

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent of: John A. Kembel, et al.  
U.S. Patent No.: 8,510,407  
Issue Date: August 13, 2013  
Appl. Serial No.: 11/932,553  
Filing Date: October 31, 2007  
Title: DISPLAYING TIME-VARYING INTERNET BASED  
DATA USING APPLICATION MEDIA PACKAGES  
Case No.: IPR2019-\_\_\_\_\_

**DECLARATION OF DR. VIJAY K. MADISETTI**

## Introduction

1. My name is Dr. Vijay K. Madiseti. I have been retained by Petitioners Lenovo Holding Company, Inc., Lenovo (United States) Inc., and Motorola Mobility LLC (“Petitioners”) to provide assistance regarding U.S. Patent No. 8,510,407 (“the ’407 Patent,” Ex. 1001). Specifically, I have been asked to consider the validity of claims 1, 8–13 and 20–24 of the ’407 Patent (“the challenged claims”) in view of the prior art, obviousness considerations, and understanding of a person of ordinary skill in the art (“POSA”). I have personal knowledge of the facts and opinions set forth in this declaration, and believe them to be true. If called upon to do so, I would testify competently thereto. I have been warned that willful false statements and the like are punishable by fine or imprisonment, or both.

2. I am being compensated for my time at my standard consulting rate. I am also being reimbursed for expenses that I incur during the course of this work. My compensation is not contingent upon the results of my study, the substance of my opinions, or the outcome of any proceeding involving the challenged claims. I have no financial interest in the outcome of this matter or on the pending litigation between Petitioners and Patent Owner.

3. My opinions are based on my years of education, research and experience, as well as my investigation and study of relevant materials, including those cited herein.

4. I may rely upon these materials, my knowledge and experience, and/or additional materials to rebut arguments raised by the Patent Owner. Further, I may also consider additional documents and information in forming any necessary opinions, including documents that may not yet have been provided to me.

5. My analysis of the materials produced in this proceeding is ongoing and I will continue to review any new materials as they are provided. This declaration represents only those opinions I have formed to date. I reserve the right to revise, supplement, and/or amend my opinions stated herein based on new information and on my continuing analysis of the materials already provided.

### **Background and Qualifications**

6. I have over thirty years of experience as an electrical and computer engineer in industry, education, and consulting.

7. I am a Professor in Electrical and Computer Engineering at Georgia Tech. I have worked extensively in the field of digital communications and have studied telecommunications and systems engineering since 1981. I also have over 20 years of industry experience in computer engineering, distributed computer systems, networking, software engineering, signal processing, and telecommunications, including wireless communications and signal processing. Throughout this time, I have designed, implemented, and tested various products in the fields of electronics, computer engineering, and communications.

8. In 1984, I received a Bachelor of Technology in Electronics and Electrical Communications Engineering from the Indian Institute of Technology (IIT). In 1989, I received my Ph.D. in Electrical Engineering and Computer Sciences (EECS) from the University of California, Berkeley. That year, I also received the Demetri Angelakos Outstanding Graduate Student Award from the University of California, Berkeley, and the IEEE/ACM Ira M. Kay Memorial Paper Prize.

9. In 1989, I also joined the faculty of Georgia Tech. I began working at Georgia Tech as an assistant professor, became an associate professor in 1995, and have held my current position since 1998. As a member of the faculty at Georgia Tech, I have been active in, among other technologies, cloud computing, distributed computing, image and video processing, computer engineering, embedded systems, chip design, software systems, wireless networks and cellular communications.

10. I have been involved in research and technology in the area of computing and digital signal processing since the late 1980s, and I am the Editor-in-Chief the IEEE Press/CRC Press's 3-volume Digital Signal Processing Handbook (Editions 1 & 2) (1998, 2010).

11. Over the past three decades, I studied, used, and designed distributed systems, including one of the first published works in distributed processing of multimedia signals over the internet, called BEEHIVE, in addition to image and video processing and wireless networking circuits for several applications, including

digital and video cameras, mobile phones and networking products for leading commercial firms.

12. Between 1994-1998 as part of a research initiative in collaboration with the US Army Research Laboratory and Georgia Tech, I and my students developed one of the first published implementations of a distributed signal processing environment, where sensor data (from US Army) was accessed over the network and processed and displayed at distributed locations (Georgia Tech, Rice University, and Spelman College) utilizing Java-based object broker technologies. This environment, BEEHIVE, is shown in the figure below, implemented within Java, utilized resource objects (including servers), data sources (such as cameras and sensors), sink sources (such as display), and service objects (representing Java applications), broker objects (e.g., schedulers), and user COE interfaces (e.g., GUIs) that download applications that run locally on data obtained from networked sources.

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.