IN THE UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF PENNSYLVANIA

SIGHTSOUND TECHNOLOGIES, LLC,	)	Case No. 2:11-cv-01292-DWA
	)	Honorable Judge Donetta W. Ambrose
Plaintiff,	)	
	)	
v.	)	
	)	JURY TRIAL DEMANDED
APPLE INC.,	)	
	)	
Defendant.	)	

DECLARATION OF DR. JOHN P.J. KELLY

I, John Kelly, hereby declare as follows:

I. INTRODUCTION

1. I have been retained to provide assistance in the above captioned matter, which I understand to be related to patent infringement. Attached hereto as Appendix A is a true and correct copy of my *Curriculum Vitae* describing my background and experience. I have personal knowledge of the facts and opinions set forth in this declaration, and, if called upon to do so, I would testify competently thereto.

2. I hold Bachelor of Arts and Master of Arts degrees with Honors in Mathematics from the University of Cambridge, England. I hold a Ph.D. in Computer Science from U.C.L.A. From 1982 through 1986, I was a professor in the Computer Science Department at U.C.L.A. From 1986 through 1997, I was a professor in the Electrical and Computer Engineering Department of the University of California, Santa Barbara, where I held tenure.

3. I am the principal of Kelly Computing, Inc. I teach and consult in many different aspects of computer science and engineering, including computer hardware and software architecture and design, software engineering and fault tolerance. My particular areas of expertise include computer architecture, software engineering and "clean-room" development and evaluation, reverse engineering, operating systems (including real-time and embedded), network computing (including Internet computing), storage systems, fault tolerance, parallel and distributed computing systems, transaction processing systems, database systems, and program management.

4. As a result of my education and professional experience, I have extensive knowledge of computer operating systems including access control concepts, networking

technologies, database systems, communication protocols including network communication protocols, user interfaces including graphical user interfaces and computer hardware design, and software analysis, design, and development.

5. I have analyzed web browsers (*e.g.*, Safari and Internet Explorer), web applications and other computer products related to e-commerce (*e.g.*, IBM's Net.Commerce, BEA's middleware platform, the Finance Express DMS and the iTunes store).

6. I have analyzed data storage devices such as floppy drives, hard drives, CD drives and DVD drives; and software related to storage of audio and video in multimedia databases.

7. I have analyzed software and hardware products related to network transmission of audio and video including software and systems for Voice over IP and streaming video; I have also analyzed content delivery networks. For example, I have analyzed network-based distribution of electronic coupons, set top boxes, and the content delivery network architecture of leading content delivery network providers. I have analyzed audio and video coding methods such as MPEG, MPEG2, MPEG4, H.264 and DTS.

8. I have evaluated software and hardware products related to audio and video playback. For example, I have analyzed portable media players such as the Apple iPod, iPhone and iPad, Audible player, Creative Nomad and Rio; jukebox applications such as iTunes, RealPlayer, Winamp, MusicMatch and Rio Port Audio Manager; and portable media recorders such as phones and video cameras.

9. I have also analyzed the source code for computer operating systems such as Microsoft Windows, Mac OS, Linux, etc. I have also testified in Court on several occasions as a computer science expert.

10. I have worked in the area of computer software, hardware and system design and development for over thirty-five years. I have extensive experience in the design and development of small and large scale software systems. I have been involved in the specification, development, integration, and testing of computer systems with a wide range of requirements, sizes and types. These have included, by way of example, custom hardware and software for a US Air Force fighter plane, a distributed real-time system for US FAA air traffic control, and a distributed geographical information system for the US Department of Energy.

11. From 1978 to 1995, I specified, designed and implemented distributed database architectures, systems and applications for Los Alamos National Laboratory and NASA's Jet Propulsion Laboratory and database machine design and implementation at Transaction Technology Incorporated, Ordain, Inc. and Teradata.

12. From 1985 to 1998, I consulted for AT&T GIS, NCR, Symbios Logic, and LSI Logic, including working as a member of the AT&T GIS Science Advisory Committee ("SAC"). The SAC evaluated AT&T's organization, technical direction and product strategy and made recommendations to the Vice President of Technology and Development.

13. I have served as an expert witness in numerous patent cases, and have provided opinion testimony regarding the meaning of terms in computer-related patents. I am familiar with the law regarding claim construction. I have also been informed of common claim construction principles by the attorneys for Apple. Further, I understand the claim construction principles governing "means-plus-function" limitations. I have used my education, background, training and experience in determining the meaning that one of skill in the art would attribute to the claim limitations requiring construction in this case.

14. In preparing my opinions, I have reviewed the patents, prosecution histories and reexamination prosecution histories for United States Patent Nos. 5,191,573 (the '573 patent), 5,675,734 (the '734 patent) and 5,966,440 (the '440 patent). I have also reviewed the Markman Order in the matter of SightSound.com Incorporated v. N2K, Inc., *et al.* ("N2K litigation") issued Feb. 8, 2002, the transcript of the Markman hearing in the N2K litigation [SST-028903 - SST-029420], Plaintiff's and Defendants' opening and reply claim construction briefs in the N2K litigation, SightSound's and Apple's proposed claim constructions, and other materials referenced herein.

II. OPINIONS REGARDING A PERSON OF ORDINARY SKILL IN THE ART

15. In my opinion, a person of ordinary skill in the art relating to the technology of the asserted patents at the time at which the patents were filed would have had a bachelor's degree or equivalent in computer engineering or computer science and approximately two years of experience in developing software and hardware that transmit and receive files over a network.

16. I base this opinion on my direct experience over the past 35 years, including in the 1988-93 timeframe, working in network communications, as well as my knowledge and understanding of the skill levels of others working in the field.

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