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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.

Petitioner

v.

VIRNETX INC.

Patent Owner

Case IPR2014-00481

Patent 7,188,180

Declaration of Fabian Monroe, Ph.D.

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I, FABIAN MONROSE, declare as follows:

I. Introduction

1. I have been retained by VirnetX Inc. (“VirnetX”) for this *inter partes* review proceeding. I understand that this proceeding involves U.S. Patent No. 7,188,180 (“the ’180 patent”). I understand the ’180 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 ’180 patent is a divisional of U.S. application no. 09/558,209 filed April 26, 2000 (“the ’209 application,” abandoned). And I understand the ’209 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 (now U.S. Patent No. 7,010,604) filed October 29, 1999, which claims priority to the ’261 and ’704 applications.

II. Resources Consulted

2. I have reviewed the ’180 patent, including claims 1-41. I have also reviewed the Petition for *Inter Partes* Review (Paper No. 1) filed with the U.S. Patent and Trademark Office (“Office”) by Apple Inc. on March 7, 2014 (Paper No. 1, the “Petition”). I have also reviewed the Patent Trial and Appeal Board’s

(“Board”) decision to institute *inter partes* review (Paper No. 11, the “Decision”) of September 3, 2014.

3. I understand that in this proceeding the Board instituted review of the ’180 patent on two grounds: (1) anticipation of claims 1, 10, 12–15, 17, 26, 28–31, and 37 by *Provino*; and (2) obviousness of claims 4, 6, 20, 22, 35, and 37 over *Provino* in view of *Guillen*. I have reviewed the exhibits and other documentation supporting the Petition that are relevant to the Decision and the instituted grounds.

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 implementation of new platforms for enabling access to, and analysis of, large and

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