proxy;

requesting and obtaining the content designated within the request, through the encrypted connection, by the Web Scraper;

providing, by the Web Scraper, performance and availability information of the proxy to the SPR;

calculating, at the SPR, a weight for the proxy provider;
and

dynamically configuring utilization threshold of the proxy provider based on the calculation.

(Ex. 1001, 16:21–39).

F. References Relied Upon

Petitioner relies upon the following prior art references:

Reference	Exhibit
Smith, US 2017/0155623 A1, published June 1, 2017	1006
Raja, US 2008/0225710 A1, published Sept. 18, 2008	1007
Shribman, US 9,241,044 B2, issued Jan. 19, 2016	1008

(Pet. 3).

Petitioner also relies on the Declaration of Dr. V. Thomas Rhyne (Ex. 1003).

Patent Owner relies on the Declaration of Dr. James Olivier (Ex. 2003).

G. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–20 are unpatentable on the following grounds:

Claim Challenged	35 U.S.C. §	References/Basis
1-9, 17–20	102	Smith
10–16	103	Smith, Raja
10, 14	102	Shribman
1–3, 7, 10, 12, 14, 17, 18	103	Shribman
1–3, 7, 10, 12, 14, 17, 18	103	Shribman, Raja

(Pet. 3).

II. ANALYSIS

A. Level of Ordinary Skill in the Art

The level of skill in the art is a factual determination that provides a primary guarantee of objectivity in an obviousness analysis (*Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991))).

Petitioner asserts that a person of ordinary skill in the art (“POSITA”) in the technical field of the ’948 patent would have been an individual who had either (1) a bachelor’s degree or equivalent in the field of Electrical Engineering, Computer Engineering, or Computer Science, or in an equivalent field that includes network engineering as a topic of study, plus at least one year of industry technical experience in the computer network field, such as serving as an engineer for an Internet service provider performing network design, development, or configuration tasks, or as a software developer for network communications software or related utility software, or (2) as of that time, had at least three years of full-time technical experience as stated (or an equivalent combination of academic study and work experience). (Pet. 7 (citing Ex. 1003 ¶¶ 34– 35)).

Patent Owner does not contest Petitioner’s assertion (*see generally* Prelim. Resp.).

The prior art itself demonstrates the level of ordinary skill in the art at the time of the invention (*see Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining that specific findings regarding ordinary skill level are not required “where the prior art itself reflects an appropriate level and a need for testimony is not shown”) (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985))).

Based on the present record and the disclosure in the '948 Patent, and in light of Petitioner's definition of the level of ordinary skill in the art, we determine an ordinarily skilled artisan is: an individual who had (1) a bachelor's degree or equivalent in the field of Electrical Engineering, Computer Engineering, or Computer Science, or in an equivalent field that includes network engineering as a topic of study (hereinafter, "technical study"), plus at least one year of industry technical experience in the computer network field, such as serving as an engineer for an Internet service provider performing network design, development, or configuration tasks, or as a software developer for network communications software or related utility software, or (2) three years of full-time technical experience in the field of electrical engineering, computer engineering, or computer science or in an equivalent field that includes network engineering or network communications software (hereinafter, "technical fields"), or (3) an equivalent combination of academic study in technical study and work experience in the technical fields.

B. Claim Construction

In an *inter partes* review filed after November 13, 2018, we construe claim terms according to the standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–17 (Fed. Cir. 2005) (en banc) (37 C.F.R. § 42.100(b) (2019)). Under *Phillips*, claim terms are afforded "their ordinary and customary meaning" (*Phillips*, 415 F.3d at 1312). "[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention" (*id.* at 1313). "Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular

claim in which the disputed term appears, but in the context of the entire patent, including the specification” (*id.*). An inventor may rebut that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision (*In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994)). In the absence of such a definition, limitations are not to be read from the specification into the claims (*In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993)).

Petitioner does not offer any particular claim construction for any particular claim terms (*see* Pet. 8). Instead, Petitioner “gives the claim terms their plain and ordinary meaning in light of the specification and prosecution history as would have been read by a” person of ordinary skill in the art (*id.*).

Patent Owner proposes a number of claim terms to be construed. The ’948 Patent states “general terminology descriptions may be helpful . . . and are intended to be interpreted in the *broadest possible interpretation*” and further includes a description of the term “Smart Proxy Rotator” (Ex. 1001, 4:65–67, 5:4 (emphasis added)). Specifically, Patent Owner proposes definitions for the terms “Smart Proxy Rotator,” “Web Scraper,” “proxy”/“proxies,” “Proxy Provider,” and “utilization threshold” (Prelim. Resp. 14–21). We address those five proposed claim terms in turn below.

1. “Smart Proxy Rotator”

Patent Owner contends the ’948 Patent “defines the term ‘Smart Proxy Rotator’ as ‘a system coupled of separate components implementing a specific method and responsible for collecting statistical data, proxy control, rotation, maintenance, and reporting’” (Prelim. Resp. 15 (citing Ex. 1001, 5:4–7)).

The '948 Patent describes a Smart Proxy Rotator “as a system coupled of separate components implementing a specific method and responsible for collecting statistical data, proxy control, rotation, maintenance, and reporting” (*id.* at 5:4–7).

In accordance with the Specification’s “general terminology description,” we construe the term “Smart Proxy Rotator” as a system coupled of separate components implementing a specific method and responsible for collecting statistical data, proxy control, rotation, maintenance, and reporting.

2. “*Web Scraper*”

Patent Owner contends that the '948 Patent “defines the term ‘Web Scraper’ as ‘an at least partly automated computer program or script that gathers data or content from a network for the purpose of replicating content or for data analysis’” (Prelim. Resp. 16 (citing Ex. 1001, 5:48–51)). Patent Owner further asserts that the “Web Scraper is external to—is *not* part of—the Smart Proxy Rotator” because the '948 Patent describes the “Web Scraper” is an “*external system*[.]” (*id.* (citing Ex. 1001, 5:1–3)).

The '948 Patent states “general terminology descriptions may be helpful . . . and are intended to be interpreted in the broadest possible interpretation” and further includes a description of the term “Web Scraper” (Ex. 1001, 4:65–67, 5:48). The '948 Patent discloses a Web Scraper “is an at least partly automated computer program or script that gathers data or content from a network for the purpose of replicating content or for data analysis” (*id.* at 5:48–51).

In accordance with the Specification’s “general terminology description,” we construe the term “Web Scraper” as “an at least partly

automated computer program or script that gathers data or content from a network for the purpose of replicating content or for data analysis.”

3. “*proxy*”

Patent Owner contends that the term “proxy” should be construed as “a proxy server (a computer system or an application)—external to the Smart Proxy Rotator System—opened for the client connection, that acts as an intermediary for requests from clients seeking resources from other servers” (Prelim. Resp. 20 (citing Ex. 2003 ¶ 54)).

The ’948 Patent states “general terminology descriptions may be helpful . . . and are intended to be interpreted in the broadest possible interpretation” and further includes a description of the term “Proxy” or “Proxies” (Ex. 1001, 4:65–67, 5:64–67). The ’948 Patent describes a “Proxy” as “a proxy server (a computer system or an application) opened for the client connection, that acts as an intermediary for requests from clients seeking resources from other servers” (*id.* at 5:64–67).

In accordance with the Specification’s “general terminology description,” we construe the term “Proxy” as “a proxy server (a computer system or an application) opened for the client connection that acts as an intermediary for requests from clients seeking resources from other servers.”

4. “*Proxy Provider*”

Patent Owner contends that the ’948 Patent “defines the term as ‘the party providing the actual proxy as a service’” (Prelim. Resp. 20 (citing Ex. 1001, 6:16–17)).

The ’948 Patent states “general terminology descriptions may be helpful . . . and are intended to be interpreted in the broadest possible

interpretation” and further includes a description of the term “Proxy Provider” (Ex. 1001, 4:65–67, 6:16–19). The ’948 Patent describes a “Proxy Provider” as “the party providing the actual proxy as a service. Proxy services shall mean any proxy server that acts as an intermediary for requests from clients seeking resources from other servers” (*id.* at 6:16–19).

In accordance with the Specification’s “general terminology description,” we construe the term “Proxy Provider” as “a server party providing an actual proxy as a service.”

5. “*utilization threshold*”

Patent Owner contends that the term “utilization threshold” should be construed as “‘the portion of all proxy requests received by the SPR during a time period that the SPR will refer to a particular proxy provider,’ which may be equal to the weight assigned to that particular proxy provider divided by the sum of weights assigned to all proxy providers during the same time period” (Prelim. Resp. 20 (citing Ex. 2003 ¶ 56)). Patent Owner’s definition requiring a “utilization threshold” to be a “portion of all proxy requests received by the SPR during a time period that the SPR will refer to a particular proxy provider” is too narrow.

The ’948 Patent does not expressly define the term “utilization threshold,” and, instead, describes utilization thresholds using an example (*id.* at 8:1–8). The ’948 Patent states

[o]ne of the usage examples can be the following: if one provider has a weight equal to 10, and the other provider has a weight equal to 20, the proxy rotator *should* use the second provider 66.6% of the time and the first provider 33.3% of the time, when no changes to the default providers’ weights have been introduced. These percentages are the utilization thresholds of each provider.

(*id.* (emphasis added)). That is, the '948 Patent suggests that a utilization threshold is a *goal* amount of use, not an actual amount of use. A utilization threshold may represent a desired maximum percentage (i.e., proportion), of proxy requests to be referred to a particular proxy provider.

Based on the Specification's use of a "utilization threshold," we construe the term to mean "a maximum percentage of use assigned to a particular proxy provider that is equal to a weight for the particular proxy provider divided by the sum of respective weights assigned to all proxy providers during the same time period."

6. *Additional Terms*

After considering the parties' assertions and the evidence before us, we determine it is unnecessary to construe expressly any additional claim terms in determining whether to institute trial (*see Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.* 200 F.3d 795, 803 (Fed. Cir. 1999) ("only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy"))).

C. *Asserted Anticipation by Smith*

Petitioner contends Smith anticipates claims 1–9 and 17–20 (Pet. 13–31).

1. *Smith (Ex. 1006)*

Smith is a US patent application publication titled "Selecting Proxies," and published June 1, 2017 (Ex. 1006, codes (43, 54)). Smith describes a system for "selecting proxies" which "facilitate communication between an external device and a computing device behind [a] firewall" (*id.* ¶ 12, code (57)). Figure 3, reproduced below, is a block diagram

illustrating a “computing device for selecting proxies, where the computing device is in communication with a plurality of proxies and computing devices through a firewall” (*id.* ¶ 43).

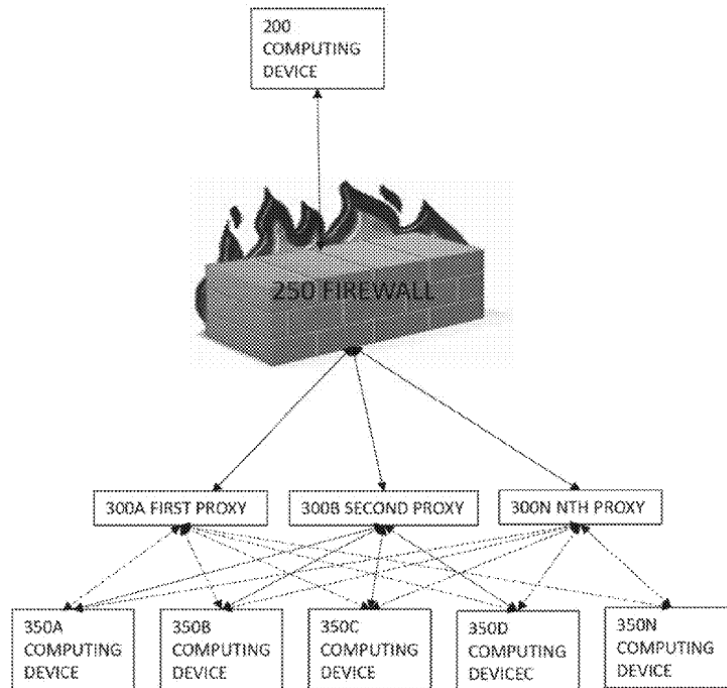


Figure 3

(*id.* at Fig. 3). As shown in Figure 3, “computing device 200 may communicate with computing devices [350A–350N] via proxies [300A–300N] through a firewall 250” (*id.*). Further, “each proxy device may communicate with some or all of the computing devices [350A–350N]” (*id.* ¶ 44). “For example, proxy 300A may be used to communicate with computing devices 350A, 350B, 350C, 350D and 350N” and “proxy 300B may be used to communicate with computing devices 350A, 350B, 350C, and 350D,” etc. (*id.*).

Furthermore, computing device 200 includes a “series of engines” used to select proxies (*id.* ¶ 37). Figure 2, reproduced below, is a block

diagram of computing device 200, showing the “engines” used for selecting proxies (*id.* ¶¶ 4, 36–37).

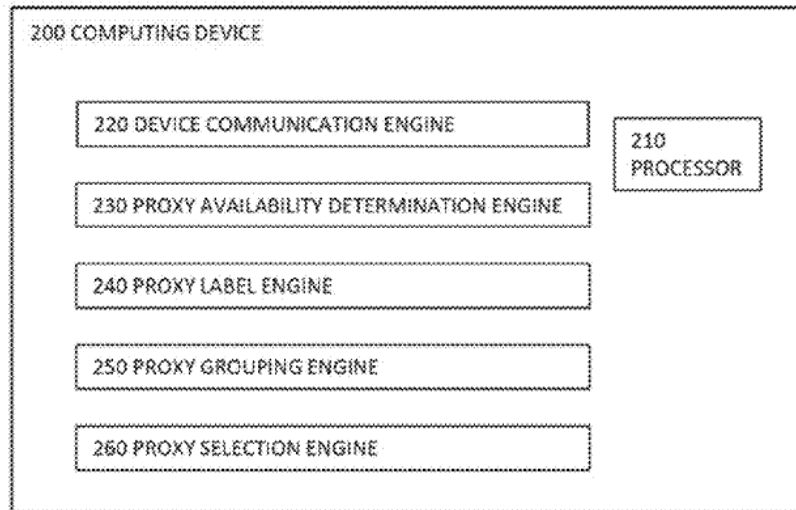


Figure 2

Device communication engine 220, shown within computing device 200, “may determine a device to which to send communication” through the firewall and via a proxy (*id.* ¶ 38; *see id.* ¶ 18). Further, “[p]roxy availability determination engine 230 may determine a set of proxies available to communicate with the device through the firewall” (*id.* ¶ 39; *see id.* ¶¶ 19–20). Still further, “[p]roxy label engine 240 may determine a set of success labels for the set of proxies” (*id.* ¶ 40; *see id.* ¶¶ 21–24). Success labels “may comprise information indicating that a predetermined number of previous attempts to communicate with the device were successful, were unsuccessful, were attempted but blocked due to external reasons, and/or were otherwise handled” (*id.* ¶ 21). Even further,

“[p]roxy grouping engine 250 may group the set of proxies into a plurality of proxy subsets based on the success labels determined for the set of proxies such that a first subset of proxies comprise a plurality of proxies each having the first success label and such that each subset of proxies is associated with a respective success label”

(*id.* ¶ 41; *see id.* ¶¶ 25–30). And,

[p]roxy selection engine 260 may select a first subset of proxies to communicate with the device based on the success label associated with the first subset of proxies, and select a first proxy from the selected first subset of proxies, associate each subset of proxies with a respective weight, and select the first subset of proxies based on a first weight associated with the first subset of proxies

(*id.* ¶ 42; *see id.* ¶¶ 31–35). The respective “weight[s] may represent a percentage based on which a proxy subset should be selected” (*id.* ¶ 33).

Smith also describes that its proxy selection engine “revises the weights associated with each proxy subset” (*id.*; *see id.* ¶ 57). In an example, “the weights associated with each proxy” are revised “based upon the success of the attempts to use proxies from each subset of proxies” (*id.* ¶ 33). Accordingly, after “a predetermined number of consecutive unsuccessful attempts to communicate with the device using a proxy from a particular proxy subset,” the proxy selection engine “may reduce the weight associated with that subset and re-allocate the weights associated with the other proxy subsets” (*id.*; *see id.* ¶ 57).

2. *Independent Claim 1*

Petitioner contends Smith anticipates independent claim 1 (Pet. 13–22).

a) Alleged Failure to Disclose: Web Scraper

Petitioner contends Smith discloses “obtaining a proxy from the SPR, according to currently valid SPR operational settings, by a Web Scraper to

use for a request for content” (Pet. 15–18). Petitioner annotates Figure 2, “a block diagram of an example computing device 200 for selecting proxies”:

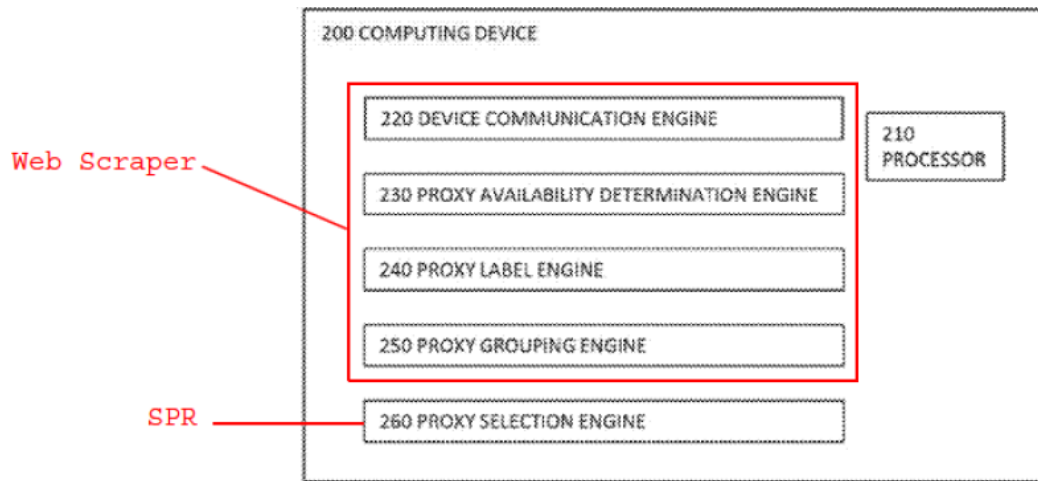


Fig. 2 of Smith (Ex. 1006) with annotations.

(Pet. 15 (citing Ex. 1006, Fig. 2)). Figure 2 of Smith discloses computing device 200 which includes processor 210, device communication engine 220, proxy availability determination engine 230, proxy label engine 240, proxy grouping engine 250, and proxy selection engine 260 (Ex. 1006, Fig. 2).

Petitioner asserts Smith’s “device communication engine 220, the proxy availability determination engine 230, the proxy label engine 240, and/or the proxy grouping engine 250, all illustrated in Fig. 2 of Smith . . . collectively correspond to the claimed Web Scraper” (Pet. 17 (citing Ex. 1003 ¶ 60)). Petitioner further asserts that “device communication engine 220 may . . . be used for requesting content” (*id.* (citing Ex. 1003 ¶ 60)).

Petitioner also annotates Figure 3, “a block diagram of an example computing device for selecting proxies in communication with a plurality of

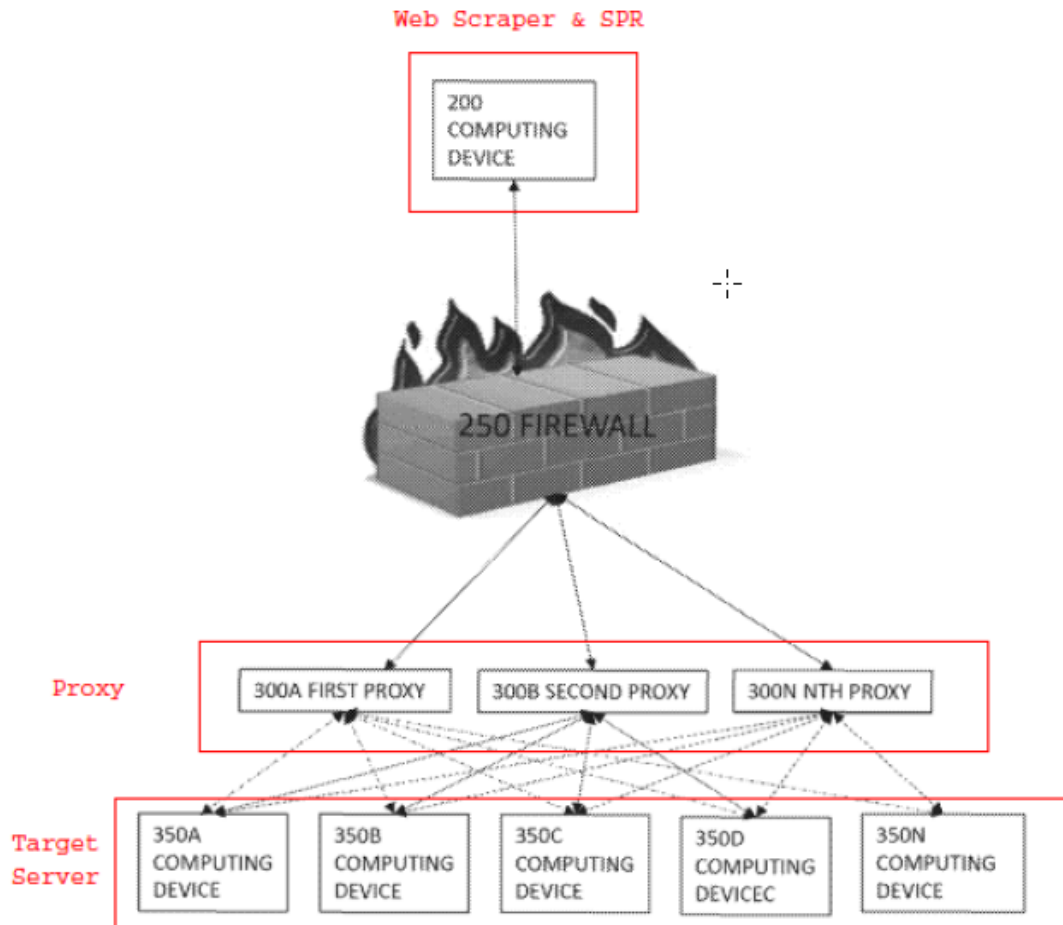


Fig. 3 of Smith (Ex. 1006) with annotations.

(Pet. 16 (citing Ex. 1006, Fig. 3)). As shown in Figure 3 as annotated by Petitioner, Smith's system includes computing device 200 which includes the Web Scraper and the SPR, firewall 250, proxies 300A–300N (surrounded by a red box labeled “Proxy”), and target servers 150A–150N (surrounded by a red box labeled “Target Server”) (Ex. 1006, Fig. 3). Thus,

Petitioner asserts computing device 200 provides both a “Web Scraper” and an “SPR,” as shown in Petitioner’s annotation of Figures 2 and 3 of Smith.

Petitioner points to Smith’s description that “[d]evice communication engine 220 may determine a device to which to send communications”; “[p]roxy availability determination engine 230 may determine a set of proxies available to communicate with the device”; “[p]roxy label engine 240 may determine a set of success labels for the set of proxies, wherein a success label for an individual proxy comprises information related to communicating with the device via the individual proxy”; and

proxy grouping engine 250 may group the set of proxies into a plurality of proxy subsets based on the success labels determined for the set of proxies, such that a first subset of proxies comprise a plurality of proxies each having the first success label and such that each subset of proxies is associated with a respective success label

(Ex. 1006 ¶¶ 38–41).

Petitioner asserts Smith discloses “communication device 200 may communicate with computing devices 350A, 350B, 350C, 350D, . . . , 350N [(target servers)] via proxies 300A, 300B, etc.” (Pet. 18–19 (quoting Ex. 1006 ¶ 43)). Petitioner further asserts that “communication may be sent to the device via the selected proxy” (*id.* at 19 (quoting Ex. 1006 ¶ 55; Ex. 1003 ¶ 63)).

Patent Owner argues Petitioner has not asserted any of Smith’s collective engines 220, 230, 240, and 250, on which Petitioner relies on discloses the recited web scraper (Prelim. Resp. 28). In particular, Patent Owner contends Smith’s engines do not disclose “an at least partly automated computer program or script that *gathers data or content from a network for the purpose of replicating content or for data analysis*” and

this feature (*id.* at 28 (quoting Ex. 1001, 5:48–51)). According to Patent Owner, Petitioner asserts “Smith also discloses ‘a request by the computing device 100 to communicate with a device’” (*id.* (quoting Ex. 1006 ¶ 18)).

Petitioner has not shown that engines 220, 230, 240, and 250, asserted by Petitioner as disclosing the recited Web Scraper, perform the step of “requesting and obtaining the content designated within the request” recited in claim 1. In particular, Petitioner has not reasonably shown that Smith discloses that its device communication engine 220 (which, as discussed above, Petitioner asserts is a component of Smith’s “Web Scraper”) requests content (*see* Pet. 17). Petitioner asserts Smith discloses “a request by the computing device 100 to communicate with a device” and, that, as such, “device communication engine 220 may therefore be used for requesting content” (*id.* (citing Ex. 1006 ¶ 18); Ex. 1003 ¶ 60)). But, Petitioner’s assertion that a computing device’s (i.e., computing device 100) request for content from another device somehow discloses a particular component of the computing device 100, requests content (i.e., device communication engine 220), is unsupported by the record.

More specifically, Petitioner relies on paragraphs 43 and 55 of Smith as disclosing this feature (Pet. 19). Smith’s paragraph 43 describes Figure 3 — “an example computing device for selecting proxies, where the computing device is in communication with a plurality of proxies and computing devices through a firewall” (Ex. 1006 ¶ 43). Smith further describes Figure 3 discloses “computing device 200 may communicate with computing devices 350A, 350B, 350C, 350D, . . . , 350N via proxies 300A, 300B, . . . 300[N] through a firewall 250” (Ex. 1006 ¶ 43; Pet. 19).

Paragraph 55 of Smith describes operation 450 of Figure 4 —

“communication may be sent to the device via the selected proxy” (Ex. 1006 ¶ 54; Pet. 19).

We further find Smith describes “[d]evice communication engine 220 may determine a device to which to send communication” (Ex. 1006 ¶ 38) or “may determine a device . . . based on a request by the computing device 100 to communicate with a device” (*id.* ¶ 18). None of these disclosures of Smith, however, discloses any of the engines, which are relied upon as describing the recited Web Scraper, “requesting and obtaining the content within the request,” as recited in claim 1. More particularly, the identification of a device (which content requests will be sent to) is not itself “requesting and obtaining the content within the request,” as recited in claim 1. Rather, the identification of a device is merely the location from which content will be requested. Petitioner has not shown where Smith describes device communication engine 220 itself, or any of the relied-upon engines, taken alone or in combination, requests and obtains content (*see* Pet. 17). Even if, as Petitioner and its expert assert, device communication engine 220 “may” request content (Pet. 17; Ex. 1003 ¶ 60), the possibility that device communication engine 220 could request content is not enough to show that “each and every element as set forth in the claim is found” in Smith (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); *see Bettcher Indus., Inc. v. Bunzl USA, Inc.*, 661 F.3d 629, 639 (Fed. Cir. 2011) (“Inherency, however, may not be established by probabilities or possibilities”) (citations omitted))).

Thus, in light of the current record, Petitioner has not sufficiently shown Smith discloses the recited “requesting and obtaining the content designated within the request, . . . by the Web Scraper,” as recited in claim 1.

b) Conclusion

Based on the record before us, we determine Petitioner's contentions, in view of the supporting testimony presented, do not show sufficiently Smith discloses the recited invention of claim 1.

3. Independent Claim 17

Petitioner contends Smith anticipates independent claim 17 (Pet. 28–30). Petitioner's analysis here makes similar contentions and relies on similar disclosures as Petitioner's analysis in claim 1 (*see id.* at 13–22, 28–30). For example, Petitioner relies on Smith's device communication engine 220 to disclose “a Web Scraper . . . to request content from a target server” (Pet. 29–30 (citing Ex. 1003 ¶ 86)). For the same reasons discussed above, Petitioner has not reasonably shown that device communication engine 220 (or the collection of device communication engine 220, proxy availability determination engine 230, proxy label engine 240, and/or the proxy grouping engine 250) discloses “a Web Scraper . . . to request content from a target server.”

Accordingly, Petitioner has not sufficiently shown Smith discloses claim 17.

4. Dependent Claims 2–9 and 18–20

Petitioner contends Smith discloses claims 2–9 and 18–20 (Pet. 22–31).

Because Petitioner has not shown that Smith discloses claims 1 and 17, Petitioner has not shown that Smith discloses claims 2–9 and 18–20, which depend from claims 1 and 17.

5. *Conclusion*

Based on the record before us, we determine Petitioner’s proffered arguments, evidence, and supporting testimony do not establish a reasonable likelihood that Petitioner would prevail in showing that Smith anticipates claims 1–9 and 17–20.

D. Asserted Obviousness Over Smith and Raja

Petitioner contends claims 10–16 are obvious over the combination of Smith and Raja (Pet. 31–38).

1. Raja (Ex. 1007)

Raja is a US patent application publication titled “Systems and Methods for Load Balancing Based on User Selected Metrics,” and published September 18, 2008 (Ex. 1007, codes (43), (54)). By way of background, Raja explains that “a user on a client may request to access a service, such as a web server;” multiple servers can be used to provide that “service in order to meet the demand and load from a volume of users accessing the service” (*id.* ¶ 2). Further, a load balancer “manage[s] access to the multiple servers and direct[s] client requests to a suitable server based on load” and “distributes the load across multiple servers” (*id.*). Raja aims to provide “a load balancing technique in which load balancing decisions can be made based on metrics known by another device monitoring such metrics” (*id.* ¶ 5). Figure 1A of Raja illustrates an exemplary network

environment that Raja's load balancing technique is used in, and is reproduced below:

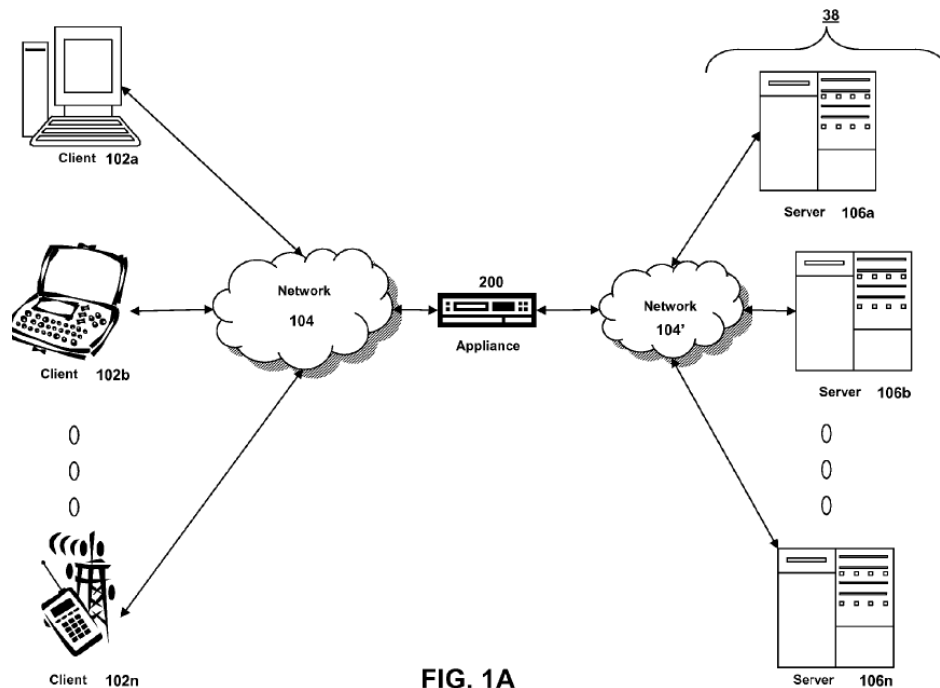


FIG. 1A

(*id.* ¶ 48). As shown in Figure 1A, “one or more clients 102a–102n” are “in communication with one or more servers 106a–106n,” the communication provided “via one or more networks 104, 104’” as well as “via appliance 200” (*id.*). Servers 106 may be web servers providing web services, and, in one embodiment, “server 106a receives requests from the client 102, forwards the requests to a second server 106b and responds to the request by the client 102 with a response to the request from the server 106b” (*id.* ¶¶ 57, 114 (“a server 106 may provide an http service 270”)). That is, server 106a acts as an intermediary between requesting client 102 and request servicing server 106b.

Furthermore, appliance 200 “provides load balancing of servers 106 in responding to requests from clients 102” (*id.* ¶ 65). Appliance 200 determines a load for services provided by servers 106 based on metrics

collected by appliance 200, e.g., “information on a number of connections, sessions or clients of the service 270” or “information on any thresholds of the service 270 or server 106, such as a threshold identifying a maximum number of sessions or clients” (*id.* ¶¶ 172, 175). Further, “appliance 200 may use a weight . . . and a threshold . . . for each of the metrics used in the determination of the load” (*id.* ¶ 175). “[I]f a threshold of a metric of a service . . . has been exceeded, the appliance may, in response to the threshold being exceeded, redirect the client making the request to another resource” (*id.* ¶ 178). Appliance 200 “continue[s] to monitor metrics in view of the thresholds . . . to dynamically manage load balancing and directing client requests to a suitable or appropriate resource” (*id.* ¶ 252).

In addition, appliance 200 provides encryption via an encryption engine 234 (*id.* ¶¶ 95, 106). “[E]ncryption engine 234 encrypts and decrypts network packets, or any portion thereof, communicated via the appliance 200” (*id.* ¶ 106). Further, “encryption engine 234 uses a tunneling protocol to provide a virtual private network between a client 102a–102n and a server 106a–106n” (*id.* ¶ 106).

2. Independent Claim 10

Petitioner contends the combination of Smith and Raja renders independent claim 10 obvious (Pet. 31–35).

a) *Alleged Failure to Teach: “wherein the content is unreadable to a Smart Proxy Rotator (SPR)”*

Petitioner contends the combination of Smith and Raja teaches “wherein the content is unreadable to a Smart Proxy Rotator (SPR) due to network transport layer or application layer encryption” (Pet. 33–34 (citing Ex. 1007 ¶¶ 51, 57, 106, Fig. 1a; Ex. 1003 ¶ 96)). In particular, Petitioner

points out that Raja describes a “a load balancing appliance 200 arranged between clients 102 and servers 106” and “an encryption mechanism implemented by appliance 200 in which ‘the encryption engine 234 uses a tunneling protocol to provide a virtual private network between a client 102a–102n and a server 106a–106n’ (*id.* at 33 (citing Ex. 1007 ¶¶ 51, 57, 106); Ex. 1006 ¶ 96)). Petitioner asserts, “[i]t would have been obvious to a [person having ordinary skill in the art] to combine the encryption mechanism of Raja into Smith, e.g., to make content unreadable to proxy selection engine 260 of Smith corresponding to Smith’s SPR, since Smith involves selection of devices based on load balancing just as Raja does” (*id.* at 34 (citing Ex. 1003 ¶ 96)).

Patent Owner contends Petitioner’s stated motivation for the combination is “deficient” (Prelim. Resp. 38). Specifically, Patent Owner argues “Petitioner provides no reason that a POSITA would have found the proposed modification with Raja to be beneficial or advantageous for turning to Raja” (*id.*). According to Patent Owner, “Petitioner[‘s] modifications assume — without any support — that any components in a network that performs load balancing are simply interchangeable with the components in any other network that contemplates load balancing” (*id.* at 39).

Obviousness requires “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” (*KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)). We agree that Petitioner has not articulated adequate motivation with rational underpinning, for the combination of Smith and Raja. Specifically, Petitioner “combine[s] the encryption mechanism of Raja into Smith, e.g., to make content unreadable to proxy selection

engine 260 of Smith corresponding to Smith's SPR, since Smith involves selection of devices based on load balancing just as Raja does" (Pet. 34). Petitioner merely states an ordinarily skilled artisan would have found it obvious "to combine the encryption mechanism of Raja into Smith, e.g., to make content unreadable to proxy selection engine 260 of Smith corresponding to Smith's SPR, since Smith involves selection of devices based on load balancing just as Raja does" (*id.* at 34 (citing Ex. 1003 ¶ 96)). However, neither Petitioner nor its expert explains sufficiently what the actual benefit or improvement would be by incorporating encryption into communications with Smith's SPR (*see id.*; *see also* Ex. 1003 ¶ 96). In particular, although Smith and Raja both describe "selection of devices based on load balancing," Petitioner has not explained how the encryption features of Raja applied to Smith's SPR, are tied to, or provide, load balancing improvements (*see generally* Pet.; Ex. 1003 ¶ 96). Indeed, Petitioner has not explained sufficiently why the encryption features of Raja are any type of improvement at all to Smith's system (*see generally* Pet.). Further, Petitioner has not explained sufficiently why an ordinarily skilled artisan would include encryption of content to the SPR such that the content is unreadable to the SPR, but not to the other engines of Smith (*id.*).

Petitioner further contends "such a combination would have been a matter of applying a known technique to a known device ready for improvement to yield predictable results" (*id.* at 34 (citing Ex. 1003 ¶ 96)). Again, however, Petitioner's assertion and duplicative declaration by Dr. Rhyme, fail to explain sufficiently how this combination was an improvement and why an ordinarily skilled artisan would have been motivated to make the content unreadable to the SPR. Petitioner has the burden to demonstrate "that a skilled artisan would have been motivated to

combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so” (*Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367–1368 (Fed. Cir. 2016) (citations omitted)).

Petitioner has not articulated reasoning with a rational underpinning as to why an ordinarily skilled artisan would have been motivated to incorporate Raja’s encryption features into Smith’s load balancing system to achieve content that is unreadable to the SPR of the computing device. Accordingly, based on the record before us, we determine Petitioner has not sufficiently shown that a person having ordinary skill in the art would have been motivated to combine Smith and Raja in the manner suggested by Petitioner.

b) Conclusion

Based on the record before us, we determine Petitioner’s contentions, in view of the supporting testimony presented, do not support combining Smith and Raja.

3. Dependent Claims 11–16

Petitioner contends Smith discloses claims 11–16 (Pet. 35–37). Because Petitioner has not shown that the combination of Smith and Raja teaches claim 10, Petitioner has not shown that claims 11–16 would have been obvious over the combination of Smith and Raja.

4. Conclusion

Based on the record before us, we determine Petitioner’s proffered arguments, evidence, and supporting testimony do not establish a reasonable

likelihood that Petitioner would prevail in showing that claims 10–16 would have been obvious over Smith and Raja.

E. Asserted Anticipation by Shribman

Petitioner contends Shribman anticipates claims 10 and 14 (Pet. 38–46).

1. Shribman (Ex. 1008)

Shribman is a patent titled “System and Method for Improving Internet Communication by Using Intermediate Nodes,” and issued January 19, 2006 (Ex. 1008, codes (45), (54)). Shribman describes a technique “for fetching a content from a web server to a client device . . . using tunnel devices serving as intermediate devices. The client device access an acceleration server to receive a list of available tunnel devices” (*id.* at code (57)). Figure 5, reproduced below, is a schematic which illustrates client

devices, tunnel devices, acceleration servers, and data servers networked together over the Internet (*id.* at 76:32–33, 81:34–41).

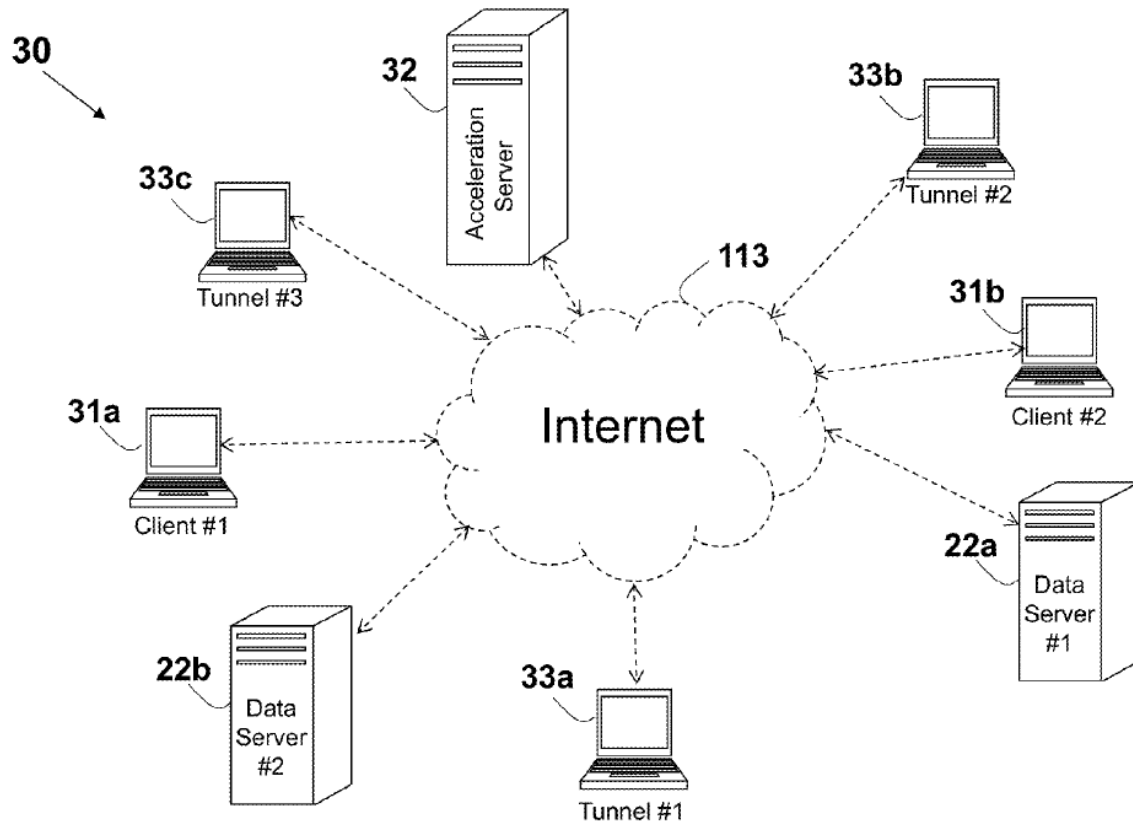


FIG. 5

As shown in Figure 5, client device #1 31a, client device #2 31b, data server #1 22a, data server #2 22b, tunnel device #1 33a, tunnel device #2 33b, tunnel device #3 33c, and acceleration server 32 are networked and communicate over the Internet (*id.* at 81:39–41). Further, client devices 31a, 31b access data servers 22a, 22b using one or more of tunnel devices 33a, 33b “under the management and control of an acceleration server 32” (*id.* at 81:34–39).

In one example of a client device requesting content from data servers using tunnel devices as intermediaries, “client device #1 31a determines that

external content from a data server is required” (*id.* at 83:46–37; *see id.* Fig. 5b). Figure 5b is a timing chart showing the messages exchanged between devices for the client to receive content from a data server, and is reproduced below (*id.* at 76:36–38).

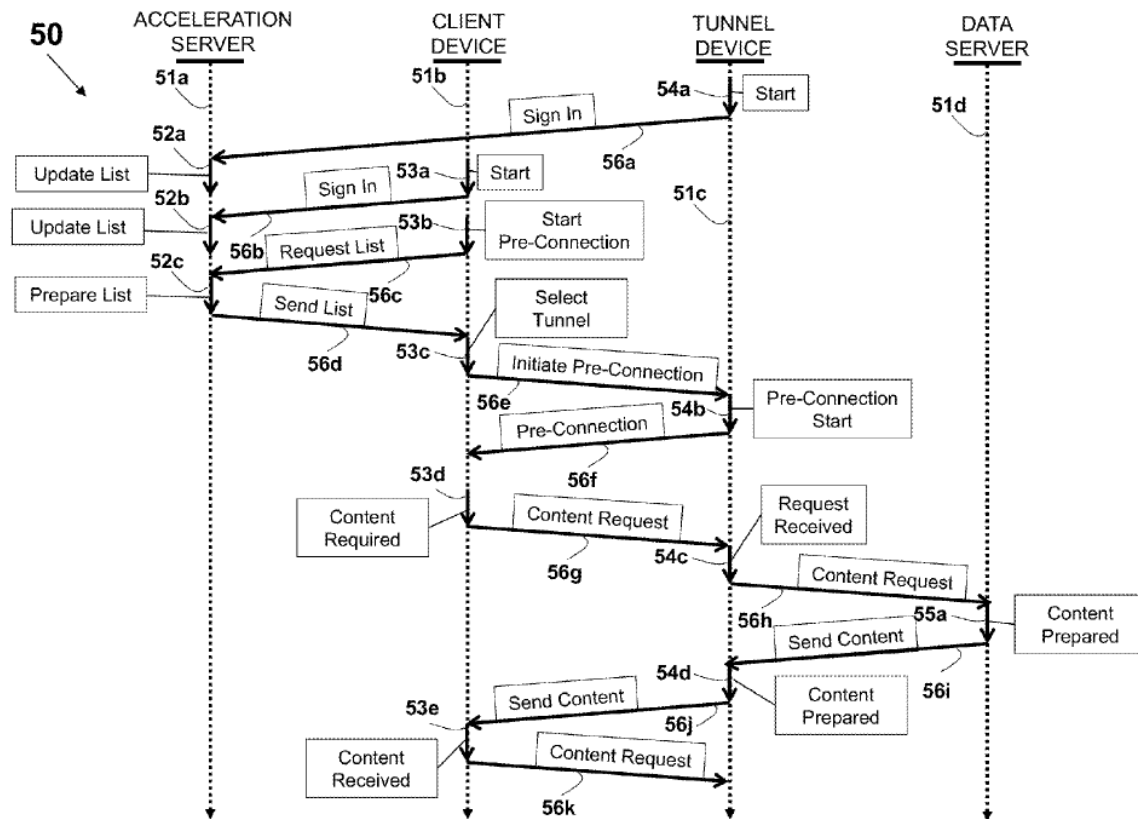


FIG. 5b

Client device 31a sends a ‘Content Request’ message 56g to selected tunnel device #1 33a which, in turn, sends a ‘Content Request’ message 56h to the data server #22a (*id.* at 83:48–57; *see id.* Fig. 5b). Data server 22a prepares the requested content, sends the requested content back to tunnel device #33a in a ‘Send Content’ message 56i, tunnel device 33a in turn sends the requested content in ‘Send Content’ message 56j to the client device 31a (*id.* at 81:57–65; *see id.* Fig. 5b).

As noted previously, an acceleration server may select which tunnel device — e.g., tunnel device #1 33a, tunnel device #2 33b, or tunnel device

#3 33c — acts as an intermediary between client device and data server (*id.* at 89:15–20). Further, the “selection of the tunnel device (or devices) to be used, or the priorities assigned to them, may be based on the available communication attributes or their history” (*id.* at 89:61–63). In particular, the “selection may be based on a past performance of the tunnel devices, such as information relating to former transactions involving these tunnel devices” (*id.* at 96:55–61). Such past performance of the tunnel devices is stored in a transaction log, which the client device prepares and sends to the acceleration server (*id.* at 96:19–27, Fig. 5b).

Additionally, Shribman explains, in its Background section, that “[e]ncryption based mechanisms are commonly end-to-end processes involving only the sender and the receiver, where the sender encrypts the plain text message . . . making it unreadable to anyone, except the receiver” (*id.* at 25:34–38). Furthermore, Shribman explains that “[o]nion routing (OR) is a technique for anonymous communication over the Internet or any other computer network” in which “[m]essages are repeatedly encrypted and then sent through several network nodes” (*id.* at 27:26–29). The onion routing encryption technique “prevents these intermediary nodes from knowing the origin, destination, and contents of the message” (*id.* at 27:32–33).

2. *Independent Claim 10*

Petitioner contends Shribman anticipates independent claim 10 (Pet. 38–45).

(1) Alleged Failure to Disclose: “calculate and configure utilization thresholds of a plurality of proxy providers”

Petitioner contends Shribman discloses “calculate and configure utilization thresholds of a plurality of proxy providers by evaluating proxy

performance and availability information received from the Web Scraper” (Pet. 44–45 (citing Ex. 1008, 89:61–90:24; Ex. 1003 ¶ 112); *see id.* at 38–39 (citing Ex. 1008, 89:61–63; Ex. 1003 ¶ 107)). Specifically, Petitioner asserts, “[f]or example, Shribman teaches that ‘[t]he selection of the tunnel device (or devices) to be used, or the priorities assigned to them, may be based on the available communication attributes or their history’” (*id.* at 44–45 (quoting Ex. 1008, 89:61–90:24 (emphases added by Petitioner); citing Ex. 1003 ¶ 112)). From this one statement, Petitioner concludes “[t]hus, Shribman teaches to calculate and configure utilization thresholds (*e.g.*, priorities assigned) of a plurality of proxy providers (*e.g.*, tunnel devices) by evaluating proxy performance and availability information (*e.g.*, transaction log) received from the Web Scraper (*e.g.*, client device #1 31a)” (*id.* at 45 (citing Ex. 1003 ¶ 112)). Dr. Rhyne, Petitioner’s declarant, states the same conclusion, “Shribman teaches to calculate and configure utilization thresholds (*e.g.*, priorities assigned) of a plurality of proxy providers (*e.g.*, tunnel devices) by evaluating proxy performance and availability information (*e.g.*, transaction log) received from the Web Scraper (*e.g.*, client device #1 31a)” (Ex. 1003 ¶ 112). No cites to Shribman or explanation as to how priorities assigned discloses utilization thresholds is provided (*see generally* Pet.; *see also* Pet. 38 (setting forth how Shribman discloses the preamble of claim 10, relying on the same disclosure of Shribman)).

Patent Owner contends Petitioner fails to show Shribman discloses “utilization thresholds” for the plurality of Proxy Providers (*id.* at 45–46). More specifically, Patent Owner contends, “Shribman’s priorities operate as rankings which are used to select between multiple tunnel devices and do not function as thresholds” and, as a result, “Shribman fails to disclose its

priorities are used as thresholds” (Prelim. Resp. 46 (citing Ex. 1008, 91:38–41; Ex. 2003 ¶ 96)).

We agree with Patent Owner that Shribman fails to disclose a utilization threshold. Shribman discloses:

The selection of the tunnel device (or devices) to be used, or the *priorities* assigned to them, may be based on the available communication attributes or their history. For example, based on the costs associated with the usage of a network, the higher cost network may have lower priority and less used than lower cost or free network. In another example, a high quality network, such as having a higher available bandwidth or throughput, lower communication errors or packet loss, lower hops to destination, or lower transfer delay time, is having higher priority than a lower quality network.

(Ex. 1008, 89:61–90:3 (emphasis added); Pet. 45; Ex. 1003 ¶ 112). The remaining relied upon disclosure of Shribman describes “indicators or measures associated with the communication channel associated with a network interface, and may be based on, use, or include the methodology and schemes described” in references cited and incorporated by reference (Ex. 1008, 90:3–24; Pet. 45).

A priority is not a utilization threshold. Rather, as set forth by Patent Owner (Prelim. Resp. 46), the disclosed priority is a ranking of devices. A threshold is a level, point, or value. Thus, a priority is a precedence in position — it does not set a threshold for utilization of the devices. Petitioner has not explained sufficiently how Shribman’s priority discloses the recited “utilization threshold” (*see generally* Pet.). Nor does Petitioner’s declarant provide any additional explanation (*see* Ex. 1003 ¶¶ 112–113).

Therefore, Petitioner has not proffered sufficient evidence or argument to show Shribman discloses “calculate and configure utilization thresholds of a plurality of proxy providers,” as recited in claim 10.

(2) Conclusion

Based on the record before us, we determine Petitioner’s contentions, in view of the supporting testimony presented, do not support Shribman discloses claim 10.

3. Dependent Claim 14

Petitioner contends Shribman discloses claim 14 which depends from independent claim 10 (Pet. 45–46). Based on the reasons set forth *supra*, and on the record before us, Petitioner has not sufficiently shown Shribman discloses the elements of claim 14.

4. Conclusion

Based on the record before us, we determine Petitioner’s proffered arguments, evidence, and supporting testimony do not establish a reasonable likelihood that Petitioner would prevail in showing that Shribman anticipates claims 10 and 14.

F. Asserted Obviousness over Shribman

Petitioner contends claims 1–3, 7, 10, 12, 14, 17, and 18 are obvious over Shribman (Pet. 46–61).

1. Independent Claim 1

Petitioner contends claim 1 is obvious over Shribman (Pet. 47–55).

a) Alleged Failure to Teach: “dynamically configuring utilization threshold of the proxy provider based on the calculation”

Petitioner contends Shribman teaches “dynamically configuring utilization threshold of the proxy provider based on the calculation” (Pet. 54–55 (citing Ex. 1008, 89:61–90:24; Ex. 1003 ¶ 126; Ex. 1011, 1:1–

49)). Again, Petitioner relies on Shribman’s disclosure that “[t]he selection of the tunnel device (or devices) to be used, or the priorities assigned to them, may be based on the available communication attributes or their history” (Pet. 54 (quoting Ex. 1008, 89:61–90:24 (emphases added by Petitioner); citing Ex. 1003 ¶ 126)).

Petitioner further contends “[w]eighting is a well-known technique for making selections” (*id.* (citing Ex. 1011, 1:1–49)). Petitioner then concludes, “[i]n view of Shribman, it would have been obvious to a [person of ordinary skill in the art] to dynamically configure the priorities assigned to selection of tunnel devices based on a calculation of a weight[s] for selecting tunnel devices” (Pet. 54 (citing Ex. 1003 ¶ 126)). Petitioner further concludes, “[t]hus, in view of Shribman, it would have been obvious to a [person of ordinary skill in the art] to dynamically (*e.g.*, based on the available communication attributes or their history) configure a utilization threshold (*e.g.*, priorities assigned) of the proxy provider (*e.g.*, tunnel devices) based on the calculation” (*id.* at 54–55 (citing Ex. 1003 ¶ 126)). Petitioner’s declarant, Dr. Rhyne, does not provide any additional explanation (Ex. 1003 ¶¶ 126–127).

Patent Owner contends, referencing its previous arguments, Shribman fails to teach “a utilization threshold” for a proxy provider (Prelim. Resp. 48). Patent Owner additionally contends Petitioner’s modification of Shribman is “deficient” (Prelim. Resp. 49–51; *see id.* at 52–54).

For the reasons set forth *supra*, we determine Petitioner has not shown sufficiently that Shribman discloses a “utilization threshold.” Additionally, Petitioner’s reasoning for modifying Shribman to teach “dynamically configuring utilization threshold” is not persuasive. In particular, Petitioner fails to articulate reasoning with a rationale underpinning, as to why an

ordinarily skilled artisan would have found dynamically configuring utilization threshold of a proxy provider obvious in light of Shribman's teachings (*see id.* at 54–55). Rather, Petitioner merely recites that it would have been obvious and then recites the claim limitation (*id.*). Accordingly, Petitioner has not persuaded us an ordinarily skilled artisan would have found it obvious to “dynamically configur[e] utilization threshold of the proxy provider based on the calculation,” as recited in claim 1.

b) Conclusion

Based on the record before us, we determine Petitioner's proffered arguments, evidence, and supporting testimony do not establish a reasonable likelihood that Petitioner would prevail in showing that claim 1 would have been obvious over Shribman.

2. Independent Claim 10

Relying on its discussion of independent claim 1, Petitioner contends independent claim 10 is obvious over Shribman (Pet. 58). As set forth *supra*, Petitioner has not shown sufficiently that Shribman teaches a “utilization threshold,” and, accordingly, a computing device to “calculate and configure utilization thresholds of a plurality of proxy providers,” as recited in claim 10.

3. Independent Claim 17

Petitioner contends independent claim 17 is obvious over Shribman (Pet. 58–61). Petitioner's analysis here makes similar contentions and relies on similar disclosures as Petitioner's analysis in claim 1 (*see id.* at 47–55, 58–61). As set forth *supra*, Petitioner has not shown sufficiently that Shribman teaches a “utilization threshold,” and accordingly, teaches

“dynamically configur[ing] utilization threshold of the proxy provider based on the weight calculated,” as recited in claim 17.

4. Dependent Claims 2, 3, 7, 10, 12, 14, and 18

Petitioner contends Smith discloses claims 2, 3, 7, 12, 14, and 18 (Pet. 55–58, 61). For the reasons set forth *supra*, Petitioner has not shown sufficiently that Shribman teaches a “utilization threshold.” Thus, Petitioner has not shown sufficiently that Shribman teaches dependent claims 2, 3, 7, 10, 12, 14, and 18.

5. Conclusion

Based on the record before us, we determine Petitioner’s proffered arguments, evidence, and supporting testimony do not establish a reasonable likelihood that Petitioner would prevail in showing that Smith anticipates claims 1–3, 7, 10, 12, 14, 17, and 18.

G. Asserted Obviousness over Shribman and Raja

Petitioner contends claims 1–3, 7, 10, 12, 14, 17, and 18 are obvious over the combination of Shribman and Raja (Pet. 61–67).

1. Independent Claim 1

Petitioner contends claim 1 is obvious over the combination of Shribman and Raja (Pet. 61–64).

a) Alleged Improper Combination

Petitioner contends

it would have been obvious to a [person having ordinary skill in the art] to combine the teachings of Raja with the knowledge of a [person having ordinary skill in the art] into Shribman to calculate weights for a proxy provider (e.g., tunnel

devices) at the SPR (e.g., acceleration server 32) since Shribman involves selection of devices based on load balancing just as Raja does

(Pet. 62–63 (citing Ex. 1003 ¶ 144)). Petitioner further contends

it would have been obvious to a [person having ordinary skill in the art] to combine the teachings of Raja with the knowledge of a [person having ordinary skill in the art] into Shribman to dynamically configure a utilization threshold of the proxy provider (e.g., tunnel devices) based on calculations of weights since Shribman concerns the selection of devices based on load balancing, just as Raja does

(*id.* at 64 (citing Ex. 1003 ¶ 145)).

Patent Owner contends Petitioner’s motivation for the combination of Shribman and Raja is “[d]efficient” (Prelim. Resp. 56–57).

Based on the record before us, Petitioner has not persuaded us an ordinarily skilled artisan would have found it obvious to combine the teachings of Raja with those of Shribman. In particular, Petitioner has not articulated sufficiently why an ordinarily skilled artisan would have incorporated Raja’s “calculating, at the SPR, a weight for the proxy provider” and “dynamically configuring utilization threshold of the proxy provider based on the calculation [of a weight for a proxy provider],” as recited in claim 1. Petitioner contends “Shribman discloses ‘load balancing’ as an advantage [and] Raja is similarly directed to ‘improvements to load balancing by providing a load balancing solution that allows a user to select metrics, weights and thresholds from metrics collected or determined by a load balancing appliance as well as metrics obtained from another device, such as a server running the service’” (Pet. 61–62 (quoting Ex. 1007, Abstract (emphasis by Petitioner); citing Ex. 1003 ¶ 144)). That both references include discussion of load balancing does not explain why an

ordinarily skilled artisan would have incorporated the asserted features of Raja's "load balancing solution" in the system of Shribman.

Accordingly, based on the record before us, Petitioner has not persuasively shown an ordinarily skilled artisan would have combined the teachings of Raja with those of Shribman.

b) Conclusion

Based on the record before us, we determine Petitioner's proffered arguments, evidence, and supporting testimony do not establish a reasonable likelihood that Petitioner would prevail in showing that claim 1 would have been obvious over Shribman.

2. Independent Claim 10

Referencing its previous contention that claim 10 is obvious over Shribman, Petitioner further contends Raja teaches "wherein the content is unreadable to a Smart Proxy Rotator (SPR) due to network transport layer or application layer encryption" (Pet. 65 (citing Ex. 1007 ¶ 106; Ex. 1003 ¶ 149)). More specifically, Petitioner asserts Raja "discloses an encryption mechanism implemented by the appliance 200 in which 'the encryption engine 234 uses a tunneling protocol to provide a virtual private network between a client 102a–102n and a server 106a–106n'" (*id.* (citing Ex. 1007 ¶ 106; Ex. 1003 ¶ 149)). Thus, Petitioner contends "[b]ased on this encryption mechanism, Raja teaches content being unreadable to an SPR" (*id.* (citing Ex. 1003 ¶ 149)). Petitioner then asserts, "it would have been obvious to a [person of ordinary skill in the art] to combine the tunneling protocol of Raja into Shribman to implement a tunneling protocol by the acceleration server 32 to make content unreadable to the acceleration server

32 since Shribman involves selection of devices based on load balancing just as Raja does” (*id.*).

Patent Owner contends Petitioner’s motivation for the combination is “[d]efficient” (Prelim. Resp. 60–62). In particular, Petitioner asserts “Petitioner[’]s modifications assume —without any support—that any components in a network that performs load balancing are simply interchangeable with the components in any other network that contemplates load balancing” (Prelim. Resp. 57).

Based on the record before us, Petitioner has not shown an ordinarily skilled artisan would have combined the teachings of Raja with those of Shribman. In particular, Petitioner’s articulation that an ordinarily skilled artisan would have combined the teachings because both references “involve[s] selection of devices based on load balancing” does not explain why an ordinarily skilled artisan would make “the content [] unreadable to a Smart Proxy Rotator,” as recited in claim 10. That the references are analogous is not sufficient reasoning as to why an ordinarily skilled artisan would have combined the teachings as recited in claim 10.

3. *Independent Claim 17*

Referencing its previous contention that claim 17 is obvious over Shribman, Petitioner further contends Raja teaches “wherein proxy providers’ weights are periodically calculated and configured according to the proxy performance and availability information submitted by the Web Scraper at any configured period of time” (Pet. 66–67 (citing Ex. 1007 ¶¶ 157, 175; Ex. 1003 ¶ 152)).

4. Dependent Claims 2, 3, 7, 12, 14, and 18

Petitioner contends claims 2, 3, 7, 12, 14, and 18 are obvious over the combination of Shribman and Raja (Pet. 64–67).

5. Conclusion

Based on the record before us, we determine Petitioner’s proffered arguments, evidence, and supporting testimony do not establish a reasonable likelihood that Petitioner would prevail in showing that claims 1–3, 7, 10, 12, 14, 17, and 18 are obvious over Shribman and Raja.

III. CONCLUSION

After considering the record before us, we are not persuaded the Petition has demonstrated a reasonable likelihood of prevailing in showing any of claims 1–20 of the ’983 Patent are unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied*, and no trial is instituted.

IPR2021-00983
Patent US 10,601,948 B1

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