

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

TRACKTHINGS LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 22-981-RGA
	)	
NETGEAR, INC.,	)	
	)	
Defendant.	)	
<hr style="border: 0.5px solid black;"/>		

**REPORT AND RECOMMENDATION**

Pending before the Court are (1) the parties’ claim construction disputes regarding six sets of terms across three patents (D.I. 129), and (2) Netgear’s Motion for Judgment on the Pleadings for Lack of Patentable Subject Matter (D.I. 85). The Court held a combined *Markman* and § 101 hearing on June 21, 2023 (“Tr. \_\_\_”). I announced my claim construction recommendations from the bench on June 28, 2023, as set forth below. I further recommend that Netgear’s motion for judgment on the pleadings be DENIED, as set forth below.

**I. LEGAL STANDARDS**

**A. Claim Construction**

The purpose of the claim construction process is to “determin[e] the meaning and scope of the patent claims asserted to be infringed.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). When the parties have an actual dispute regarding the proper scope of claim terms, their dispute must be resolved by the judge, not the jury. *Id.* at 979. The Court only needs to construe a claim term if there is a dispute over its meaning, and it only needs to be construed to the extent necessary to resolve the dispute. *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

“[T]here is no magic formula or catechism for conducting claim construction.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1324 (Fed. Cir. 2005). But there are guiding principles. *Id.*

“The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” *Id.* at 1313. In some cases, the ordinary meaning of a claim term, as understood by a person of ordinary skill in the art, is readily apparent even to a lay person and requires “little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314. Where the meaning is not readily apparent, however, the court may look to “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.” *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004). Those sources include “the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.*

“The claims themselves provide substantial guidance as to the meaning of particular claim terms.” *Phillips*, 415 F.3d at 1314. For example, “the context in which a term is used in the asserted claim can be highly instructive.” *Id.* Considering other, unasserted, claims can also be helpful. *Id.* “For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314–15.

In addition, the “claims must be read in view of the specification, of which they are a part.” *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The specification “is always highly relevant to the claim construction analysis.” *Id.* (quoting

*Vitronics*, 90 F.3d at 1582). The specification may contain a special definition given to a claim term by the patentee, in which case, the patentee’s lexicography governs. *Id.* at 1316. The specification may also reveal an intentional disclaimer or disavowal of claim scope. *Id.* However, “even when the specification describes only a single embodiment, the 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.” *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (internal marks omitted).

Courts should also consider the patent’s prosecution history. *Phillips*, 415 F.3d at 1317. It may inform “the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.* Statements made by a patentee or patent owner during inter partes review may also be considered. *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1362 (Fed. Cir. 2017).

In appropriate cases, courts may also consider extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. For example, dictionaries, especially technical dictionaries, can be helpful resources during claim construction by providing insight into commonly accepted meanings of a term to those of skill in the art. *Phillips*, 415 F.3d at 1318. Expert testimony can also be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.*; see also *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331–32 (2015).

## **B. Motion for Judgment on the Pleadings**

Under Federal Rule of Civil Procedure 12(c), a party may move for judgment on the pleadings “[a]fter the pleadings are closed—but early enough not to delay trial.” Fed. R. Civ. P. 12(c). “The purpose of judgment on the pleadings is to dispose of the claims where the material facts are undisputed and judgment can be entered on the competing pleadings and exhibits thereto, and documents incorporated by reference.” *Sensormatic Elecs., LLC v. Wyze Labs, Inc.*, 484 F. Supp. 3d 161, 164 (D. Del. 2020) (quoting *Int’l Bus. Machines Corp. v. Groupon, Inc.*, 289 F. Supp. 3d 596, 600 (D. Del. 2017)). “A motion for judgment on the pleadings should be granted if the movant establishes that there are no material issues of fact, and the movant is entitled to judgment as a matter of law.” *Id.* (alteration omitted) (quoting *Zimmerman v. Corbett*, 873 F.3d 414, 417 (3d Cir. 2017)); *see also Data Engine Techs. LLC v. Google LLC*, 906 F.3d 999, 1007 (Fed. Cir. 2018) (“Patent eligibility can be determined on the pleadings under Rule 12(c) when there are no factual allegations that, when taken as true, prevent resolving the eligibility question as a matter of law.”). In determining a motion for judgment on the pleadings, the court “must accept all of the allegations in the pleadings of the party against whom the motion is addressed as true and draw all reasonable inferences in favor of the non-moving party.” *Sensormatic*, 484 F. Supp. 3d. at 164 (quoting *Zimmerman*, 873 F.3d at 417).

## **II. DISCUSSION**

### **A. Claim Construction**

The three patents at issue are U.S. Patent Nos. 9,642,017 (the “’017 patent”), 9,332,442 (the “’442 patent”), and 10,107,893 (the “’893 patent”).

The parties agreed on the construction of two claim terms.<sup>1</sup> In accordance with the parties' agreement, I RECOMMEND that the terms be construed as follows:

	<b>Term</b>	<b>Court</b>
1	“the computation unit” (’017 patent, claim 4)	“the computational unit”
2	“partitioning the plurality of streams of bits each partitioned into a plurality of portions” (’442 patent, claim 9)	“partitioning each of the input stream of bits from the Internet, the stream of bits from the first cell phone, and the stream of bits from the second cell phone into two or more portions”

Further, as announced at the hearing on June 28, 2023, I RECOMMEND that the following disputed claim terms be construed (or not construed) as follows:

	<b>Term</b>	<b>Court</b>
1	“ad-hoc wireless network” (’017 patent, claim 1)	“a wireless network where relays and clients can be added and moved”
2	“link” (’017 patent, claim 1)	“direct path formed between two relays”
3	“determines a placement” (’017 patent, claim 1)	“determines the specific location, or logical relationship with respect to the other relays, where a new relay should be placed”
4	“link integrity” (’017 patent, claims 1, 5, and 6)	The Court declines to adopt either party’s construction at this time.
5	“computational unit” terms <sup>2</sup> (’017 patent, claims 1 and 6; ’442 patent, claims 7, 8, 15, 16, 23, and 24)	35 U.S.C. § 112 ¶ 6 does not apply.

---

<sup>1</sup> (D.I. 129 at 9.)

<sup>2</sup> The computational unit terms are: “computational unit distributed within the ad-hoc network measuring a link integrity of each link in the ad-hoc wireless network” (’017 patent, claim 1); “computational unit determines a placement of a new relay at a new location into the ad-hoc wireless network to improve the link integrity of the ad-hoc wireless network” (’017 patent, claim 1); “computational unit reconfigures the network to improve the link integrity” (’017 patent, claim 6); “computational unit configured to de-centralize control by distributing the control to wireless clients and relays which form the network” (’442 patent, claims 8 and 24); “configuring a computational unit to de-centralize control by distributing control to the wireless clients and relays which form the network” (’442 patent, claim 16); “computational unit configured to issue control signals that include adjusting a connectivity, changing a frequency of operation, or changing a

6	<p>“assignment / node assignment” (’893 patent, claims 3, 8, 10, 11, and 12)</p> <p>“a node assignment is distributed by said intelligent network to all nodes” (’893 patent, claim 8)</p>	<p>The Court declines to construe these terms (<i>i.e.</i>, the Court declines to adopt Defendant’s proposed limiting constructions).</p>
---	--	---

The Court’s report and recommendation on claim construction was announced from the bench on June 28, 2023:

I am prepared to issue a report and recommendation on the claim construction disputes argued at the hearing held on June 21, 2023. I will summarize the reasons for my recommendations in a moment, but before I do, I want to be clear that my failure to address a particular argument advanced by a party does not mean that I did not consider it. We have carefully considered all of the arguments made by both sides.

I will not be issuing a separate written report and recommendation. I want to emphasize that, while I am not issuing a separate written report and recommendation, we have followed a full and thorough process before making the recommendations I am about to state. There was full briefing on each of the disputed terms. The parties submitted their briefing in accordance with my procedures, so each side had the opportunity to submit two briefs, and they were combined into one joint claim construction brief incorporating all arguments. The parties’ briefing also included numerous exhibits with intrinsic and extrinsic evidence, including expert declarations. My oral recommendation will cite to the evidence cited by the parties that I conclude best supports my proposed constructions, but my failure to cite to other evidence provided by the parties does not mean that I ignored or failed to consider it.

I am not going to read into the record my understanding of the general legal principles of claim construction. I set forth the relevant standards in my opinion in [*3Shape A/S v. Align Tech., Inc.*, No. 18-886-LPS, 2020 WL 2188857, \*1–2 (D. Del. May 6, 2020), *report and recommendation adopted*, 2020 WL 7695898 (D. Del. Dec. 28, 2020)], and I incorporate that articulation by reference.

---

Wireless Standard being used” (’442 patent, claims 7 and 23); and “configuring a computational unit to issue control signals that include adjusting a connectivity, changing a frequency of operation, or changing a wireless standard being used” (’442 patent, claim 15).

**[“ad-hoc wireless network”]**

The first term to be construed is “ad-hoc wireless network.” It appears in claim 1 of the ’017 patent. Plaintiff Trackthings’ proposed construction is “a wireless network where relays and clients can be added and moved.” Defendant Netgear proposes “a wireless network directly between nodes without requiring other infrastructure such as hubs, routers, switches.”

It became clear during the claim construction hearing that the essence of the dispute is whether a particular network that incorporates a hub, router, or switch that requires an access point or similar infrastructure to operate can be an ad-hoc network.<sup>3</sup> Trackthings says it can; Netgear says it can’t.

Beginning with the claim language, claim 1 doesn’t say anything about an access point, much less whether a network that includes one as a component is excluded. Dependent claims 3 and 13 specify that the ad-hoc network covered by claim 1 can further include an internet connection, which suggests that a network that includes an internet connection is not excluded from the scope of the claimed ad-hoc network.

Moving on to the specification, it clearly describes networks that can connect to the internet via a connection to something else that connects to the internet. For example, in the Background of the Invention section at column 1 beginning at line 18, it explains that “[t]he ad-hoc [network] routes signals from client to client and from the internet to client,” and Figure 3 supports the understanding that connecting to a component that connects to the internet is not excluded from the claim. There is no language in the specification that supports excluding from the claim a network made up of components one of which must connect to the internet to work.

Turning to the prosecution history, Netgear contends that the inventor made statements to the patent examiner that disavowed networks that require an internet connection to work. Netgear points to the inventor’s statement in the prosecution history, Exhibit 5 to D.I. 130, where the inventor added the phrase “ad-hoc” to the term “network” and distinguished the prior art on the ground that “both Kalika [Exhibit 6] and Rappaport [Exhibit 7] remain silent with

---

<sup>3</sup> (Tr. 28:9–20, 31:24–32:13.)

regards to the term ‘ad-hoc’ since Kalifa addresses access points (abstract) and WLAN’s ([0030]) while Rappaport covers hubs, routers, switches, etc.”<sup>4</sup> I have reviewed the prosecution history, and I agree with Trackthings that the inventor was not distinguishing the prior art on the ground that an ad-hoc network as understood in the ’017 patent cannot contain a component that requires internet access. There is no clear disavowal of claim scope in the prosecution history, nor does the prosecution history persuade me that Netgear’s construction is correct.

I have also considered the expert declaration submitted by Netgear’s expert Dr. Houh.<sup>5</sup> While his opinion—and the extrinsic evidence cited in his opinion—supports the proposition that an ad-hoc network does not require a hub, router, or switch in order to be an ad-hoc network, I find that it does not support Netgear’s position on what appears to be the actual dispute between the parties, its position being that a network that incorporates as part of the network a hub, router, or switch that connects to the internet cannot be an ad-hoc network.

Netgear’s proposal also includes a limitation that the network must be “directly between nodes.” The parties barely addressed this proposed limitation in the briefing and at oral argument, and it isn’t clear to me what this phrase is intended to capture or exclude. The Federal Circuit directs me to construe claims only to the extent necessary to resolve a dispute that is material to an issue of infringement or validity, and it doesn’t appear that the parties have a concrete dispute over this phrase. Accordingly, I decline to adopt the phrase.

Having rejected Netgear’s proposed limiting construction, I note that Netgear does not point to any other particular issues with Trackthings’ proposed construction, which doesn’t appear to be inconsistent with the invention as described in the specification. I also note that Trackthings’ proposed construction is identical to the construction adopted by Judge Gilliland in the *Trackthings v.*

---

<sup>4</sup> (D.I. 130, Ex. 5 at 12.)

<sup>5</sup> (D.I. 130, Ex. 27.)



*Amazon* case in Texas.<sup>6</sup> While his determination is of course not binding on this Court, I do agree with his conclusion.

Accordingly, I recommend that the term “ad-hoc wireless network” be construed to mean “a wireless network where relays [and clients] can be added and moved.”

**[“link”]**

The second term to be construed is “link.” It also appears in claim 1 of the ’017 patent.

The dispute is whether the “path formed between two relays” must be “direct.” Netgear says the path must be direct, and Trackthings disagrees.

The claim language doesn’t shed much light on this dispute. The claim uses the phrase “each link in the ad-hoc wireless network.” While that phrase might suggest to a reasonable reader that each link is a single unit of connection between two points as opposed to an indirect connection that has multiple intermediate connections, that isn’t dispositive.

Turning to the specification, Trackthings points to the statement at column 3, line 25, that “[a] link is the path formed between two relays.” Although that language likewise suggests a direct link from one relay to another, it doesn’t rule out the possibility that a link could go through an intermediate relay along the route. However, reading the claims in view of the specification as a whole, I’m compelled to agree with Netgear that the term “link” would be understood by one of skill in the art as referring to the direct path between two relays. In discussing figure 3, which shows an improvement to the network over figure 2, the specification explains at column 3, [beginning at line 66], that “new links are specified using the relays at both ends of the link. For example, some of the new links in FIG. 3 are 3-2 and 2-2, 3-2 and 2-3,” and so on. Each of those “new links” run directly from one relay to a second relay, without any intermediary connections.

For its part, Trackthings points to the passage at column 5 beginning at line 48, which says as follows: “FIG. 8a-c depicts the

---

<sup>6</sup> *Trackthings LLC v. Amazon.com, Inc.*, No. 21-720, D.I. 70 at 3–4 (W.D. Tex. May 14, 2022) (D.I. 130, Ex. 4).

link 3-4 of FIG. 3. The link consists of the original relays 2-4 and 2-5 and the addition of link 3-3 to improve the overall link performance.” Trackthings contends that the reference to “link 3-4” in Figure 3 means that the path in that figure that goes from relay 2-4 to relay 2-5 by going through relay 3-3 is a “link” within the meaning of the claims.

I disagree. I do not think that the reference to 3-4 as a “link” overrides what is otherwise the clear use of the word “link” throughout the specification. For one thing, that same passage in column 5 also refers to 3-3 as being a “link” and both sides agree that that is an obvious mistake; 3-3 is not a link.<sup>7</sup> That in and of itself calls into question the same passage’s reference to 3-4 as a link. What’s more, the label 3-4 in figure 3 refers not to a particular indirect path between two points but to an entire circled portion encompassing more than just the connections between 2-4 and 2-5.

Moreover, the specification elsewhere at column 4, lines 2 to 3, identifies “3-3 and 2-4, and finally 3-3 and 2-5” as “new links.” That statement is consistent with the understanding that the “new links” refer to the direct path from 2-4 to 3-3, and a separate direct path from 3-3 to 2-5.

I am cognizant of the claim construction maxim that says that you should not import limitations from the specification into the claims. But I am also cognizant of the maxim that says that claims should be interpreted in view of the specification. Netgear’s proposed construction falls on the side of interpreting claims in view of the specification.

I recommend that the term “link” be construed as “direct path formed between two relays.”

**[“determines a placement”]**

The third term to be construed is “determines a placement.” It appears in claim 1 of the ’017 patent, in the phrase “determines a placement of a new relay at a new location into the ad-hoc wireless network to improve the integrity of the ad-hoc wireless network.”

---

<sup>7</sup> (Tr. 34:9–20, 41:10–23.)

Trackthings proposes the construction “ascertains a placement.” Netgear proposes “identifies the specific location where, or two relays between which, a new relay should be placed.”

I am persuaded that Netgear’s proposed construction is mostly appropriate, but I recommend a slight modification, as I will discuss.

Beginning with the claim language, the claim states that “the computational unit determines a placement of a new relay at a new location into the ad-hoc wireless network to improve the link integrity of the ad-hoc wireless network.” That language plainly suggests that the “placement” isn’t just any possible location—it’s an actual location that improves the link integrity of the ad-hoc wireless network.

Trackthings says that Netgear’s construction should not be adopted to the extent it requires determination of an exact physical location. Netgear’s proposal clearly doesn’t do that. It provides that the location can be a physical location or it can be a location defined by its relationship to the existing relays.

Netgear’s proposal is also supported by the specification, which describes determining the placement of the new relay either by its physical location or by its logical relationship to the other relays.<sup>8</sup>

Trackthings says that the claim does not require a “singular, fixed positioning” of the new relay because the specification describes the determination of a new placement as an iterative process, as depicted in figure 4. But just because the process for determining a new location might be iterative doesn’t change the fact that the claim requires actually determining a placement for the relay—not just performing an iterative step.

Trackthings also takes issue to the extent that Netgear’s construction requires the system to be able to identify a “predetermined” location. I’m not entirely sure what its concern is. Netgear’s proposed construction does not use the word predetermined and I think it is broad enough to cover the situation where the determination is made by an iterative process. But performing one step in an iterative process that results in the

---

<sup>8</sup> ('017 patent, Abstract, 1:31–41, 1:52–60, 3:10–20, 3:64–4:6.)

determination of a placement to improve link integrity is not the same thing as determining that placement. The end of the iterative process must ultimately spit out a location for the new relay that improves the network's link integrity. That said, to the extent there is a concern that use of the word "identifies" in Netgear's proposed construction suggests that the system must "predetermine" a location, I think it can be resolved by instead keeping the word as "determines," which I think the jury will be able to understand in this context.

The problem with Trackthings' proposed construction is that it merely swaps the word determines for the similar word ascertains. That doesn't help the jury understand what "determines a placement" actually means. For the most part, Netgear's proposal clarifies what "determines a placement" means in a way that is tethered to the specification and the purpose of the invention, and is consistent with the claims.

Finally, Trackthings takes issue with Netgear's proposed requirement that the system identify a placement for a relay between "two" relays. I think this can be addressed by making clear that the placement of the new relay can be determined in relation to the other relays.

Accordingly, I recommend that the term "determines a placement" be construed as "determines the specific location, or logical relationship with respect to the other relays, where a new relay should be placed."

#### **["link integrity"]**

The fourth term to be construed is "link integrity." It appears in claims 1, 5, and 6 of the '017 patent.

Trackthings proposes "an assessment of a link including but not limited to the bit rate measurements between two relays, the power levels of the signals in a link, the level of modulation used in the link, and/or the frequency of transfer of the bit." Netgear proposes "the bit rate measurements between two relays, the power levels of the signals in a link, the level of modulation used in the link, and/or the frequency of transfer of the bits within the 'stream of bits.'"

The specification states at column 3, lines 25 to 29: “The link integrity can encompass the bit rate measurements between two relays, the power levels of the signals in a link, the level of modulation used in the link, and the frequency of transfer of the bits within the ‘stream of bits.’”

The dispute between the parties is whether “link integrity” encompasses additional measurements beyond those described in the specification. I asked the parties at oral argument to identify a measurement that would be relevant to link integrity but that wouldn’t fall within the category of “bit rate measurements between two relays, the power levels of the signals in a link, the level of modulation used in the link, and the frequency of transfer of the bits within the stream of bits,” but they were unable to do so. Trackthings mentioned something called RSSI, which apparently refers to the power present in a radio signal, but no one could explain why that would not be covered under the phrase “the power levels of the signals in a link.”<sup>9</sup> Nor could the parties explain how the Court’s construction would resolve an actual dispute between the parties that is relevant to an infringement or invalidity issue in the case.<sup>10</sup>

The Federal Circuit instructs the Court to construe claims only to the extent necessary to resolve disputes between the parties. Because it is not clear to me what the dispute is at this point, I decline to replace one set of words with another set of words until I understand what the implications are. I recommend that the Court decline to construe the term at this point. If it later becomes clear that the parties have a material dispute regarding this term, they can bring it up at some point before the case goes to the jury.

**[“computational unit” terms]<sup>11</sup>**

The fifth set of terms to be construed is the “computational unit” terms. Those terms appear in claims 1 and 6 of the ’017 patent and claims 7, 8, 15, 16, 23, and 24 of the ’442 patent.

---

<sup>9</sup> (Tr. 74:1–21, 79:3–81:17.)

<sup>10</sup> (Tr. 79:3–81:20.)

<sup>11</sup> *Supra* note 2.

Notwithstanding that the “computational unit” terms are different in the various claims, the parties have for the most part argued them together. The parties agree that the pre-AIA version of 35 U.S.C. § 112 applies, and the dispute between the parties is whether the terms are subject to § 112 ¶ 6. Netgear contends that all of the computational unit terms are means-plus-function terms subject to § 112 ¶ 6.

The claims at issue do not use the word “means,” and therefore there is a rebuttable presumption that § 112 ¶ 6 does not apply. The Federal Circuit, including recently in *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1365–66 (Fed. Cir. 2022), says that to overcome this presumption, the party seeking to invoke § 112 ¶ 6 bears the burden of showing, by a preponderance of the evidence, that persons of ordinary skill in the art would not have understood the term to connote sufficient structure in light of the claim as a whole.<sup>12</sup>

In *Dyfan*, the Federal Circuit explained that claim terms need not connote a single, specific structure, and may instead describe a class of structures and still recite sufficiently definite structure to not invoke the means-plus-function statute.<sup>13</sup> The Court went on to explain that in cases where it is clear that a claim term itself connotes some structure to a person of ordinary skill in the art, the presumption that § 112 ¶ 6 does not apply is determinative in the absence of more compelling evidence of the understanding of one of ordinary skill in the art.<sup>14</sup> Because this inquiry turns on the understanding of a person of ordinary skill in the art, extrinsic evidence is particularly helpful.<sup>15</sup>

Both parties submitted expert declarations discussing whether a person of ordinary skill in the art would understand the computational unit terms to connote sufficient structure. Trackthings’ expert Dr. Bims expressed his opinion that a POSA would so understand the computational unit terms. His opinions

---

<sup>12</sup> *Id.*

<sup>13</sup> *Id.* at 1366 (citing *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1300 (Fed. Cir. 2014), *overruled on other grounds by Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015)).

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

regarding those terms are set forth at paragraphs 65 to 94 of his declaration, which is Exhibit 26 to D.I. 130. First, Dr. Bims explains that the term “computational unit” is itself structural, and that a POSA would understand it “to be akin to one or more processors, akin to the Central Processing Units (‘CPUs’) or microprocessors found in most modern computing devices that perform functional computations.” Second, Dr. Bims says that the remainder of the claim language provides additional structure, as a POSA would understand the requirement that the computational unit is distributed within the ad-hoc network to mean that the computational unit is implemented by some or all of the clients and relays which form the network and may be implemented in the processors within those disclosed components. Third, a POSA would understand, in light of the claims and specification, that processors in the relays and clients may be particularly configured to interface with and work with other components such as transceivers and antennas that enable wireless communications. Fourth, the [various] claims provide operational context for the computational unit—in other words, [the] claims recite how the computational unit achieves its objective of improving network integrity. Dr. Bims further supports his assertions to by pointing to particular areas where the specification discloses how the computational unit achieves the claimed objectives.

Netgear’s expert, Dr. Houh, says that computational unit would not be understood by a POSA to connote sufficient structure. His opinion on this issue is set forth at paragraphs 94 to 117 of his report, which is Exhibit 27 to D.I. 130. Dr. Houh says that the term itself “does not evoke any specific structure to a POSA.” Dr. Houh explains that “[t]here are many different types of structures that are considered ‘computational units,’” ranging from simple logic computations to CPUs, GPUs, and other processors, all with their own structures.

Again, there is a presumption that these terms are not means-plus-function terms. Having reviewed the intrinsic and extrinsic evidence, I find that Netgear has not met its burden of showing by a preponderance of the evidence that a person of ordinary skill in the art would not understand the computational unit term to connote structure.

First, even Dr. Houh appears to agree that the term computational unit could refer to a class of structures that includes processors and CPUs. The Federal Circuit adopted a similar

rationale in the *Samsung v. Prisia* case, holding that the term “digital processing unit” did connote sufficient structure to a POSA in part because a POSA would equate the term to a class of known structures—central processing units—that can be found in any general-purpose computer.<sup>16</sup>

Second, the claims provide additional context that describe the operation of the computational unit. Although the claims at issue here are not models of clarity, the evidence suggests that they do appear to connote some structure to a person of ordinary skill in the art, and the Federal Circuit says that “is determinative in the absence of more compelling evidence of the understanding of one of ordinary skill in the art.”<sup>17</sup> Accordingly, I find that the presumption has not been overcome.

I also note that my conclusion that the term “computational unit” is not a means-plus-function term is consistent with Judge Gilliland’s conclusions in the *Trackthings v. Amazon* case in Texas.<sup>18</sup> While his determination is of course not binding on this Court, I do agree with his conclusion.

Accordingly, I recommend the Court find that the computational unit terms are not means-plus-function terms. As I don’t understand there to be any additional dispute that needs resolution at this time, I’ll leave it at that.

**[“assignment / “node assignment” / “a node assignment is distributed by said intelligent network to all nodes”]**

The sixth set of terms to be construed are the “node assignment” terms. The first set of terms are “assignment” / “node assignment” which appear in claims 3, 8, 10, 11, and 12 of the ’893 patent. Trackthings says that no construction of these terms is necessary; alternatively, Trackthings proposes “the node’s role as master or slave.” Netgear proposes “determination of the node’s role as master or slave made based on verbal command, voice recognition, sound tracking, and/or mechanical switch.”

---

<sup>16</sup> *Samsung Elecs. Am., Inc. v. Prisia Eng’g Corp.*, 948 F.3d 1342, 1354 (Fed. Cir. 2020).

<sup>17</sup> *Dyfan*, 28 F.4th at 1366 (quoting *Apex Inc. v. Raritan Comput., Inc.*, 325 F.3d 1364, 1374 (Fed. Cir. 2003)).

<sup>18</sup> *Trackthings LLC v. Amazon.com, Inc.*, No. 6:21-cv-720-ADA, D.I. 70 at 7–18 (W.D. Tex. May 14, 2022) (D.I. 130, Ex. 4).



Netgear also says that the term “a node assignment is distributed by said intelligent network to all nodes,” which appears in claim 8 of the ’893 patent, requires construction. Netgear proposes “a determination of the node’s role as master or slave based on verbal command, voice recognition, sound tracking, and/or mechanical switch communicated by the master node to all other nodes.” Trackthings doesn’t believe this term needs to be construed.

There are essentially two disputes here. The first dispute is whether the determination of the assignment must be “made based on verbal command, voice recognition, sound tracking, and/or mechanical switch,” as in Netgear’s proposal.

The resolution of this dispute starts and ends with the claims. There is nothing in the relevant claims that requires or suggests that the assignment may only be triggered by the categories of actions Netgear proposes. The disputed claim terms require an assignment to be made, and there is no support in the claims or specification for importing a requirement as to what triggers that assignment to be made. Netgear’s proposal runs afoul of the rule that you should not import unclaimed aspects from the specification into the claims.

The second dispute, relating only to claim 8 of the ’893 patent, is whether the assignment must be communicated by the master node to all other nodes. Netgear says it must be; Trackthings says it need not be.

Although the claim states that “each said slave node communicates information exclusively with another slave node through said master node,” the claim doesn’t specify whether that encompasses communication of the node assignment. The claim goes on to say that “a node assignment is distributed by said intelligent network to all nodes” without expressing whether that assignment is communicated by the master node or some other method.

The specification is similarly unhelpful. The specification does describe at least one embodiment wherein the node assignment is communicated by the master node, and I refer to column 7, lines 55 to 67. However, the specification often describes node assignment as accomplished by “the network” or “the system.” For example, at column 11, lines 7 to 8, it says “as the child enters node P (the playroom), the system reassigns the master node from node

K to node P.” That example doesn’t clarify whether the assignment is achieved through a mechanism other than communication by the master node to all other nodes.

Taking all of this into account, I conclude that it would be inappropriate to import a requirement into the claim that the assignment must be communicated by the master node to all other nodes.

As there are no other disputes between the parties regarding this set of terms, I recommend that the Court decline to further construe the assignment terms.

And that concludes my report and recommendation.

## **B. Section 101**

Netgear moves for judgment on the pleadings for lack of patentable subject matter under 35 U.S.C. § 101. The Supreme Court has established a two-step test for determining whether patent claims are invalid under § 101. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208 (2014). In step one, the court must “determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice*, 573 U.S. at 218. At step two, the court “consider[s] the elements of each claim both individually and as an ordered combination” to determine if there is an “inventive concept—*i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 573 U.S. at 217–18 (internal quotations and citations omitted). Claims pass muster at step two when they “involve more than performance of well-understood, routine, and conventional activities previously known to the industry.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018) (citation and internal marks omitted). “The question of whether a claim element or combination of elements is well-understood, routine, and conventional to a skilled artisan in the relevant field is a question of fact.” *Id.* at 1368.

Having considered the parties' § 101 arguments (D.I. 86, 89, 90, 92, 97, 98, 138, 139), I recommend that Netgear's motion be denied without prejudice to re-raise § 101 at a later stage of the case.

As an initial matter, the parties dispute whether claim 1 of each patent is representative of the other claims in that patent. Through its motion, Netgear seeks to invalidate 55 claims across three patents. Trackthings has made distinctive arguments as to at least some of the claims, while Netgear for the most part focuses its arguments on claim 1 of each patent and contends that the rest of the claims "do not change the basic concepts." (D.I. 86 at 5–8, n.3, 5, 6.) In these circumstances and on this record, I cannot conclude that claim 1 of each patent is representative of that patent's claims.<sup>19</sup> So even if I were to conclude that independent claim 1 of each patent covers ineligible subject matter, that wouldn't lead me to conclude that every dependent claim is likewise ineligible. So the case will go forward with all asserted patents no matter what I say about the independent claims. *See Rideshare Displays, Inc. v. Lyft*, No. 20-1629-RGA, 2021 WL 4477242, at \*1 (D. Del. Sept. 30, 2021) (denying § 101 motion where purportedly representative claim 1 was not shown to be representative of all claims). What's more, it would not be efficient for the Court to conduct a claim-by-claim analysis when the case is going forward and the number of asserted claims will be narrowed in the ordinary course. *See, e.g., Roku, Inc. v. AlmondNet*,

---

<sup>19</sup> "Courts may treat claims as representative in certain situations, such as if the patentee does not present any meaningful argument for the distinctive significance of any claim limitations not found in the representative claim or if the parties agree to treat a claim as representative." *Berkheimer*, 881 F.3d at 1365. Here, Trackthings has presented meaningful arguments for the distinctive significance of claim limitations not found in the purportedly representative claims and the parties do not agree to treat any claim as representative. (D.I. 89 at 20; D.I. 139 at 1.) Having independently reviewed the claims, the Court cannot conclude on this record that the claims are "substantially similar and linked to the same abstract idea." *Content Extraction and Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1348 (Fed. Cir. 2014).

*Inc.*, No. 21-1035, D.I. 35 at 2 (D. Del. May 10, 2022) (denying § 101 motion as “not an efficient use of the Court’s time” where “the parties dispute whether th[e] claims are representative” and “the asserted claims will be narrowed through the parties’ disclosures and discovery”).

Moreover, even if some of the claims were directed to an abstract idea, there are disputes of material fact as to whether every claim in every patent recites nothing more than well-understood, routine, and conventional activities. Trackthings’ complaint alleges that the claims of each patent “cover specific improvements in mesh networking technology that go beyond what is well-understood, routine, and conventional in the field of art.” (D.I. 1 ¶¶ 23–25.) Those assertions are plausible in view of the other allegations in the complaint and the disclosures in the specifications. (*See, e.g.*, ’017 patent, 1:31–35, 1:52–60; ’442 patent, 1:32–35, 1:52–60; ’893 patent, 1:47–2:59, 3:21–60.) Even if the claims recite only known components, the specifications—read in the light most favorable to Trackthings—explain how those components are arranged in inventive ways to achieve improvements in computer networks. Netgear disagrees (D.I. 64 ¶¶ 23–25), but the Court cannot say as a matter of law on this limited record that every single claim covers nothing more than well-known and conventional activities.

I also note that the briefing on the instant motion was submitted prior to claim construction. The Court will benefit from § 101 briefing that takes into account the Court’s actual constructions.

Accordingly, I recommend that Netgear’s Motion for Judgment on the Pleadings for Lack of Patentable Subject Matter (D.I. 85) be DENIED. Netgear is free to make its § 101 arguments at the summary judgment stage of the case.

\* \* \*

This Report and Recommendation is filed pursuant to 28 U.S.C. § 636(b)(1)(B), (C), Federal Rule of Civil Procedure 72(b)(1), and District of Delaware Local Rule 72.1. Any objections to the Report and Recommendation shall be filed within fourteen days and limited to ten pages. Any response shall be filed within fourteen days thereafter and limited to ten pages. The failure of a party to object to legal conclusions may result in the loss of the right to *de novo* review in the district court. The parties are directed to the Court’s “Standing Order for Objections Filed Under Fed. R. Civ. P. 72,” dated March 7, 2022, a copy of which can be found on the Court’s website.

Absent any objections, the parties shall file a Proposed Claim Construction Order consistent with this Report and Recommendation for the Court’s approval.

Dated: August 2, 2023



The Honorable Jennifer L. Hall  
UNITED STATES MAGISTRATE JUDGE