UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD BLACK SWAMP IP, LLC Petitioner v. VIRNETX INC. Patent Owner Case IPR2016-00957 Patent 7,921,211

Declaration of Fabian Monrose, Ph.D.

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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. 7,921,211 ("the '211 patent"). I understand the '211 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 '211 patent is a continuation of U.S. application no. 10/714,849 filed November 18, 2003 (now U.S. Patent 7,418,504, "the '504 patent"), and 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 '211 patent, including claims 1-60. I have also reviewed the 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 '211 patent on the following ground: anticipation of claims 1, 2, 5, 6, 15, 16, 23, 27, 36, 37, 39, 40, 47, 51, 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



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