

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

VIRNETX INC.,
Patent Owner.

Case IPR2016-00332
Patent 8,504,696 B2

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

EASTHOM, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

Petitioner, Apple Inc., filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–11, 14–25, 28, and 30 (the “challenged claims”) of U.S. Patent No. 8,504,696 B2 (Ex. 1001, “the ’696 patent”). See Pet. 6. Patent Owner, VirnetX Inc., filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).¹

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314(b); 37 C.F.R. § 42.4(a). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless the Director determines . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

After considering the Petition and Preliminary Response, we determine that Petitioner has established a reasonable likelihood of prevailing in showing the unpatentability of at least one of the challenged claims. Accordingly, we institute *inter partes* review.

B. Related Matters

Petitioner indicates that the ’696 patent “has not been asserted in litigation or the subject of other IPR proceedings.” Pet. 2. Petitioner concurrently filed a petition challenging the same claims and claim 29 in the

¹ Patent Owner persuasively points out that because Petitioner merely lists claim 29 as being challenged without providing an analysis for claim 29, “claim 29 is not subject to review in this proceeding.” Prelim. Resp. 5 n.1 (citing Pet. 6).

'696 patent in IPR2016-00331. *See id.* at 5. Petition and Patent Owner provide listings of district court actions, other *inter partes* review, and *inter partes* reexamination proceedings challenging related patents. *See id.* at 3–5; Paper 5, 3–15; *see also VirnetX, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308, 1317–19 (Fed. Cir. 2014) (addressing ancestor *VirnetX* patents having related terms).²

C. References

Petitioner relies on the following references.

Reference	Description	Publication or Issue Date	Exhibit No.
Aventail	Aventail (<i>see n.3</i>)	1996–1999	Ex. 1009–1011 ³
RFC 2401	S. Kent & R. Atkinson, RFC 2401, <i>Security Architecture for the Internet Protocol</i> , Network Working Group, Request for Comments	Nov. 1998	Ex. 1008

² The '696 patent is a continuation of an application, which is a continuation of U.S. Patent No. 7,921,211, which is a continuation of U.S. Patent No. 7,418,504 (“504 patent”), which is a continuation-in-part of U.S. Patent No. 6,502,135—three of the four patents at issue in *VirnetX*. *See VirnetX*, 767 F.3d at 1313. (The fourth patent at issue in *VirnetX*, is U.S. Patent No. 7,490,151 (“151 patent”), a division of the '135 patent.)

³ Exhibits 1009–1011 relate to an Aventail Connect software application and are collectively referred to as “Aventail” unless otherwise noted. *See Aventail Connect v3.01/v2.51 Administrator’s Guide* (“Aventail Administrator Guide,” Ex. 1009), *Aventail Connect v3.01/v2.51 User’s Guide* (1996–1999) (“Aventail User Guide,” Exhibit 1010), and *Aventail ExtraNet Center v3.0 Administrator’s Guide (NT and UNIX)* (“Aventail ExtraNet,” Exhibit 1011).

Reference	Description	Publication or Issue Date	Exhibit No.
RFC 2543	Handley et al., <i>SIP: Session Initiation Protocol</i> , Network Working Group, Request for Comments	Mar. 1999	Ex. 1013
Yeager	N. YEAGER & R.E. MCGRAW, WEB SERVER TECHNOLOGY, THE ADVANCED GUIDE FOR WORLD WIDE WEB INFORMATION PROVIDERS (Michael B. Morgan et al. eds., 1996)	1996	Ex. 1066

Pet. 6, Attachment B.

Petitioner also relies on the Declaration of Roberto Tamassia (Ex. 1005), the Declaration of the RFC Publisher for the Internet Engineering Task Force, an Organized Activity of the Internet Society, signed by Sandy Ginoza (“Ginoza Declaration” (Ex. 1060)), the Declaration of Christopher Hopen (“Hopen Declaration” (Ex. 1023)), the Declaration of Michael Fratto (“Fratto Declaration” (Ex. 1043)), and the Declaration of James Chester (“Chester Declaration” (Ex. 1022)). The latter three declarations were submitted in a related inter partes reexamination proceeding. *See* Pet. 18–19 (listing reexamination 95/001,682).

D. Asserted Grounds of Unpatentability

Petitioner challenges claims of the ’696 patent as unpatentable on the following 35 U.S.C. § 103(a) grounds.

References	Claims Challenged
Aventail, RFC 2401	1, 4, 5, 9–11, 14–16, 19, 20, 24, 25, 28, and 30
Aventail, RFC 2401, and RFC 2543	2, 3, 6–8, 17, 18, and 21–23
Aventail, RFC 2401, and Yeager	15 and 30

Pet. 6.

E. The '696 Patent

The '696 patent describes secure methods for communicating over the Internet. Ex. 1001, Abstract, 10:3–8. Specifically, the '696 patent describes “the automatic creation of a virtual private network (VPN) in response to a domain-name server look-up function.” *Id.* at 39:23–25. This automatic creation employs a modified Domain Name Server, which may include a conventional Domain Name Server (DNS) and a DNS proxy (*id.* at 40:20–40:22):

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 39:26–32.

The DNS proxy of the modified DNS server intercepts 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, whether the user has sufficient security privileges to access the requested site. *Id.* at 40:26–35. 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 40:49–53. If the user has requested access to a secure site to which it has sufficient security privileges, the DNS proxy requests a gatekeeper to create a VPN between the user’s computer and the secure target site. *Id.* at 40:31–42. The DNS proxy then returns to the

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