

Declaration of Apostolos K. Kakaes
Patent No. 10,193,600

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. IPR2022-00464

U.S. Patent No. 10,193,600

**DECLARATION OF DR. APOSTOLOS K. KAKAES, PH.D.
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW OF U.S.
PATENT NO. 10,193,600**

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I, Apostolos K. Kakaes, declare as follows:

I. ASSIGNMENT

1. I have been retained as an expert witness on behalf of Petitioner Apple, Inc. (“Apple” or “Petitioner”) to offer technical opinions related to U.S. Patent No. 10,193,600 (Ex. 1001, “the ’600 Patent”). I understand that Petitioner requests that the Patent Trial and Appeal Board institute an inter partes review (proceeding of the ’600 Patent).

2. I have been asked to provide my independent analysis of the ’600 Patent in light of the prior art discussed below. Specifically, I have been asked to provide my opinion regarding whether claims 1–28 of the ’600 Patent are invalid as obvious to a person having ordinary skill in the art (“POSITA”) at the time of the alleged invention.

3. I am not currently, and never have been, an employee of Apple. I received no compensation for preparing this declaration beyond my normal hourly compensation based on my time actually spent in analyzing the issues and preparing this declaration. Nor will I receive any added compensation based on my opinions or the outcome of this proceeding.

II. BACKGROUND AND QUALIFICATIONS

4. I am over the age of 18 and am competent to write this Declaration. I have personal knowledge, or have developed knowledge of these technologies based

upon education, training, or experience, of the matters set forth herein. My relevant experience includes a deep understanding of the systems that we broadly refer to as “1G,” “2G,” “3G,” “4G,” and “5G” communication systems.

5. My Curriculum Vitae, which includes my complete education and work experience, is included as Exhibit 1004. I describe several relevant aspects of my experience below.

6. I am an expert in the field of communication engineering and specifically, among others, the field of wireless communications. I have almost 40 years of experience in electrical engineering and computer science and in fixed and mobile communications networks. I attended the University of Colorado from 1974 to 1980, during which I earned a Bachelor of Science (B.S.) and a Master of Science (M.S.) in applied mathematics with a minor in electrical engineering. I attended the Polytechnic Institute of New York between 1982 and 1988, during which I earned a Doctor of Philosophy (Ph.D.) in electrical engineering, with a thesis titled “Topological Properties and Design of Multihop Packet Radio Networks.” While pursuing the Ph.D. degree, I held a joint appointment as Special Research Fellow and Adjunct Instructor at the Polytechnic Institute of New York between 1985 and 1986.

7. Between 1982 and 1987, I worked at AT&T Bell Laboratories in Holmdel, New Jersey. While at AT&T Bell Laboratories, I worked on modeling,

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