## UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Google Inc.

Petitioners,

<u>V.</u>

Vedanti Systems Limited

Patent Owner.

Case No. IPR2016-00215

Patent No. 7,974,339

DECLARATION OF Dr. Omid Kia



### Dr. Omid Kia Declaration

I, Omid Kia, make this declaration in connection with the proceedings identified above.

#### Introduction

- 1. I have been retained by counsel for Vedanti Systems Limited ("Vedanti") as a technical expert in connection with the proceedings identified above. I submit this declaration on behalf of Arendi in the *Inter Partes* Reviews of United States Patent No. 7,974,339 ("the '339 patent") in Consolidated Case No. IPR2016-00212.
- 2. I base my opinions below on my professional training and experience and my review of documents and materials produced in these *Inter Partes* reviews. My compensation for this assignment is \$450 per hour. My compensation is not dependent on the substance of my opinions or my testimony or the outcome of the above-identified proceedings.

## **Qualifications**

- 3. My qualifications for forming the opinions set forth in this report are listed in this section and in Exhibit A attached, which is my curriculum vitae. Exhibit A also includes a list of my publications.
- 4. I am currently the Chief Image Scientist at Northstrat, Inc. (hereinafter referred to as "Northstrat"). In this capacity, I serve as an expert in all of



Northstrat's imaging initiative along high technology research and development and serve as an expert in all of Northstrat's activities pertaining to remote sensing, surveillance, and image/signal processing problems.

- 5. Prior to joining Northstrat, I served as the Senior Staff Scientist at ITT Exelis, Space Sciences Division (hereinafter referred to as "ITT Exelis") in an exact same capacity. ITT Exelis is a leader in Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) related products and systems and information and technical services, supplying military, government, and commercial customers in the United States and globally. ITT Exelis is a pure-play aerospace, defense, and information solutions company with strong positions in enduring and emerging global markets, some 20,000 employees, and 2010 revenues of about \$6 billion.
- 6. In early 2015 ITT Exelis merged with Harris corporation with complementary capabilities and for further reading please see:

  <a href="https://www.harris.com/solutions">https://www.harris.com/solutions</a>, <a href="https://www.harris.com/what-we-do/intelligence-surveillance-and-reconnaissance">https://www.harris.com/solution-grouping/remote-sensing-systems and <a href="https://www.harris.com/solution/advanced-analytics">https://www.harris.com/solution/advanced-analytics</a>.
  - 7. A copy of my C.V. is Ex. 2002.



- 8. In brief, and with particular relevance to the subject matter of this Inter Parties Review, my background and qualifications to be an expert witness in this matter are as follows. I received my Ph.D. degree in Electrical Engineering from the University of Maryland at College Park in 1997. My thesis addressed the compression and processing of images and has content spanning image processing, compression and communication theory and application.
- Immediately after my graduation, I continued work in media 9. compression and processing at the Compression Group in the Information Technology Laboratory of the National Institutes of Standards and Technology. In this role I continued my research and expanded on similar topics across several media forms. In particular I served as the United States Government ambassador to the MPEG standardization group. I also expanded on my thesis research topic to exploit compressed-domain processing of media for images, video and multimedia content. I worked with engineers who utilized the MPEG standardization body's source code for performance, quality and testing. There were at least three individuals in my immediate compression group and about 10 individuals working in other companies that contributed to the source code. These individuals were degreed with a Bachelor's degree in either Electrical Engineering or Computer Science and had direct experience with image processing, compression and communications as it pertains to encoding and decoding of images. At least two



individuals in my immediate group were recent graduates who were performing a cross-country internship from France who were interested in pursuing advanced degrees and part of their education process had to perform actual work to gain relevant experience. These individuals had a bachelor's degree in either Electrical Engineering or Computer Science with one to two years working experience on compression algorithms that was being studied in my group that included image compression and transmission.

- 10. Since 1999, I have held technical leadership positions in image and signal processing fields for delivery of highly technical solutions to the market. In particular, I have worked with X-ray imaging for medical diagnostic, security scanning, and non-destructive testing purposes.
- IMACOM, a medical imaging company that manufactured and sold Fluoroscopy and Radiography systems. From 2002 to 2003 I served as the president at Sigma Vision, a company that specialized in radiography for veterinary, security, and non-destructive testing. I worked with hardware and software engineers that provided technical support in development and maintaining of the imaging machines produced by the company. A large part of the system was to provide real-time processing, display and transmission of images within the system and across system boundaries to systems such as Radiological Information Systems



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