

# EXHIBIT A

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TEXARKANA DIVISION**

**MAXELL, LTD.,**

**Plaintiff,**

**vs.**

**APPLE INC.,**

**Defendant.**

Civil Action No. 5:19-cv-00036-RWS

**DECLARATION OF DR. DANIEL A. MENASCE IN SUPPORT OF  
APPLE INC.'S PROPOSED CLAIM CONSTRUCTIONS**

I, Daniel A. Menascé, declare and state as follows:

## **I. INTRODUCTION**

1. My name is Dr. Daniel A. Menascé. I am a Professor of Computer Science at George Mason University. I am over the age of eighteen, and I am a citizen of the United States.

2. I have been retained by defendant Apple Inc. (“Apple” or “Defendant”) in connection with civil action *Maxell, Ltd. v. Apple Inc.*, Case No. 5:19-cv-00036-RWS (E.D. Texas), to provide my opinions regarding technical background, level of ordinary skill in the art, and other subject-matter relevant to interpretation of certain disputed claim terms in the asserted claims of U.S. Patent Nos. 6,329,794 (the “’794 patent”) and 7,116,438 (the “’438 patent”).

3. I have been asked to provide my opinions on the following topics: (1) the technology relevant to the ’794 and ’438 patents; (2) the state of the art at the time the relevant patent applications were filed; (3) the level of ordinary skill in that field as of the filing dates of the applications that issued as the ’794 and ’438 patents; (4) how those of ordinary skill in the art at the time of the invention would have understood statements made by the patentee during prosecutions of the ’794 and ’438 patents; and (5) how those of ordinary skill in the art at the time of the invention would understand certain terms used in the claims of the ’794 and ’438 patents.

4. My opinions expressed in this declaration rely on my own personal knowledge and experience. However, where I also considered specific documents or other information in formulating the opinions expressed in this declaration, such items are referred to in this declaration. This includes, but is not limited to, the ’794 and ’438 patents, their prosecution histories (including, if applicable, *inter partes* review proceedings before the Patent Trial and Appeal Board), prior art references cited during prosecution, *Maxell Ltd. v. Huawei Device USA Inc. et al.*, Case No. 5:16-cv-00178-RWS, Dkt. No. 175, Claim Construction Memorandum and

Order (January 31, 2018), and certain dictionaries and other extrinsic evidence cited by Apple and/or Maxell as part of their claim construction disclosures.

## II. QUALIFICATIONS

5. I am a University Professor of Computer Science at George Mason University (“Mason”) in Fairfax, Virginia. I have been informed that “University Professor” is the highest rank conferred by Mason’s President and Board of Visitors to “its faculty women and men of great national or international reputation. The rank of University Professor is reserved for such eminent individuals.” *See* Section 2.2.5 of Mason’s Faculty Handbook, available from <https://provost.gmu.edu/administration/policy>. I am honored to be among a very select group of Full Professors at Mason to become University Professors.

6. I received a Ph.D. in Computer Science from the University of California at Los Angeles (“UCLA”) in 1978. I obtained a Master of Science degree in Computer Science in 1975, as well as a Bachelor of Science degree in Electrical Engineering in 1974, both from the Pontifical Catholic University in Rio de Janeiro, Brazil (“PUC-Rio”).

7. I have been a Professor of Computer Science at Mason since 1992. Prior to joining Mason, from 1978-1992, I was Professor of Computer Science and Chair of the Computer Science Department at PUC-Rio. During this time, I have also held visiting faculty positions at the University of Maryland Institute for Advanced Computer Studies (“UMIACS”), University of Maryland, College Park, and at the University of Rome, Italy. From 1981 to 1991, I was the co-founder and CEO of Tecnosoft, a software company that specialized in the development of large computerized information systems for companies such as Brazilian oil company Petrobras and Brazilian telecommunications company Embratel. I designed and personally directed the development of these information systems for these and other customers. Tecnosoft also developed and commercialized two database management systems and a software

system for capacity planning and Service Level Agreement (“SLA”) prediction of computer systems.

8. I have devoted the past 45 years of my professional career to the area of computer science and in particular to the fields of self-managed systems, secure computer systems, distributed systems, electronic commerce, Web-based systems, database design and management, performance modeling and analysis, service-oriented architectures, software performance engineering, and operating systems. My field of expertise includes the study and comparison of computer-based systems and software architectures for commercial applications, including information systems in a variety of settings, from PCs to secure networked and Web-based environments.

9. Since 1999 I have been conducting research on self-managed computer systems (aka autonomic computer systems). These systems use sophisticated controllers that allow computer systems to self-configure, self-optimize, self-heal from failures, and self-protect from cyber attacks without human intervention. I have designed, implemented, and validated the efficiency of such controllers for a variety of systems including e-commerce sites, multi-tiered web sites, Internet data centers, distributed software systems, virtualized environments, smart manufacturing, and energy-preserving computer systems. The National Science Foundation, the US Air Force Office of Scientific Research, and the National Institute of Standards and Technology funded my research in this area.

10. I have also conducted research on the security of computer systems, having analyzed the security performance tradeoffs of isolated and networked computer systems. *See e.g.*, “Security Performance,” D.A. Menascé, *IEEE Internet Computing*, May/June 2003, vol. 7, no. 3 and chapter 5 (A Quantitative Analysis of Authentication Services) of my book “Scaling for E-Business: Technologies, Models, Performance, and Capacity Planning,” D. A. Menascé,

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