UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ACTIVISION BLIZZARD, INC.,
ELECTRONIC ARTS INC.,
TAKE-TWO INTERACTIVE SOFTWARE, INC.,
2K SPORTS, INC.,
ROCKSTAR GAMES, INC., and
BUNGIE, INC.,
Petitioner,
v.

ACCELERATION BAY, LLC,
Patent Owner.

Case IPR2015-01951[1]
Patent 6,714,966

DECLARATION OF ROBERT ABARBANEL IN SUPPORT OF PATENT OWNER'S RESPONSE

[1] Bungie, Inc., who filed a Petition in IPR2016-00935, has been joined as a petitioner in this proceeding.

Declaration of Robert Abarbanel

I, Robert Abarbanel, declare as follows:

1. I am over the age of majority and make this declaration of my own personal knowledge.

2. I am currently retired, and doing part-time consulting work as a programmer for Jonova, Inc., in Seattle.

3. From 1990 to 2001, I was employed at Boeing, Inc. ("Boeing") as member of the Computer Science group, in the Mathematics and Computer organization.

4. From 1993 to 2000, I was the manager of a section of the Computer Science group in the [redacted] at Boeing. During that time frame, I had direct supervision over Virgil Bourassa. As his manager, I oversaw the creation and development of "SWAN: Small-World Wide Area Networking" ("SWAN"). Specifically, I would receive regular progress updates, attend meetings, review reports, and observe the progression of the development of SWAN. The SWAN project began in November 1996 and was satisfactorily tested on or before September 16, 1999 in an internal program at Boeing known as [redacted] I observed SWAN being implemented in [redacted] on or before

September 16, 1999 with a demonstration of the project that was given to the [redacted]

5. Based on my observations of SWAN in [redacted] and my discussions with Virgil Bourassa and Fred Holt, on or before September 16, 1999, SWAN was a peer-to-peer communication platform. It achieved high reliability and low latency which allowed for significant scalability. The system was completely distributed and allowed participants to join, depart and fail at any time.

6. Based on my observations of SWAN in [redacted] and my discussions with Virgil Bourassa and Fred Holt, on or before September 16, 1999, the SWAN technology was an application level communication system that allowed for the simultaneous sharing of information. It was a communications library that allowed computer processes to share information across a wide-area network using underlying point-to-point network communication protocols. In one example, the SWAN communication library overlaid on an underlying TCP/IP point-to-point network.

7. Based on my observations of SWAN in [redacted] and my discussions with Virgil Bourassa and Fred Holt, on or before September 16, 1999, the SWAN technology was implemented as a 4-regular graph that was incomplete. Specifically, each participant had a connection to at least three neighbor

participants. The SWAN technology would send data from an originating participant to the other participants by sending data through each of its connections to its neighbor participants. In order to continue the transfer of data, each participant would send data that it receives from a neighbor participant to its other neighbor participants. A screenshot of the SWAN system as it existed on or before September 16, 1999 is shown below which demonstrates 100 participants each having 4 connections to its neighboring participants:

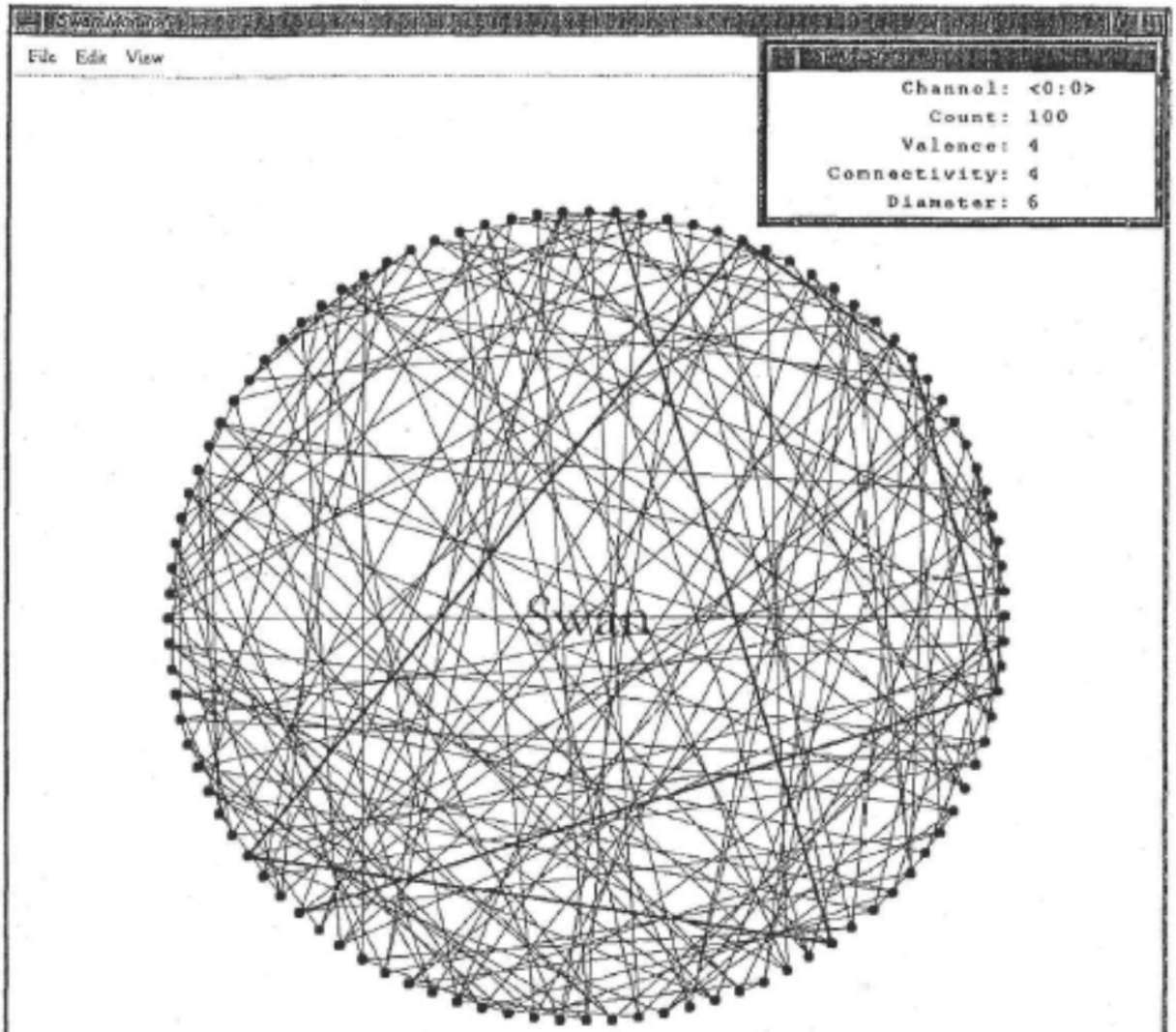

Figure 2. A SWAN session with 100 participants.

8. Virgil Bourassa and Fred Holt first showed me the graph in Figure 2 on or before September 16, 1999, and described to me the optimized communications among nodes in this graph and the resistance to damage of the group's functions due to failed edges.

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