UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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SONY CORPORATION and
POLYCOM, INC.
Petitioners
v.
REALTIME ADAPTIVE STREAMING, LLC
Patent Owner

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Case No. IPR2018-01413
Patent 9,769,477

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DECLARATION OF DR. CHANDRAJIT BAJAJ

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I, Chandrajit Bajaj, hereby declare the following:

I. BACKGROUND AND QUALIFICATIONS

1. My name is Chandrajit Bajaj and I am over 21 years of age and otherwise competent to make this Declaration. I make this Declaration based on facts and matters within my own knowledge and on information provided to me by others, and, if called as a witness, I could and would competently testify to the matters set forth herein.

2. I have summarized in this section my educational background, career history, and other relevant qualifications. My curriculum vitae ("CV") is attached hereto as Exhibit 1006 and provides an accurate identification of my background and experience.

3. I am currently employed as a Professor of Computer Science at the University of Texas at Austin ("UT Austin"). I currently hold the Computational Applied Mathematics endowed Chair in Visualization. I am also the Director of the Computational Visualization Center at UT Austin, which has been funded by the National Institutes of Health, the National Science Foundation, the Department of Energy, and the Department of Defense. The center personnel include fifteen researchers, scientists, post-graduate students, and staff.

4.   I have a Bachelor of Technology degree in Electrical Engineering, which I obtained from the Indian Institute of Technology in Delhi (IITD) in 1980. I also have a Master of Science degree and a Doctorate in Computer Science from Cornell University in 1983 and 1984 respectively.

5.   Prior to my employment at the University of Texas, I was an assistant professor, then associate professor, and finally professor of Computer Sciences at Purdue University (Purdue) from 1984 until I resigned in 1997 and transferred to UT Austin.   During this time, I was also the Director of Image Analysis and Visualization Center at Purdue University. I was a visiting associate professor of Computer Science at Cornell University from 1990–1991. I have also been invited for collaborative visits by several academic institutions and have presented numerous keynote presentations worldwide. I have been an editorial member of the SIAM Journal on Imaging Sciences, and the ACM Transactions on Graphics, and continue my editorial role for ACM Computing Surveys and the International Journal of Computational Geometry and Applications.

6.   I have spent the better part of my career, both at Purdue and UT Austin, researching, designing, teaching and using computer systems to model, simulate, and visualize natural and synthetic objects, combining computational image and geometric processing. I am knowledgeable about and have much experience in both hardware and software, including algorithms, used for capturing, analyzing and

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displaying interactive imagery.

7.   In the 1970s, while majoring in Electrical Engineering at Indian Institute of Technology with a minor in Computer Sciences, I was intimately involved in the design and fabrication of microprocessor-controlled circuits as well as the development of microprocessor controller software. In the 1980s, while at Cornell University, my past experiences led to research in image and geometry processing and optimization and the development of robot motion planning software. In the early 1990s, I created 3D collaborative multimedia software environments which were fully navigable for multi-person computer gaming and simulation. In 1994, I co-authored a technical paper entitled "Shastra: Multimedia Collaborative Design Environment." The need for increasing computer graphics display realism without sacrificing interactivity led me also to explore image processing techniques such as texture mapping with data compression, such as described in my publications "Compression-Based 3D Texture Mapping for Real-Time Rendering," and "3D RGB Image Compression for Interactive Applications." During this time I was also intimately involved with the development of a new synthetic-natural hybrid data compression MPEG (Motion Pictures Expert Group) standard. During this time I also applied and received a joint patent "Encoding Images of 3-D Objects with Improved Rendering Time and Transmission Process," August 2002, US Patent 6438266.

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