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

VOIP-PAL.COM, INC.,	§
Plaintiff,	\$ \$ \$
V.	⁸ CASE NO. 6:20-cv-00267-ADA
META PLATFORMS, INC. and WHATSAPP LLC,	<pre>§ JURY TRIAL DEMANDED §</pre>
Defendants.	\$ \$

DECLARATION OF DR. VIJAY MADISETTI

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I. BACKGROUND

1. I have been retained as an expert in this case by defendants Meta Platforms, Inc. and WhatsApp LLC ("Defendants") to provide certain opinions in connection with U.S. Patent No. 10,218,606 (the "'606 Patent"). Ex. 1. I understand this patent has been asserted by Plaintiff VoIP-Pal.com, Inc. ("VoIP-Pal") against Defendants and others. In my declaration, I may refer to the '606 Patent as the "Asserted Patent" and to its claims that I understand VoIP-Pal has asserted (1, 3–6, 8, 9, 11, 14, 15, 18–24, 26, 27, 29, 32, 42 and 44) as the "Asserted Claims."

2. I have been asked to provide an opinion regarding whether or not the term "network element" in the Asserted Patent is indefinite.

3. After reviewing the Asserted Patent, its prosecution history, and other pieces of evidence cited herein, and also considering my expertise and experience, I believe that a person of ordinary skill in the art (or a "POSITA") around the time of the earliest claimed priority date (November 2, 2006¹) would not have understood the scope of "network element" as used in the Asserted Claims with reasonable certainty.

4. I am being compensated for my time at my standard hourly consulting rate of \$600 per hour. My compensation does not depend on the outcome of this litigation or the opinions I form.

II. QUALIFICATIONS

5. My qualifications and publications can be found in my Curriculum Vitae, which is attached hereto as Appendix A. My background and experience qualify me to offer the opinions offered in this Declaration and are described below.

¹ I understand that VoIP-Pal has alleged an earlier date of conception and reduction to practice of June, 6 2005. My opinion would not change if this earlier date were applied.

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6. In 1984, I received my Bachelor of Technology (Honors) in Electronics and Electrical Communication Engineering at the Indian Institute of Technology (IIT) in Kharagpur, India. In 1989, I obtained my Ph.D. in Electrical Engineering and Computer Science at 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/ACM² Ira M. Kay Memorial Paper Prize. I authored several papers and proposals during this time, including "Multilevel Range/NEXT Performance in Digital Subscriber Loops", IEEE Proceedings on Communications, Speech and Vision, Vol 136, Issue 2, April 1989, and "Comparison of Line Codes and Proposal for Modified Duobinary", Contribution T1D1.3-85- 237, American National Standards Institute, November 1985.

7. In 1989, I joined the faculty at Georgia Tech. My first position was an assistant professor position. I became an associate professor in 1995. In 1997, I was awarded the VHSIC Hardware Description Language (or VHDL) International Best Ph.D. Dissertation Advisor for my contributions in the area of rapid prototyping. I became a full professor in 1998 and have maintained that title ever since. As a faculty member at Georgia Tech, I have been an active contributor in several disciplines, including wireless networks, cellular communications, computer engineering, embedded systems, chip design, software systems, and image and video processing.

8. Since 1995, I have authored, co-authored, or edited several books in the areas of communications, signal processing, chip design, and software engineering, including VLSI DIGITAL SIGNAL PROCESSORS (1st ed. 1995), QUICK-TURNAROUND ASIC DESIGN IN VHDL (1st ed. 1996), THE DIGITAL SIGNAL PROCESSING HANDBOOK (2d. ed. 2010), CLOUD COMPUTING: A

² IEEE is the Institute of Electrical and Electronics Engineers. ACM is the Association for Computing Machinery.

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HANDS-ON APPROACH (1st ed. 2013), INTERNET OF THINGS: A HANDS-ON APPROACH (1st ed. 2014), and BIG DATA SCIENCE & ANALYTICS (1st ed. 2016).

- 9. Between 1998 and 2004, my students and I studied different codecs and published IETF draft standards³ on audio and video streaming applications over the internet including:
 - a. V. Madisetti and A. Argyriou: Voice and Video over Mobile IP Networks, IETF Draft, May 20, 2002; and
 - V. Madisetti and A. Argyriou: A Transport Layer Technology for Improving QoS of Networked Multimedia Applications, IETF Draft July 25, 2002.

10. I have served on the paper-reviewing committees for many leading conferences in my field, and I have taken on editorial roles for leading technical journals in fields pertinent to my research. For example, I served as the Editor-in-Chief of the IEEE Press/CRC Press's three-volume Digital Signal Processing Handbook for Edition 1 (1998) and Edition 2 (2010). I have also authored over 100 articles, reports, and other publications pertaining to electrical engineering, and in the areas of communications, communications signal processing, and computer engineering.

11. Throughout my time at Georgia Tech, I have designed several specialized computer and communication systems for tasks such as wireless, audio, video, and protocol processing for portable platforms (like cell phones and PDAs). I have also been actively involved in the areas of wireless communication, software engineering, system design methodologies, and software systems.

12. Beyond my work in academia, I have worked in industries relating to speech, audio, and image processing since the early 1980s. I developed efficient algorithms for echo cancellers

³ IETF is the Internet Engineering Task Force.

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