IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SOUND VIEW INNOVATIONS, LLC, Plaintiff, v. FACEBOOK, INC., Defendant.	No. 16-cv-116 (RGA)

MEMORANDUM OPINION

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ANDREWS, U.S. DISTRICT JUDGE:

Plaintiff Sound View and Defendant Facebook ask the Court to construe several terms from U.S. Patents No. 5,991,845; No. 6,125,371; No. 6,732,181; No. 7,366,786; No. 7,412,486; and No. 8,135,860. The '181 patent and '786 patent share a common specification; otherwise, the patents are unrelated. The parties submitted a joint claim construction brief that included fifty-four terms to be construed. (D.I. 82). I ordered the parties to narrow the field of terms for hearing (D.I. 85) and the parties submitted a letter requesting a hearing on ten terms (D.I. 88). I held a *Markman* hearing on March 31, 2017 on the ten terms. (D.I. 89). This opinion addresses only those terms.

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). Claim construction aids the factfinder in determining the scope of those claims.

A. General Principles of Claim Construction

"'[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).

"[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 (internal quotation marks omitted). 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 and internal quotation marks omitted).

B. Means-Plus-Function Claims

While only two disputed terms use the word "means," Defendant argues that several other terms are means-plus-function, invoking 35 U.S.C. § 112(f). For terms

not phrased with "means," there is a rebuttable presumption that those terms are not means-plus-function. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015) (en banc). "This presumption can collapse when a limitation lacking the term 'means' nonetheless relies on functional terms rather than structure or material to describe performance of the claimed function." *Apex Inc. v. Raritan Comput., Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003); *see also Williamson*, 792 F.3d at 1348 (Form is not "blindly elevated" over substance. Instead, "the essential inquiry is... whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure."). Defendant bears the burden of overcoming the presumption by a preponderance of the evidence. *Adv. Ground Info. Sys. v. Life360, Inc.*, 830 F.3d 1341, 1347 (Fed. Cir. 2016).

"Construing a means-plus-function claim term is a two-step process." *Williamson*, 792 F.3d at 1351. First, I must identify the claimed function. *Id.* Second, I must discern and evaluate the corresponding structure. *Id.* at 1351–52.

The disclosure of a corresponding structure is a requirement of means-plus-function claiming. Structure corresponds to a claimed function if "the intrinsic evidence clearly links or associates that structure to the function recited in the claim." *Id.* at 1352. "Even if the specification discloses corresponding structure, the disclosure must be [adequate] to achieve the claimed function." *Id.*

For software patents claiming a function that a general purpose computer cannot perform, the specification must disclose an algorithm. *Id.* "The algorithm may be expressed as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure." *Id.*

If a claim invoking § 112(f) fails to disclose an adequate corresponding structure, the claim is indefinite. *Id.* at 1352; *In re Donaldson Co., Inc.*, 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc). Defendant bears the burden of proving the claim is indefinite because of inadequate disclosure by clear and convincing evidence. *Budde v. Harley-Davidson, Inc.*, 250 F.3d 1369, 1376 (Fed. Cir. 2001).

II. CONSTRUCTION OF DISPUTED TERMS

1. "spin," "spinning"

a. *Plaintiff's proposed construction:* "wait," "waiting"

b. *Defendant's proposed construction:* "repeatedly trying to acquire a lock in a tight loop; i.e., busy waiting"

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

The parties dispute the proper construction of "spin" and "spinning" as used in claim 13 of U.S. Patent No. 5,991,845. Claim 13 reads:

> 13. A method for providing multiple processes with mutually exclusive access to a shared resource in a system having a lock associated with the shared resource, possession of the lock signifying exclusive access to the shared resource, wherein processes desiring access to the shared resource *spin* on the lock until the lock is acquired, the method comprising the steps of:

> maintaining a linked queue structure of data records corresponding to a queue of processes including processes *spinning* on the lock and a process possessing the lock, one data record per process;
>
> transferring the lock from the process possessing the lock to a process next in the queue;
>
> conducting a cleanup process if one or more processes in the queue have terminated, said cleanup process removing said one or more terminated processes from the queue and reassembling the linked queue structure.

('845 Patent, col. 19, ll. 1–17) (emphasis added).

Both parties argue that the specification defines the term "spinning." Plaintiff argues the specification defines "spin" or "spinning" to mean "wait" or "waiting." Defendant argues the specification defines "spinning" to be "repeatedly trying to acquire a lock in a tight loop; i.e., busy waiting." Both parties agree that "spinning" is waiting, but the core dispute is whether it encompasses only busy-waiting or also non-busy waiting. Both parties have a point.

The dispute focuses on a particular passage in the specification:

> If the lock is busy, the processor attempting to acquire the lock can either relinquish its desire to obtain the lock so it can do other work, or it can wait or "spin" until the lock is released. In particular, an implementation in which a process repeatedly tries to acquire the lock in a tight loop is called a spin lock and the activity or retrying is known as "busy waiting" or simply "spinning".

('845 Patent, col. 1, ll. 51–58).

Plaintiff argues the first sentence defines "spinning" as "waiting." Plaintiff is correct that the specification equates "spinning" with "waiting" here and throughout.[1]

Defendant argues the patent defines "spinning" as "busy waiting" or as "repeatedly trying to acquire the lock in a tight loop." Defendant relies on the second sentence of the above excerpt from the specification. Defendant is partially correct. This part of the specification does couple the terms "spinning" and "busy waiting." More specifically, it defines "busy waiting" and "repeatedly trying to acquire the lock" as "spinning."[2]

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[1] Plaintiff also points to other passages of the specification where "spinning" and "waiting" are coupled similarly to the way they are coupled here.

[2] Defendant takes it a step further and points to this as lexicography that defines the term "spinning." When a term is set out in quotation marks, that is "often a strong indication" the patentee is defining the term. *Sinorgchem Co., Shandong v. Int'l Trade Comm'n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007). Here, the term "spinning" is set out in quotation marks suggesting that the patentee is giving definition to it.

There is a sequencing problem with Defendant's argument that makes this reference in the specification ambiguous. The patent does not say "spinning" is "repeatedly trying to acquire a lock in a tight loop." Instead, it says that "repeatedly trying to acquire a lock in a tight loop" is known as "spinning." That does not mean that other things are not also known as "spinning." That A is known as B does not mean B is known as A. For example, taking a jet plane between two cities is known as "flying." But "flying" is not limited to taking a jet plane between two cities. The specification does not resolve the precise interrelationship between waiting and "spinning."

Neither Plaintiff's nor Defendant's insights, however, resolve the actual dispute, which is what range of waiting is connoted by the term "spinning." That "spinning" is "waiting" does not mean that "spinning" is all types of waiting. That "busy waiting" is "spinning" does not mean that "spinning" is (and only is) "busy waiting." Thus, I reject both Plaintiff's and Defendant's argument that the specification defines "spinning" in a relevant sense.

Having rejected the position that the specification defines "spinning," I am left with the conclusion that "spinning" is used in its plain and ordinary sense. The parties have offered competing expert opinions and references to prior art to support conflicting positions on what the plain and ordinary meaning of "spinning" is. Thus, I decline to reach a conclusion today and will hold a hearing to take expert testimony on the meaning of "spinning" to a person of ordinary skill in the art.

2. "an aging controller that monitors a measurable characteristic of said memory and deletes ones of said multiple versions of said ones of said data records in response to said time stamp and said measurable characteristic thereby to increase a capacity of said memory"

a. *Plaintiff's proposed construction:* no construction necessary

b. *Defendant's proposed construction:* means-plus-function, indefinite

c. *Court's construction:* no construction necessary

The parties dispute whether "controller" is a functional term, in particular, as used in the term "aging controller..." in claim 1 of U.S. Patent No. 6,125,371. Claim 1 reads:

> 1. A processing system for use with a database of data records, said database stored in a memory, comprising:
>
> a time stamping controller that assigns a time stamp to transactions to be performed on said database;
>
> a versioning controller that creates multiple versions of ones of said data records affected by said transactions that are update transactions; and
>
> *an aging controller that monitors a measurable characteristic of said memory and deletes ones of said multiple versions of said ones of said data records in response to said time stamp and said measurable characteristic thereby to increase a capacity of said memory.*

('371 Patent, col. 9, ll. 9–21) (emphasis added).

Because this term does not use "means," I start with the presumption that it is not subject to § 112(f). Defendant bears the burden of overcoming that presumption. It has failed to do so.

Defendant argues that "controller" is a nonce word and that a person of ordinary skill in the art would recognize a "controller" by its function, not as structure; thus, the term invokes § 112(f). Defendant pounces on the functional nature of how the class of structures known as "controllers" is defined.

Defendant's argument primarily relies on dictionaries. It cites a dictionary that states a "controller" is, "[a]s silly as it sounds, something that controls

something else." Dan Gookin & Wallace Wang, *Illustrated Computer Dictionary for Dummies* (2d ed. 1995). That dictionary, however, goes on to describe specific controllers. *Id.* For example, it explains that "[a] hard disk controller is the circuitry that controls the hard drive, connecting it to the computer." *Id.* I also reviewed the other cited dictionary cited by Defendant (D.I. 83-1 Ex. 12), and it does not compel a finding that "controller" is a nonce term that lacks structure, nor does Defendant's expert (D.I. 83-1 Ex. 15 at ¶¶ 52–54), whose assertions mainly interpret the cited dictionaries and are countered by Plaintiff's expert (D.I. 83-1 Ex. X at 34–38).

"Controller" may be a class of structures, rather than one specific structure, and may be defined with functional terms, but that does not make it means-plus-function. *See Personalized Media v. Int'l Trade Comm'n*, 161 F.3d 696, 705 (Fed. Cir. 1998) ("[N]either the fact that a 'detector' is defined in terms of its function, nor the fact that the term 'detector' does not connote a precise physical structure in the minds of those of skill in the art detracts from the definiteness of structure.").

One part of the specification touches on the definition of "controller." The patent reads:

> Those skilled in the art should be familiar with the use of controllers in processing environments generally and, more specifically, with main memory databases. Controllers may be implemented in software, firmware, hardware, or some suitable combination of at least two of the three.

('371 Patent, col. 4, ll. 52–57). I do not read this language to say "controller" is anything that controls. Instead, it explains that "controller" refers to hardware controllers as well as firmware and software controllers or hybrid controllers. That is, "controller" connotes, not one particular type of controller, but, controllers implemented in any of those mediums. That is not the same as saying a "controller" is anything that controls. Put otherwise, this statement does not define the term "controller" broader than the class of structures "controller" would ordinarily connote. In fact, the patent stresses in that part that "controller" is used in its ordinary sense.

I also do not interpret the use of modifiers "time stamping," "versioning," and "aging" as taking "controller" out of the class of known structures. Instead, I see these terms as functional monikers given to distinguish between which controller is being referenced.

Having found Defendant fails to overcome the presumption that "controller" is not a functional term, I decline to construe the term because no alternative constructions have been proposed by either party.

3. **"means at said server to compare said user input information with stored information and based on user verification and user access type provide said user with a list of other users for which said user has access"**

a. *Plaintiff's proposed construction:*

Function	Structure
"comparing said user input information with stored information and based on user verification and user access type providing said user with a list of other users for which said user has access"	"a login CGI, the system shared memory's simple user database, Web API, System API, and a drop box selection menu as described in col. 9:34-36 or depicted in Figure 13"

b. *Defendant's proposed construction:* indefinite

c. *Court's construction:*

Function	Structure
"comparing said user input information with stored information and based on user verification and user access type providing said user with a list of other users for which said user has access"	"a login CGI, the system shared memory's simple user database, Web API, System API, and a drop box selection menu as described in col. 9:34-36 or depicted in Figure 13"

The parties agree this term is means-plus-function but dispute whether the specification discloses a corresponding structure. This term comes from claim 5 of U.S. Patent No. 6,732,181, which reads:

> 5. A system for providing a user of an Internet-based communication system selective access to information relating to other users comprising: a server having means to store a list of users including user access type, identification, password and name; a user client having means for a user to input identification and password information; and *means at said server to compare said user input information with stored information and based on user verification and user access type provide said user with a list of other users for which said user has access.*

('181 Patent, col. 22, ll. 25–34) (emphasis added).

Plaintiff primarily points to the following disclosures in the specification for structure: (1) "There is a drop box selection menu that allows the user to switch to another customer portfolio and act as a user from that customer." (*Id.* at col. 9, ll. 34–36; *see also* Figure 13); (2) "The Login CGI uses the system shared memory's simple user database for user access authorization. If login is successful, the CGI program calls Web API, which again calls System API, to construct the users welcome screen." (*Id.* at col. 9, ll. 60–64); (3) "The application validates the information provided against the list of users stored in the application." (*Id.* at col. 12, ll. 49–51).

In its brief, Defendant faults the patent for failing to disclose an algorithm and characterizes the cited structure as "functional components." (D.I. 82 at 44). Defendant further criticizes the drop box selection menu as a "disembodied user interface component." (*Id.* at 45). At the hearing, Defendant argued that "[n]othing in [the patent] describes the step of comparing." (D.I. 89 at 57).

I am unpersuaded by Defendant's argument that the disclosures in the specification fall short. I read the patent as both clearly connecting the cited structures to the claimed function and to one another. At column 9, line 30, the specification begins its discussion of internal users, which are users with the ability to access multiple user profiles. It states that an internal user would be given a

"modified welcome page." ('181 Patent, col. 9, ll. 33–34). The modified welcome page includes a "drop box selection menu that allows the user to switch to another customer portfolio...." (*Id.* at ll. 34–35). In that same discussion, the specification describes a "login CGI" that is "fired up" when a user enters login information. (*Id.* at l. 60). "The Login [C]GI uses the system shared memory's simple user database for user access authorization."[3] (*Id.* at ll. 60–63). Once the user's access has been authorized, "the CGI program calls Web API, which again calls System API, to construct the users welcome screen." (*Id.* at ll. 63–64).

The compare function is performed by the "Login CGI" and the "system shared memory's simple user database." The "providing said user with a list of other users for which said user has access" function is performed by the "Web API" and the "System API," which construct the welcome screen that includes a "drop box selection menu."

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[3] At column 9, line 60 the patent says "Login *Q*GI."(emphasis added). A text search of the patent turns up no other use of the term QGI. In context of that paragraph, it is clear the patent means Login *C*GI here.

Thus, I reject Defendant's argument that the specification does not disclose structure for all of the claimed functions. Defendant's assertions that these components are too generic relies on cursory expert testimony (*see* D.I. 83-1 at 393), and falls short of clear and convincing evidence that the claim is indefinite.

4. "means to authorize log in of said user if said ID and password agree with said stored information and if said user status is enabled"

Plaintiff's proposed construction:

Function	Structure
"authorizing log in of said user if said ID and password agree with said stored information and if said user status is enabled"	"a JavaScript cookie"

b. *Defendant's proposed construction:* indefinite

c. *Court's construction:* indefinite

The parties agree that this claim is subject to § 112(f) but dispute whether the specification discloses sufficient structure. This term is in claim 1 of U.S. Patent No. 7,366,786. Claim 1 reads:

> 1. A system for authorizing a user of a client to have access to a server via the Internet comprising:
>
> means in said client for inputting a user identification (ID) and user password;
>
> means in said client for storing a unique client address;
>
> communication means at said client for passing said ID, password and address to said server via said Internet in response to a request therefrom;

> means at said server to store information respecting said client and to compare said stored information with said user ID and user password;
>
> means at said server to store dynamic status information respecting said user, said dynamic status information being one of enabled, disabled or active; and
>
> *means to authorize log in of said user if said ID and password agree with said stored information and if said user status is enabled.*

('786 Patent, col. 22, ll. 5–21) (emphasis added).

Function

As an initial matter, Plaintiff and Defendant agree as to the claimed function. The function, as articulated by the parties, simply regurgitates the claim language, but, for the reasons that follow, I do not think the articulation is complete.

The claim language requires the disclosed function to "authorize log in" if two preconditions are met. Thus, part of the function is "authorizing the log in."

The two preconditions that must be met are (1) the inputted user ID and password must match the stored information and (2) the user's status must be enabled. Verification of the first precondition—matching the log in information—is performed by a different means in the claim. (*Id.* at ll. 13–15) (claiming "means at said server to store [log in] information... and to compare said stored information with" the inputted log in information).

Verification of the second condition is only partially completed by another claim limitation. (*Id.* at ll. 16–18) (claiming "means at said server to store dynamic

status information... being one of enabled, disabled, or active"). No other step in the claim performs the function of actually verifying the user's status. Thus, "verifying the user's status" is necessarily a function of the claimed means.

The specification confirms that the claimed means has the function of verifying the user's status. At column 13, lines 4 to 14, the patent describes the invention claimed in claim 1. It reads:

> For each user the application stores a user Id, a user password, status, and an IP address. When a user requests access to the SD application, the application requires the user to enter a user Id and a user password. The application validates the information provided against the list of users stored in the application. If the user name and password matches, *the application checks the user's status in the application.* If the user's status is "enabled" then the user is logged onto the system...."

(emphasis added). As an initial matter, it is clear this part of the patent is referring to claim 1. For one, the paragraph in full describes the limitations of claim 1 and its dependent claims. (*Compare id.* at col. 13, ll. 4–27 *with* col. 22, ll. 5–32, 38–40). For two, Plaintiff admitted as much by citing to this language to provide structure. (*See* D.I. 82 at 64).

This portion of the specification describes checking the user's status as a discrete step, confirming it is a function of the claim that must be carried out by some means. Again, the contested limitation is the only one that relates to this step. Thus, I am construing the claimed means's function to be "authorizing log in and verifying user status as enabled."

Structure

Plaintiff cites four statements and two diagrams in the specification to support its argument that the corresponding structure is "a JavaScript cookie." (*Id.*).

It cites figures 4 and 5, but those figures do not add to the specification's language. Plaintiff also cites the following: (1) "It checks the user Id and password against the list stored in the application. It sends out a JavaScript cookie to the client after the user Id and password are validated." ('786 Patent, col. 13, ll. 34–36); (2) "If the client is authorized the server returns a welcome page together with a JavaScript cookie, which contains the user Id, to the client." (*Id.* at ll. 51–53); and (3) "The JavaScript cookie expires at the end of the session i.e. logout or browser terminated." (*Id.* at ll. 57–58).

Plaintiff's reliance on the JavaScript cookie for structure is vulnerable to sequencing criticisms. The specification reads, "If the client is authorized the server returns a welcome page together with a JavaScript cookie...." This passage is troublesome for Plaintiff. If the JavaScript cookie performs the function of authorizing, then why does it come after the client is authorized? The specification can still be read, however, to support the notion that the JavaScript cookie is the structure for the authorizing function.

Authorized, as used in the specification, can be read as saying 'if the preconditions are met' the JavaScript cookie is sent out. Authorized in this sense means "allowed;" whereas, authorizing in the claim language can be read to mean "to give permission."

Even so, Plaintiff still has a sequencing problem. Even with a generous reading of the specification, the JavaScript cookie does not have a role until after the preconditions are met. The JavaScript cookie, therefore, is not the structure performing the function of verifying the user's status. Plaintiff cites no other structure. Thus, this is a means-plus-function term with no corresponding structure, and the claim is therefore indefinite.

5. "receiving message data of a first type containing the contents of a first message over the open message connection"

a. *Plaintiff's proposed construction*: no construction necessary

b. *Defendant's proposed construction*: indefinite

c. *Court's construction*: indefinite

When an apparatus claim recites a method step, the claim is indefinite under § 112(b). *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005). *IPXL* indefiniteness arises when a person of ordinary skill in the art would be unable to tell if the apparatus itself would infringe or if the apparatus would have to be used in a certain way to infringe.

Defendant argues that claim 19 of U.S. Patent No. 7,412,486 is indefinite under *IPXL*. Claim 19 reads:

> A messaging system comprising:
>
> a messaging client;[4]
>
> a messaging server;
>
> a computer network coupling the messaging client and the messaging server;
>
> the messaging client configured to:
>
> > establish a message connection with the messaging server over the computer network using only hypertext-related protocols and a simple scripting language;
> >
> > receive a message connection response from the server indicating that the message connection is an open message connection;
> >
> > *receiving* message data of a *first type* containing the contents of a first message over the open message connection;
> >
> > *receiving* message data of a *second type* containing the contents of a second message over the open message connection;
> >
> > *repeating the steps of receiving message data while maintaining* the open message connection and while awaiting delivery of a message termination indicator indicating that a message associated with the message connection has been completely received by the messaging client;
>
> the messaging server configured to:

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[4] Defendant also challenged "messaging server" and "messaging client" as means-plus-function and indefinite. Because I am invalidating the claim as indefinite on *IPXL* grounds, I do not reach this argument. If I did, the same logic that applies to claim terms 6 and 8, however, would apply to these terms and I would not find them subject to § 112(f).

establish a message connection with the messaging client over the computer network using only hypertext-related protocols and a simple scripting language;

transmit a message connection response to the messaging client identifying the message connection has an open message connection;

transmitting message data of a first type containing the contents of a first message from the messaging server over the open message connection to the messaging client;

transmitting message data of a second type containing the contents of a second message over the open message connection to the messaging client;

repeating the steps of transmitting in order to provide a continuous stream of message data over the open message connection, the continuous stream of message data comprising a plurality of messages perceived by the messaging client as a single continuous message received over the open message connection for display on the messaging client independent of the operating system thereof and exclusive of proprietary messaging software residing and previously stored on the messaging client.

('486 Patent, col. 35, l. 28–col. 36, l. 10).

I agree with Defendant. Claim 19 covers both a messaging system and a method for using that system and is indefinite under *IPXL*. I recognize that *IPXL* is a narrow rule, but the claim language begs its application for five reasons.

First, the claim language uses the present participle form of verbs—receiv*ing*, receiv*ing*, repeat*ing*—which is generally associated with method claiming. Plaintiff is correct that use of the present participle form does not "automatically convert the claims into method claims." (D.I. 82 at 92–93) (quoting

Leader Techs v. Facebook, Inc., 770 F. Supp. 2d 686, 707 (D. Del 2011)). Its use, however, is suggestive of method claiming.

Second, the transition from the present form of the verb—establish, receive—to the present participle form suggests that the use of the present participle form is intentional and should be given meaning. If the claim was written "configured to..." followed by all present participle verbs, it would be easier to write it off as poor, but non-fatal, drafting. Instead, the claim reads "configured to" "establish" and "receive" and then transitions to "receiving," "receiving," and "repeating." Plaintiff did not, either in its brief or at the hearing, offer a construction that gives meaning to the difference in the language. The only way to do so is to construe the claim to include method steps.

Third, where the patentee explicitly uses method steps, for example in claim 18, the patentee uses the same verb forms and much the same language as the challenged language in claim 19:

Claim 19 ('486 Patent, col. 35, ll. 41–52)	**Claim 18** ('486 Patent, col. 35, ll. 4–27)
"receiving message data of a first type containing the contents of a first message over the open message connection;"	"receiving message data of a first type over the open message connection;"
"receiving message data of a second type containing the contents of a second message over the open message connection;"	"receiving message data of a second type over the open messaging connection;"
"repeating the steps of receiving message data while maintaining the open message connection...."	"repeating the steps of receiving massage data of a first type, maintaining the message connection in an open state...."

Again, this supports the construction that the patentee has included method steps in an apparatus claim.

Fourth, the present participle form aside, the claim uses the language of method. A "first" message is received, a "second" message is received, then the "steps" are "repeat[ed]." There is order and repetition, the province of method claiming.

I do not believe a person of ordinary skill in the art would know if a messaging client configured to receive messages over an open connection would infringe or whether the client would have to, in fact, receive multiple messages to infringe. For these reasons, I am construing claim 19 to include method steps in an apparatus claim and find it indefinite under *IPXL*.

6. "server"

a. *Plaintiff's proposed construction*: no construction necessary

b. *Defendant's proposed construction*: means-plus-function, indefinite

c. *Court's construction*: no construction necessary

This term is present in both claims 1 and 13 of U.S. Patent No. 8,135,860. Claim 13 is representative and reads:

> 13. An apparatus for use in a computer network, the apparatus comprising:
>
> at least one *server* within the network, the *server* being operative to process a client request generated by a client device to determine a particular client type associated with the client device, to retrieve web content identified in the client request, to retrieve one or more augmentation files associated with at least one of the web content and the particular client type, and to alter the retrieved web content in accordance with the one or more augmentation files, wherein the altered web content is delivered to the client device;
>
> wherein the client device comprises a virtual client device having a combination of a plurality of different sets of features provided by multiple distinct physical client devices.

('860 Patent, col. 10, ll. 9–25) (emphasis added).

Defendant argues this term is means-plus-function, invoking § 112(f), and failing to disclose adequate structure. More specifically, Defendant argues that "server" is a "functional, generic term" or a "nonce" word. (D.I. 82 at 84, 99). I disagree. "Server" has a well-known meaning to a person of ordinary skill in the art and connotes a definite structure. (D.I. 83-1 at 16, 100).

Defendant also asserts that "an off-the-shelf server cannot perform the detailed operations in the claim without additional programming." (D.I. 82 at 101). I reject this argument. Defendant fails to cite a single source to support it. Attorney argument alone is an insufficient basis to make a technical ruling in a claim construction.

Finally, at the hearing, Defendant argued that "server" has a special definition in the patent that departs from the ordinary understanding of "server." (D.I. 89 at 114). The specification reads: "The term 'server' as used herein is intended to include both a single server device or system as well as sets or other groupings or arrangements of multiple server devices or systems." ('486 Patent, col. 3, ll. 7–10). Defendant argues that the patentee is trying to claim more than just servers. Instead, the patentee is claiming some broader "server device." Defendant's reading of the specification is strained. The specification is merely making it clear that "server" is singular and plural as used in the patent. Having rejected Defendant's argument, I agree with Plaintiff that no construction is necessary for this term.

7. "virtual client device"

a. *Plaintiff's proposed construction*: no construction necessary

b. *Defendant's proposed construction*: Indefinite

c. *Court's construction*: "simulated or artificially created client device"

Defendant argues that "virtual client device" as used in claim 13 of the '860 patent is indefinite under *Nautilus, Inc. v. Biosig Instruments*, 134 S. Ct. 2120 (2014). On the one hand, "virtual" and "client device" have well-known meanings in the art. On the other, a composition of two known terms is not necessarily known itself. *See Adv. Ground Info. Sys.*, 830 F.3d at 1348. At this point, I am unconvinced that the claim term is indefinite. Defendant can, however, raise this indefiniteness argument again at the summary judgment stage.

At the hearing, I pressed the parties to agree to a construction of "virtual client device." Plaintiff proposed "simulated or artificially created client device." (D.I. 89 at 123). This construction comes from the prosecution history. (D.I. 64, Ex. M at p. 9). Defendant, while preserving its indefiniteness argument, ultimately acquiesced to the construction. (D.I. 89 at 129). Thus, I adopt it.

8. "interpolating proxy server"

a. *Plaintiff's proposed construction*: no construction necessary

b. *Defendant's proposed construction*: means-plus-function, indefinite

c. *Court's construction*: No construction necessary

Defendant argues that "interpolating proxy server," as used in claim 18 of the '860 patent, is a functional term and that the specification fails to disclose a corresponding structure. Claim 18 reads:

A processing system comprising:

a web server operative to store web content; and

an *interpolating proxy server* at least temporarily coupled to the web server and operative to process a client request generated by a client device to determine a particular client type associated with the client device, to retrieve web content identified in the client request and stored on the web server, to retrieve one or more augmentation files associated with the web content and the particular client type, and to alter the retrieved web content in accordance with the one or more augmentation files, wherein the altered web content is delivered to the client device;

the *interpolating proxy server* being further operative to parse the retrieved web content into one or more component structures, and subsequently to apply a pattern matching process to recognize designated component structure subject to alteration in accordance with the one or more augmentation files;

wherein the pattern matching process comprises comparing a given one of the component structures of the retrieved web content to predetermined component structures represented by respective tokens in the one or more augmentation files.

('860 Patent, col. 12, ll. 8–31) (emphasis added).

Defendant ties its means-plus-function argument for "interpolating proxy server" to its "server" argument. (*See* D.I. 82 at 107–08). Having rejected Defendant's "server" argument, I reject this argument as well. Defendant argues that "interpolating" and "proxy" "do not add structural limitations." (*Id.* at 107). "Server," however, is not in need of additional structural limitations. No alternative

construction is proposed by either party. Thus, I am declining to construe this term.[5]

III. CONCLUSION

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

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[5] At the hearing, Defendant added an argument that, even if "proxy server" is well known in the art, the addition of "interpolating" transforms the term to one that is unknown. Because Defendant did not include a hint of this argument in the brief, it is, if not waived, at least not properly before me now. (*See* D.I. 82 at 107–08).