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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

THE MANGROVE PARTNERS MASTER FUND, LTD. and APPLE INC.,
Petitioner

v.

VIRNETX INC.
Patent Owner

Case IPR2015-01046¹
Patent 6,502,135

Declaration of Fabian Monroe, Ph.D.

¹ Apple Inc., who filed a petition in IPR2016-00062, has been joined as a Petitioner in the instant proceeding.

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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. 6,502,135 (“the ’135 patent”). I understand the ’135 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 ’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 ’135 patent, including claims 1-18. I have also reviewed the decisions to institute *inter partes* review (“IPR”) in IPR2015-01046 (Paper No. 11, the “Decision”), and in IPR2016-00062 (Paper No. 28, the “00062 Decision”); and the petitions for IPR filed by The Mangrove Partners Master Fund, Ltd. in IPR2015-01046 (the “Petition”), and by Apple Inc. in IPR2016-00062 (the “Apple Petition”).

3. I understand that in this proceeding the Board instituted review of the ’135 patent on two grounds: (1) anticipation of claims 1, 3, 4, 7, 8, 10, and 12 over

Kiuchi; and (2) obviousness of claim 8 over Kiuchi and RFC 1034. 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 implementation of new platforms for enabling access to, and analysis of, large and sensitive biomedical data sets while ensuring security, privacy, and compliance with regulatory requirements. At RENCi, we are designing new architectures for securing access to data (e.g., using virtual private networks and data leakage

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