

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PATENT TRIAL & APPEAL BOARD**

In re Patent of: Lindholm et al.
U.S. Patent No.: 8,385,966
Issue Date: February 26, 2013
Appl. No.: 12/387,661
Filing Date: May 5, 2009
Title: Method, Apparatus and Computer Program for Power Control
Related to Random Access Procedures

DECLARATION OF PROFESSOR BRUCE McNAIR

1. I am Professor Bruce McNair. I submit this report on behalf of Sony Mobile Communications (USA) Inc. in connection with its request for *inter partes* review of U.S. Patent No. 8,385,966 (“the ‘966 patent”).

I. Background and Qualifications

2. My name is Bruce McNair. I am a Distinguished Service Professor of Electrical and Computer Engineering at Stevens Institute of Technology in Hoboken, NJ. I have studied and practiced in the fields of electrical engineering, computer engineering, and computer science for over 40 years, and have been a professor of electrical and computer engineering since 2002.

3. I received my Masters of Engineering (M.E.) degree in the field of Electrical Engineering from Stevens Institute of Technology in 1974 and my Bachelor of Engineering (B.E.) degree in Electrical Engineering in 1971 from Stevens as well.

4. I am the Founder and Chief Technology Officer of Novidesic Communications, LLC, a technology consulting company. Prior to starting Novidesic and joining the faculty at Stevens in 2002, I spent 24 years at AT&T Bell Laboratories. My most recent work there included research into next generation (4G and beyond) wireless data communications systems, including modification of the IS-136 North American TDMA standard, high-speed, high mobility wide area networks as well as range and speed extensions to 802.11(a & b) wireless LANs. My research required the examination and implementation of physical layer wireless protocols. Before that, my activities included development of encryption hardware, secure voice architecture studies, high-speed voice-band modems, and public data network protocols. In addition, in examining techniques to prevent fraud in cellular networks, my work included examining and understanding cellular authentication protocols for roaming cellular subscribers.

5. Before joining Bell Labs, I spent seven years developing military communications systems for the US Army Electronics Command and ITT Defense Communications Division. My responsibilities included cryptographic and ECCM techniques for portable radio systems, TEMPEST technology, and state-of-the-art speech compression techniques. As one part of my work at the US Army Electronics Command in the mid-1970s, I analyzed and simulated multi-user

wireless communications systems and recognized the need for transmitter power control similar to that described in the subject patent.

6. Since becoming a faculty member in 2002 (and even before) I have published over 20 technical publications in scientific journals or conferences in the fields of digital communications and security. I have 25 U.S. patents in related fields, as well as 19 associated international patents. As part of my research as a professor and previously at Bell Labs, I have developed and implemented many different wireless communications devices and communications networks similar to the concepts of U.S. Patent No. 8,838,966 (“the ‘966 patent”) and which I explain in more detail below. My teaching at Stevens Institute of Technology has included graduate courses in Physical Design of Wireless Communications Systems Wireless Systems Security and an undergraduate course in Electronic Circuits, which include coverage wireless systems and networking techniques.

7. I have consulted with AT&T Government Systems and US Government agencies in the operation of cellular networks and means to recover the true identity of a mobile subscriber through the International Mobile Subscriber Identity (IMSI) when only a Temporary Mobile Subscriber Identity (TMSI) was available without the cooperation of the cellular subscriber or cellular carrier.

8. I am a Life Senior Member of the IEEE and belong to the Communications and Signal Processing Societies. I have served as the Secretary of the IEEE Communications Society Communications Security Committee.

9. I have also been an amateur radio operator since 1963 and have held the Extra Class amateur radio license, the highest level of amateur radio license, since 1970. My research and experimentation as an amateur radio operator are directly related to the relevant technology of the patent.

10. I make this declaration based on personal knowledge and I am competent to testify about the matters set forth herein.

11. A copy of my latest *curriculum vitae* (CV) is attached to this declaration as Attachment A.

II. Basis of My Opinion and Materials Considered

12. I have reviewed the '966 patent. I have reviewed the prior art and other documents and materials cited herein and in the accompanying petition. My opinions are also based in part upon my education, training, research, knowledge, and experience.

III. Understanding of Legal Standards

A. Anticipation

13. A patent claim is “anticipated” if each and every limitation of the claim is disclosed in a single prior art reference. Section 102 of the Patent Statute

was amended on March 16, 2013. The earlier version of Section 102 applies to the patent at issue given its filing date.

14. Each element of a patent claim may be disclosed by a prior art reference either expressly or inherently. Further, my understanding is that even an “express” disclosure does not necessarily need to use the same words as the claim. An element of a patent claim is inherent in a prior art reference if the element must necessarily be present and such would be recognized by a person of ordinary skill in the art. However, I understand that inherency cannot be established by mere probabilities or possibilities.

B. Obviousness

15. A patent claim is invalid if the differences between the patented subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person of ordinary skill in the art. I am informed that this standard is set forth in 35 U.S.C. § 103(a).

16. When considering the issues of obviousness, I am to do the following: (i) determine the scope and content of the prior art; (ii) ascertain the differences between the prior art and the claims at issue; (iii) resolve the level of ordinary skill in the pertinent art; and (iv) consider objective evidence of non-obviousness. I appreciate that secondary considerations must be assessed as part of the overall

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