

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.

Petitioner

v.

TELEFONAKTIEBOLAGET LM ERICSSON

Patent Owner

Inter Partes Review Case No. IPR2021-00459

U.S. Patent No. 8,798,658

DECLARATION OF DR. MATTHEW C. VALENTI

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I, Matthew Valenti, do hereby declare as follows:

I. INTRODUCTION

1. I have been retained as an expert witness by Apple Inc. in connection with the above-captioned Petition for *Inter Partes* Review of U.S. Patent No. 8,798,658 (“’658 Patent”).

2. I have been asked to prepare this Declaration to provide my opinions regarding whether or not claims 1-5, 12-16, 22-24, 26-28, and 30 (“the Challenged Claims”) of the ’658 Patent would have been obvious to a person having ordinary skill in the art at the time of the alleged invention. I have been asked to assume that the priority date of the alleged invention recited in the ’658 Patent is October 4, 2010 (hereinafter “Priority Date”).

3. In preparing this Declaration, I reviewed the ’658 Patent, its file history and related applications, the prior art references discussed herein, the exhibits to the Petition, and the other documents discussed herein. I also relied upon my education and experience, and I considered the viewpoint of a person having ordinary skill the art (“POSITA”) as of the Priority Date.

4. It is my opinion that the Challenged Claims of the ’658 Patent are invalid as obvious to a POSITA at the time of the alleged invention in view of the prior art references discussed herein.

5. I am not, and never have been, an employee of Apple. I am being compensated for my work at my normal hourly compensation, based on time actually spent analyzing the '658 patent, the prior art publications cited here, and the issues related to these materials, but my compensation is not contingent in any way on the content of my opinions or the outcome of this proceeding.

II. BACKGROUND AND QUALIFICATIONS

6. I am currently a Professor of Computer Science and Electrical Engineering at West Virginia University in Morgantown, West Virginia. I have over 25 years of experience in telecommunications and communication technology, with an emphasis on wireless and cellular networks. I am a Fellow of the Institute of Electrical and Electronic Engineers (IEEE). My full qualifications and experience are set out in my Curriculum Vitae ("CV"), attached to this Declaration as Exhibit 1004.

7. I received my Bachelor of Science in Electrical Engineering from Virginia Polytechnic Institute and State University (Virginia Tech) in 1992, and a Master of Science in Electrical Engineering at Johns Hopkins University in 1995. I subsequently completed a Ph.D. in Electrical Engineering from Virginia Tech in 1999.

8. In 1992, I started as a full-time Electronics Engineer at the U.S. Naval Research Laboratory in Washington D.C. I subsequently became a Graduate

Research Assistant and Instructor as the Bradley Fellow at Bradley Department of Electrical and Computer Engineering, Virginia Tech, from August 1995 to July 1999.

9. Following this, in August 1999, I joined West Virginia University, initially as an Assistant Professor. I was promoted to Associate Professor in August 2005 and to Professor in August 2010, a position I still hold today.

10. I acted as Interim Department Chair from July 2019 to June 2020, and from July 2020 to June 2021, I served as the Raymond Lane Department Chair.

11. I am a registered Professional Engineer in the State of West Virginia and have held that license since 2011.

12. I have published 38 journal papers and technical magazine articles and over 100 conference papers in the telecommunications field, focusing on wireless technologies, including ten papers in the journal *IEEE Transactions on Wireless Communications*. My CV contains a complete list of my publications. I have served as Editor-in-Chief of IEEE Communications Society Best Readings since 2015, an online repository of curated content focusing on current technologies including Device-to-Device Communication, Internet of Things, Multi-Tier Cellular, and Full Duplex Wireless Communications. I was Chair, between 2016 and 2017, and a Member, from 2014 to 2017, of the Executive Editorial Committee of *IEEE Transactions on Wireless Communications*. I have acted as a Reviewer of a

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