Exhibit 2016

Zynga, Inc. v. Personalized Media Communications, LLC

Case IPR2013-00156 (SCM)



UNITED STATES PATENT AND TRADEMARK OFFIC	E
BEFORE THE PATENT TRIAL AND APPEAL BOARI)
ZYNGA, INC.	
Petitioner	
V.	
PERSONALIZED MEDIA COMMUNICATIONS LLC	
Patent Owner	
Case No. IPR2013-00156	

DECLARATION OF SAMUEL H. RUSS, PH.D. PURSUANT TO 37 C.F.R. § 1.68

U.S. Patent No. 7,860,131



- I, Dr. Samuel H. Russ, do hereby declare:
- 1. I am making this declaration at the request of Patent Owner

 Personalized Media Communications, LLC ("PMC") in the matter of the Inter

 Partes Review, No. IPR2013-00156, of U.S. Patent No. 7,860,131 ("'131 Patent.")

 In particular, this declaration addresses the patentability of substitute claim of the
 '131 Patent against the prior art, including the prior art cited by the Petitioner in
 their Petition for Inter Partes Review.

I. QUALIFICATIONS & ENGAGEMENT

- 2. My qualifications for forming the opinions set forth in this

 Declaration are summarized here and explained in more detail in my *curriculum*vitae, which is attached as part of Exhibit 2019. Exhibit 2019 also includes a list of my publications and the cases in which I have testified at deposition, hearing, or trial during the past four years.
- 3. I received a Bachelor's degree in Electrical Engineering from the Georgia Institute of Technology ("Georgia Tech") in 1986 and a Ph.D. in Electrical Engineering from Georgia Tech in 1991.
- 4. From 2007 to the present, I have been a member of the faculty of the University of South Alabama as an Assistant and Associate Professor in the Department of Electrical and Computer Engineering. During that time, I have won awards for excellent teaching and have been actively publishing research in home



networking and digital video recording (DVR) technologies. I am active in the Institute of Electrical and Electronic Engineers (IEEE) and am a Distinguished Lecturer for the IEEE Consumer Electronics Society. As a consultant, I have conducted briefings for members of the financial community on technology trends in the cable, satellite, and IPTV sectors. I teach classes in subjects including encryption, digital system design, signal integrity, systems engineering, software development, embedded system development, digital logic design, and computer engineering.

5. From 2000 to 2007, I worked for Scientific-Atlanta (now Cisco's Service Provider Video Tech. Group), where I managed a cable set-top box (STB) design group that designed four STB models, including the Explorer 4200 (non-DVR) and 8300 (DVR) models. Set-top boxes contain numerous features relevant to the Harvey patents, including networking, communications, interactivity, the ability to download software, video and audio processing, and digital audio and video. Both models sold several million units. As design-group manager, I was responsible for managing the design and prototyping activities of the group and for interfacing with other groups (especially integrated-circuit design, procurement, software developers, the factory where prototypes were built, and product managers) and for maintaining the hardware and mechanical development schedule. Since the products were produced in extremely high volumes, the



projects had very high visibility in the company, and therefore carried a great deal of responsibility. In order to manage the design of cable set-top boxes, I had to be an expert in communications, signal processing, networking, distributed systems, remote downloading of software, encryption/decryption, and software development including coding and testing.

- 6. Also while at Scientific-Atlanta, I became a staff expert in home networking, conducting demonstrations of breakthrough wireless videodistribution technology and managing a group that developed a new coaxial home networking system. The coaxial system won a Technology and Engineering Emmy® Award in 2013. I became a staff expert in DVR reliability and led a team that improved the software, hardware, repair, manufacturing processes, and vendor qualifications of DVR set-tops and hard disk drives. I was a named inventor on forty-eight (48) patent applications that were filed while I was at Scientific-Atlanta, twenty five (25) of which have issued as patents as of the writing of this Declaration.
- 7. From 1999 to 2000, I was a Staff Electrical Engineer and then Matrix Manager at IVI Checkmate (now Ingenico), where I managed the hardware design team that completed the design of the eN-Touch 1000 payment terminal. This terminal was in widespread use, for example, at the self-checkout at Home Depot.



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