

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BLACK SWAMP IP, LLC,
Petitioner,

v.

VIRNETX INC.,
Patent Owner.

Case IPR2016-00693
Patent 7,418,504 B2

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

SIU, *Administrative Patent Judge*.

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

Black Swamp IP, LLC (“Petitioner”) requested *inter partes* review of claims 1, 2, 5, 6, 15, 16, 27, 33, 36, 37, 39, 40, 51, 57, and 60 of U.S. Patent No. 7,418,504 B2 (“the ’504 patent”). Pet. 1. We issued a Decision to institute an *inter partes* review (Paper 8, “Inst. Dec.”) of claims 1, 2, 5, 6, 15, 16, 27, 33, 36, 37, 39, 40, 51, 57, and 60 of the ’504 patent under 35 U.S.C. § 102 as anticipated by Kiuchi.¹ Inst. Dec. 2, 9.

After institution of trial, VirnetX Inc. (“Patent Owner”) filed a Patent Owner’s Response (Paper 10, “PO Resp.”), to which Petitioner replied (Paper 12, “Pet. Reply”). In response, Petitioner filed “Patent Owner’s Identification of New Issues in Petitioner’s Reply Brief” (Paper 13, “PO Identification”). Oral argument was not requested by any of the involved parties.

We have jurisdiction under 35 U.S.C. § 318(a). After considering the evidence and arguments of both parties, and for the reasons set forth below, we determine that Petitioner met its burden of showing, by a preponderance of the evidence, that claims 1, 2, 5, 6, 15, 16, 27, 33, 36, 37, 39, 40, 51, 57, and 60 of the ’504 patent are unpatentable.

RELATED MATTERS

The ’504 patent is the subject of the following civil actions: (i) Civ. Act. No. 6:13-cv-00211-LED (E.D. Tex.); (ii) Civ. Act. No. 6:12-cv-00855-LED (E.D. Tex.); and (iii) Civ. Act. No. 6:10-cv-00417-LED (E.D. Tex.); Civ. Act. No. 6:11-cv-00018 (E.D. Tex.); Civ. Act. No. 6:13-cv-00351 (E.D.

¹ Takahiro Kiuchi and Shigekoto Kaihara, C-HTTP – *The Development of a Secure, Closed HTTP-Based Network on the Internet*, PROCEEDINGS OF THE SYMPOSIUM ON NETWORK AND DISTRIBUTED SYSTEM SECURITY, IEEE 64-75 (1996) (Ex. 1005, “Kiuchi”).

Tex.); Civ. Act. No. 6:13-mc-00037 (E.D. Tex.); and Civ. Act. No. 9:13-mc-80769 (E.D. Fla). Pet. 2.

The '504 patent is also the subject of Reexamination Control Nos. 95/001,788 and 95/001,851. Pet. 2.

THE '504 PATENT (EX. 1001)

The '504 Patent discloses a system and method for communicating over the internet. Ex. 1001 3:14-15.

ILLUSTRATIVE CLAIM(S)

Independent claim 1 is representative of the claimed subject matter. Claim 1 is reproduced below:

1. A system for providing a domain name service for establishing a secure communication link, the system comprising:
 - a domain name service system configured to be connected to a communication network, to store a plurality of domain names and corresponding network addresses, to receive a query for a network address, and to comprise an indication that the domain name service system supports establishing a secure communication link.

OVERVIEW OF PRIOR ART

Kiuchi (Exhibit 1005)

Kiuchi discloses closed networks (closed HTTP (Hypertext Transfer Protocol)-based network (C-HTTP)) of related institutions on the Internet. Ex. 1005, 64. A client and client-side-proxy “asks the C-HTTP name server whether it can communicate with the [specified] host.” *Id.* at 65. If “the query is legitimate” and if “the requested server-side proxy is registered in the closed network and is permitted to accept the connection,” the “C-HTTP

name server sends the [requested] IP address.” *Id.* After confirmation by the C-HTTP name server “that the specified server-side proxy is an appropriate closed network member, a client-side proxy sends a request for connection to the server-side proxy, which is encrypted.” *Id.*

The server-side proxy “accepts [the] request for connection from [the] client-side proxy” (*id.* at 65) and, after the C-HTTP name server determines that “the client-side proxy is an appropriate member of the closed network,” that “the query is legitimate,” and that “the client-side proxy is permitted to access . . . the server-side proxy,” the “C-HTTP name server sends the IP address [of the client-side proxy].” *Id.* at 66. Upon receipt of the IP address, the server-side proxy “authenticates the client-side proxy” and sends a connection ID to the client-side proxy. After the client-side proxy “accepts and checks” the connection ID, “the connection is established,” after which time the client-side proxy forwards “requests from the user agent in encrypted form using C-HTTP format.” *Id.*

ANALYSIS

Petitioner explains that Kiuchi discloses a “C-HTTP name server [that] operate[s] as a domain name service system [and] is connected to the Internet (which is a communication network).” Pet. 20 (citing Ex. 1005, 64–65). According to Petitioner, “Kiuchi discloses that the C-HTTP name server stores IP addresses and corresponding hostnames” because Kiuchi discloses that “each proxy will register an IP address and a hostname . . . with the C-HTTP name server . . . [that] correspond to one another [such that] the IP address is a network address and the hostname is a domain name.” Pet. 20–21 (citing Ex. 1005, 65).

Petitioner also argues 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, if so, [the C-HTTP name server] provides an IP address (i.e., a network address) to the client-proxy.” Pet. 21, 22 (citing Ex. 1005, 65). In other words, according to Petitioner, Kiuchi discloses that the domain name service system of Kiuchi (i.e., the C-HTTP name server) receives a query for a network address (i.e., a client-side proxy “asks” the server for a network address, or an “IP address”).

Petitioner also states that “the C-HTTP name server [of Kiuchi] facilitates the establishment and operation of a secure communication link between the client-side proxy and the server-side proxy” and that “[t]he establishment and operation of a secure communication link in Kiuchi . . . is in and of itself ‘an indication that the domain name service system supports establishing a secure communication link.’” Pet. 23.

Claim 1 – Indication

Claim 1 recites “an indication that the domain name service system supports establishing a secure communication link.” As indicated above, Petitioner argues that “Kiuchi’s C-HTTP name server . . . determines if a query from the client-proxy is legitimate [and, if so,] . . . the C-HTTP name server provides an IP address . . . of the server-side proxy to the client-side proxy.” Pet. 22 (citing Ex. 1005 65). Also as discussed above, Petitioner also argues that “[t]he establishment . . . of a secure communication link in Kiuchi . . . is in and of itself ‘an indication’” Pet. 23.

Claim 1 recites “a domain name service system for establishing a secure communication link” and that the domain name service system is

configured to “comprise an indication that the domain name service system supports establishing a secure communication link.” Patent Owner argues that “it is improper to equate establishing a secure communication link with indicating whether the domain name service system supports establishing a secure communication link” because claim 1 “separately recit[es] ‘establishing a secure communication link,’ . . . and ‘an indication that the domain name service system supports establishing a secure communication link.’” PO Resp. 22, 30 (citing Ex. 2015 ¶¶ 34, 46). Patent Owner does not explain sufficiently how a system that establishes a secure link somehow does not “indicate” that it supports doing so if the system establishes the secure link. One of skill in the art would have understood a system that establishes a secure link would support doing so at least as a matter of common sense. If the system did not support establishing a secure link, one of skill in the art would have expected such a system not to actually establish a secure link (the system not supporting such an action). This is contrary to Kiuchi’s system, for example, in which a secure link is established (thereby “indicating” that it supports doing so).

For example, the “domain name service system” is recited in claim 1 as “establishing a secure communication link,” and comprising “an indication that the . . . system” may support the recited function of “establishing a secure communication link.” We do not observe, nor does Patent Owner point out in a meaningful way, any conflicts between a recited system comprising an “indication” that the system supports a recited function by performing the function that it supports and a recitation that the system is designed to perform that function.

Additionally, we note that claim 1 recites “a secure communication link” in the preamble and recites an “indication that the . . . system supports . . . a secure communication link” in the body of claim 1. The second recitation of “a” secure communication link does not have antecedent basis to the secure communication link in the preamble and, therefore, may not be the same “secure communication link” as that recited in the preamble.

Patent Owner further argues that establishing a link does not constitute an “indication” that the system supports establishing the link because “the plain language of the claims . . . teaches that the indication that the DNS system *supports establishing* a secure communication link *precedes* the *establishing* of a secure communication link.” PO Resp. 23. Patent Owner appears to be arguing that the “indication,” as recited in claim 1, must be provided prior to establishing a secure communication link. We disagree with Patent Owner that claim 1 recites this alleged requirement. Rather, claim 1 merely recites a domain name service system configured to comprise an indication that the domain name service system supports establishing a secure communication link. Hence, claim 1 recites an “indication” of a certain condition (i.e., that the system supports establishing a link) but does not require the “indication” to be provided at any specific point in time or that the “indication” must be provided at any time relative to the actual establishment of a secure communication link. In fact, claim 1 merely recites a system configured to comprise an indication that the system supports establishing a link and does not require actual indicating or establishing at all much less that any “indicating” must be performed in a particular temporal relationship with “establishing.”

Patent Owner also argues that Kiuchi fails to disclose an “indication” because “VirnetX unequivocally disclaimed from the scope of the indication phrases the establishment of a secure communication link itself” and that “Patent Owner’s adversary recognized this disclaimer during litigation involving the ’504 patent.” PO Resp. 23 (citing Ex. 2017, 27; Ex. 2018, 11; Ex. 2016, 9–10). Patent Owner cites to similar arguments previously presented to the Examiner in a reexamination proceeding (Ex. 2017) and for purposes of claim construction in a related litigation proceeding (Exs. 2016, 2018). We are not persuaded by Patent Owner’s argument.

With respect to Patent Owner’s assertion that an “adversary” supposedly “recognized [Patent Owner’s alleged] disclaimer during litigation,” we note that Patent Owner does not provide a sufficient showing of relevance of this presumed “recognition” of an alleged disclaimer by a *non-party* “adversary” to the present proceedings. In addition, after careful review of the record, we do not independently identify any meaningful relevance.

Also, with respect to Patent Owner’s reliance on claim construction proceedings in the District Court, we are not persuaded by Patent Owner’s argument, at least because, in contrast to district court’s claim construction standard, we construe claim terms using the “broadest reasonable” standard, and “[i]t would be inconsistent with the role assigned to the PTO . . . to require it to interpret claims in the same manner as judges [at litigation].” *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). Indeed, relying on the district court’s claim construction that is not based on the broadest reasonable standard when the broadest reasonable standard should be

applied is considered “an inapplicable legal premise.” *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989).

Patent Owner also argues that an analysis involving the “level of ordinary skill in the art” in a separate proceeding is “unsupported and improper” such that, presumably, a system establishing a link does not constitute an “indication” that the system supports establishing the link, as recited in claim 1. PO Resp. 31. Patent Owner does not provide sufficient explanation of the relevance of alleged statements or arguments made in a *different* matter to *this* proceeding. In addition, Patent Owner does not explain sufficiently how the issue of whether or not statements pertaining to the “level of ordinary skill in the art” are supported and proper or not in the *different* matter relates to the issue of whether Kiuchi discloses an “indication” in *this* proceeding. Indeed, we are unable to identify independently any relevance at all between these two seemingly unrelated issues.

Claim 1 – Plurality of Domain Names and Corresponding Network Addresses

Claim 1 recites a system that is configured “to store a plurality of domain names and corresponding network addresses.” As indicated above, Petitioner argues that Kiuchi discloses that “the registered IP address and hostname are stored by the C-HTTP name server . . . and . . . the IP address is a network address and the hostname is a domain name.” Pet. 21.

Patent Owner argues that Kiuchi fails to disclose a domain name and corresponding network address because, according to Patent Owner, “*Kiuchi’s* URL (the alleged domain name) does not correspond to the *server-side proxy* but to the *resource itself* located on an origin server.” PO

Resp. 32 (citing Ex. 2015, 47–48). As Petitioner points out, however, Kiuchi discloses a “client-side proxy” that “asks” the “C-HTTP name server” to communicate with a “host specified in a given URL” and that the C-HTTP name server “examines whether the requested server-side proxy . . . is permitted to accept the connection from the client-side proxy.” Pet. 21. In other words, contrary to Patent Owner’s contention, Kiuchi discloses that the client-side proxy sends a query with a “URL” that corresponds to a requested host (i.e., the server-side proxy).

Claim 1 – Secure Communication Link

Claim 1 recites “a secure communication link.” As indicated above, Petitioner argues that Kiuchi discloses “the establishment and operation of a secure communication link between the client-side proxy and the server-side proxy.” Pet 23.

Patent Owner argues that “Kiuchi’s connection is not direct” but that a “secure communication link,” as recited in claim 1, must be “‘direct’ between a client and target device.” PO Resp. 14, 34. Even assuming that a secure communication link between two devices must be “direct” between the two devices, Patent Owner’s argument, without adequate explanation, does not rebut Petitioner’s showing that the communication link between the client-side proxy and the server-side proxy of Kiuchi is “direct.” See Pet. Reply 10–11 (noting that Patent Owner fails to indicate whether devices such as “Internet Service Providers, firewalls, and routers” impede direct access) (citing PO Resp. 15). Kiuchi discloses proxy devices communicating with each other without anything somehow impeding the communication. See Ex. 1005, 65–66; see also *VirnetX Inc. v. Cisco Sys.*,

Inc. 767 F.3d 1308, 1319–20 (Fed. Cir. 2014) (discussing direct communications and Kiuchi albeit not between proxy devices themselves).

Claims 36 and 60 – Machine-readable medium comprising instructions

Patent Owner argues that Kiuchi fails to disclose “*code . . .* for indicating whether the domain name service system supports establishing a secure communication link.” PO Resp. 37. Kiuchi discloses “closed networks among hospitals and related institutions” that include computers (e.g., utilizes “HTML documents”). Ex. 1005, 64, 66. One of skill in the art would have understood such computers in such systems to include computer “code” for implementing computer functions. We are not persuaded by Patent Owner’s argument that Kiuchi discloses computer systems and networks that somehow do not contain computer code.

Claims 15 and 39 – provide the network address corresponding to a domain name

Claim 15 recites that “the domain name service system is configured to provide, in response to the query, the network address corresponding to a domain name from the plurality of domain names and the corresponding network addresses.” As noted above, Petitioner argues 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, if so, provides an IP address (i.e., a network address) to the client-proxy.” Pet. 21, 22 (citing Ex. 1005, 65).

Patent Owner argues that “Kiuchi’s C-HTTP name server does not return the IP address of the URL in the request, which identifies Kiuchi’s

origin server, but instead returns a server-side proxy's IP address." PO Resp. 38. As previously noted, however, Kiuchi discloses that the "URL" in the request corresponds to the requested server-side proxy, not the "origin server," as Patent Owner alleges. Ex. 1005, 65.

Claims 16 and 40 – query initiated from a first location

Patent Owner argues that "the client-side proxy [of Kiuchi] forwards the network address request" but "the request is not initiated at the client-side proxy." PO Resp. 40 (citing Ex. 2015 ¶ 58). We disagree with Patent Owner that the request of Kiuchi is not "initiated" at the client-side proxy in view of Kiuchi's disclosure that the "client-side proxy asks [i.e., sends a query to] the C-HTTP name server whether it can communicate with the host specified in a given URL." Ex. 1005, 65. In view of Petitioner's showing by a preponderance of the evidence that a device that sends a query "initiates" the query that it sends and Patent Owner's failure to provide a sufficient showing to the contrary, we cannot agree with Patent Owner that the client-side proxy that sends a query to a server somehow does not "initiate" the query to the server.

In any event, claim 16 recites that the domain name service system "is configured to receive a query initiated from a first location." Claim 16 does not recite any specific required characteristics of the "first location." Even assuming that the client-side proxy (that sends a query to the C-HTTP name server) somehow does not "initiate" the query that it sends to the C-HTTP name server, claim 16 merely requires that the query be initiated at a "location." Hence, even assuming that the query of Kiuchi is "initiated" at some "location" other than the client-side proxy (a position that Patent

Owner apparently advances and to which we disagree as previously discussed), Kiuchi still discloses the claim limitation of a “query initiated from a first location.”

Claims 27 and 51 – user at the first location

Claim 27 recites a system that “is configured to enable establishment of a secure communication link between a first location and a second location transparently to a user at the first location.”

Patent Owner argues that “Black Swamp[] map[s] . . . the client-side proxy [to] a first location and the server-side proxy [to] a second location” but that “a user at a ‘user agent,’ not at the client-side proxy, sends a request that the client-side proxy processes.” PO Resp. 40 (citing Ex. 1005, 65–66). Even assuming that the “user” is located at the “user agent” of Kiuchi, as Patent Owner apparently contends, Kiuchi discloses “closed networks among hospitals and related institutions” in which “a client-side proxy [is] on the firewall of one institution.” Ex. 1005, 64. A user at a “user agent” is situated at the “institution.” The corresponding client-side proxy of Kiuchi is situated at the firewall of the “institution.” Hence, both the user agent (and the user) and the client-side proxy are located at the same location (i.e., the “institution”).

Claims 2, 5, 6, 33, 37, and 57

Patent Owner does not provide additional arguments in support of claims 2, 5, 6, 33, 37, or 57, each of which depend from one of claim 1 or claim 36. Based on the evidence of record, Petitioner has met its burden of

showing by a preponderance of the evidence that these claims are unpatentable.

Alleged New Issues in Petitioner's Reply Brief

Patent Owner argues that Petitioner presents two new arguments (“New Issue #1” and “New Issue #2”) in Petitioner’s Reply Brief. PO Identification 1–5. After careful consideration of Patent Owner’s arguments and for reasons set forth below, we determine that Patent Owner’s arguments regarding alleged New Issue #1 are moot because we do not rely upon Petitioner’s arguments regarding that issue in this opinion. We also determine that alleged New Issue #2 was responsive to arguments raised by Patent Owner.

Alleged New Issue #1

Patent Owner raises “New Issue #1,” in which Patent Owner alleges that Petitioner argued in the Petition that “Kiuchi discloses establishing a secure communication link between the client-side proxy and the server-side proxy” but argued in Petitioner’s Reply Brief that “the secure communication link could occur between any of the entities in Kiuchi.” PO Identification 3 (citing Pet. Reply 21, 23). We note that Petitioner demonstrates that the “connection” between the client-side proxy and the server-side proxy constitutes a “secure communication link,” and Patent Owner does not persuasively refute Petitioner’s showing (see above discussion). Even assuming Patent Owner to be correct that Petitioner argues in the Reply Brief that Kiuchi discloses a “secure communication link” between “any of the entities of Kiuchi,” we need not consider this

alleged generalized statement given that Patent Owner has not persuasively refuted Petitioner's showing that the specific connection between the client-side proxy and the server-side proxy constitutes a secure communication link.

Accordingly, we determine that Patent Owner's arguments regarding alleged New Issue #1 are moot.

Alleged New Issue #2

Patent Owner argues that “the Reply Brief is improper . . . because it presents a . . . new claim interpretation that go[es] beyond properly responding to VirnetX's Patent Owner Response.” PO Identification 1. In particular, Patent Owner alleges that Petitioner argues in the Reply Brief that “the ‘indication’ claim elements and the alleged ‘establishing’ claim elements are not separate claim elements” (PO Identification 4 (citing Pet. Reply 14, 16)) but that, in the Petition, Petitioner supposedly “interpreted [indication and establishing] as separate claim elements.” PO Identification 4 (citing Pet. 19–20).

Patent Owner argues that Petitioner states in the Petition that “Kiuchi discloses establishment of a ‘secure communication link’ as defined by the Board” (PO Identification 4) and relies on this alleged citation from the Petition to establish that Petitioner argues that “an indication” and “establishing” are “separate claim elements.” However, Patent Owner does not explain sufficiently how an alleged statement to the effect that Kiuchi discloses the “establishment of a ‘secure communication link’” can be reasonably interpreted to mean that “establishing” is being equated to a “separate claim element” that is not stated (i.e., “an indication”). The cited

portion of the Petition does not appear to relate to whether the claim term “indication” is the same as or is different from “establishing” at all and does not appear to pertain to the claim term “indication” in particular.

Patent Owner argues that “[n]othing in [the] Petition suggests in any way that [Petitioner] intended to interpret ‘the indication’ claim elements and the alleged ‘establishing’ claim elements [as] not separate claim elements.” PO Identification 5. Hence, Patent Owner argues that Petitioner argued in the Petition that two claim terms are “separate claim elements” because Patent Owner is not able to identify a specific argument in the Petition to the contrary. Even assuming Patent Owner to be correct that Petitioner does not provide a specific argument that two specific claim elements are not “separate claim elements,” we disagree with Patent Owner that the absence of such an argument means that arguments to the contrary (which Patent Owner appears to be unable to identify with specificity) are implicitly present.

Assuming for the sake of argument that Patent Owner is correct that Petitioner addressed the elements separately, this does not mean they cannot be treated the same as a matter of claim construction. Patent Owner itself raised the arguments in the context of disclaimer, as discussed above.

Patent Owner also argues in Patent Owner’s Response that “the claim language distinguishes these two functions [i.e., “indication” and “establishing”], separately reciting ‘establishing a secure communication link,’ . . . and ‘an indication that the domain name service system supports establishing a secure communication link.’” PO Resp. 22. Patent Owner also argues in Patent Owner’s Response that “[d]ependent claim 16 further reveals that ‘establishing a secure communication link’ is separate from an

‘indication that the domain name service system supports establishing a secure communication link’ and that “the plain language of the claims . . . discloses these features to be distinct.” *Id.* at 22–23. In addition, Patent Owner raises the issue in Patent Owner’s Response that “the act of establishing the secure communication link is something separate from the act of indicating that the DNS system supports establishing a secure communication link.” *Id.* at 23 (citing Ex. 2017, 27).

Hence, Patent Owner raises arguments in Patent Owner’s Response that the claim term “indication” and the claim term “establishing” are supposedly separate and distinct terms. In other words, Patent Owner contends (in Patent Owner’s Identification of New Issues in Petitioner’s Reply Brief) that Petitioner supposedly “interpreted [indication and establishing] as separate claim elements” (PO Identification 4 (citing Pet. 19–20)) but in actuality, it is *Patent Owner* who proposes this interpretation in Patent Owner’s Response and not Petitioner as Patent Owner contends.

Given that Patent Owner raises this issue (that the claim terms “indication” and “establishing” are separate and distinct) for the first time in Patent Owner’s Response, even assuming that Patent Owner is correct that Petitioner argues in the Reply Brief “that ‘the ‘indication’ claim elements and alleged ‘establishing’ claim elements are not separate claim elements’” (PO Identification 4 (citing Pet. Reply 14, 16)), such an argument by Petitioner would merely be responsive to Patent Owner’s arguments presented in Patent Owner’s Response and, therefore, would not “go beyond properly responding to VirnetX’s Patent Owner Response,” as Patent Owner alleges. PO Identification 1.

CONCLUSION

Petitioner has shown by a preponderance of the evidence that claims 1, 2, 5, 6, 15, 16, 27, 33, 36, 37, 39, 40, 51, 57, and 60 are unpatentable under 35 U.S.C. § 102 as anticipated by Kiuchi.

ORDERS

After due consideration of the record before us, it is:

ORDERED that claims 1, 2, 5, 6, 15, 16, 27, 33, 36, 37, 39, 40, 51, 57, and 60 of the '504 patent are held unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, the 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.

IPR2016-00693
Patent 7,418,504 B1

PETITIONER:

Thomas H. Martin
Wesley C. Meinerding
MARTIN & FERRARO, LLP
tmartin@martinferraro.com
wmeinerding@martinferraro.com

PATENT OWNER:

Joseph E. Palys
Naveen Modi
PAUL HASTINGS LLP
PH-VirnetX-IPR@paulhastings.com