UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC. AND MOTOROLA MOBILITY, LLC

Petitioners

v.

GLOBAL TOUCH SOLUTIONS, LLC

Patent Owner

Patent No. 8,288,952 Issued: Oct. 16, 2012 Filed: Nov. 17, 2011

Inventor: Frederick Johannes Bruwer Title: INTELLIGENT USER INTERFACE INCLUDING A TOUCH SENSOR DEVICE

Inter Partes Review No.: IPR2015-01175

DECLARATION OF ROBERT E. MORLEY, JR.

DOCKET

I, Robert E. Morley, Jr. do hereby declare and state that:

I. INTRODUCTION

<u>1.</u> My name is Robert Morley. I am a Professor in the Electrical and Systems Engineering Department at Washington University in St. Louis, Missouri. I hold the degrees of BS, MS, and D.Sc. all conferred on me by Washington University in St. Louis in 1973, 1975, and 1977, respectively. Prior to joining the faculty of Washington University in St. Louis, I worked in the industry addressing electronics and micro-electronics. I have remained active in industry during my appointment to the faculty of Washington University in St. Louis.

<u>2.</u> I have been retained as an expert witness by counsel on behalf of Global Touch Solutions ("GTS") in connection with a series of *Inter Partes* Reviews ("IPR") of a number of patents held by GTS. These patents include, in no particular order, U.S. Patent Nos. 7,265,494; 7,994,726; 7,772,781; 7,498,749; 7,329,970; 7,781,980; 8,035,623; and 8,288,952. I understand that this proceeding involves U.S. Patent No. 8,288,952 ("the '952 Patent"). It is my understanding that the other patents are the subject of related IPRs and that the subject matter specific to each is considered in each separate Declaration. <u>3.</u> While I have prepared a separate and distinct Declaration for that proceeding and the other related proceedings as well, it is easy to see that there is a substantial amount of technical overlap in the subject matter of these proceedings, and consequently, I have considered this family of patents together.

I have reviewed and am familiar with the '952 Patent as well as 4. its prosecution history. I also have reviewed and am familiar with the Petition filed in IPR2015-01175 ("Petition") and the Beard, Rathmann, and Danielson patents. I also have reviewed and am familiar with the Declaration of Paul Beard, provided to me as Ex. 1003. I have also reviewed the decision of the Patent Trial and Appeal Board identified as Paper 8, dated November 17, 2015. While it is the opinion expressed in Paper 8 that the combination of Beard and Rathmann or Beard, Rathmann, and Danielson, as would have been made by one of skill in the art, renders the challenged claims obvious, in this Declaration I express the opinion that one of skill in the art would not have combined those references in the fashion relied upon, and that the challenged claims are not obvious over that combination of art as considered by a person of skill in the art around 1998.

5. As noted above, I am familiar with the type of technology addressed in the '952 Patent as of 1998, which I understand to be the year in

which the patent application from which priority is claimed in the '952 Patent was originally filed. I have been asked to provide my technical review, analysis, insights, and opinions regarding the assertions in the Petition concerning the alleged obviousness of the challenged claims of the '952 Patent by the Beard, Rathmann, and Danielson Patents. I am being compensated for my work in connection with the GTS Patents and the several IPRs at my established rate of \$500 per hour. My compensation does not depend on the outcome of this proceeding.

<u>6.</u> In forming the opinions and beliefs expressed herein, I have relied on my own experience and knowledge, my review of the '952 Patent and its file history, and my review of the materials cited in the Petition filed against the '952 Patent, including the Beard, Rathmann, and Danielson patents. Although the other IPRs directed at the GTS patents and the art cited therein form a backdrop for my opinions, if I have relied on art other than that cited in this proceeding for my opinions in a specific or selective way, it is specifically mentioned in my Declaration.

<u>7.</u> My experience relied on in arriving at the opinions expressed in this Declaration includes my work as a Professor of Electrical Engineering, my work in industry including the development of various microprocessor-based technologies, and my research in the area of computer architecture and

magnetic media. My experience and education is spelled out more fully in my *curriculum vitae*, submitted herewith as Exhibit 2003. My own personal experience in assisting other lawyers in the prosecution of patent applications and the enforcement of U.S. Patents naming me as the inventor or one of the inventors over the years, has allowed me to develop a fundamental understanding of the concepts underlying obviousness.

i. <u>Other Relevant Qualifications</u>

<u>8.</u> As noted above, I have had significant involvement in the preparation and prosecution of United States Patents and patent applications as well as the enforcement of United States Patents, including 17 naming me as inventor. Obviousness of claims over the prior art is a question I have addressed in fields and technologies both related to and distinct from those presented in the above-captioned IPR.

<u>9.</u> I have previously served as an expert witness in litigation matters and as a consultant to companies involved in research and development of electrical devices, particularly in conjunction with the development of microprocessor-based systems. As noted above, my *curriculum vitae* includes a compilation of my publications and patents and relevant experience.

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