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Filed on behalf of Apple Inc.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.
Petitioner

v.

UNILOC 2017 LLC
Patent Owner

IPR2019-00056

DECLARATION OF CHARLES D. KNUTSON, PH.D.
U.S. PATENT NO. 6,467,088
CLAIMS 1-21

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I, Charles D. Knutson, Ph.D., declare as follows:

I. BACKGROUND AND QUALIFICATIONS

1. My name is Charles D. Knutson. I received my Doctor of Philosophy (Ph.D.) degree in the field of Computer Science from Oregon State University in 1998. I received my Masters of Science (M.S.) and Bachelor of Science (B.S.) degrees in Computer Science from Brigham Young University.

2. I have been engaged in the software development industry since 1986 in engineering, management, research, and instructional positions.

3. During my undergraduate education at Brigham Young University between 1985 and 1988 I focused on operating systems, leading to my employment as a development engineer at Hewlett-Packard between May 1988 and February 1989. During that time I developed low-level system software for the HP Vectra personal computer.

4. I was employed as a development engineer, test engineer, and manager at Novell, Inc. between March 1989 and September 1994. During that time, I became very familiar with the theory and operation of data communication systems and system software.

5. I was founder of ComSoft Consulting in Corvallis, Oregon, and between September 1994 and October 1996 I did consulting work for clients

including Intel and Novell. My consulting work for Novell included creating functional and test specifications for the installation of certain Novell software products in the context of a Novell NetWare local area network.

6. I was Vice President of Research and Development for Counterpoint Systems Foundry, Inc. (acquired in 1997 by Extended Systems, Inc., later spun off, and currently operating as OpenSynergy, Inc.) from September 1996 to September 1999. My development group created the infrared beaming capability that 3Com Corporation employed in their PalmOS handheld devices. My development group also created infrared and Bluetooth development platforms that have become de facto standards in the embedded/handheld device market worldwide.

7. I was Chair of the Test and Interoperability Committee of the Infrared Data Association (IrDA) from February 1998 to October 1999, and served as a member of the IrDA Architecture Council from February 1998 to April 2008. I was also a member of the Infrared Object Exchange (IrOBEX) Working Group from January 2002 to December 2005, helping to define standards for data object exchange in IrDA and Bluetooth.

8. I created and presented short courses on embedded systems, data communications, software quality, and software engineering at the Embedded

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