# 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

Declaration of Fabian Monrose, Ph.D.

# **Table of Contents**

I.	Introduction1						
II.	Resources Consulted						
III.	Back	Background and Qualifications					
IV.	Leve	Level of Ordinary Skill					
V.	Overview of the '504 Patent						
VI.	Claim Terms						
	A.	"Domain Name Service System" (Claims 1, 15-16, 27, 33, 36, 51, 57, and 60)					
	B.	"Secure Communication Link" (Claims 1, 16, 27, 33, 36, 40, 51, 57, and 60)					
		1.	"Authentication" and "Address Hopping" Alone Do Not Result in a "Secure Communication Link"	13			
		2.	A "Secure Communication Link" Must Be Direct	15			
		3.	A "Secure Communication Link" Requires Encryption	16			
	C.	"Indi	cation" (Claims 1, 36, and 60)	17			
	D.	"Trai	nsparently" (Claims 27 and 51)	19			
VII.	Kiuchi Does Not Disclose the Features of the Challenged Claims20						
	A.	Overview of <i>Kiuchi</i> 20					
	B.	Independent Claim 1					
		1.	Kiuchi Does Not Disclose the Recited "Indication"	23			
		2.	Kiuchi Does Not Disclose the Recited "Plurality of Domain Names and Corresponding Network Addresses"	24			
		3.	Kiuchi Does Not Disclose a System for Establishing the Recited "Secure Communication Link"	25			



# Case No. IPR2016-00693

	C.	Independent Claims 36 and 60	26
	D.	Dependent Claims 15 and 39	27
	E.	Dependent Claims 16 and 40	28
	F.	Dependent Claims 27 and 51	29
	G.	Dependent Claims 2, 5, 6, 33, 37, and 57	31
VIII	Conc	lusion	31

# I, FABIAN MONROSE, declare as follows:

# I. Introduction

I have been retained by VirnetX Inc. ("VirnetX") for this *inter partes* 1. review proceeding. I understand that this proceeding involves U.S. Patent No. 7,418,504 ("the '504 patent"). I understand the '504 patent is assigned to VirnetX and that it is part of a family of patents that stems from U.S. provisional application nos. 60/106,261 ("the '261 application"), filed on October 30, 1998, and 60/137,704 ("the '704 application"), filed on June 7, 1999. I understand that the '504 patent is a continuation of U.S. application no. 09/558,210 filed April 26, 2000 ("the '210 application," abandoned). And I understand the '210 application is a continuation-in-part of U.S. application no. 09/504,783 filed February 15, 2000 (now U.S. Patent 6,502,135, "the '135 patent"), and that the '135 patent is a continuation-in-part of U.S. application no. 09/429,643 filed October 29, 1999 (now U.S. Patent No. 7,010,604), which claims priority to the '261 and '704 applications.

## II. Resources Consulted

2. I have reviewed the '504 patent, including claims 1-60. I have also reviewed the Corrected Petition for *Inter Partes* Review filed with the U.S. Patent and Trademark Office ("Office") by Black Swamp IP, LLC on April 27, 2016 ("Petition"). I have also reviewed the Patent Trial and Appeal Board's ("Board")



decision to institute *inter partes* review (Paper No. 8, the "Decision") of September 9, 2016.

3. I understand that in this proceeding the Board instituted review of the '504 patent on the following ground: anticipation of claims 1, 2, 5, 6, 15, 16, 27, 33, 36, 37, 39, 40, 51, 57, and 60 over *Kiuchi* (Ex. 1005). I have reviewed the exhibits and other documentation supporting the Petition that are relevant to the Decision and the instituted grounds, and any other material that I reference in this declaration.

# III. Background and Qualifications

- 4. I have a great deal of experience and familiarity with computer and network security, and have been working in this field since 1993 when I entered the Ph.D. program at New York University.
- 5. I am currently a Professor of Computer Science at the University of North Carolina at Chapel Hill. I also hold an appointment as the Director of Computer and Information Security at the Renaissance Computing Institute (RENCI). RENCI develops and deploys advanced technologies to facilitate research discoveries and practical innovations. To that end, RENCI partners with researchers, policy makers, and technology leaders to solve the challenging problems that affect North Carolina and our nation as a whole. In my capacity as Director of Computer and Information Security, I lead the design and



# DOCKET

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

# **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

# **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

# API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

# **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

