

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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ELECTRONIC DEVICE

DECLARATION OF DR. SANDEEP CHATTERJEE

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I. BACKGROUND AND QUALIFICATIONS

1. My education and experience are described more fully in the attached curriculum vitae. For ease of reference, I have highlighted certain information below.

2. I am the Chief Executive Officer of Experantis LLC (“Experantis”), a technology consulting company. Previously, I was the Co-founder, Executive Vice President and Chief Technology Officer of SourceTrace Systems, Inc., a technology and services company enabling the delivery of secure remote electronic services over landline and wireless telecommunications networks.

3. I received my Bachelor’s degree in Electrical Engineering and Computer Science from the University of California, Berkeley in 1995. I received my Master’s degree in Computer Science from the Massachusetts Institute of Technology (MIT) in 1997, and my Doctorate in Computer Science from MIT in 2001. I received a certificate of completion for an executive education program on global leadership from Harvard University in 2011.

4. I have extensive experience in designing, developing, and deploying end-to-end distributed systems, including communications systems. For example, as part of my doctoral research, I developed hardware and software systems for intelligent environments within homes and offices. Some of these devices included televisions, digital picture frames, refrigerators and children’s toys. The hardware

architecture of this system included a high-speed backplane that could support multiple, small-sized and pluggable modules, such as Personal Computer Memory Card International Association (PCMCIA) or CardBus PC cards. These pluggable modules could contain computing processor resources or peripheral resources, such as memory, storage, user interface components, etc. My doctoral dissertation at MIT involving networked client architectures and systems, was selected as one of the top inventions in the history of MIT's Laboratory for Computer Science. This invention is showcased in a time capsule at the Museum of Science in Boston, Massachusetts. Other recipients of this honor included Bill Gates, the founder of Microsoft, and Tim Berners-Lee, inventor of the World Wide Web.

5. Thereafter, I joined Bluestone Software's Mobile Middleware Labs as a Senior Engineer developing applications and systems infrastructure for enterprise Java/J2EE, Web services, and enterprise mobile solutions. After the completion of Hewlett-Packard's ("HP") acquisition of Bluestone, I became a Senior Member of the Technical Staff at HP's Middleware Division. I was responsible for architecting and developing the company's next-generation Web services platform for enterprise as well as mobile environments, known as the Web Services Mediator. I also worked with HP's worldwide software operations to add extensions into the Java 2 Enterprise Edition (J2EE) application server to easily support mobile appli-

cations and content, as well as flexible integration with other software systems using the eXtensible Markup Language (XML) and web services technologies. I was also part of the Expert Group that developed the JSR-00172 J2ME (Java 2 Platform, Micro Edition) Web Services Specification, the worldwide industry standard for mobile web services.

6. After leaving HP and through a contract between HP and the United States Agency for International Development (USAID), I led the development of a software system that enabled customers to use mobile handsets to connect with the core banking systems of banks and other financial institutions, and perform transactions without having to travel to bank branches. This was one of the first mobile banking solutions in the world.

7. Later, after SourceTrace Systems' acquisition of this technology, I led the expansion of this solution into multiple countries and into multiple industries. Banks and other financial services companies utilized this technology to make their tellers more efficient, to provide self-service kiosks within branches, and to provide remote access to banking services. Additionally, through our licensing agreement with Telefonica, one of the largest cellular and telecommunications companies in the world, this solution was deployed in various other industries, including logistics and asset management and customer relationship management. Some of these vertical solutions supported location tracking based on GPS information,

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