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. 366).[1] I issued an Order and Stipulation Regarding Supplemental Claim Construction Briefing, pursuant to which the parties address terms 9, 10, 21, 24-26, 28, and 37. (D.I. 206; D.I. 215). I held oral argument on December 18, 2017. (D.I. 391 ("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.

"[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 1 of the '147 Patent

1. *A method of disconnecting a first computer from a second computer, the first computer and the second computer being connected to a broadcast channel, said broadcast channel forming an m-regular graph where m is at least 3, the method comprising:*

when the first computer decides to disconnect from the second computer, the first computer sends a disconnect message to the second computer, said disconnect message including a list of neighbors of the first computer; and

when the second computer receives the disconnect message from the first computer, the second computer broadcasts a connection port search message on the broadcast channel to find a third computer to which it can connect in order to maintain an m-regular graph, said third computer being one of the neighbors on said list of neighbors.

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

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.

('147 patent, claim 11) (emphasis added).

Claim 15 of the '147 Patent

15. The computer-readable medium of claim 11 wherein the computers that are connected to the broadcast channel are *peers*.

('147 patent, claim 15) (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 1 of the '344 Patent

> 1. A computer network for providing a game environment for 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 other 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.

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

Claim 12 of the '344 Patent

> 12. The *computer network* of claim 1 wherein the inter-connections of participants form a broadcast channel for a game of interest.

('344 patent, claim 12) (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.

('344 patent, claim 13) (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).

Claim 9 of the '497 Patent

9. *A component in a computer system for locating a call-in port of a portal computer*, comprising:

means for identifying the portal computer, the portal computer having a dynamically selected call-in port for communicating with other computers;

means for identifying the call-in port of the identified portal computer by repeatedly trying to establish a connection with the identified portal computer through contacting a communications port or communications ports until a connection is successfully established;

means for selecting the call-in port of the identified portal computer using a *port ordering algorithm*; and

means for re-ordering the communications ports selected by the *port ordering algorithm*.

(D.I. 117-2, Exh. A-6 ("'497 patent"), claim 9) (emphasis added).

III. TERMS FOR CONSTRUCTION

1. Term 9: "computer network" ('344/12; '966/12)

a. *Plaintiff's proposed construction*: "a group of connected computers and/or computer processes"

b. *Defendants' proposed construction*: "at least two physical computers that are interconnected"

c. *Court's construction*: "group of connected computers or group of connected computer processes"

Term 9 appears in claim 12 of the '344 patent and claim 12 of the '966 patent, which cover, "The computer network of claim 1 wherein the interconnections of participants form a broadcast channel for a game of interest," and "The computer network of claim 1 wherein the interconnections of participants form a broadcast channel for a topic of interest," respectively.

The parties' dispute boils down to whether "participants" in a "computer network" must be physical "computers," as Defendants argue, or whether "participants" in a "computer network" may be either physical "computers" or "computer processes," as Plaintiff argues. (D.I. 366 at 4).

To support its position, Plaintiff points to the language of dependent claims which further describe the "computer network." (D.I. 366 at 11; Tr. at 34:19-23). Claim 9 covers, "The computer network of claim 1 wherein each participant is a process executing on a computer."

('344 patent, claim 9; '966 patent, claim 9).[2] Claim 10 covers, "The computer network of claim 1 wherein a computer hosts more than one participant." ('344 patent, claim 10; '966 patent, claim 10).

Together, the language of claims 9 and 10 indicates that at least two "participants" in a "computer network" may be "computer processes" that exist on a single "computer." Given that the patent does not teach otherwise, if two "participants" in a "computer network" may be "computer processes" that exist on a single computer, there is no reason why all "participants" in a "computer network" cannot be "computer processes" that exist on a single "computer." Accordingly, the "computer network" is not limited to "at least two physical computers which are interconnected," but can include either a "group of connected computers or group of connected computer processes."

Defendants' arguments to the contrary are unavailing.

First, Defendants note that an explicit advantage of the claimed "computer network" is that the failure of a single computer will not divide the graph because "it would take a failure of [m] computers to divide the graph into disjoint sub-graphs, [that is,] two separate broadcast channels." ('344 patent at 4:30-46). This advantage, argue Defendants, shows that the "computer network" must consist of "physical computers." (D.I. 366 at 12). However, just because this benefit exists when the "computer network" is made up of "computers," but not when it is made up of "computer processes," does not mean I must construe "computer network" so as to exclude "computer processes."

Second, Defendants point to a statement from Plaintiff's expert that the "computer network could comprise . . . either multiple computers . . . or software application programs

[2] The '344 and '966 patents have identically-worded dependent claims 9 and 10.

operating on multiple separate hardware platforms." (Tr. at 26:3-10). Defendants also highlight a treatise, which defines "computer network" "to mean an interconnected collection of autonomous *computers*." (D.I. 366 at 5) (emphasis added). These pieces of extrinsic evidence demonstrate that in some contexts, a "computer network" must consist of "computers." However, they are outweighed by intrinsic evidence which shows that "computer network" need not be so limited in the context of the patents.

Finally, Defendants argue that the term "computer network" must be differentiated from another term used in the patents, "network." (D.I. 366 at 13-14). However, Defendants have failed to provide evidence that differentiating these terms requires construing "computer network" as "at least two physical computers that are interconnected," and thus have failed to overcome the intrinsic evidence demonstrating that a "computer network" is a "group of connected computers or group of connected computer processes."

2. Term 10: "network" ('344/13; '966/13)

a. *Plaintiff's proposed construction*:

Not indefinite.

"a group of connected computers and/or computer processes"

b. *Defendants' proposed construction*:

Indefinite.

c. *Court's construction*: "each of the broadcast channels"

At the Markman hearing, the parties advised that they had agreed to a construction for "network." (Tr. at 6:11-7:12; D.I. 381 at 1; D.I. 412; D.I. 413). However, Defendants argue that the term is indefinite under 35 U.S.C. § 112. (D.I. 366 at 14).

Independent claim 13 of the '344 patent and independent claim 13 of the '966 patent both include the limitation "further wherein the network is m-regular," but neither claim includes the word "network" anywhere prior to that limitation. Claim 13 of the '344 patent, which is representative, reads as follows:

> 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.

('344 patent, claim 13) (emphasis added).

Defendants argue that "network" has no antecedent basis, and is indefinite because it fails to inform a person of ordinary skill in the art what "network" refers to. (D.I. 366 at 17; *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014) ("a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.")).

Plaintiff responds by citing to *Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1371 (Fed. Cir. 2006), which holds that an antecedent basis may present by "implication." (D.I. 366 at 15, 23). In that case, the claim term "said zinc anode" had no explicit antecedent basis in the claim. However, the claim at issue recited "an anode gel comprised of zinc as the

active anode component" prior to reciting "said zinc anode," and the specification provided that the claimed anode gel was made of zinc. Thus, the Federal Circuit found "anode gel" to be the antecedent basis for "said zinc anode" by "implication," and found the claim not indefinite. *Energizer Holdings, Inc.*, 435 F.3d at 1368-71.

Plaintiff argues that this case is akin to *Energizer Holdings, Inc.*, because a person of ordinary skill of the art would understand by implication that "network" refers to "a plurality of participants" that are connected to one another and make up one of "a plurality of broadcast channels." (D.I. 366 at 16, 24).

Defendants, by contrast, argue that *Energizer Holdings, Inc.* is distinguishable because here, neither the claim language nor the specification implies what "network" refers to. (D.I. 366 at 20). Instead, Defendants compare this case to *Collabo Innovations, Inc. v. OmniVision Techs., Inc.*, 2017 WL 3670661, at *8-9 (D. Del. Aug. 25, 2017), where the term "the first active region" was found indefinite because the claim left open "the option of including more than one active region," and the patent specification failed to provide guidance as to which "active region" would be "the first." Likewise, say Defendants, a person of ordinary skill in the art here would find it ambiguous whether "network" refers to the "plurality of broadcast channels," the "participants" in a single broadcast channel, or something else. (D.I. 366 at 18).

A "broadcast channel" is an overlay network formed on an underlying network. ('344 patent at 4:23-32). The '344 patent specification provides that a "broadcast channel," or "broadcast network," "can be maintained as m-regular and m-connected" when the number of internal connections is even. ('344 patent at 14:63-15:4). The patent specification makes no reference to an "m-regular" underlying network.

Accordingly, in light of the intrinsic evidence, it would be clear to a person of ordinary skill in the art that "network" refers to a "broadcast channel."

Defendants argue that even if Plaintiff's argument is credited and "network" refers to a broadcast channel, it is unclear which of the claims' "plurality of broadcast channels" the "network" refers to. (D.I. 366 at 22). However, the claims explicitly dictate that "each" broadcast channel must provide game information to a "plurality of participants." ('344 patent, claim 13). Thus, a person of ordinary skill in the art would understand that "network" refers to "each of the broadcast channels," and that each "network" must be "m-regular."

Thus, the claims in which term 10 appears are not indefinite under 35 U.S.C. § 112. *Nautilus, Inc.*, 134 S. Ct. at 2124.

3. Term 21: "peers" and "peer-to-peer connections" ('147/15)

a. *Plaintiff's proposed construction*: "participants that are similar"

b. *Defendants' proposed construction*: "equally privileged and equipotent computers of the network"

c. *Court's construction*: "computers that are equally able to send and receive information"

The parties agree that "peers" are either "computers" or "participants" "that are equally able to send and receive information." (Tr. at 54:7-24).

Plaintiff argues that my construction must refer to "participants." (*Id.*). Defendants, on the other hand, argue that it must refer to "computers." (*Id.*).

"Peers" appears in claim 15 of the '147 patent. Claim 11 of the '147 patent, from which claim 15 depends, covers, "A computer readable medium containing instructions for controlling disconnecting of a computer from another computer. . . ." The claim refers to "computer[s]" and to "a broadcast channel," but never to "participants." Claim 15 of the '147 patent covers, "The computer readable medium of claim 11 wherein the *computers* that are connected to the

broadcast channel are peers." (Emphasis added). Likewise, it does not contain a reference to "participants."

Accordingly, I construe "peers" to mean "computers that are equally able to send and receive information."

I do not construe "peer-to-peer connections," because that term does not appear in an asserted claim. (Tr. at 45:8-46:6).

4. Term 24: "A non-routing table based computer readable medium containing instructions for controlling communications of a participant of a broadcast channel within a network" ('634/19)

a. *Plaintiff's proposed construction*:

Not indefinite and covers patent eligible subject matter.

"instructions for controlling communications within a network that does not need routing tables or switch-based methods to move messages between participants"

b. *Defendants' proposed construction*:

The preamble is limiting.

"A non-routing table based computer readable medium . . ." is indefinite.

Also, the claim covers mere printed matter, thus the claimed limitations are given no patentable weight, and/or the claim covers patent ineligible subject matter under 35 U.S.C. § 101.

c. *Court's construction*:

"a computer-readable medium containing instructions that control communications of a participant of a broadcast channel within a network that does not use routing table(s)"

"A non-routing table based computer readable medium . . ." is indefinite.

At the Markman hearing, the parties advised that they had agreed on a construction for term 24. (Tr. at 8:3-9; D.I. 381 at 1; D.I. 412; D.I. 413). Later, Plaintiff argued that it disagrees that the preamble is limiting. (D.I. 417). However, Defendants' proposed construction, to which

Plaintiff advised it agreed, stated the preamble is limiting. (D.I. 366 at 33-34; D.I. 381 at 1-2). Plaintiff failed to object to Defendants' contention that the preamble is limiting in its Markman briefing or at the Markman hearing, stating only generically that it was "not agreeing to the positions [Defendants were] taking," which included indefiniteness and printed matter contentions. (Tr. at 8:16-9:2). In fact, in its briefing, Plaintiff argued that the "instructions" of the preamble "functionally limit the design of the network." (D.I. 366 at 57). Accordingly, Plaintiff waived the issue, and the preamble is limiting.[3]

Defendants argue that the term should be given no patentable weight under the printed matter doctrine, that the term covers patent ineligible subject matter under 35 U.S.C. § 101, and that the term is indefinite under 35 U.S.C. § 112. (D.I. 366 at 33).

Whether the parties' agreed-upon construction implicates the printed matter doctrine and whether the term covers patent ineligible subject matter are not issues of claim construction. They are more appropriately addressed at the summary judgment stage. Accordingly, I do not address them now.

Turning to Defendants' indefiniteness argument, "a patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc.*, 134 S. Ct. at 2124.

Defendants make two separate indefiniteness arguments. First, Defendants assert that the term is indefinite because it uses "incomprehensible word combinations." (D.I. 366 at 44). Second, Defendants assert that that the phrase "non-routing table based" is itself indefinite. (*Id.* at 46).

[3] For the same reasons, the term 25 preamble is also limiting. Additionally, in its briefing, Plaintiff argued, "The preamble [of term 25] limits the method." (D.I. 366 at 58-59).

As to the first assertion, Defendants argue that "non-routing table based" modifies "computer readable medium" in the term "non-routing table based computer readable medium containing instructions for controlling communications of a participant of a broadcast channel within a network." Because the term "non-routing table based computer-readable medium" is "nonsensical," Defendants assert that term 24 is indefinite. (D.I. 366 at 44).

Plaintiff does not disagree that "non-routing table based computer-readable medium" is "nonsensical." (Tr. at 58:11-20). Rather, Plaintiff argues that a person of ordinary skill in the art would understand that "non-routing table based" modifies "network." (D.I. 366 at 57).

"A claim must be read in accordance with the precepts of English grammar." *In re Hyatt*, 708 F.2d 712, 714 (Fed. Cir. 1983). "Even 'a nonsensical result does not require the court to redraft the claims of the patent.'" *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004) (citing *Process Control Corp. v. Hydreclaim Corp.*, 190 F.3d 1350, 1374 (Fed. Cir. 1999)); *see also Randall May Intern., Inc. v. DEG Music Prods., Inc.*, 378 F. App'x 989, 997 (Fed. Cir. 2010) ("Moreover, the claim language teaches that the shoulder supporting members should be 'changeable' or 'adjustable': these terms immediately precede the term 'shoulder supporting members' and the only reasonable construction, therefore, is that these shoulder supporting members themselves, rather than the entire assembly, should be adjustable or changeable").

Defendants are correct that as a matter of grammar, "non-routing table based" modifies "computer-readable medium," not "network." (D.I. 366 at 45).

Furthermore, the '634 patent specification's only reference to "non-routing table based" is a teaching that "[e]mbodiments of the invention deal with a non-routing table based method

for broadcasting messages in a network." ('634 patent at 2:46-47). This teaching does not shed light on term 24's grammar.

I cannot rewrite the patent to make "non-routing table based" modify "network." Accordingly, given that the parties agree that "non-routing table based computer-readable medium" is "nonsensical," claim 19 of the '634 patent "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc.*, 134 S. Ct. at 2124. The claim is therefore indefinite.

I need not reach Defendants' second indefiniteness assertion for this term.

5. Term 25: "A computer-based, non-routing table based, non-switch based method for adding a participant to a network of participants" ('069/1)

a. *Plaintiff's proposed construction*:

Not indefinite

"a network that is not directly based on routing tables or switch-based methods to move messages between participants"

b. *Defendants' proposed construction*:

The preamble is limiting and indefinite.

c. *Court's construction*: "a computer-based method for adding a participant to a network of participants that does not use routing table(s) or switches"

At the Markman, the parties advised that they had agreed on a construction, should I construe term 25. (Tr. at 9:3-14; D.I. 381 at 2; D.I. 412; D.I. 413). As is the case for term 24, the preamble is limiting. However, Defendants contend that term 25 is indefinite because "the term 'non-routing table based' is itself indefinite in the context of this patent." (D.I. 366 at 50).

To support their contention, Defendants make three arguments. First, Defendants argue the specification fails to disclose "what must be absent to meet the negative limitation" of "non-routing table based." (D.I. 366 at 46). Second, Defendants argue the specification does not

teach what is meant by "routing-table based" or "non-routing table based." (*Id.* at 48). Third, Defendants argue that Plaintiff's "continued . . . advance[ment of] new interpretations of 'routing table's' meaning in the IPRs to distinguish other prior art" renders term 25 indefinite. (D.I. 366 at 46-48, 50-52).

As a preliminary matter, Defendants agree that their negative limitation argument is really a written description argument. (Tr. at 62:14-17; *Inphi Corp. v. Netlist, Inc.*, 805 F.3d 1350, 1355 (Fed. Cir. 2015)). It is not an issue of claim construction. As such, I do not consider it now. Defendants may re-argue the issue at the summary judgment stage.

As to Defendants' contention that the specification fails to teach what is meant by "routing-table based" and "non-routing table based," Plaintiff agrees that the specification does not provide these teachings. (D.I. 366 at 57). Instead, Plaintiff argues that the terms are well-known in the art. (*Id.*). To demonstrate its point, Plaintiff points to a technical dictionary that defines "routing table" as a table "which lists and keeps track of all possible routes between nodes." (D.I. 366 at 57; D.I. 367-1, Exh. G at ¶ 21).

Defendants do not dispute the applicability of this definition, but argue that it is just one of several definitions, which together indicate a "lack of a universally understood meaning" for "routing table based" and its negative counterpart, "non-routing table-based." (D.I. 366 at 46-47). Defendants correctly argue that Plaintiff has characterized multiple prior art references as "routing table based" to distinguish prior art references from the "non-routing table based" invention. (D.I. 366 at 47-48). But that does not mean "non-routing table based" is indefinite. Just as "car" can be readily understood to include numerous makes and models, "routing table based" can be readily understood to cover multiple prior art references. Defendants also argue that Plaintiff's prior art characterizations are "conflicting," but do not explain how they are

conflicting. (D.I. 366 at 47). In fact, Defendants argue that the technical dictionary definition of "routing table" offered by Plaintiff is "more expansive" than other definitions and characterizations offered by Plaintiff. (*Id.*). This argument comports with the notion that the technical dictionary definition properly encompasses each of Plaintiff's other definitions and characterizations.

Accordingly, I do not find that term 25 "fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc.*, 134 S. Ct. at 2124. Because I do not find the term indefinite, I adopt the parties' agreed-upon construction.

6. **Term 26: "A method of disconnecting a first computer from a second computer, the first computer and the second computer being connected to a broadcast channel, said broadcast channel forming an m-regular graph where m is at least 3, the method comprising:" ('147/1) and "A computer-readable medium containing instructions for controlling disconnecting of a computer from another computer, the computer and the other computer being connected to a broadcast channel, said broadcast channel being an m-regular graph where m is at least 3" ('147/11)**

   a. *Plaintiff's proposed construction*:

      The preambles are limiting and cover patent eligible subject matter.

   b. *Defendants' proposed construction*:

      The preambles are limiting.

      Also, claim 11 covers mere printed matter; thus, the claimed limitations are given no patentable weight, and/or the claim covers patent ineligible subject matter under 35 U.S.C. § 101.

   c. *Court's construction*: none

      The parties agree that the preambles are limiting. (D.I. 366 at 33).

As is the case for term 24, Defendants argue that term 26 should be given no patentable weight under the printed matter doctrine and that the term covers patent ineligible subject matter under 35 U.S.C. § 101. (D.I. 366 at 33-34). However, whether

the parties' agreed-upon construction implicates the printed matter doctrine and whether the term covers patent ineligible subject matter are not issues of claim construction. They are more appropriately addressed at the summary judgment stage. Accordingly, I do not address them now.

7. Term 28: "A component in a computer system for locating a call-in port of a portal computer" ('497/9)

a. *Plaintiff's proposed construction*:

The preamble is a limitation.

"a software module providing instructions to allow a computer executing those instructions to locate a call-in port of a portal computer"

b. *Defendants' proposed construction*:

The preamble is a limitation.

"a hardware component programmed to located a call-in port of a portal computer"

c. *Court's construction*:

The preamble is a limitation.

"a hardware component programmed to located a call-in port of a portal computer"

Term 28 is the preamble to claim 9 of the '497 patent. The parties agree that the preamble is a limitation. (D.I. 366 at 65). The "component" of the preamble "comprises" four different "means" limitations, namely, "means for identifying the portal computer," "means for identifying the call-in port of the identifying computer," "means for selecting the call-in port of the identified portal computer," and "means for re-ordering the communications ports." ('497 patent, claim 9).

This Court previously construed each of these means-plus-function elements, which are terms 5-8. (D.I. 287 at 3-4). The structure identified for each function is "[a] processor

programmed to perform the [given] algorithm. . . ." (*Id.*). The Court adopted this language from Plaintiff's proposed structures. (D.I. 275 at 10-13).

"Comprising" is "a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim." *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed. Cir. 1997). Because the "component" of the preamble "comprises" four "means" and their corresponding "functions," which include "processor[s]," the "component" necessarily includes at least one processor.

The parties agree that a "processor" is "hardware." (Tr. at 75:20-25, 86:20-22). Even though Plaintiff argues that "all software" "requires a processor to execute" it, my means-plus-function constructions require that the processor is specifically programmed. The constructions therefore require "hardware," rather than "software." Accordingly, the "component" of the preamble requires "hardware," and I adopt Defendants' proposed construction.

Plaintiff argues that all citations in my means-plus-function constructions for terms 5-8 are to "algorithms" or "software." (Tr. at 87:4-7). But Plaintiff already agreed that the "component" of the preamble requires "hardware" by submitting its proposed constructions for terms 5-8. Plaintiff's argument is therefore unavailing.

8. Term 37: "port ordering algorithm" ('497/9)

a. *Plaintiff's proposed construction*: "an algorithm used to select the order of the ports"

b. *Defendants' proposed construction*: "a rule-based procedure for generating an order of portal computer ports in a non-random manner"

c. *Court's construction*: "rule-based procedure for generating an order of portal computer ports in a non-random manner"

Term 37 appears in claim 9 of the '497 patent. The claim covers a "component" that "comprises" four different "means" limitations, namely, "means for identifying the portal computer," "means for identifying the call-in port of the identifying computer," "means for selecting the call-in port of the identified portal computer using a *port-ordering algorithm*," and "means for re-ordering the communications ports selected by the *port ordering algorithm*." ('497 patent, claim 9) (emphasis added).

The third limitation specifies that "means for selecting the call-in port of the identified computer" must be accomplished "using a port ordering algorithm." The fourth limitation specifies that its "means" are "for re-ordering the communications ports" that were already "selected by the port ordering algorithm" of the third limitation. Unlike the third limitation, the fourth limitation does not provide that the "port ordering algorithm" is used to accomplish its "means." Thus, claim language provides that the "port ordering algorithm" accomplishes the "means" of the third limitation only, and not the "means" of the fourth limitation.

The parties agree that the third limitation, "means for selecting the call-in port of the identified portal computer using a port ordering algorithm," involves a "deterministic" algorithm. (Tr. at 115:12-116:11). "Deterministic" is the same as "non-random" in this context. (Tr. at 96:5-6, 116:23-24). The parties also agree that the fourth limitation, "means for re-ordering the communications ports selected by the port ordering algorithm," need not necessarily be, but may be, "deterministic," "non-random," or "random." (Tr. at 115:12-116:11).

Because the "port ordering algorithm" is used only to accomplish the "means" of the third limitation, which the parties agree involve a "deterministic," or "non-random," algorithm, the "port ordering algorithm" must be "non-random." Accordingly, I adopt Defendants' proposed construction.

In light of the parties' agreement, I need not address Defendants' argument that the patentee disclaimed non-random port ordering algorithms. (D.I. 366 at 72-74).

IV. CONCLUSION

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