IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ACCELERATION BAY LLC, Plaintiff, v. ACTIVISION BLIZZARD, INC. Defendant.	Civil Action No. 16-453-RGA
ACCELERATION BAY LLC, Plaintiff, v. ELECTRONIC ARTS INC. Defendant.	Civil Action No. 16-454-RGA
ACCELERATION BAY LLC, Plaintiff, v. TAKE-TWO INTERACTIVE SOFTWARE, INC., ROCKSTAR GAMES, INC., AND 2K SPORTS, INC. Defendants.	Civil Action No. 16-455-RGA

MEMORANDUM OPINION

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ANDREWS, U.S. DISTRICT JUDGE:

Presently before me is the issue of claim construction of multiple terms in U.S. Patent No. 6,701,344 (the "'344 patent"), U.S. Patent No. 6,714,966 (the "'966 patent"), U.S. Patent No. 6,829,634 (the "'634 patent"), U.S. Patent No. 6,910,069 (the "'069 patent"), U.S. Patent No. 6,732,147 (the "'147 patent"), and U.S. Patent No. 6,920,497 (the "'497 patent"). I have considered the parties' Joint Claim Construction Brief. (D.I. 321).[1] I issued an Order and Stipulation Regarding Supplemental Claim Construction Briefing, pursuant to which the parties address terms 14, 15, 19, 20, and 22. (D.I. 206; D.I. 215). I held oral argument on December 4, 2017. (D.I. 370 ("Tr.")).

I. LEGAL STANDARD

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). "'[T]here is no magic formula or catechism for conducting claim construction.' Instead, the court is free to attach the appropriate weight to appropriate sources 'in light of the statutes and policies that inform patent law.'" *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Of these sources, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted).

[1] Citations to "D.I. ___" are to the docket in C.A. No. 16-453 unless otherwise noted.

"[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312–13 (citations and internal quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court's construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317–19. Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

"A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct interpretation." *Osram GMBH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (citation omitted).

II. BACKGROUND

The following claims are the most relevant for the purposes of this Markman.

Claim 11 of the '147 Patent

> 11. A computer-readable medium containing instructions for controlling disconnecting of a computer from another computer, the computer and other computer being connected to a *broadcast channel*, said *broadcast channel* being an m-regular graph where m is at least 3, comprising:
>
> a component that, when the computer decides to disconnect from the other computer, the computer sends a disconnect message to the other computer, said disconnect message including a list of *neighbors* of the computer; and
>
> a component that, when the computer receives a disconnect message from another computer, the computer broadcasts a *connection* port search message on the *broadcast channel* to find a computer to which it can connect in order to maintain an m-regular graph, said computer to which it can connect being one of the *neighbors* on said list of *neighbors*.

(D.I. 117-2, Exh. A-3 ("'147 patent"), claim 11) (emphasis added).

Claim 1 of the '069 Patent

> 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.

(D.I. 117-2, Exh. A-5 ("'069 patent"), claim 1) (emphasis added).

Claim 13 of the '344 Patent

> 13. A distributed game system comprising:

a plurality of *broadcast channels*, each *broadcast channel* for playing a game, each of the broadcast channels for providing game information related to said game to a plurality of participants, each participant having connections to at least three *neighbor* participants, wherein an originating participant sends *data* to the other participants by sending the data through each of its connections to its *neighbor* participants and wherein each participant sends data that it receives from a *neighbor* participant to its *neighbor* participants, further wherein the network is m-regular, where m is the exact number of *neighbor* participants of each participant and further wherein the number of participants is at least two greater than m *thus resulting in a non-complete graph*;

means for identifying a broadcast channel for a game of interest; and

means for connecting to the identified broadcast channel.

(D.I. 117-2, Exh. A-1 ("'344 patent"), claim 1) (emphasis added).

Claim 19 of the '634 Patent

13. A non-routing table based computer-readable medium containing instructions for controlling communications of a participant of a *broadcast channel* within a network, by a method comprising:

locating a portal computer;

requesting the *located portal computer* to provide an indication of *neighbor* participants to which the participant can be connected;

receiving the indications of the *neighbor* participants; and

establishing a *connection* between the participant and each of the indicated *neighbor* participants, wherein a *connection* between the portal computer and the participant is not established, wherein a *connection* between the portal computer and the *neighbor* participants is not established, further wherein the network is m-regular and m-connected, where m is the number of *neighbor* participants of each participant, and further wherein the number of participants is at least two greater than m *thus resulting in a non-complete graph*.

(D.I. 117-2, Exh. A-4 ("'634 patent"), claim 19) (emphasis added).

III. TERMS FOR CONSTRUCTION

1. Term 14: "connection" ('344/12, 13; '966/12, 13; '634/19; '069/1, 11, 12; '147/1, 11, 14, 15; '497/1, 9)

a. *Plaintiff's proposed construction*: "link"

b. *Defendants' proposed construction*:

'344, '966, '634, '069: "point-to-point network channel maintained between the unique addresses of two participants through which data can be sent and received"

'147, '497: "point-to-point network channel maintained between the unique addresses of two computers through which data can be sent and received"

c. *Court's construction*:

'344, '966, '634, '069: "connection between two participants, with no other participants in between, through which data can be sent and received"

'147, '497: "connection between two computers, with no other computers in between, through which data can be sent and received"

The parties agree on constructions for the related terms "connections," "connected," "connect," "connecting," "interconnections," and "disconnecting." (D.I. 321 at 15). Each of these agreed-upon constructions uses the term "connection."

The parties agree that "connection" refers to a connection between two participants, with no other participants in between. (Tr. at 13:22-14:2, 14:24-15:2, 32:16-19). They agree that "connection" does not encompass an "indirect" connection between two participants, with one or more other participants in between. (*Id.*).

Defendants argue that Plaintiff's proposed construction contravenes this shared understanding. Specifically, Defendants argue "any two computers in a network can be said to be 'linked' together," regardless of whether or not there is a computer in between. (D.I. 321 at 3, 24). I agree with Defendants. Thus, as a threshold matter, I reject Plaintiff's proposed construction.

The parties dispute two parts of Defendants' proposed construction. First, they dispute whether a connection is a "point-to-point network channel." Second, they dispute whether the connection must be "maintained between the unique addresses of two computers."

As to the first dispute, Defendants argue that a "connection" is a "point to point network channel." (D.I. 321 at 20). As evidence, Defendants point to the shared specification. (*Id.* at 22-23).[2]

The specification repeatedly refers to a "point-to-point communications network," "point-to-point network protocols," and "point-to-point connections." (*See, e.g.,* '344 patent at Abstract, 1:33-34, 1:46). In doing so, the specification teaches that "connections" are "point-to-point." However, "point-to-point" is not itself defined in the patents. Rather, the specification provides a non-exhaustive list of three kinds of "point-to-point protocols" used by "point-to-point connections": "UNIX pipes, TCP/IP, and UDP." ('344 patent at 1:44-46).

"Absent disclaimer or lexicography, the plain meaning of the claim controls." *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1369 (Fed. Cir. 2012). Because the specification provides neither lexicography for "connection" nor any relevant disclaimer, I do not use "point-to-point" in my construction. Furthermore, the "channel" used in Defendants' proposed construction is different than the broadcast "channel" in the claims. Thus, so as not to confuse the jury, I do not include "channel" in my construction, either.

Instead, to clarify "connection" for the jury, I adopt the parties' shared understanding of the plain meaning of "connection." I construe "connection" to mean "connection between two [participants / computers], with no other [participants / computers] in between, through which data can be sent and received."

My construction does not require that a "connection" specifically be a TCP/IP connection. Thus, my construction is consistent with Plaintiff's argument that dependent claim 8 of the '344 patent, which specifies that "connections are TCP/IP connections," must be

[2] The parties agree that the patents share a specification. (D.I. 363 at 10:14-21).

differentiated from independent claim 1, which makes no such limitation. (D.I. 321 at 28-29; Tr. at 15:17-22).

As to the second dispute, I do not adopt Defendants' "unique addresses" language.

Plaintiff agrees that every computer has a unique address, but argues that connection protocols are not necessarily based on this unique address. (Tr. at 10:4-7, 10:19-11:8).

Defendants, on the other hand, contend that unique addresses are "the only way" that connections can "be done." (Tr. at 40:20-41:2; D.I. 321 at 25). Whether a connection can be made by some method that does not use unique addresses is not resolved by the intrinsic record. It is a question of fact, not an issue of claim construction. Accordingly, I do not include "unique addresses" in my construction.

2. Term 15: "neighbor," "neighbors," "neighboring" ('344/12, 13; '966/12, 13; '634/19, 22; '069/1; '147/1, 11)

a. *Plaintiff's proposed construction*: "computer and/or computer processes that can communicate"

b. *Defendants' proposed construction*:

'344, '966, '634, '069 ("neighbor"): "participant that has agreed to maintain a connection"

'344, '966, '634, '069 ("neighbors"): "pair of participants that have agreed to maintain a connection"

'147 ("neighbor"): "computer that has agreed to maintain a connection"

'147 ("neighbors"): "pair of computers that have agreed to maintain a connection"

"neighboring": "being a neighbor of"

c. *Court's construction*:

'344, '966, '634, '069 ("neighbor"): "a neighbor of a participant is another participant that has a connection to the first participant, with no other participants in between"

'147 ("neighbor"): "a neighbor of a computer is another computer that has a connection to the first computer, with no other computers in between"

'344, '966, '634, '069 ("neighbors"): "the neighbors of a participant are additional participants that each have a connection to the first participant, with no other participants in between the first participant and each additional participant"

'147 ("neighbors"): "the neighbors of a computer are additional computers that each have a connection to the first computer, with no other computers in between the first computer and each additional computer"

"neighboring": "being a neighbor of"

The parties generally agree to the meaning of "neighbors." They agree that in Figure 1 of the '344 patent, participants A and E are neighbors, but participants A and B are not neighbors. (Tr. at 14:24-15:2, 38:20-39:4). Participants A and E are connected (as represented by the line AE) with no other participant between them. Participants A and B are connected, but only by lines that go through at least one other participant.

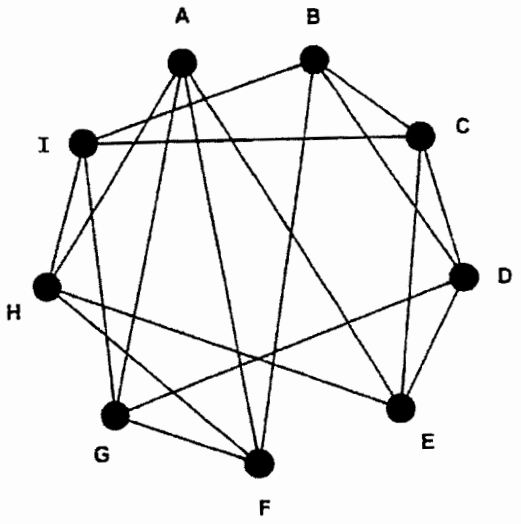

Fig. 1

To capture this understanding, I construe "neighbor" to clarify that a "neighbor of a first [participant / computer] is a [participant / computer] that has a connection to the first [participant / computer], with no other [participants / computers] in between." By excluding a pair of participants, with other participants in between, my construction gives meaning to both

"neighbor" and "connection" and thereby alleviates Defendants' concern that the term "neighbor" "would have no meaning in a connectionless protocol." (D.I. 321 at 21).

I do not adopt Defendants' proposed construction, which requires that "a pair of participants . . . ha[ve] *agreed to maintain* a connection." (D.I. 321 at 14) (emphasis added).

The specification teaches a "handshake" procedure whereby a requesting computer sends out a "request" to form a neighbor connection, which a computer with a connection to fill then accepts. ('344 patent at 9:36-45; D.I. 321 at 21).

Plaintiff agrees that this "handshake" amounts to an agreement between neighbors to "form" a connection. (D.I. 321 at 31). Ultimately, it is true that a connection that is "formed" is "maintained" for its duration.

However, the specification does not provide any lexicography defining "neighbors" as requiring an "agree[ment] to maintain" a connection or disclaiming "neighbors" that do not "agree[] to maintain" a connection. *See Toshiba Corp.*, 681 F.3d at 1369 ("[a]bsent disclaimer or lexicography, the plain meaning of the claim controls."). As a result, I do not adopt Defendants' proposed language.

3. Term 19: "thus resulting in a non-complete graph" ('344/12, 13; '966/12, 13; '634/19)

a. *Plaintiff's proposed construction*: "a graph that is not complete"

b. *Defendants' proposed construction*: "thus the m-regular graph is always non-complete"

c. *Court's construction*: "thus the graph is configured to maintain a non-complete state"

The parties agree that a "non-complete graph" exists where "not all participants are connected because each participant is only connected to m participants and the number of participants is at least 2 greater than m." (D.I. 321 at 37). They disagree as to whether the graph must "*always*" be "non-complete." (*Id.*).

Defendants argue that Plaintiff disavowed networks that are not always incomplete. (D.I. 321 at 39); *see Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1360-61 (Fed. Cir. 2017) (holding that "statements made by patent owners during an IPR can be considered for prosecution disclaimer"); *see also Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003) ("for prosecution disclaimer to attach . . . the alleged disavowing actions or statements made during prosecution must be both clear and unmistakable.").

As evidence, Defendants note that Plaintiff argued to the PTAB that a "key attribute of the computer network claimed in the '344 patent is that the number of network participants N . . . is always greater than the number of connections m to each participant. . . . In fact, under the '344 patent claims, N must always be m+2 or greater: $N \geq m+2$. This network topology, where no node is connected to every other node, is an incomplete graph." (D.I. 120-1, Exh. D-2 at 11; D.I. 321 at 39-40). Similarly, to overcome a reference, Plaintiff argued that "use of an N participant complete graph" is "antithetical to the claims of the '966 patent" and that "the '966 patent requires that any complete graph structure be avoided and replaced with an incomplete graph by adding new nodes and connections thereto." (D.I. 120-1, Exh. D-1 at 20-21).

These arguments are essential to the Patent Owner's argument, and amount to a "clear and unmistakable" understanding that the claims are directed to networks that are configured to be non-complete. *See Aylus Networks, Inc.*, 856 F.3d at 1360-61. Plaintiff is bound to this understanding.

However, Plaintiff argues "there may be times when the network is temporarily not incomplete," including when the network is in the small regime and when "the number of internal connections and participants are odd." (D.I. 321 at 37, 40-41).

In response, Defendants offer an alternative construction: "thus the m-regular graph is configured to maintain a non-complete state." (D.I. 377).

Defendants' alternative construction captures Plaintiff's binding argument to the PTAB by requiring that the claimed networks are configured to maintain a non-complete state. It also addresses Plaintiff's argument that "there may be times when the network is temporarily not incomplete" by clarifying that the claims cover a network that is configured to be non-complete but may have completeness by happenstance. Accordingly, I adopt Defendants' alternative construction as my own.

However, I do not include "m-regular" in my construction. Each of the claims in which term 19 appears is explicitly m-regular. Thus, to include "m-regular" in my construction would be redundant.

4. Term 20: "data" ('344/12, 13; '966/12, 13; '634/22)

a. *Plaintiff's proposed construction*: "a set of values"

b. *Defendants' proposed construction*: "the payload inside a network message"

c. *Court's construction*: plain and ordinary meaning

The term "payload" does not appear anywhere in the patents. Defendants point to nothing in the claims or specification which provides that "data" must be so limited.

Defendants do note that the claims use "data" to describe what is broadcast, while the specification refers to "messages" to describe what is broadcast. (D.I. 321 at 47 (citing '344 patent at Abstract)). "Message," argues Defendant, is broader than "data," as a "message" is transmitted via a "packet," the "data" part of which is a called the "payload." (D.I. 321 at 47). However, Defendants' proposed language comes only from a treatise, a dictionary definition, Defendants' expert's declaration, and Plaintiff's expert's use of the word "packet" in a

deposition. (*Id.* at 3, 47-48). To adopt Defendants' position would require me to read into the claims, on the basis of the patent's use of "data" and "message," a concept the patent does not teach.

Furthermore, Defendants note that "each computer sends only the first copy of the message it gets to its neighbors and disregards subsequently received copies. . . ." (Tr. at 92:16-19). For a computer to know whether a given message is a copy of something it received before, that computer must "examine the [message's] payload," argue Defendants. (Tr. at 92:22-25). Taking Defendants' assertion at face value, it would be redundant to read into the claims a limitation that is inherent to the transmission of data.

For these reasons, I do not include "payload" in my construction.

On the other hand, Plaintiff's proposed construction for "data" neither defines nor clarifies the term. Thus, I do not adopt Plaintiff's proposed construction, either.

Instead, I find that "data" needs no construction, as the jury will have no trouble understanding what "data" refers to. *See Toshiba Corp.*, 681 F.3d at 1369 ("[a]bsent disclaimer or lexicography, the plain meaning of the claim controls.").

5. Term 22: "broadcast channel(s)" ('344/12, 13, 14; '966/12, 13; '634/19; '147/1, 11, 15, 16)

a. *Plaintiff's proposed construction*: "a network for broadcasting information"

b. *Defendants' proposed construction*:

'344, '966, '634 ("broadcast channel"): "a communications network with a unique identifier consisting of interconnected participants where each participant receives all data broadcasted on that uniquely identified communications network"

'147 ("broadcast channel"): "a communications network with a unique identifier consisting of interconnected computers where each computer receives all data broadcasted on that uniquely identified communications network"

"broadcast channels": "more than one broadcast channel"

c. *Court's construction*:

'344, '966, '634 ("broadcast channel"): "communications network consisting of interconnected participants where each participant receives all data broadcasted on that communications network"

'147 ("broadcast channel"): "communications network consisting of interconnected computers where each computer receives all data broadcasted on that communications network"

"broadcast channels": "more than one broadcast channel"

Defendants' proposed construction for "broadcast channel" clarifies that "broadcasted" data is received by each participant in the network, whereas non-"broadcasted" data need not necessarily go to each participant in the network.

Defendants' position is supported by both the claim language and the specification. It is not, as Plaintiff argues, "circular, confusing, and unhelpful." (Tr. at 88:2-5).

The language of claim 13 of the '344 patent provides that an "originating participant" on a "broadcast channel" sends data to all other participants in the network. More specifically, it provides that "an originating participant sends data to the other participants" in the network by first "sending the data through *each* of its connections to it neighbor participants," after which "*each* participant sends data that it receives from a neighbor participant to *its* neighbor participants." ('344 patent, claim 13; *see also* '344 patent, claims 12, 14; '966 patent, claims 12, 13) (emphasis added). Moreover, claim 11 of the '147 patent specifically distinguishes a message a computer "sends" to a single other computer from a message a computer "broadcasts . . . on the broadcast channel." ('147 patent, claim 11).

The specification teaches that "[t]he broadcasting of a message over the broadcast channel" is a "multicast." ('344 patent at 4:5-8; D.I. 321 at 48). Multicasting is a term of art

which means that each participant on the multicast channel receives the same data. (D.I. 322-1, Exh. G at ¶ 25).

Thus, because Defendants' proposed construction is both helpful and supported, I adopt it as my own, with one exception. My construction excludes Defendants' proposed requirement that the "communications network" has a "unique identifier," because that language is unsupported.

Defendants argue that, like an AM radio station, a "broadcast channel" must be identified. (Tr. at 106:24-107:2). Plaintiff admits that as a "matter of science," many broadcast channels, including those of the accused products, have a unique identifier. (Tr. at 80:7-12).

However, Defendants point to no lexicography, disclaimer, or other support for the proposition that the "broadcast channels" in these particular claims require a "unique identifier." *See Toshiba Corp.*, 681 F.3d at 1369 ("[a]bsent disclaimer or lexicography, the plain meaning of the claim controls."). Instead, Defendants point only to a teaching that "it is possible for a computer to be connected to multiple broadcast channels that are uniquely identified by channel type and channel instance" and to embodiments describing networks with unique identifiers. (D.I. 321 at 49; '344 patent at 18:2-5, 12:4-9, 29:13-24); *see Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) ("claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction"). Accordingly, I do not include "unique identifier" in my construction.

My construction addresses Defendants' urging that "network" and "broadcast channel" must have different meanings. (Tr. at 96:4-9; *See Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1369-70 (Fed. Cir. 2007) ("different words or phrases used in separate claims are

presumed to indicate that the claims have different meanings and scope")). By defining "broadcast channel" as a "network" with additional limitations, my construction acknowledges that "broadcast channel" is different from, and narrower than, "network."

IV. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion.