

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

THE MANGROVE PARTNERS MASTER FUND, LTD.,
Petitioner,

v.

VIRNETX INC.,
Patent Owner.

Case IPR2015-01046
Patent 6,502,135 B1

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

SIU, *Administrative Patent Judge.*

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

A. *Background*

The Mangrove Partners Master Fund, Ltd. (“Petitioner”) filed a Petition (“Pet.”) on April 27, 2015 (Paper 5) requesting *inter partes* review of claims 1, 3, 4, 7, 8, 10, and 12 of U.S. Patent No. 6,502,135 B1 (“the ’135 Patent,” Ex. 1001) pursuant to 35 U.S.C. §§ 311-319. VirnetX Inc. (“Patent Owner”) filed a Preliminary Response (“Prelim. Resp.”) on July 24, 2015. Paper 9.

We have jurisdiction under 35 U.S.C. § 314. We determine based on this record that Petitioner has demonstrated, under 35 U.S.C. § 314(a), that there is a reasonable likelihood of showing unpatentability with respect to at least one of the challenged claims, claims 1, 3, 4, 7, 8, 10, and 12.

Petitioner relies on the following prior art:

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. 1002, “Kiuchi”).

P. Mockapetris, *Domain Names – Concepts and Facilities*, Network Working Group, Request for Comments: 1034 (1987) (Ex. 1005, “RFC 1034”).

Petitioner contends that the challenged claims are unpatentable under 35 U.S.C. § 102 and/or § 103 based on the following specific grounds (Pet. 3–4, 15–37):

Reference(s)	Basis	Claims challenged
Kiuchi	§ 102	1, 3, 4, 7, 8, 10, and 12
Kiuchi and RFC 1034	§ 103	8

B. The Invention

The '135 Patent describes a system and method for securely communicating over the Internet. Ex. 1001, 2:66.

Claim 1 of the '135 Patent is reproduced below:

1. A method of transparently creating a virtual private network (VPN) between a client computer and a target computer, comprising the steps of:

(1) generating from the client computer a Domain Name Service (DNS) request that requests an IP address corresponding to a domain name associated with the target computer;

(2) determining whether the DNS request transmitted in step (1) is requesting access to a secure web site; and

(3) in response to determining that the DNS request in step (2) is requesting access to a secure target web site, automatically initiating the VPN between the client computer and the target computer.

Ex. 1001, 47:20–32.

We note that the '135 Patent is presently the subject of co-pending actions, as follows:

- 1) Civ. Act. No 6:13-cv-00211-LED (E.D. Tex.), filed February 26, 2013;
- 2) Civ. Act. No. 6:12-cv-00855-LED (E.D. Tex.), filed November 6, 2012;
- 3) Civ. Act. No. 6:10-cv-00417-LED (E.D. Tex.), filed August 11, 2010.

See Pet. 1.

II. ANALYSIS

A. *Cited References*

1) *Overview of Kiuchi*

Kiuchi discloses a closed HTTP-based network (“C-HTTP”) for a closed group of institutions, in which each member is protected by its own firewall. Ex. 1002, 64. Communication is made possible with a client-side proxy (for one institution), a server-side proxy (for another institution), and a C-HTTP name server that provides both client-side and server-side proxies with each peer’s public key and Nonce values for both request and response. *Id.* at 64–65.

The client-side proxy asks the C-HTTP name server whether it can communicate with the host specified in a given URL. If the connection is permitted, the C-HTTP name server sends the IP address and public key of the server-side proxy and both request and response Nonce values, which are encrypted and certified using asymmetric key encryption and digital signature. *Id.* at 65.

The client-side proxy then sends an encrypted request (including the client-side proxy’s IP address, hostname, request Nonce value and symmetric data exchange key for request encryption) to the server-side proxy, which then asks the C-HTTP name server if the query from the client-side proxy is legitimate. *Id.* If the request is confirmed to be legitimate and access is permitted, the C-HTTP name server sends the IP address and public key of the client-side proxy and both request and response Nonce values to the server-side proxy. After receiving the client-side proxy’s IP address, hostname and public key, the server-side proxy generates and sends a connection ID to the client-side proxy. After the client-side

proxy accepts the connection ID from the server-side proxy, the connection is established. *Id.* at 66.

2) Overview of RFC 1034

RFC 1034 discloses a name server that answers standard queries in recursive mode or non-recursive mode. Ex. 1005, 22. In non-recursive mode, the server is unable to provide an answer to the request and refers to “some other server ‘closer’ to the answer.” In recursive mode, the server “returns either an error or the answer, but never referrals.” *Id.*

B. Claim Construction

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *see In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1275–79 (Fed. Cir. 2015). We presume a claim term carries its “ordinary and customary meaning,” which 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. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (citation and quotations omitted).

Petitioner and Patent Owner each proffer proposed constructions of several claim terms. For purposes of this decision, we determine that no claim terms require express construction.

C. *Kiuchi* - Anticipation

Based on the present record at this preliminary stage of the proceedings, we agree that Petitioner has established that there is a reasonable likelihood of unpatentability of at least one claim as anticipated by *Kiuchi*. For example,

Petitioner provides evidence and arguments in support of the proposed ground of unpatentability of claims 1, 3, 4, 7, 8, 10, and 12 as anticipated by Kiuchi. Pet. 26–35; Ex. 1001, 38:30–33; Ex. 1002, 64–66, 69; Declaration of Dr. Roch Guerin, Ex. 1003 ¶¶ 18–31, 34. We have reviewed the evidence Petitioner cites, and we find that evidence persuasive of a reasonable likelihood that Petitioner would prevail with respect to this asserted ground of unpatentability.

For example, claim 1 recites generating from the client computer a Domain name Service (DNS) request that requests an IP address corresponding to a domain name associated with the target computer. As Petitioner explains, Kiuchi discloses a client-side proxy that receives a request and sends a request to a C-HTTP name server to resolve the hostname in the request into an IP address. Pet. 27 (citing Ex. 1002, 65; Ex. 1003, ¶¶ 20-22).

Claim 1 also recites determining whether the DNS request transmitted in step (1) is requesting access to a secure web site. As Petitioner explains, Kiuchi discloses, for example, that the “C-HTTP name server evaluates the request to determine if the hostname specifies a destination that is part of the closed network and whether the connection between the user agent and the origin server is permitted.” Pet. 27-28 (citing Ex. 1002, 65-66; Ex. 1003, ¶¶ 22-26).

Claim 1 also recites that in response to a determination that the DNS request is requesting access to a secure target web site, automatically initiating the VPN between the client computer and the target computer. As Petitioner explains, Kiuchi discloses that “if a connection is permitted, the C-HTTP name server initiates the connection by returning an IP address and public key associated[d] with the hostname” and that “[t]he client-side proxy sends an encrypted connection request to the server-side proxy.” Pet. 28-29 (citing Ex. 1002, 65-66; Ex. 1003, ¶¶ 23, 24, 27).

D. Kiuchi and RFC 1034

Based on the present record at this preliminary stage of the proceedings, we agree that Petitioner has established that there is a reasonable likelihood of unpatentability of at least one claim as obvious over the combination of Kiuchi and RFC 1034. For example, Petitioner provides evidence and arguments in support of the proposed grounds of unpatentability of claim 8 over Kiuchi and RFC 1034. Pet. 35–37; Ex. 1001 Fig. 26; Ex. 1002, 64–65, §§ 2.1–2.3; Ex. 1003 ¶¶ 18, 19, 23–26, 34, 35, and 37–40; Ex. 1005. We have reviewed the evidence Petitioner cites, and we find that evidence persuasive of a reasonable likelihood that Petitioner would prevail with respect to this asserted ground of unpatentability.

For example, claim 8 recites passing through the request to a DNS server if it determined that access is not being requested to a secure target web site. As Petitioner explains, Kiuchi discloses “[w]hen the client-side proxy receives a request from a user agent, it determines whether the requested hostname in the URL specifies a secure server by sending to a C-HTTP name server a request to resolve the hostname,” that “[i]f the C-HTTP name server returns an error code, the client-side proxy determines the URL specifies a non-secure destination” and “sends the hostname to a conventional DNS server for resolution.” Pet. 32-33 (citing Ex. 1002, 65; Ex. 1003 ¶¶ 23-26; Ex. 1001, 38:43-47).

E. Real-parties-in-interest

Patent Owner argues that the Petitioner fails to name all of the real parties-in-interest. Prelim. Resp. 2. In particular, Patent Owner argues that “[t]he petition names The Mangrove Partners Master Fund, Ltd. . . . as the only RPI” but fails to

name other alleged real parties-in-interest, namely, “(1) the Mangrove Partners Hedge Fund; (2) Nathaniel August (President and majority owner of the Mangrove Partners Hedge Fund); (3) The Mangrove Partners Fund, L.P. (‘the US Feeder’); (4) The Mangrove Partners Fund (Cayman), Ltd. (‘the Cayman Feeder’); (5) Mangrove Capital (the General Partner of the US Feeder); and (6) the unnamed investors in the US Feeder and the Cayman Feeder.” *Id.* at 2–13.

The present record does not reflect that Petitioner is precluded from modifying the named real-parties-in-interest to include any of the entities (or subset thereof) cited by Patent Owner. Nor does the record indicate that any such modification would result in rendering this proceeding improper. Given these observations, non-institution of these proceedings at this preliminary stage based solely on this potential issue is premature as Petitioner has not had the opportunity to either provide evidence whether the additional entities are real-parties-in-interest and/or modify the named real-parties-in-interest if it is determined that any of the additional entities are, in fact, real-parties-in-interest.

F. Alleged attempts to manipulate the financial markets

Patent Owner argues that “[t]he Board should . . . refuse to institute this IPR” because “[t]his proceeding was filed in an apparent attempt to manipulate the financial markets.” Prelim. Resp. 13, 15 (citing Ex. 2004, 2; Ex. 2006, 2).

Profit is at the heart of nearly every patent and nearly every inter partes review. As such, an economic motive for challenging a patent claim does not itself raise abuse of process issues. We take no position on the merits of Petitioner’s investment strategy.

In any event, the AIA sought to establish a more efficient and streamlined patent system that improved patent quality, while at the same time limiting

unnecessary and counterproductive litigation costs. The AIA was designed to encourage the filing of meritorious patentability challenges, by any person who is not the patent owner, in an effort to further improve patent quality. H.R. Rep. No. 112-98, pt. 1, at 85 (2011). Patent Owner does not allege that Petitioner filed a non-meritorious patentability challenge.

G. Alleged clashes with the Federal Circuit

Patent Owner argues that “each of [Petitioner’s] proposed rejections rely on a view of *Kiuchi* that clashes with the Federal Circuit’s view of *Kiuchi*.” Prelim. Resp. 17.

This proposed issue is best resolved during trial to ascertain, for example, what the specific determinations or holdings of the Federal Circuit are, the precise nature of these determinations or holdings, and how such determinations or holdings would affect the present proceeding, given the nature of the specific issues that may present themselves during the course of the (as yet to occur) trial.

For example, Patent Owner argues that the Federal Circuit determined that “*Kiuchi*’s proxy servers at least do not teach ‘direct communication’ between a client and target computer.” Prelim. Resp. 15-16. As an initial matter, we note that claim 1, for example, does not recite a “direct communication.” Also, at this preliminary stage of the proceeding, Patent Owner has not clearly shown that claim 1, for example, requires a “direct communication,” as one of ordinary skill in the art would have understood, under a broadest reasonable construction in light of the Specification or that the Federal Circuit determined that claim 1 requires a “direct communication,” under a broadest reasonable construction in light of the Specification. Patent Owner does not appear to provide any statement at all

regarding what standard was used to determine the alleged lack of a “direct communication,” even assuming that such a requirement actually exists.

Also, while Patent Owner argues that the Federal Circuit determined that “there was ‘*substantial*’ evidence that . . . Kiuchi’s proxy servers at least do not teach ‘direct communication’ between a client and target computer” (Prelim. Resp. 15-16), Patent Owner does not indicate what the “substantial evidence” was and whether the “substantial evidence” pertained to the determination of a broadest reasonable construction of claim terms in light of the Specification, for example. Hence, at this early stage of the proceeding, particularly in view of the decision from the Federal Circuit, the record lacks necessary evidence to demonstrate definitively that Kiuchi, in fact, fails to disclose the features recited in claim 1.

Patent Owner also argues that the Federal Circuit “explained that . . . there was evidence that the ‘client’ of Kiuchi is actually a web browser, a component that is distinguishable from the client-side proxy.” Prelim. Resp. 16. As discussed previously, Patent Owner does not specify what the alleged “evidence” was, whether the alleged “evidence” was considered under a broadest reasonable standard in light of the Specification, and under a broadest reasonable standard, the relevance of the Federal Circuit’s determination that “Kiuchi is actually a web browser” as it pertains to specifically (as yet to be argued) claim limitations.

H. Alleged excessive burden and redundancy under 35 U.S.C. § 325(d)

Patent Owner argues that “[n]either the Board nor Patent Owner should be forced to assume the burden of handling duplicative proceedings challenging the ’135 patent involving a common set of prior art references” such that “the Board should exercise its discretion and deny the Petition under 35 U.S.C. § 325(d).” Prelim. Resp. 19–20.

Notwithstanding Patent Owner's stated concerns, we determine that, given the specific facts of the present proceeding, that institution of this proceeding would not pose an excessive burden on the Board or the parties. We decline to exercise our discretion to deny the Petition solely under 35 U.S.C. § 325(d) in this matter.

I. Printed publications

Patent Owner argues that "Petitioner has . . . failed to meet its burden to establish that RFC 1034 is a printed publication." Prelim. Resp. 26.

The determination of whether a given reference qualifies as a prior art "printed publication" involves a case-by-case inquiry into the facts and circumstances surrounding the reference's disclosure to members of the public. *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004). We acknowledge Patent Owner's argument regarding RFC 1034. On its face, however, RFC 1034 is a dated "Request for Comments" from the "Network Working Group," discussing a standard of the Domain Name System (DNS) including an "official protocol" that "includes standard queries and their responses and most of the Internet class data formats." Ex. 1005, 1. These indicia suggest that there is a reasonable likelihood the document was made available to the public (over the Internet), in order to obtain feedback prior to implementation of the standard it describes.

On this record,¹ we are persuaded that Petitioner has made a threshold showing that RFC 1034 constitutes a prior art printed publication. Accordingly, we consider the disclosure of RFC 1034 for the purposes of this decision.

¹ To the extent that Patent Owner continues to assert that Petitioner has not met its burden of showing that RFC 1034 is a "printed publication," it will have the opportunity to make this argument in its Patent Owner Response.

III. CONCLUSION

We institute an *inter partes* review of claims 1, 3, 4, 7, 8, 10, and 12 under 35 U.S.C. § 102 as anticipated by Kiuchi and claim 8 under 35 U.S.C. § 103 as obvious over the combination of Kiuchi and RFC 1034.

IV. ORDER

For the reasons given, it is

ORDERED that an *inter partes* review is instituted as to claims 1, 3, 4, 7, 8, 10, and 12 on the ground of anticipation by Kiuchi, and as to claim 8 on the ground of obviousness in view of Kiuchi and RFC 1034;

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a), *inter partes* review of the '135 Patent is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

FURTHER ORDERED that the trial is limited to the grounds stated above.

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