UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SONY CORPORATION OF AMERICA AND
THE HEWLETT-PACKARD COMPANY
Petitioners

v.

NETWORK-1 SECURITY SOLUTIONS, INC.
Patent Owner

CASE IPR: **To be assigned**

DECLARATION OF DR. GEORGE A. ZIMMERMAN

Mail Stop **Patent Board**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

I, George A. Zimmerman, do hereby declare as follows:

I. INTRODUCTION AND QUALIFICATIONS

1. I am currently the President and Principal Consultant at CME Consulting, Inc., specializing in wireline communications. I have prepared this Declaration on behalf of Dell Inc. in connection with a Petition for *Inter Partes* Review of U.S. Patent No. 6,218,930 ("the '930 Patent") (Exhibit DE-1001).[1] I previously prepared a similar Declaration on behalf of Avaya Inc. in support of its Petition for *Inter Partes* Review of the '930 Patent (IPR2013-00071).

2. I have summarized in this section relevant aspects of my educational background, career history, publications, and other relevant qualifications.

A. Educational Background

3. In 1985 I received a Bachelor of Science degree in Electrical Engineering from Stanford University. In 1988, I received a Master of Science degree in Electrical Engineering from the California Institute of Technology. In 1990, I received a Ph.D. in Electrical Engineering from the California Institute of Technology.

B. Career History

4. From 1985 to 1995, I held systems engineering, digital design, and engineering management positions as a Member of Technical Staff at Jet

[1] I have been provided with an Exhibit List which I am told will accompany the Petition for *Inter Partes* Review. For consistency purposes, I will refer to documents by the designation given on the Exhibit List.

Propulsion Laboratory in Pasadena, California. From 1989 to 1995, I was an independent consultant in the areas of communications and signal processing analysis. Between 1992 and 1994, I was a lecturer at the California Institute of Technology.

5. From May 1995 through June 2000, I was Chief Scientist at PairGain Technologies. PairGain was a pioneering firm in the DSL and broadband networking space and made line-powered broadband access products including chipsets.

6. From January 2001 through May 2011, I was the founder and Chief Technical Officer of Solarflare Communications, a leading provider of 10 Gigabit Ethernet server adapters and silicon.

7. From May 2011 to date, I have been the principal consultant at CME Consulting, specializing in wireline communications.

C. Publications

8. I have written and/or edited numerous technical publications, many of which focus on networking technology. Exemplary publications include:

> G. Zimmerman, "Power Backoff," IEEE P802.3an Task Force Contributions: Zimmerman_1_0205.pdf, Zimmerman_1_0305.pdf, Zimmerman_2_0305.pdf, February & March 2005.
>
> G.A. Zimmerman, "Approaches to CSA-Reach Single-Pair HDSL," PairGain contribution, T1E1.4/96-160, March 1995.
>
> G.A. Zimmerman, "Achievable rates vs. operating characteristics of local loop transmission: HDSL, HDSL2, ADSL and VDSL," Signals, Systems &

Computers, 1997. Conference Record of the Thirty-First Asilomar Conference on Signals, Systems and Computers, Volume 1, 2-5 Nov. 1997 Pages: 573-577 vol. 1.

9. I am also the named inventor on numerous patents and patent applications in networking technology, including high-speed networking devices.

10. Accordingly, I consider myself to be an expert in the field of networking systems and equipment, and believe I am qualified to provide an opinion as to what a person of ordinary skill in the art would have understood, known, or concluded during the timeframe of 1998-2000.

D. Materials Considered

11. In my analysis, I considered the '930 Patent and its file history, as well as the prior art references and related documentation discussed below. I have also reviewed in detail the claim charts that are to be included within the Petition for *Inter Partes* Review of the '930 Patent ("the Petition") to which this declaration relates.

II. THE '930 PATENT

12. According to its face, the '930 Patent issued from U.S. patent application No. 09/520,350, filed on March 7, 2000, and claims priority to provisional patent application No. 60/123,688, filed on March 10, 1999. The '930 patent issued on April 17, 2001.

13. The ‘930 Patent generally relates to powering remote equipment over a network. In particular, it relates to a method for automatically determining if remote equipment is capable of receiving a remote power feed and, if it is determined that the remote equipment is able to accept power remotely, then to provide power. *See* ‘930 Patent (DE-1001), col. 1:14-19.

14. More particularly, the ‘930 Patent makes reference to an apparatus for remotely powering access equipment over a 10/100 switched Ethernet network with a phantom power supply and added circuitry for detecting the remote equipment, determining whether the remote equipment is capable of accepting remote power, and delivering the phantom power to the remote equipment over the same wire pairs that deliver the data signals. *See* ‘930 Patent (DE-1001), Abstract.

15. While the ‘930 Patent refers to the powering of 10/100 Ethernet compatible equipment, claims 6 and 9 are devoid of any such language. Rather, claim 6 recites “providing a data node adapted for data switching,” an “access device adapted for data transmission,” where the “data node” and “access device” are connected and “arranged to transmit data therebetween.” In other words, the claims do not require the recited equipment to be Ethernet-compatible or the data transmission to comply with any Ethernet specification.

16. While the ‘930 Patent purports to claim priority to U.S. Provisional Application No. 60/123,688, I did not consider whether or not the claims of the

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