

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BUNGIE, INC.
Petitioner,

v.

ACCELERATION BAY, LLC,
Patent Owner.

Case IPR2017-01600
Patent 6,910,069 B1

Before SALLY C. MEDLEY, MARC S. HOFF, and
LYNNE E. PETTIGREW, *Administrative Patent Judges*.

HOFF, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Bungie, Inc. (“Petitioner”) filed a Petition for *inter partes* review of claims 1–5, 7, 8, and 11–13 of U.S. Patent No. 6,910,069 B1 (Ex. 1001, “the ’069 patent”). Paper 2 (“Pet.”). Acceleration Bay, LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). Petitioner filed a Reply to the Preliminary Response. Paper 10 (“Reply”).

Institution of an *inter partes* review is authorized by statute when “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); *see* 37 C.F.R. § 42.108. Upon consideration of the Petition and Preliminary Response, we conclude the information presented does not show there is a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of any of claims 1–5, 7, 8, and 11–13 of the ’069 patent.

A. Related Matters

The parties identify the following pending judicial matters as relating to the ’069 patent: *Acceleration Bay LLC v. Activision Blizzard, Inc.*, Case No. 1:16-cv-00453 (D. Del., filed June 17, 2016); *Acceleration Bay LLC v. Electronic Arts Inc.*, Case No. 1:16-cv-00454 (D. Del., filed June 17, 2016); *Acceleration Bay LLC v. Take-Two Interactive Software, Inc.*, Case No. 1:16-cv-00455 (D. Del., filed June 17, 2016). Pet. 28; Paper 3, 1.

Claims 1–17 of the ’069 patent were challenged previously by different petitioners in IPR2016-00726. The Board denied institution in that proceeding. IPR2016-00726, Paper 11 (PTAB Sept. 9, 2016).

B. The '069 Patent

The '069 patent relates to a “broadcast technique in which a broadcast channel overlays a point-to-point communications network.” Ex. 1001, 4:5–6. The communication network consists of a graph of point-to-point connections between host computers or nodes. *Id.* at 4:25–28. Figure 1 of the '069 patent is reproduced below:

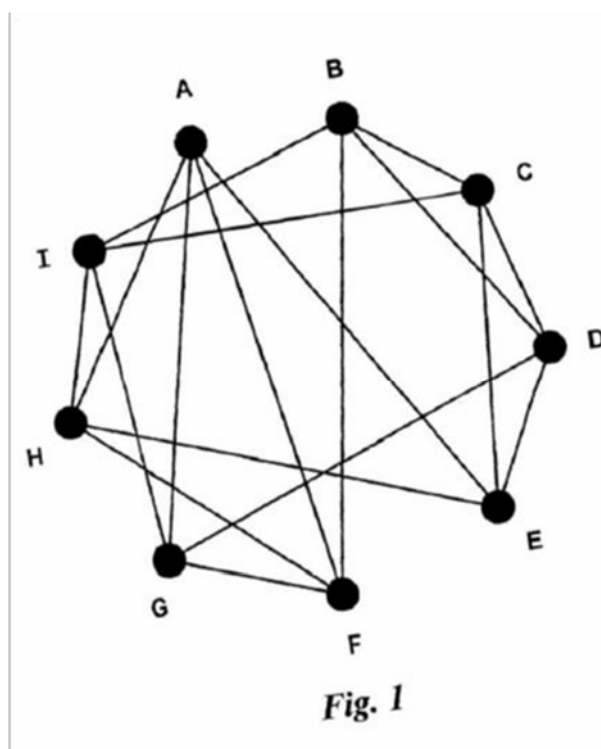


Figure 1 illustrates a broadcast channel represented by a “4-regular and 4-connected” graph. *Id.* at 4:50–51. The graph of Figure 1 is “4-regular” because each node is connected to exactly four other nodes (e.g., node A is connected to nodes E, F, G, and H). *Id.* at 4:40–41, 4:51–55. A node in a 4-regular graph can only be disconnected if all four of the connections to its neighbors fail. *Id.* at 4:65–5:1. Moreover, the graph of

Figure 1 is “4-connected” because it would take the failure of four nodes to divide the graph into two separate sub-graphs (i.e., two broadcast channels). *Id.* at 5:1-5. To connect to the broadcast channel, a seeking computer locates a computer that is connected to the broadcast channel and then establishes a connection with a number of computers connected to the broadcast channel. *Id.* at Abstract.

Figures 3A and 3B of the '069 patent are reproduced below.

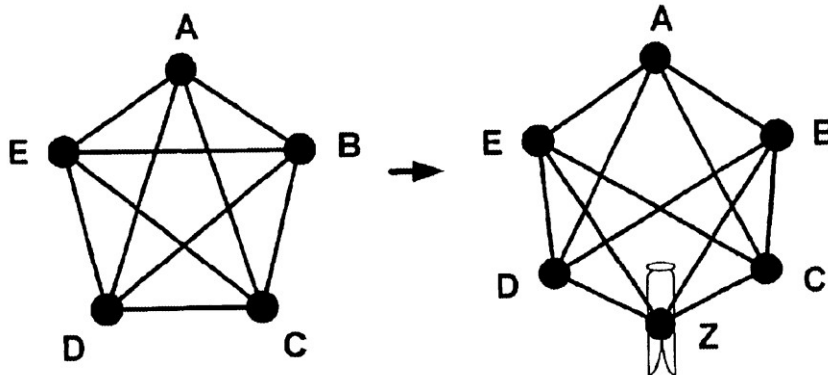


Fig. 3A

Fig. 3B

Figures 3A and 3B illustrate a process of connecting a new computer Z to the broadcast channel. *Id.* at 2:51–52. Figure 3A illustrates the broadcast channel of a 4-regular graph, where each of the computers is already connected to four computers. *Id.* at 5:55–57. Some of the connections between computers need to be broken so that the seeking computer can connect to four computers. In one embodiment, two pairs of computers that are connected to each other are identified. *Id.* at 5:57–61. Each of these pairs breaks the connection between them, and then each of the four computers (two from each pair) connects to the seeking computer. *Id.* at 5:61–64. The above figures show this concept, illustrating seeking

computer Z connecting to the broadcast channel. Computers B and E and computers C and D are the two identified pairs of computers that are identified as neighbors for new computer Z. *Id.* at 5:67–6:2. The connection between each of these pairs is broken, and a connection between computer Z and each of computers B, C, D, and E is established. *Id.* at 6:2–6:5.

C. Illustrative Claim

Petitioner challenges claims 1–5, 7, 8, and 11–13. Independent claim 1 is illustrative of the claimed subject matter:

1. A computer-based, non-routing table based, non-switch based method for adding a participant to a network of participants, each participant being connected to three or more other participants, the method comprising:

identifying a pair of participants of the network that are connected wherein a seeking participant contacts a fully connected portal computer, which in turn sends an edge connection request to a number of randomly selected neighboring participants to which the seeking participant is to connect;

disconnecting the participants of the identified pair from each other; and

connecting each participant of the identified pair of participants to the seeking participant.

Ex. 1001, 28:48–62.

D. Asserted Ground of Unpatentability

Petitioner asserts that claims 1–5, 7, 8, and 11–13 are unpatentable based on the following ground (Pet. 32):

References	Basis	Challenged Claims
Francis ¹ and Gilbert ²	§ 103(a)	1–5, 7, 8, and 11–13

II. DISCUSSION

A. Claim Construction

In an *inter partes* review, we construe claim terms in an unexpired patent according to their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard). Consistent with the broadest reasonable construction, claim terms are presumed to have their ordinary and customary meaning as understood by a person of ordinary skill in the art in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Our decision does not turn on Petitioner’s or Patent Owner’s proposed construction of “fully connected.” See Pet. 34–36; Prelim. Resp. 11–15. Therefore, we determine that no claim terms require express construction, and

¹ Paul Francis, *Yallcast: Extending the Internet Multicast Architecture*, NTT Information Sharing Platform Laboratories (Sept. 30, 1999) (Ex. 1005) (“Francis”).

² U.S. Patent No. 6,490,247 B1, filed June 26, 1996, issued Dec. 3, 2002 (Ex. 1021) (“Gilbert”).

we express no opinion regarding Petitioner’s or Patent Owner’s proposed construction.

B. Asserted Obviousness over Francis and Gilbert

Petitioner contends that independent claim 1 is unpatentable under 35 U.S.C. § 103(a) as obvious over Francis and Gilbert, and that the remaining challenged claims that depend from claim 1 would have been obvious over the same art. Pet. 36–65. Relying on the testimony of Dr. Nicholas Bambos, Petitioner explains how the combined prior art allegedly teaches or suggests all of the claim limitations. *Id.* (citing Ex. 1003).

Summary of Francis

Francis describes an architecture for so-called “yallcast” multicasting that attempts to unify prior server-based and IP multicast approaches. Ex. 1005, 2. Yallcast features a topology management protocol (YTMP) that allows a group of hosts to dynamically auto-configure into two topologies: (1) a tunneled, shared tree topology for efficient multicast distribution of application content; and (2) a tunneled mesh topology, for robust broadcast distribution of various information, including control information and, where appropriate, application content. *Id.* at 5. Each group has one or more rendezvous hosts associated with it. Rendezvous hosts are not attached to the tree-mesh – rather, they serve as a discovery or bootstrap

mechanism for allowing hosts joining a group to find other hosts already in the tree-mesh. *Id.*

Summary of Gilbert

Gilbert describes a ring-ordered dynamically reconfigurable computer network utilizing an existing communications system. Ex. 1021, Abstract. Each node is coupled to the existing communications system by two data channels and a control channel. *Id.* Gilbert's network includes a network manager to establish the network, facilitate communication among the nodes, and dynamically reconfigure the network without disturbing communication among the nodes. *Id.*

Analysis

Based on the record before us, we determine that there is not a reasonable likelihood that Petitioner will prevail in showing that any of claims 1–5, 7, 8, and 11–13 are unpatentable on the grounds asserted.

Claim 1 requires a participant seeking to join the network to contact “a fully connected portal computer, which in turn sends an edge connection request to a number of randomly selected neighboring participants” to which the seeking computer is to connect. Petitioner relies on Gilbert and Francis for different aspects of this limitation. First, Petitioner cites to Gilbert for disclosure of a portal computer sending a “connection request” to nodes existing on the network for the joining node. Pet. 51. In particular, Petitioner cites Gilbert's disclosure of “two adjacent nodes dropping connection to one another” in favor of each establishing connections to the joining node. *Id.* (citing Ex. 1021, 7:10–19). In that example, according to Petitioner, Gilbert discloses that the connections may be initiated by one of

each adjacent node pair, not by the joining node. *Id.* (citing Ex. 1021, 7:19–20).

Patent Owner argues, and we agree, that Petitioner admits that the “portal computer” of Gilbert never sends an edge connection request to a number of neighboring participants because the alleged portal computer is one of the nodes to which the additional node is to connect. Prelim. Resp. 56–57 (citing Pet. 52 (“Gilbert discloses a node in an adjacent node pair functioning as a portal computer.”)). We agree with Patent Owner, because Gilbert discloses that the joining (“additional”) node “first contacts a [single] node it knows to be already connected on the network.” Ex. 1021, 6:33–34. That “known” node then “provides information [to the joining node] regarding an adjacent node to the additional node.” Ex. 1021, 6:40–42. Gilbert thus discloses that a portal computer sends a connection request to at most one “neighboring” participant.

Petitioner contends that Gilbert’s disclosed “alternative embodiment,” in which “the step of contacting two adjacent nodes . . . can be ‘executed by a joiner module within the network manager,’” meets the claim language concerning an edge connection request to a number of [randomly selected] neighboring participants. Pet. 52. We agree with Patent Owner that Petitioner’s contention mischaracterizes Gilbert’s disclosure, because Gilbert’s network manager is a functional component that is *included within* one or more nodes, including a node that wishes to join an existing network, rather than being a so-called “master node.” Prelim. Resp. 57. Gilbert discloses a network manager that is “contained within each node such that the nodes communicate in a peer-to-peer manner. Ex. 1021, 3:64–65. “In a

further embodiment, a port controller runs on each computer to perform the network manager function.” Ex. 1021, 3:65–67.

Patent Owner further argues that no computer in Gilbert ever sends edge connection requests to any *neighboring participants*, let alone neighboring participants that have been randomly selected. Prelim. Resp. 58. As Patent Owner explains, “[t]he additional node connects with each of the adjacent nodes, in the same manner as node N connects to node N+1 in step 48 of Figure 4.” Prelim. Resp. 58 (quoting Ex. 1021, 7:13–16). Once the additional node has unique address information for the two nodes, the switch causes a connection to be made. Prelim. Resp. 58 (citing Ex. 1021, 4:57–67). Patent Owner contends, therefore, that there is no disclosure in Gilbert of a portal computer sending an edge connection request to neighboring participants because the switch is responsible for making connections. *Id.* We agree with Patent Owner.

Petitioner concedes that Gilbert does not disclose sending a request to a number of *randomly selected* neighboring participants to which the seeking participant is to connect. Pet. 55. Petitioner cites to Francis for disclosure of ‘randomly selected’ nodes existing on the network.

“[E]ach member M establishes a small number of other members – three or four – as mesh neighbors. These members are randomly selected [M]esh neighbors are randomly chosen Efficient random selection is achieved through a frame delivery mode called ‘mesh anycast’, whereby a discovery message takes a random walk along the mesh, randomly stopping at some member.”

Pet. 51 (citing Ex. 1005, 14). Petitioner admits that no attempt is made to find mesh neighbors that are nearby (latency-wise). Ex. 1005, 14; *see* Pet.

55. “YDP anycast simply causes a frame to randomly walk the tree or mesh until it (randomly) decides to stop (or the hop count expires). Anycast is used by the Yallcast Tree Management Protocol (YTMP) for discovering [sic] arbitrary members in the topology.” Ex. 1005, 17.

Petitioner argues that “Francis provides for random selection of neighbors for every node, which necessarily includes a joining node, by performing a ‘random walk along the mesh.’” Pet. 55. Both the route’s path and its length are random. *Id.* According to Petitioner, “this type of selection – a ‘random walk’ – is the same type of random selection described in the ’069 Patent.” Pet. 55; Ex. 1001, 13:41–45 (“This sending of the [connection request] message corresponds to a random walk through the graph that represents the broadcast channel. Eventually, a receiving computer will decide that the message has traveled far enough to represent a randomly selected computer.”).

Petitioner, however, has not sufficiently explained how or why a person having ordinary skill in the art would have combined Francis and Gilbert to achieve this claim element. Petitioner explains that Francis teaches rendezvous hosts that allow hosts joining a group to find other hosts already in the tree-mesh, and that Francis randomly selects “neighbors” (simply other network members) for every node. *See* Pet. 53–55. Petitioner further argues that Gilbert, like Francis, teaches the concept of multifunctional nodes that can execute the steps of adding a new node to the network. According to Petitioner, modifying Francis’s rendezvous host with the features of Gilbert’s portal computer would provide some messaging efficiencies. Pet. 55. In our view, however, Petitioner fails to explain sufficiently why it would have been obvious to combine Francis

and Gilbert to have a seeking participant contact a fully connected portal computer as claimed.

Still further, the disputed phrase requires that the edge connection request be sent to a “number of randomly selected” neighboring participants to which the seeking participant is to connect. Petitioner asserts that Francis provides for random selection of neighbors for every node. Pet. 55; Ex. 1005, 14. Merely choosing neighboring participants in a random manner to connect to, as Francis does here, is not the same as sending a request to a number of randomly selected neighboring participants. Petitioner has not explained how Francis and Gilbert would be combined to teach a portal computer “*send[ing] an edge connection request* to a number of randomly selected neighboring participants.”

For all of the above reasons, we are not persuaded that Petitioner has established a reasonable likelihood that Petitioner would prevail in its challenge to independent claim 1, or to dependent claims 2–5, 7, 8, and 11–13.

B. Motion to Seal

Patent Owner’s Preliminary Response (Paper 6) was accompanied by a Motion to Seal (Paper 7) its Preliminary Response and Exhibits 2004–2010, along with a redacted version of the Preliminary Response and redacted versions of Exhibits 2006–2010. As we do not rely on the material that Patent Owner seeks to seal, we decline to address the merits of the Motion to Seal. Patent Owner is authorized to file a motion to expunge any material that it seeks to keep confidential within thirty (30) days of this decision, or within thirty (30) days of a decision on rehearing if rehearing is requested.

III. CONCLUSION

For the foregoing reasons, we determine that there is not a reasonable likelihood that Petitioner would prevail in showing that claims 1–5, 7, 8, and 11–13 of the '069 patent are unpatentable.

IV. ORDER

For the foregoing reasons, it is

ORDERED that the Petition is denied as to all challenged claims, and no trial is instituted.

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