

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

VIRNETX INC.,
Patent Owner.

Case IPR2015-00812
Patent 8,850,009 B2

Before KARL D. EASTHOM, JENNIFER S. BISK, and
GREGG I. ANDERSON, *Administrative Patent Judges*.

BISK, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a)

INTRODUCTION

A. Background

Petitioner, Apple Inc., filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–8, 10–20, and 22–25 (the “challenged claims”) of U.S. Patent No. 8,850,009 B2 (Ex. 1003, “the ’009 patent”). Patent Owner, VirnetX Inc., filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). We granted the Petition, instituting trial on whether claims 1–8, 10–20, and 22–25 are unpatentable as obvious over Beser¹ and RFC 2401.² Paper 8 (“Inst. Dec.”).

During the trial, Patent Owner filed a Response (Paper 24, “PO Resp.”), and Petitioner filed a Reply (Paper 28, “Reply”). Additionally, Patent Owner filed a Motion to Exclude evidence. Paper 35. A consolidated hearing for oral arguments in this *inter partes* review and Cases IPR2015-00810 and IPR2015-00811 was held June 8, 2016. A transcript of the hearing appears in the record. Paper 42 (“Tr.”).

This is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons set forth below, Petitioner has shown by a preponderance of the evidence that claims 1–8, 10–20, and 22–25 are unpatentable.

¹ U.S. Patent No. 6,496,867 B1 (Ex. 1007) (“Beser”).

² S. Kent and R. Atkinson, *Security Architecture for the Internet Protocol*, Request for Comments: 2401, BBN Corp., November 1998 (Ex. 1008) (“RFC 2401”).

B. *The '009 Patent*

The '009 patent describes secure methods for communicating over the Internet. Ex. 1003, 10:16–17. Specifically, the '009 patent describes “the automatic creation of a virtual private network (VPN) in response to a domain-name server look-up function.” *Id.* at 39:36–38. This automatic process makes use of a modified Domain Name Server. In context, the '009 patent describes a conventional Domain Name Server (DNS) as follows:

Conventional Domain Name Servers (DNSs) provide a look-up function that returns the IP address of a requested computer or host. For example, when a computer user types in the web name “Yahoo.com,” the user’s web browser transmits a request to a DNS, which converts the name into a four-part IP address that is returned to the user’s browser and then used by the browser to contact the destination web site.

Id. at 39:39–45.

The modified DNS server may include both a conventional DNS and a DNS proxy. *Id.* at 40:33–35. The DNS proxy intercepts all DNS lookup requests, determines whether the user has requested access to a secure site (using, for example, a domain name extension or an internal table of secure sites) and if so, determines whether the user has sufficient security privileges to access the requested site. *Id.* at 40:39–45. If the user has requested access to a secure site to which it has insufficient security privileges, the DNS proxy returns a “host unknown” error to the user. *Id.* at 40:62–65. If the user has requested access to a secure site to which it has sufficient security privileges, the DNS proxy requests a gatekeeper create a VPN between the user’s computer and the secure target site. *Id.* at 40:45–51. The DNS proxy

then returns to the user the resolved address passed to it by the gatekeeper, which need not be the actual address of the destination computer. *Id.* at 40:51–57.

The VPN is “preferably implemented using the IP address ‘hopping’ features” (changing IP addresses based upon an agreed upon algorithm), described elsewhere in the ’009 patent, “such that the true identity of the two nodes cannot be determined even if packets during the communication are intercepted.” *Id.* at 40:18–22.

C. The Challenged Claims

Claims 1 and 14 of the challenged claims are independent and similar in scope. Claims 2–8 and 10–13 depend either directly or indirectly from claim 1 and claims 15–20 and 22–25 depend either directly or indirectly from claim 14. Claim 1 is illustrative of the claimed subject matter and recites:

1. A network device, comprising:
 - a storage device storing an application program for a secure communications service; and
 - at least one processor configured to execute the application program for the secure communications service so as to enable the network device to:
 - send a domain name service (DNS) request to look up a network address of a second network device based on an identifier associated with the second network device;
 - receive, following interception of the DNS request and a determination that the second network device is available for the secure communications service: (1) an indication that the second network device is available for the secure communications service, (2) the requested network address of

the second network device, and (3) provisioning information for an encrypted communication link;

connect to the second network device over the encrypted communication link, using the received network address of the second network device and the provisioning information for the encrypted communication link; and

communicate data with the second network device using the secure communications service via the encrypted communication link,

the network device being a device at which a user uses the secure communications service to access the encrypted communication link.

Ex. 1003, 56:22–48.

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); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). 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). The Board construed claim terms similar to those at issue here in a proceeding challenging a patent related to the ’009 patent. *Apple Inc. v. VirnetX Inc.*, IPR2014-00237 (PTAB May 11, 2015) (Paper No. 41) (final written decision “’237 FWD,” or generally, “’237 IPR”) (on appeal at the Federal Circuit); *see also VirnetX, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308, 1317–19 (Fed. Cir. 2014) (addressing ancestor *VirnetX* patents having similar claim terms).

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