### UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

## SONY COMPUTER ENTERTAINMENT AMERICA LLC, Petitioner,

v.

ROTHSCHILD DIGITAL MEDIA INNOVATIONS, LLC, Patent Owner.

Case IPR2015-01364 Patent 6,101,534

#### DECLARATION OF MICHAEL C. BROGIOLI, PH.D.

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DOCKET

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I, Michael C. Brogioli, state and declare as follows:

## I. INTRODUCTION

1. I am over 18 years of age and otherwise competent to make this Declaration.

2. I have been retained as an expert witness to provide testimony on behalf of Rothschild Digital Media Innovations, LLC ("Patent Owner") in this proceeding and make this Declaration based upon facts and matters within my own knowledge or on information provided to me by others.

3. I understand that on June 9, 2015, Sony Computer Entertainment America LLC ("Petitioner") filed a petition for *inter partes* review (the "Petition") of U.S. Patent No. 6,101,534 (the "534 Patent").

4. I understand that on September 17, 2015, Patent Owner filed a preliminary response (the "Preliminary Response") to the Petition.

5. I understand that on December 15, 2015, the Patent Trial and Appeal Board issued a decision instituting *inter partes* review (the "Institution Decision") on certain grounds advanced in the Petition.

6. In connection with this matter, I reviewed the Petition, the Preliminary Response, the Institution Decision, and the exhibits to the Petition that remain relevant following the Institution Decision, and I consulted such other scientific and technical materials as I deemed potentially relevant to forming my opinion, including those other materials discussed in this declaration.

## **II. BACKGROUND AND QUALIFICATIONS**

7. My background and qualifications are set forth in detail in my curriculum vitae, filed herewith as Exhibit 2009.

8. In brief, I received my Ph.D. in Electrical and Computer Engineering from Rice University. I received my M.S. in Electrical and Computer Engineering also from Rice University. I received my Bachelor's degree in Electrical Engineering from Rensselaer Polytechnic Institute ("RPI"). At RPI, I was elected to Eta Kappa Nu, the scientific and engineering honor society and graduated cum laude. During my graduate studies, I was a Texas Instruments Fellowship recipient in the area of digital signal processing hardware and software systems.

My doctorate dissertation topic is titled "Reconfigurable
Heterogeneous DSP/FPGA Based Embedded Architectures for Numerically
Intensive Embedded Computing Workloads."

10. I have extensive experience in hardware and software system design, including but not limited to multimedia, networking, distributed computing and gaming technology. While at Rice University, I developed a retargetable software compilation system used for computer networking, and multimedia based computing architectures. Also while at Rice, I developed a software based

computer architecture design framework and supporting software for multimedia and networking technologies. I further developed an adaptive and portable software library for numerical computations used in many modern network based software applications.

11. While in graduate school, I interned at Intel Corp.'s microprocessor research labs and Texas Instruments' advanced architecture and chip technology group in the areas of wireless computer networking. After completing graduate school, I worked in Freescale Semiconductor's software solutions research group in the area of hardware and software systems, including networking, multimedia and gaming technology. At Freescale, I was a senior member of the technical staff responsible for software R&D and CPU design. I left Freescale to become a consultant in the field of embedded computing, communications, and software/hardware design.

12. I have been a Chief Architect and Senior Engineer, and have been responsible for the management of technology, engineering road maps, and design of production and research software infrastructures and related optimizations.

13. I have been engaged as an expert witness in multiple cases ranging from topics on wireless networking and microprocessor technology to networked computing and multimedia / gaming systems. I have also been an expert witness

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