UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., Petitioner,

v.

VIRNETX INC., Patent Owner.

Case IPR2014-00482 Patent 7,188,180

PATENT OWNER VIRNETX INC.'S NOTICE OF APPEAL

Director of the United States Patent and Trademark Office c/o Office of the General Counsel Madison Building East, 10B20 600 Dulany Street Alexandria, VA 22314-5793

Notice is hereby given, pursuant to 37 C.F.R. § 90.2(a), that Patent Owner VirnetX Inc. ("VirnetX") appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision entered on August 24, 2015 (Paper 34) (the "Final Written Decision") by the United States Patent and Trademark Office, Patent Trial and Appeal Board (the "Board"), and from all underlying orders, decisions, rulings, and opinions. A copy of the Final Written Decision is attached.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), VirnetX indicates that the issues on appeal include, but are not limited to, the Board's determination of unpatentability of claims 1, 4, 10, 13-15, 17, 20, 26, 29-31, 33, and 35 of U.S. Patent No. 7,188,180 under 35 U.S.C. § 102, the Board's determination of unpatentability of claims 1, 4, 6, 10, 13-15, 17, 20, 22, 26, 29-31, 33, 35, and 37 of U.S. Patent No. 7,188,180 under 35 U.S.C. § 103, and any findings or determinations supporting or related to those rulings including, without limitation, the Board's application of the broadest reasonable interpretation standard, the Board's interpretation of the claim language, and the Board's interpretation of the references.

Simultaneous with this submission, a copy of this Notice of Appeal is being filed with the Board. In addition, the Notice of Appeal and the required fee are being filed electronically with the Clerk of Court for the United States Court of Appeals for the Federal Circuit.

Respectfully submitted this 22nd day of October, 2015.

By:

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Counsel for VirnetX Inc.

Case No. IPR2014-00482 Patent No. 7,188,180

CERTIFICATE OF SERVICE

The undersigned certifies that, in addition to being filed electronically through the Patent Trial and Appeal Board's Patent Review Processing System (PRPS), the original version of this Notice of Appeal was filed by hand on October 22, 2015 with the Director of the United States Patent and Trademark Office, at the following address:

> Director of the United States Patent and Trademark Office c/o Office of the General Counsel Madison Building East, 10B20 600 Dulany Street Alexandria, VA 22314-5793

The undersigned also certifies that a true and correct copy of this Notice of Appeal and the required fee were filed electronically via CM/ECF on October 22, 2015, with the Clerk of Court for the United States Court of Appeals for the Federal Circuit.

The undersigned also certifies that a true and correct copy of this Notice of Appeal was served on October 22, 2015 on counsel of record for Petitioner Apple Inc. by electronic mail (by agreement of the parties) at the following addresses:

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC., Petitioner,

v.

VIRNETX INC., Patent Owner.

Case IPR2014-00482 Patent 7,188,180 B2

Before MICHAEL P. TIERNEY, KARL D. EASTHOM, and STEPHEN C. SIU, *Administrative Patent Judges*.

SIU, Administrative Patent Judge.

FINAL WRITTEN DECISION 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. BACKGROUND

Apple Inc. filed a Petition (Paper 1) ("Pet.") seeking an *inter partes* review of claims 1, 4, 6, 10, 12–15, 17, 20, 22, 26, 28–31, 33, 35, and 37 of U.S. Patent No. 7,188,180 B2 (Ex. 1001, "the '180 patent") pursuant to 35 U.S.C. §§ 311–319. On September 3, 2014, the Board instituted an *inter*

partes review of claims 1, 4, 6, 10, 12–15, 17, 20, 22, 26, 28–31, 33, 35, and 37 (Paper 10) ("Dec. on Inst.").

Subsequent to institution, VirnetX ("Patent Owner") filed a Patent Owner Response (Paper 19) ("PO Resp."), and Petitioner filed a Reply

(Paper 23) ("Pet. Reply"). An Oral Hearing was conducted on June 2, 2015.

The Board has jurisdiction under 35 U.S.C. § 6(c). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1, 4, 6, 10, 12–15, 17, 20, 22, 26, 28–31, 33, 35, and 37 of the '180 patent are unpatentable.

A. The '180 Patent (Ex. 1001)

The '180 patent describes methods for communicating over the Internet. Ex. 1001, 9:49–50.

B. Illustrative Claim

Claim 1 of the '180 patent is reproduced below:

1. A method for accessing a secure computer network address, comprising steps of:

receiving a secure domain name;

sending a query message to a secure domain name service, the query message requesting from the secure domain name service a secure computer network address corresponding to the secure domain name;

receiving from the secure domain name service a response message containing the secure computer network address corresponding to the secure domain name; and

> sending an access request message to the secure computer network address using a virtual private network communication link.

C. Cited Prior Art

Tavs	US 6,073,175	June 6, 2000	(Ex. 1008)
Bhatti	US 8,200,837 B1	June 12, 2012	(Ex. 1010)

Takahiro Kiuchi and Shigekoto Kaihara, "C-HTTP – The Development of a Secure, Closed HTTP-Based Network on the Internet," PROCEEDINGS OF SNDSS (1996) (Ex. 1004 – "Kiuchi").

References	Basis	Claims Challenged
Kiuchi	§ 102	1, 4, 10, 12–15, 17, 20, 26, 28–31, 33, and 35
Kiuchi and Bhatti	§ 103	1, 4, 10, 12–15, 17, 20, 26, 28–31, 33, and 35
Kiuchi and Tavs (alone or in combination with Bhatti)	§ 103	6, 22, and 37

D. Instituted Grounds of Unpatentability

E. Claim Interpretation

Virtual Private Network (VPN) Communication Link

We previously determined that, under a broad but reasonable construction, one of skill in the art would have understood the term "virtual private network communication link," in light of the Specification, to include "a transmission path between two devices that restricts access to data, addresses, or other information on the path, generally using obfuscation methods to hide information on the path, including, but not limited to, one or

more of authentication, encryption, or address hopping." Dec. on Inst. 6–7.¹ Patent Owner disputes this interpretation and argues that the term "virtual private network communication link" must be "a communication path between computers <u>in a virtual private network</u>" (PO Resp. 8), "requir[es] computers within a VPN to communicate directly" (PO Resp. 10), and requires a "network of computers," which, according to Patent Owner must be "more than a 'path between two devices."" PO Resp. 14.

We decline to modify our previous construction of this term in the manner suggested by Patent Owner because such a modification is immaterial in this proceeding for reasons set forth below. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.,* 200 F.3d 795, 803 (Fed. Cir. 1999) (claim terms need only be construed to the extent necessary to resolve the case).

Secure Computer Network Address

We previously construed the term "secure computer network address," broadly but reasonably, and in light of the Specification to mean "an address that requires authorization for access." Patent Owner does not agree with this construction and argues that one of skill in the art would have broadly but reasonably understood the term "secure computer network address," in light of the Specification, to require the secure computer network address to be "associated with a computer capable of virtual private network communications." PO Resp. 16.

¹ Our construction is consistent with the broadest, reasonable construction in *Inter Partes* Reexamination Control No. 95/001,792. *See Cisco Systems, Inc. v. VirnetX, Inc.*, Appeal 2014-000491, slip. op. at 4–8 (PTAB Apr. 1, 2014) (Decision on Appeal) (involving U.S. Patent No. 7,188,180).

Patent Owner argues that one of ordinary skill in the art would have understood that a "secure computer network address" must be "associated with a computer capable of virtual private network communications" because a claim recites "sending an access request message to the secure computer network address using a virtual private network communication link." PO Resp. 16. We agree with Patent Owner that claim 1, for example, recites "sending an access request message to the secure computer network" address using a virtual private network communication link." However, Patent Owner does not explain sufficiently why an explicitly recited claim limitation must be incorporated into the construction of an associated claim term. Indeed, if one of ordinary skill in the art would have understood that all secure computer network addresses must be associated with a computer capable of VPN communications and that any computer network address that is associated with computers that are incapable of VPN communications would be understood by one of ordinary skill in the art not to be a "secure computer network address" (even if authorization for access is required), then any such recited claim limitation would be superfluous.

Patent Owner also argues that "VirnetX's proposed construction has been agreed to by its litigation adversaries and has been adopted by a district court." PO Resp. 17. Even if Patent Owner's proposed construction "has been agreed to by" parties in litigation and the district court, Patent Owner does not assert or demonstrate persuasively that one of ordinary skill in the art would have broadly but reasonably construed the term "secure computer network address" in light of the Specification to require association with a computer capable of virtual private network communications.

In any event, Patent Owner does not appear to contend that the cited references fail to disclose a secure computer network address that is associated with a computer capable of VPN communications and, therefore, does not demonstrate sufficiently that the construction of "secure computer network address" will bear on the outcome of the issues in this *inter partes* review. We decline to modify our construction of this term.

Secure Domain Name

We previously construed the term "secure domain name," broadly but reasonably, and in light of the Specification to mean "a name that corresponds to a secure computer network address." Patent Owner does not agree with this construction and argues that one of skill in the art would have broadly but reasonably understood the term "secure domain name," in light of the Specification, to require "a non-standard domain name that corresponds to a secure computer network address and cannot be resolved by a conventional domain name service (DNS)." PO Resp. 19. In support of Patent Owner's proposed construction of the term, Patent Owner states that the Specification "takes pains to explain" the difference between a "secure domain name" and a "name that corresponds to a secure computer network address." PO Resp. 18 (citing Ex. 1023, 802 (citing Ex. 1001, 51:18–32)).

The cited portions of the Specification disclose an example of "replac[ing] the top-level domain name . . . with a secure top-level domain name." Ex. 1001, 51:19–21. Patent Owner does not demonstrate that the Specification also discloses that a secure domain name must be "non-standard" and must be incapable of being resolved by a conventional domain

name service. For at least this reason, we do not agree with Patent Owner's proposed construction of the term.

We also adopt and incorporate by reference our analysis of this construction in the companion case. *See Apple Inc. v. VirnetX Inc.*, Case IPR2014-00481, slip. op. at 13–14 (PTAB 8/24/15) (also discussing prosecution history).

Thus, we decline to modify our construction of this term.

Secure Domain Name Service

Patent Owner argues that one of skill in the art would have broadly but reasonably understood the term "secure domain name service," in light of the Specification, to require "recogniz[ing] that a query message is requesting a secure computer address." PO Resp. 20.

Claim 1, for example, recites sending a query message to "a secure domain name service" requesting a secure computer network address and receiving "a response message containing the secure computer network address." Patent Owner does not demonstrate sufficiently that claim 1 otherwise requires that the "secure domain name service" "recognizes that the query message is requesting a secure computer address." "[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms" and "the context in which a term is used in the asserted claim can be highly instructive." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005). At least based on the context of the claim, we cannot agree with Patent Owner that one of ordinary skill in the art would have understood that "recogniz[ing]" is required by claim 1 in the absence of a recitation suggesting this alleged requirement.

We also look to the Specification in construing claim terms under a broad but reasonable standard because "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." *Phillips*, 415 F.3d at 1313 (citing *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998)). Patent Owner does not indicate that the Specification discloses that "recogniz[ing]" is required by a secure domain service in either sending a query message to the secure domain service or receiving a response message from the secure domain name service. Nor do we identify such a disclosure in the Specification. Hence, further based on the context of the Specification, we cannot agree with Patent Owner that one of ordinary skill in the art would have understood that a "secure domain name service" must have any specific recognition capabilities in the absence of such a disclosure in the Specification of this alleged requirement.

Patent Owner argues that "VirnetX has disclaimed secure domain services that do not perform this recognition" and that "[a] district court later relied on VirnetX's statements." PO Resp. 20–21. However, Patent Owner does not indicate that the district court determined how one of ordinary skill in the art would have construed the term "secure domain name service" broadly but reasonably in light of the Specification and that, under this broad but reasonable construction, one of ordinary skill in the art would have understood that the "secure domain name service" to require "recogniz[ing]."

Patent Owner argues that, during a reexamination proceeding, Patent Owner allegedly proposed various examples of possible functionality of a

secure domain name service. For example, Patent Owner argues that in the reexamination proceeding, Patent Owner allegedly stated that a secure domain name service "may allow an entity to register . . . names" and "may . . . support the establishment of a VPN communication link." PO Resp. 21. However, Patent Owner does not demonstrate persuasively that these possible functions of a secure domain service (i.e., that a secure domain service "may" register names or support a VPN link) support the contention that one of ordinary skill in the art would have understood that a secure domain service requires "recogniz[ing]."

We also adopt and incorporate by reference our analysis of this construction in the companion case. *See Apple Inc. v. VirnetX Inc.*, Case IPR2014-00481, slip. op. at 14–26 (PTAB 8/24/15). For at least the above reasons, we do not adopt Patent Owner's proposed construction of the term "secure domain name service."

<u>Client Computer</u>

Patent Owner argues that one of skill in the art would have understood that a "client computer" must be a "user's computer." PO Resp. 22. Claim 15 recites a client computer that performs the method of claim 1.

Patent Owner argues that a "client computer" must be a "user's computer" but does not specify a difference between a "client computer" and a "user's computer." Instead, Patent Owner merely states that the Specification discloses a "user's computer 2601." PO Resp. 22 (citing Ex. 1001, 40:53–56). We note that the Specification illustrates a component "2601" but does not appear to disclose that component "2601" is a "user computer." Spec. Fig. 26. Indeed, the Specification does not appear to

disclose any specific name for component "2601" at all. Even if the Specification explicitly disclosed that component "2601" as illustrated in Figure 26 of the Specification is a "user's computer," Patent Owner does not explain sufficiently why one of ordinary skill in the art would have understood that a "client computer," as recited in claim 15 must be a "user's computer," or how such a "user's computer" would differ from a "client computer." PO Resp. 22.

Patent Owner also argues that the Specification discloses a "computer 3301" that "is manned by a user." PO Resp. 22–23. We note that the Specification discloses that element "3301" is a "client computer" (*see*, *e.g.*, Ex. 1001, 50:2). Patent Owner does not indicate if the Specification refers to element "3301" as a "user's computer" as well, and, if so, how calling element "3301" a "user's computer" (as opposed to a "client computer") would result in a difference in element "3301," what this supposed difference would be, and how this supposed difference would modify the broad but reasonable construction of the term "client computer," as recited in claim 15.

Patent Owner also argues that the Specification discloses a "user's computer 2501." PO Resp. 23 (citing Ex. 1001, 39:53–55, 40:36–38). The Specification discloses a "user's computer 2501" that "includes a client application 2504." Ex. 1001, 39:53–54. The Specification also discloses that the "user's computer 2601 includes a conventional client (e.g., a web browser)." Ex. 1001, 40:36–38. Hence, as Patent Owner points out, the Specification discloses an example of a component referred to as "user's computer" (i.e., element 2601) that includes "a client application" and the "client application" may be, in one example, a "web browser." Patent

Owner does not assert or demonstrate persuasively that the Specification also discloses that the "user's computer 2601" is a "client computer," as recited in claim 15. Nor does Patent Owner demonstrate sufficiently how one of ordinary skill in the art, based on this disclosure of a "user's computer," would broadly but reasonably construe the term "client computer," as recited in claim 15 to be required to be a "user's computer."

The '180 patent Specification employs the term "user's computer" in a "conventional scheme . . . shown in FIG 25. A user's computer 2501 includes a client application 2504 (for example a web browser)" Ex. 1001, 39:53–55. Although Patent Owner refers to this "conventional" computer as "another embodiment," the '180 patent Specification disparages the "conventional architecture" that employs a user's computer, because it is not secure enough. *See id.* at 39:63–40:5; PO Resp. 21. In general, the '180 patent Specification states that "[t]he present invention" involves a "client computer" with a "client application" that "communicates with a server." *See* Ex. 1001, 7:43–50. This description of "[t]he present invention" does not mention, let alone require, a "user's computer."

Therefore, contrary to Patent Owner's arguments, the '180 patent Specification does not repeatedly treat a "client computer" and a "user's computer" as the same. The broadest reasonable construction of a client computer is a computer associated with a client.

We also adopt and incorporate by reference our analysis of this construction in the companion case. *See Apple Inc. v. VirnetX Inc.*, Case IPR2014-00481, slip. op. at 26–27 (PTAB 8/24/15) (also discussing prosecution history).

For at least the above reasons, we do not adopt Patent Owner's proposed construction of the term "client computer" as a "user's computer." Instead, we construe the term "client computer," broadly but reasonably, to include a computer associated with a client.

Access Request Message

As Patent Owner explains, the construction of this term "do[es] not appear to be relevant to the parties' disputes." PO Resp. 25.

II. ANALYSIS

A. *Kiuchi*

For at least the foregoing reasons, we find that Petitioner has demonstrated that claims 1, 4, 10, 13–15, 17, 20, 26, 29–31, 33, and 35 are anticipated by Kiuchi under 35 U.S.C. § 102.

Petitioner explains that Kiuchi discloses that a client-side proxy "asks the C-HTTP name server whether it can communicate with the host specified in a given URL" and, in response, receiving "the IP address" of the (requested) server-side proxy (i.e., sends a "query message" requesting "a secure computer network address" and receives a "response message" that contains the requested address that corresponds to the server-side proxy). Pet. 24–25 (emphasis omitted). As Petitioner also explains, Kiuchi discloses the client-side proxy "forwards HTTP/1.0 requests" to the requested serverside proxy after the connection is established. Pet. 25.

Patent Owner argues that Kiuchi discloses a "host address as the 'secure computer network address' to which the secure domain name corresponds" but that the response message of Kiuchi contains a "secure

computer network address" of "the server-side proxy" (and not the "host"). PO Resp. 32 (emphasis omitted). In other words, Patent Owner argues that, in contrast to claim 1, which requires sending a query message requesting an address and receiving a response message containing the address requested in the query message, Kiuchi discloses sending a query message requesting an address of "the host" but receiving a response message containing an address of "the host" but receiving a response message containing an address of "the server-side proxy," rather than "the host." Based on this presumption that "the host" of Kiuchi differs from the "server-side proxy" of Kiuchi, Patent Owner argues that Kiuchi fails to disclose the claimed invention and also that "the Board has exceeded its statutory authority by instituting in part on rationales that were not before it." PO Resp. 30. However, Patent Owner does not explain sufficiently a difference between "the host" and the "server-side proxy" of Kiuchi.

Kiuchi discloses that a client-side proxy "asks the C-HTTP name server whether it can communicate with the host" and that, in response, the C-HTTP name server examines "the requested *server-side proxy*" and responds by sending the IP address of the server-side proxy. Ex. 1004, 65 (emphasis added). In other words, Kiuchi discloses that "the host" that is requested is the requested "server-side proxy."

Patent Owner argues that "*Kiuchi* explains that the origin server is the host." PO Resp. 33 (citing Ex. 1004, 65, § 2.3(1)–(2)). We have examined the cited portions of Kiuchi but do not agree with Patent Owner that Kiuchi discloses that "the origin server is the host." Instead, as previously discussed, Kiuchi explicitly discloses that "the host" is the server-side proxy. In fact, Kiuchi does not appear to disclose or otherwise refer to the "origin server" in the cited portion of the reference at all.

Patent Owner argues that Kiuchi discloses that "the C-HTTP name server is provided with this URL . . . [and] responds not with the host/origin server's network address . . . but with the IP address of the <u>server-side</u> <u>proxy</u>." PO Resp. 36. We agree with Patent Owner that Kiuchi discloses the C-HTTP name server providing the IP address of the server-side proxy. For reasons previously discussed, Patent Owner has not demonstrated sufficiently a difference between receiving from the C-HTTP name server a response message containing the IP address corresponding to the server-side proxy and receiving from the secure domain name service a response message containing the secure computer network address corresponding to the secure domain name, as recited in claim 1, for example.

Patent Owner argues that Kiuchi fails to disclose an access request message. PO Resp. 36. In particular, Patent Owner argues that Kiuchi discloses an "HTTP/1.0 request" but that Kiuchi fails to disclose "sending the HTTP/1.0 message to the alleged secure computer network address." PO Resp. 39. Claim 1 recites "sending an access request message to the secure computer network address." Patent Owner does not demonstrate that claim 1 also recites "sending an HTTP/1.0 request to the secure computer network address" or that the "access request message" is an "HTTP/1.0 request." For at least this reason, we are not persuaded by Patent Owner's argument.

Even if claim 1 recited "sending an HTTP/1.0 request to the secure computer network address," as Patent Owner contends could have been recited in claim 1, we disagree with Patent Owner that Kiuchi fails to disclose this proposed feature. For example, Kiuchi discloses "sending . . . requests to the server-side proxy" in which "a client-side proxy forwards HTTP/1.0 requests" to the server-side proxy. Ex. 1004, 66. Patent Owner

does not demonstrate persuasively a material difference between the clientside proxy "sending" a request to a server-side proxy and a client-side proxy "forwarding" a request to a server-side proxy. In both cases, a request is transmitted from the client-side proxy to the server-side proxy.

Patent Owner argues that the "HTTP/1.0 message" of Kiuchi is not the same as the claimed "access request message" because, according to Patent Owner, the "HTTP/1.0 message" of Kiuchi "seeks an HTML resource from the origin/host server" but "does not seek any 'communication, information, or services' with the server-side proxy." PO Resp. 39. As previously discussed, Kiuchi discloses a client-side proxy "[s]ending C-HTTP request to the server-side proxy" in which the "client-side proxy forwards the HTTP/1.0 request" to the server-side proxy for communication and exchange of services between devices. Ex. 1004, 66. For example, Kiuchi discloses one example in which "patient information" is "transfer[red]" "among hospitals and related institutions." Ex. 1004, 64. Patent Owner does not indicate sufficiently how Kiuchi's request for communication between network devices for communication or information (e.g., patient information) exchange, for example, differs from a device seeking "any communication, information, or services." Hence, to the extent that claim 1 requires seeking "any communication, information, or services," we disagree with Patent Owner that Kiuchi fails to disclose this feature.

Patent Owner also argues that the "HTTP/1.0 message" of Kiuchi is not the same as the claimed "access request message" because, according to Patent Owner, the "HTTP/1.0 message" of Kiuchi "is not sent using a Virtual private network communication link." PO Resp. 40 (bolding

omitted). Patent Owner also argues that Kiuchi fails to disclose sending a request "using a virtual private network communication link" because "*Kiuchi's* C-HTTP system lacks the 'network' aspect of a VPN." PO Resp. 41. Hence, Patent Owner argues that Kiuchi fails to disclose a "network." We disagree with Patent Owner's argument.

For example, Kiuchi discloses one embodiment of the use of a C-HTTP name server (and client-side and server-side proxies) in "networks among hospitals and related institutions." Ex 1004, 64. At least in view of this explicit disclosure of "networks," we are not persuaded by Patent Owner that Kiuchi fails to disclose a "network."

Patent Owner also argues that "any message from the client-side proxy [of Kiuchi] is not sent using a VPN communication link" because "*Kiuchi* fails to disclose direct communications." PO Resp. 43. Hence, Patent Owner argues that Kiuchi fails to disclose a "direct communication." Claim 1, for example, recites sending an access request to the secure network address using a virtual private network communication link. Claim 1 does not recite sending an access request message over a "direct communication." At least for this reason, we are therefore not persuaded by Patent Owner's argument.

To the extent that Patent Owner argues that a "direct communication" is recited implicitly in claim 1, for example, we disagree with Patent Owner at least because even if a "direct communication" is required, Kiuchi discloses this feature. As discussed above, Kiuchi discloses a client-side proxy (i.e., first network device) "[s]ending C-HTTP requests to the server-side proxy" in which the client-side proxy "forwards HTTP/1.0 requests" to the server-side proxy. Ex. 1004, 66. Kiuchi also discloses that "[a] client-

side proxy and server-side proxy communicate with each other using a secure, encrypted protocol." Ex. 1004, 64. Kiuchi does not disclose that the communication between the client-side proxy and the server-side proxy is not a "direct communication" and Patent Owner does not explain adequately how the communication between the client-side proxy and the server-side proxy of Kiuchi differs from a "direct communication," as Patent Owner contends is recited implicitly in claim 1.

Regarding claims 13, 15, 29, and 31, Patent Owner argues that Kiuchi fails to disclose a client computer. PO Resp. 48. Claim 13 recites sending the access request message at the client computer and claim 15 recites that the method is performed by a client computer. In particular, Patent Owner argues that "evidence showed that the user agent containing a web browser behind the client-side proxy was the true client [computer] in Kiuchi." PO Resp. 49. Hence, Patent Owner argues that while Kiuchi discloses a "user agent" and a "client-side proxy," the "user agent" of Kiuchi corresponds to the claimed "client computer" and the "client-side proxy" of Kiuchi supposedly does not. We are not persuaded by Patent Owner's arguments at least because Patent Owner does not demonstrate sufficiently a difference between Kiuchi's "client-side proxy" and the claimed "client computer." For example, while Patent Owner argues that there is "evidence" that shows allegedly that the "user agent" of Kiuchi corresponds to the claimed "client computer," the alleged "evidence" is not before us and does not appear to be part of the record. In addition, Patent Owner does not indicate that there was also "evidence" (and what such "evidence" would be) that shows that the "client-side proxy" of Kiuchi cannot be equated with the claimed "client computer" and any reasons in support of such a theory. We do not

independently identify any reasons why the "client-side proxy" of Kiuchi cannot be equated with the claimed "client computer."

Patent Owner argues that the "client-side proxy" of Kiuchi cannot be equated with the claimed "client computer" because, according to Patent Owner, "there was evidence that the 'client' of *Kiuchi* is actually a web browser, a component that is distinguishable from the client-side proxy." PO Resp. 49 (quoting *VirnetX v. Cisco Sys.*, 767 F.3d at 1324). Even if Patent Owner is correct that a "client" of Kiuchi is a "web browser," Patent Owner does not demonstrate sufficiently a meaningful difference between the claimed "client computer" and the "client-side proxy" of Kiuchi. For example, although Patent Owner argues that the Federal Circuit commented on the term "client," Patent Owner does not assert that the Federal Circuit also commented on the term "client computer" and the relevance of any such potential comments to the issue as to whether the "client-side proxy" of Kiuchi does or does not encompass the claimed "client computer." We do not independently identify any comments by the Federal Circuit pertaining to the claimed "client computer."

Patent Owner argues that "*Kiuchi* describes the system in a way that differentiates its proxies from its user agent computers." PO Resp. 50. In other words, Patent Owner argues that the "client-side proxy" of Kiuchi somehow differs from the "user agent" of Kiuchi. The issue before us is whether the "client-side proxy" of Kiuchi encompasses the claimed "client computer," and not whether the "client-side proxy" of Kiuchi is or is not the same as the "user agent" of Kiuchi. Thus, even if Patent Owner's contention is correct that the "client-side proxy" of Kiuchi is different from the "user agent" of Kiuchi, Patent Owner does not assert or demonstrate adequately a

difference between the "client-side proxy" of Kiuchi and the *claimed* "client computer." Patent Owner's argument is not persuasive.

Patent Owner also argues that if the "client-side proxy" of Kiuchi is equated with the claimed "client computer," then Kiuchi's system "collapses ... into a system of the type *Kiuchi* criticizes, where an end-user has an opportunity to obtain the institution's public key." PO Resp. 50. First, we disagree with Patent Owner that equating Kiuchi's "client-side proxy" with the *claimed* "client computer," has any bearing on any potential or alleged criticisms that may or may not be disclosed by Kiuchi. We note that although Patent Owner's proposes an alleged "criticism" in Kiuchi of "obtain[ing] the institution's public key," claim 13, for example, does not recite preventing or enabling a user from obtaining an institution's public key. Indeed, claim 13 does not recite a "public key" at all.

Considering the claim limitations that *are* recited by the claims, Kiuchi does not disclose that utilizing the "client-side proxy" to send a query message, receive a response message, or send an access request message, as recited in claim 15 (which depends from claim 1), for example, would result in any particular "criticism" of the Kiuchi system. In fact, as previously discussed, Kiuchi appears to disclose the "client-side proxy" performing each of these claim features.

Patent Owner argues that one of ordinary skill in the art would have construed the term "client computer" broadly but reasonably "to mean 'user's computer" and that Kiuchi fails to disclose a "client computer" under this proposed construction. PO Resp. 52–53. For at least the reasons discussed above, we do not adopt Patent Owner's proposed construction of

the claim term "client computer." We are not persuaded by Patent Owner's arguments.

Regarding claims 12 and 28, Patent Owner argues that Kiuchi fails to disclose that "the access request message contains a request for information stored at the secure computer network address." PO Resp. 45. Petitioner contends that Kiuchi discloses "[o]nly after receiving all the data transferred from one side, does a proxy server begin to forward it to the other side." Pet. 26. Hence, Petitioner contends that Kiuchi discloses a server-side proxy that "stores" the requested information. However, as Patent Owner explains, the C-HTTP request of Kiuchi (equated with the claimed request) "is not a request for information stored at the server-side proxy's address." PO Resp. 47. We agree with Patent Owner.

Claim 12, for example, recites that "the access request message contains a request for information stored at the secure computer network address." Claim 28 recites a similar feature. Kiuchi discloses "[s]ending C-HTTP requests to the server-side proxy" and, in response, the "[o]rigin server respon[ds] to the user agent through the server-side and client-side proxies (Fig. 2h)." Ex. 1004, 66. In other words, in Kiuchi, the information requested by the user (i.e., information requested in the "C-HTTP request" that is directed to the server-side proxy) is stored at the "origin server" and not stored at the "secure computer network address" (i.e., the server-side proxy) as recited in claim 12 or claim 28.

Petitioner argues that "the actual data provided by the server-side proxy is the data *stored into* the server-side proxy" and a request is "for' the information eventually stored at the server-side proxy." Pet. Reply 11 (citing Pet. 26). Even if Kiuchi discloses a request for information "stored

into" or "eventually stored at" a secure computer network address, as Petitioner contends, we note that claim 12 and claim 28 recite a request for information stored at the secure computer network address and do not appear to recite a request for information "stored into" or "eventually stored at" the secure computer network address. For at least this reason, we are not persuaded by Petitioner's arguments with respect to claims 12 and 28.

B. Kiuchi and Bhatti (and/or Tavs)

Patent Owner argues that Petitioner fails to provide "reasons why one of ordinary skill in the art would have combined *Kiuchi* with the other references." PO Resp. 3. Petitioner provides reasons with supporting factual underpinnings to support the conclusion that the combination of Kiuchi and Bhatti (and/or Tavs) would have been obvious to one of ordinary skill in the art. Pet. 34–35, 38–39. For example, Petitioner states that

one of ordinary skill in the art would implement <u>Kiuchi's</u> user agent such that the user agent sends an access request for content stored on the origin server, in the same manner that <u>Bhatti</u> describes sending an access request from a user terminal for content stored [on] a content server.

Pet. 38. Petitioner also states that "[i]t would have been obvious to one of ordinary skill at the time of the '180 patent to modify the client-side proxy and server-side proxy described by <u>Kiuchi</u> to support the service-level categorization and differentiation described by <u>Tavs</u> in order to give priority to business-relevant traffic during peak network congestion." Pet. 34.

Patent Owner does not dispute the reasons provided by Petitioner as to why it would have been obvious to one of ordinary skill in the art to have combined teachings of Kiuchi and Bhatti (and/or Tavs) but argues that this

obviousness ground "is critically flawed because the Petition relies solely on missing expert testimony for its rationale for combining" the references. PO Resp. 54, 56. However, Patent Owner does not explain why Petitioner is required to provide expert testimony in support of a proposed ground of unpatentability. Nor does Patent Owner explain the supposed flaws in the rationale provided by Petitioner.

Patent Owner argues that Bhatti does not "cure[] all of the deficiencies of *Kiuchi*" or "remedy these deficiencies of *Kiuchi*." PO Resp. 54, 57. However, as discussed above, Patent Owner does not point out a specific deficiency of Kiuchi.

Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined teachings of Kiuchi and Bhatti because such a combination would "lose alignment with their designated 'secure computer network address.'" PO Resp. 54–55. Hence, Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined the "secure computer network address" of Bhatti with the "secure computer network address" of Kiuchi because doing so would somehow "lose alignment."

Even if Patent Owner is correct that "alignment" would be somehow lost or otherwise diminished if a "secure computer network address" of Bhatti was applied to a "secure computer network address" of Kiuchi, we are not persuaded by Patent Owner's argument because Petitioner does not rely on or propose combining a "secure computer network address" of Bhatti with a "secure computer network address" of Kiuchi. Instead, Petitioner argues that Kiuchi discloses communications between devices that "are performed based on HTTP/1.0" and that Bhatti discloses "the actual nature

of these HTTP communications" as would have been understood by one of ordinary skill in the art as "between the user terminals and content server." Pet. 37–38.

With respect to the Tavs reference, Petitioner states that Tavs discloses "a similar system structure to the one described in <u>Kiuchi</u>" but additionally discloses that it would have been known to one of ordinary skill in the art to "embed the service-level information in the HTTP header request" as "a form of categorization for the request and the resulting response." Pet. 31–32. Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined teachings of Tavs and Kiuchi because doing so would not have permitted one of ordinary skill in the art "to more efficiently handle increased network congestion," would "require . . . additional steps," "would add computational burden and strain," would "potentially increase[e] response time and exacerbating network congestion," and "would significantly increase the burden on each of the proxies rather than relieving network congestion." PO Resp. 58–59 (citing Pet. 35). We are not persuaded by Patent Owner's argument.

"A person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007). One of ordinary skill in the art, not being a mere "automaton," would have had sufficient skill and knowledge in the art to have applied a known function of sending a request, as disclosed by Kiuchi or Tavs and further would have understood the option of applying the known function of adding any desired information into the request, as disclosed by Tavs. One of ordinary skill in the art, being "a person of ordinary creativity," would have understood further that if adding the desired information into the request

would have resulted in excessive negative side effects to such a degree as to make the addition of such desired information in the request undesirable, then not adding the information might be preferable. In either case, we are not persuaded by Patent Owner's implication that the possibility that one of ordinary skill in the art might weigh the pros and cons of performing a known function of adding desired information into a request to obtain the predictable result of sending a request that contains desired information would indicate that the act of adding the desired information into the request itself would somehow not be obvious to one of ordinary skill in the art.

In any event, to the extent that any "secure computer network addresses" disclosed by Bhatti might cause loss of "alignment" with any "secure computer network addresses" disclosed by Kiuchi, as Patent Owner suggests, or that adding desired information into a request, as disclosed by Tavs, might result in some degree of "network congestion," we note that "[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *see also In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) ("[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review."); *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) ("Combining the *teachings* of references does not involve an ability to combine their specific structures.").

We are not persuaded by Patent Owner's argument.

With respect to claims 12 and 28, Petitioner does not assert or demonstrate that Bhatti or Tavs makes up for the deficiencies of Kiuchi.

ORDER

Petitioner has demonstrated, by a preponderance of the evidence, that claims 1, 4, 10, 13–15, 17, 20, 26, 29–31, 33, and 35 are anticipated under 35 U.S.C. § 102 by Kiuchi or unpatentable under 35 U.S.C. § 103(a) over Kiuchi and Bhatti and that claims 6, 22, and 37 are unpatentable over 35 U.S.C. § 103(a) over the combination of Kiuchi and Tavs, alone or in combination with Bhatti.

Petitioner has not demonstrated that claims 12 and 28 are anticipated under 35 U.S.C. § 102 by Kiuchi or unpatentable under 35 U.S.C. § 103(a) over Kiuchi and Bhatti.

In consideration of the foregoing, it is hereby:

ORDERED that claims 1, 4, 6, 10, 13–15, 17, 20, 22, 26, 29–31, 33, 35, and 37 of the '180 patent have been shown to be unpatentable;

This is a Final Written Decision. Parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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