UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CAVIUM, INC.
Petitioner

v.

ALACRITECH, INC.
Patent Owner

Case IPR. No. **Unassigned**
U.S. Patent No. 8,850,948
Title: INTELLIGENT NETWORK INTERFACE SYSTEM AND METHOD FOR PROTOCOL PROCESSING

Declaration of Robert Horst, Ph.D. in Support of Petition for *Inter Partes* Review of U.S. Patent No. 8,850,948

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I, Robert Horst, hereby declare as follows:

I. INTRODUCTION AND QUALIFICATIONS

1. My name is Robert Horst. I have been retained on behalf of Petitioner Cavium, Inc. ("Cavium") to provide this Declaration concerning technical subject matter relevant to the petition for *inter partes* review ("Petition") concerning U.S. Patent No. 8,850,948 (Ex.1001, the "948 Patent"). I reserve the right to supplement this Declaration in response to additional evidence that may come to light.

2. I am over 18 years of age. I have personal knowledge of the facts stated in this Declaration and could testify competently to them if asked to do so.

3. My compensation is not based on the resolution of this matter. My findings are based on my education, experience, and background in the fields discussed below.

4. I am an independent consultant with more than 30 years of expertise in the design and architecture of computer systems. My current curriculum vitae is submitted as Exhibit 1004 and some highlights follow.

5. Currently, I am an independent consultant at HT Consulting where my work includes consulting on technology and intellectual property. I have testified as an expert witness and consultant in patent and intellectual property litigation as well as *inter partes* reviews and re-examination proceedings.

6. I earned my M.S. (1978) in electrical engineering and Ph.D. (1991) in computer science from the University of Illinois at Urbana-Champaign after earning my B.S. (1975) in electrical engineering from Bradley University. During my master's program, I designed, constructed and debugged a shared memory parallel microprocessor system. During my doctoral program, I designed and simulated a massively parallel, multi-threaded task flow computer.

7. After receiving my bachelor's degree and while pursuing my master's degree, I worked for Hewlett-Packard Co. While at Hewlett-Packard, I designed the micro-sequencer and cache of the HP3000 Series 64 processor. From 1980 to 1999, I worked at Tandem Computers, which was acquired by Compaq Computers in 1997. While at Tandem, I was a designer and architect of several generations of fault-tolerant computer systems and was the principal architect of the NonStop Cyclone superscalar processor. The system development work at Tandem also included development of the ServerNet System Area Network and applications of this network to fault tolerant systems and clusters of database servers.

8. Since leaving Compaq in 1999, I have worked with several technology companies, including 3Ware, Network Appliance, Tibion, and AlterG in the areas of network-attached storage and biomedical devices. From 2012 to 2015, I was Chief Technology Officer of Robotics at AlterG, Inc., where I worked

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