

DECLARATION OF NATHANIEL POLISH, PH.D.
(ECF No. 70-1)
in Support of Defendant Apple Inc.'s
Opening Claim Construction Brief

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

S.M.R INNOVATIONS LTD and
Y.M.R TECH LTD,

Plaintiffs,

v.

APPLE INC.,

Defendant.

Civil Action No. 6:23-cv-00479-ADA

JURY TRIAL DEMANDED

**DECLARATION OF DR. NATHANIEL POLISH IN SUPPORT OF
DEFENDANT APPLE INC.'S OPENING MARKMAN BRIEF**

I, Dr. Nathaniel Polish, hereby declare as follows:

1. I am over 18 years of age and competent to make this declaration. If called to testify as a witness in this matter, I could and would testify truthfully to each of the matters set forth below.
2. My name is Nathaniel Polish. I currently am the President at Daedalus Technology Group in New York, NY, a computer consulting firm that I co-founded in 1980.
3. I have been retained to serve as an independent technical expert in this matter by Defendant Apple Inc.
4. I am being compensated for my work on this case at my standard consulting rate of \$750 per hour. I am also being reimbursed for any out-of-pocket expenses I incur in relation to my work. None of my compensation depends on the outcome of this litigation or on the nature of any particular opinions I provide. I do not have any other interests in this case or in any of the parties of which I am aware.
5. I have been asked by counsel for Apple to provide my analysis and opinions with respect to several technical questions and issues relating to how a person of ordinary skill in the relevant field would understand certain words or phrases that appear in the claims of U.S. Patent Nos. 7,969,990 (“the ’990 Patent”), 8,711,866 (“the ’866 Patent”), 9,699,223 (“the ’223 Patent”), and 10,547,648 (“the ’648 Patent”) (collectively, “the SMR Patents”).
6. I have reviewed the SMR Patents as well as their prosecution histories. I have also reviewed SMR’s and Apple’s identifications of proposed constructions and SMR’s disclosed extrinsic evidence. In reaching my opinions, I relied on these materials, along with my many years of knowledge and experience in the field of computer science and wireless communication, outlined below.

Qualifications

7. My professional and academic career has spanned 40 years. As set forth in my curriculum vitae, a copy of which is submitted as Exhibit 1, during these years I have gained extensive experience founding start-up companies and as a consultant in the fields of computer science, wireless communication systems, video distribution systems, and natural language interfaces to databases, among others.
8. I was awarded a Ph.D. degree in Computer Science in May 1993 from Columbia University. I received a Masters of Science and a Masters of Philosophy in Computer Science from Columbia University in 1987 and 1989, respectively. I also received a Bachelor of Arts in Physics in May 1984 from Columbia College.
9. I have extensive experience using a wide variety of network protocols to manage the transfer of data including streaming media across networks. For example, in the 1990s, I developed a system for serving video and audio streams over computer networks. That work was covered in a patent that issued in 1999 and for which I am a named inventor.
10. Additional details of my work experience, awards and honors, patents I've been awarded in the field of wireless technology and video distribution, and publications that may be relevant to the opinions I am expressing are set forth in my C.V. attached to the end of my declaration.

Issues Considered

11. I have been informed that, in general, the terms of a patent claim are given the meaning they would have had to a person of ordinary skill in the art at the time the invention was made, in view of the intrinsic evidence, including a patent's claims, specification, and prosecution history. I further understand that a patent owner can "act as his own

lexicographer,” which I understand to mean that a patent can define a term to have a meaning other than the one that a person of skill in the field would normally give it. I further understand that a patent owner can coin his own phrases or terms—that is, to use phrases or words that are not typically used in the relevant field—and that the meaning of those phrases or terms would then be the one given to them by the intrinsic evidence, including the claims, specification, and file history. I have been informed that, in either case, such a definition may be express or by implication.

12. I was asked to provide my technical opinions on the following issues:

- a. Claims 1-3, 9, and 24 of the '990 Patent and claims 22-24 of the '866 Patent refer to a “media transformer.” Did the term “media transformer” connote a structure or class of structures to a person of skill in the art as of 2002, taking into account the knowledge of a person of skill and the statements in the claims and specification regarding the function that the “transformer” was to perform?
- b. Claims 1-3, 9, and 24 of the '990 Patent and claims 22-24 of the '866 Patent refer to an “announcer device.” Was the term “announcer device” a term of art or otherwise a term that those of skill in the field used as of 2002?
- c. During prosecution of the SMR Patents, the Examiner considered two prior art references called Fano and Ortiz. What do Fano and Ortiz disclose about the transmission of acknowledgements or control information, and do either of these references disclose or suggest a new or unique type of acknowledgement protocol from the perspective of a person of skill in the art as of 2002?

d. Claim 7 of the '223 Patent includes the phrase “transmitting said media content to a plurality of copies.” Would the phrase “transmitting said media content to a plurality of copies” have conveyed, with reasonable certainty, any particular meaning to a person of ordinary skill in the art as of 2002?

13. I hold all of my opinions to a reasonable degree of certainty based on my background, training, experience, general knowledge of the literature regarding computer science, computer engineering, and wireless communications, and my review of materials pertinent to this case. I reserve the right to supplement or amend my opinions as permitted by the Court.

Opinions Presented

Level of Ordinary Skill in the Art

14. I have been informed that a person of ordinary skill in the art (“POSITA”) is a hypothetical person who is presumed to have known all of the relevant prior art as of the priority date. I have been informed that factors that may be considered in determining the level of ordinary skill in the art may include: (a) the educational level of the inventor; (b) the type of problems encountered in the art; (c) prior art solutions to those problems; (d) the rapidity with which innovations are made; (e) the sophistication of the technology; and (f) the educational level of active workers in the field. I have been asked to provide my opinion as to the qualifications of the person of ordinary skill in the art to which the SMR’s Patent pertain.

15. In my opinion, a POSITA in the field relevant to the SMR Patents would have had at least master’s degree in computer engineering, electrical engineering, or a related field, and at

least some experience with wireless communications. Further, additional education or experience might substitute for the above requirements.

16. I met the criteria described above as of 2002, and therefore consider myself a person of at least ordinary skill with respect to the SMR Patents.

“Media Transformer”

17. In my opinion, and based on my four decades’ worth of experience in the field, “media transformer” is not, and was not in 2002, a term of art in the fields of computer science or engineering, communications, or media processing. This term would therefore not have connoted any structure or class of structures to a person of skill in the art in 2002.

18. I personally have not encountered the term “media transformer” in my work on computer systems that transmitted, received, or processed media streams. I cannot recall any of my coworkers or collaborators with whom I have interacted in my professional career ever using this term.

19. As part of my efforts to keep current on the state of research and technology within the computer science and engineering fields, I stay up to date on publications including certain of those found on the Institute of Electrical and Electronics Engineers (IEEE) database and the Association for Computing Machinery (ACM) digital library. I have not encountered the term “media transformer,” to the best of my knowledge, in any of the technical articles, conference presentations, or textbooks that I have reviewed or consulted as part of my technical work.

20. To supplement my own knowledge, experience, and recollection. I also searched for the term “media transformer” in the technical literature. I first searched the IEEE database. The IEEE is the world’s largest organization of technical professionals, and its database