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12 **UNITED STATES DISTRICT COURT**
13 **SOUTHERN DISTRICT OF CALIFORNIA**

14 FASTVDO LLC,
15 Plaintiff,

16 v.

17 AT&T MOBILITY LLC,
18 AT&T SERVICES, INC., and
19 APPLE, INC.,
20 Defendants

Case No. 3:16-cv-00385-H-WVG
LEAD CASE

Member Cases:
16-cv-386-H (WVG)
16-cv-389-H (WVG)
16-cv-390-H (WVG)
16-cv-394-H (WVG)
16-cv-395-H (WVG)
16-cv-396-H (WVG)

21 **EXPERT DECLARATION OF DR. KENNETH ZEGER**

Petitioner's Exhibit 1016
Samsung Electronics
America, Inc., et al. v. FastVDO LLC
IPR2016-01179

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1 **I. INTRODUCTION**

2 1. I have been retained through Zunda LLC as an expert in the above
3 captioned cases by counsel for FastVDO, LLC (“FastVDO”). I understand that
4 FastVDO has asserted one patent in the above captioned cases: U.S. Patent No.
5 5,850,482 (the “asserted patent”).

6 **II. QUALIFICATIONS**

7 2. My qualifications for forming the opinions given in this expert report
8 are summarized here and are addressed more fully in my curriculum vitae, which is
9 attached as a part of **Exhibit A** to this declaration. That exhibit also includes a list
10 of my publications.

11 3. I have studied, taught, and practiced electrical and computer
12 engineering for more than thirty years. I attended the Massachusetts Institute of
13 Technology (“MIT”) and earned a Bachelors (SB) and Masters (SM) of Science
14 Degrees in Electrical Engineering and Computer Science in 1984. I earned a Masters
15 of Arts (MA) Degree in Mathematics in 1989 from the University of California,
16 Santa Barbara. I also earned my Ph.D. in Electrical and Computer Engineering from
17 the University of California, Santa Barbara in 1990.

18 4. I am a Full Professor of Electrical and Computer Engineering at the
19 University of California, San Diego (UCSD). I have held this position since 1998,
20 having been promoted from Associated Professor after two years at UCSD. I teach
21 courses full-time at UCSD in the fields of Electrical and Computer Engineering, and
22 specifically in subfields including information theory and data compression, at the
23 undergraduate and graduate levels. Prior to my employment at UCSD, I taught and
24 conducted research as a faculty member at the University of Illinois, Urbana-
25 Champaign for four years, and at the University of Hawaii for two years.

26 5. My twenty-plus years of industry experience include consulting work
27 for the United States Department of Defense as well as for private companies such
28 as Xerox, Nokia, MITRE, ADP, and Hewlett-Packard. The topics upon which I

1 provide consulting expertise include image, video, and speech coding; data
2 compression; networks; digital communications; pattern recognition; computer
3 software; and mathematical analyses.

4 6. I have authored 73 peer-reviewed journal articles, the majority of which
5 are on the topic of compression or signal processing. I have also authored over 100
6 papers at various conferences and symposia over the past thirty years, such as the
7 IEEE International Symposium on Information Theory, the International Conference
8 on Image Processing, and the Data Compression Conference.

9 7. I was elected a Fellow of the IEEE in 2000, an honor bestowed upon
10 only a small percentage of IEEE members. I was awarded the National Science
11 Foundation Presidential Young Investigator Award in 1991, which included
12 \$500,000 in research funding. I received this award one year after receiving my
13 Ph.D.

14 8. I have served as an Associate Editor for the IEEE Transactions on
15 Information Theory and have been an elected member of the IEEE Information
16 Theory Society Board of Governors for three, three-year terms. I organized and have
17 been on the technical advisory committees of numerous workshops and symposia in
18 the areas of image coding, information theory, and data compression. I regularly
19 review submitted journal manuscripts, government funding requests, conference
20 proposals, student theses, and textbook proposals. I also have given many lectures
21 at conferences, universities, and companies on topics in image coding, data
22 compression, and information theory.

23 9. I have extensive experience in electronics hardware and computer
24 software, from academic studies, work experience, and supervising students. I
25 personally program computers on an almost daily basis and have fluency in many
26 different computer languages.

27 10. No part of my compensation is contingent upon the outcome of this
28 litigation. I have no other interests in this litigation or with any of the parties.

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