

United States District Court
District of Massachusetts

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Milliman, Inc., et al.,)	
)	
Plaintiffs,)	
)	
v.)	
)	Civil Action No.
Gradient A.I. Corp., et al.,)	21-10865-NMG
)	
Defendants.)	
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MEMORANDUM & ORDER

GORTON, J.

This action arises from alleged patent infringement and misappropriation of trade secrets related to the pricing of group health insurance plans.

Plaintiff, Vigilytics LLC ("Vigilytics") is the holder of several patents pertaining to computerized anonymization of individual health data. Plaintiffs, Milliman, Inc. and its subsidiary, Milliman Solutions, LLC ("Milliman" and, together with Vigilytics, "the plaintiffs") are the exclusive licensees of those patents in several fields, including health insurance underwriting.

In May, 2021, Milliman sued defendants Gradient A.I. Corp. ("Gradient") and two of its officers, former Milliman employees Stanford A. Smith ("Smith") and Samuel Chase Pettus ("Pettus"

and, together with Smith and Gradient, "the defendants") alleging infringement of six patents ("the Asserted Patents") and misappropriation of trade secrets when Gradient developed its own underwriting services. Defendants respond that the patents are based upon abstract ideas and thus are ineligible for patent protection under 35 U.S.C. § 101.

The parties have submitted six claims of the Asserted Patents for construction. The Court convened a Markman hearing on January 12, 2023, at which counsel argued in favor of their proposed constructions. The Court now construes the contested claims.

I. Overview of the Patented Technology

Milliman's complaint alleges infringement of six patents. They are United States patent numbers 9,118,641 ("the `641 Patent"), 9,323,892 ("the `892 Patent"), 9,665,685 ("the `685 Patent"), 9,965,651 (the `651 patent), 10,109,375 ("the `375 Patent") and 10,886,012 ("the `012 Patent").

All of the patents pertain to the anonymization and transmittal of federally protected healthcare data. The Health Insurance Portability and Accountability Act ("HIPAA") prohibits health providers from releasing an individual's protected health information ("PHI") without the permission of that individual. In the absence of such information, it is more difficult for an

insurance company to estimate accurately the cost to insure a group of individuals.

To solve that problem, Milliman used the patented technology to develop its "Curv platform" which provides a third party such as an insurance company with irreversibly de-identified health information in response to a request for information regarding a group's PHI. The insurance company can then use that information to generate more accurate actuarial estimates, thus allowing for more precise pricing of group health insurance plans.

The Asserted Patents share similar claims and specifications. The specifications of the `641, `375 and `012 patents are practically identical, i.e. the `375 patent is a continuation of the `641 patent, and the `012 patent is a continuation of the `375 patent. The `892 patent (and the continuations thereof, the `685 and `651 patents), adds among other teaching that the de-identified healthcare data could include pre- and post-encounter details of individuals with healthcare facilities. That information could be beneficial to a hospital, for example, to assess risk of re-hospitalization or other medical events.

II. Analysis

A. Principles of Claim Construction

In analyzing a patent infringement case, the Court must 1) determine the meaning and scope of the patent claims asserted to be infringed and 2) compare the properly construed claims to the allegedly infringing device. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). The first step, known as claim construction, is an issue of law for the court to decide. Id. at 979. The second step is determined by the finder of fact. Id.

The Court's responsibility in construing claims is to determine the meaning of claim terms as they would be understood by persons of ordinary skill in the relevant art. Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc., 262 F.3d 1258, 1267 (Fed. Cir. 2001). The meanings of the terms are initially discerned from three sources of intrinsic evidence: 1) the claims themselves, 2) the patent specification and 3) the prosecution history of the patent. See Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582-83 (Fed. Cir. 1996).

The claims themselves define the scope of the patented invention. See Philips, 415 F.3d at 1312. Claim terms are generally given their "ordinary and customary meaning," which is the meaning that a person skilled in the art would attribute to

the claim term. See id. at 1312-13. Even if a particular term has an ordinary and customary meaning, however, a court may need to examine the patent as a whole to determine whether that meaning controls. Id. at 1313 (“[A] person of ordinary skill in the art is deemed to read the claim term in the context of the entire patent”); see also Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005) (noting that a court cannot construe the ordinary meaning of a term “in a vacuum”). Ultimately, the correct construction will be one that

stays true to the claim language and most naturally aligns with the patent’s description of the invention[.]

Id. at 1316 (citation omitted).

The patent specification is

the single best guide to the meaning of a disputed term [because it may reveal] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess [or] may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor.

Phillips v. AWK Corp., 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc). The Court should also consult the prosecution history to see how the inventor and the PTO understood the patent and to ensure the patentee does not argue in favor of an interpretation it has disclaimed. Id. at 1317.

In the rare event that analysis of the intrinsic evidence does not resolve an ambiguity in a disputed claim term, the Court may turn to extrinsic evidence, such as inventor and expert testimony, treatises and technical writings. Id. at 1314. Although extrinsic evidence may be helpful in construing claims, the intrinsic evidence is afforded the greatest weight in determining what a person of ordinary skill would have understood a claim to mean. Id. at 1324.

B. Disputed Claim Terms

1. **token** (`892 Patent, claim 11; `685 Patent, claim 7; `651 Patent, claim 7; `375 Patent, claim 7; `012 Patent, claim 7)

The parties disagree as to whether the first disputed term requires construction beyond its ordinary meaning. Milliman proposes the following construction:

An identifier associated with an individual that does not reveal the identity of the individual.

Defendants, on the other hand, submit that the Court should adopt an ordinary meaning construction.

The parties agree that the ordinary meaning of the term "token" governs. They dispute whether plaintiffs' construction, in fact, provides an ordinary meaning to the jury. Milliman contends that its construction is faithful to the intrinsic evidence, because the patent specifications and claims

explicitly state that a "token" is associated with an individual but does not reveal the identity of that individual. Moreover, Milliman submits that Gradient's unembellished ordinary meaning construction inadequately resolves the parties' dispute about claim scope because the term "token" has more than one ordinary meaning. Gradient responds that Milliman's construction inappropriately adds extraneous limitations, including "associated with an individual" and "does not reveal the identity of the individual" that are unsupported by the intrinsic evidence.

The Court finds that although a person of ordinary skill in the art ("POSA") would likely understand the ordinary meaning of "token" after reading the entire patent, it appreciates Milliman's concern as to the jury's understanding of the term. See Phillips, 415 F.3d at 1313 (explaining that "a person of ordinary skill in the art is deemed to read the claim term in the context of the entire patent, including the specification"). This case will eventually be presented to a lay jury, and therefore,

[i]t is not enough simply to construe the claims so that one skilled in the art will have a definitive meaning. The claims must be translated into plain English so that a jury will understand.

Control Res., Inc. v. Delta Elecs., Inc., 133 F. Supp. 2d 121, 127 (D. Mass. 2001). Milliman's construction does just that to

enable the jury to apply the construction to determine factual questions at trial.

Gradient warns that Milliman's "wordy" construction renders the claim language superfluous and meaningless. A "redundant" construction is, however, acceptable if it is accurate. See VLSI Tech. LLC v. Intel Corp., 53 F.4th 646, 653 (Fed. Cir. 2022) ("While a construction that introduces redundancy into a claim is disfavored, it is not foreclosed [when] intrinsic evidence makes it clear that the 'redundant' construction is correct."). When a Court charges the jury, it does not literally replace a claim term with its construction in the charge, and thus it is unlikely that the duplicative effect described by Gradient will be realized.

The Court accordingly will adopt plaintiffs' proposed construction because "token" has multiple ordinary meanings and Milliman's construction will help the jury's understanding of the term. The first disputed claim will thus be construed as follows:

An identifier associated with an individual that does not reveal the identity of the individual.

2. **server** (`641 Patent, claim 7; `892 Patent, claim 11; `375 Patent, claim 7; `012 Patent, claim 7)

Next, the parties dispute the construction of "server."

Milliman proposes the following construction:

A computer, with a processor and a memory, on a network that provides information in response to requests from another computer.

Gradient, however, submits that servers are so ubiquitous in modern society that its meaning is readily apparent and requires no construction.

The parties agree that their dispute over this second term ("server") presents a similar issue to their dispute over "token." Milliman concedes that the ordinary meaning of "server" may be clear to a POSA but, citing Control Res., Inc., 133 F. Supp. 2d at 127, seeks to provide a construction so that the lay juror can also understand "server" within the scope of the claims. Again, Gradient cautions of a duplication problem were the Court to read in limitations to claims that purportedly speak for themselves.

Plaintiffs' proffered definition is, however, straightforward and innocuous and would help lay jurors understand a potentially technical term. Thus, for the reasons explained in the context of the previously disputed term, the Court will adopt plaintiffs' proposed construction. "Server" will thus be construed as:

A computer, with a processor and a memory, on a network that provides information in response to requests from another computer.

3. **encryption server** (`641 Patent, claim 7; `375 Patent, claim 7; `892 Patent, claim 11)

The parties dispute whether the term "encryption server" has an ordinary meaning. Gradient submits that no construction is necessary, while plaintiffs proffer a construction of:

A "server" that produces "tokens" in response to a request.

During the Markman hearing, Gradient emphasized that while Milliman argued for its proposed constructions of "token" and "server" because a jury would not otherwise understand the terms, here Milliman defends its construction as necessary for a computer scientist to understand the term.

Milliman concedes in its opening claim construction brief that a POSA would understand that an "encryption server" is a server that performs some sort of encryption. It explains that its proposed construction is essential, however, to ensure that a POSA understands that a hash function could be an encryption technique according to the Asserted Patents. Despite that argument, plaintiffs' proposed construction for "encryption server" does not attempt to define or describe "encryption." The Court is not therefore convinced that plaintiffs' proposed construction would provide any insight to a POSA as to whether hashing is or is not an encryption technique.

Plaintiffs' proposed construction would more likely confuse, than help, the jury. Bose Corp. v. SDI Techs., Inc., 828 F. Supp. 2d 415, 424 (D. Mass. 2011), aff'd, 558 F. App'x 1012 (Fed. Cir. 2014) (finding a proposed construction "unnecessarily confusing"). "Encryption" is a commonly used word and, because the Court has adopted Milliman's proposed construction for "server," it sees no reason to further define it as a "server" that encrypts. Accordingly, the Court concludes that no additional construction is needed and it will adopt the ordinary meaning of "encryption server."

4. **similarly encrypted** (`641 Patent, claim 7; `892 Patent, claim 14; `685 Patent, claim 11; `651 Patent, claim 11; `375 Patent, claim 11; `012 Patent, claim 10)

With respect to "similarly encrypted," defendants argue the term is indefinite, while plaintiffs propose the construction:

Generated such that tokens generated from corresponding information can be compared to one another to detect a match.

The Court announced during the Markman hearing that it will defer ruling on defendants' claims for indefiniteness until later in the proceedings. Because indefiniteness would invalidate the claims entirely, consideration of such a dispositive effect is more appropriate at the summary judgment stage of the case. Koninklijke Philips Elecs. N.V. v. Zoll Med.

Corp., 914 F. Supp. 2d 89, 100-01 (D. Mass. 2012), aff'd sub nom., 656 F. App'x 504 (Fed. Cir. 2016).

Plaintiffs thus encourage the Court to adopt its proposed construction in the meantime. Milliman submits that its construction is supported by the intrinsic evidence because the claim language confirms that two sets of tokens are compared to find matches. Gradient responds that even if the Court defers its decision on indefiniteness, plaintiffs' proposed construction would create conflict between dependent claims and independent claims from which they depend that would render the dependent claims meaningless and cause confusion. Furthermore, according to defendants, the Asserted Patents provide no guidance as to what "similarly encrypted" means, because they do not define, provide examples, or otherwise describe what does or does not constitute being "similarly encrypted."

The Court agrees with Gradient, citing Stanacard, LLC v. Rebtel Networks, AB, 680 F. Supp. 2d 483 (S.D.N.Y. 2010), that Milliman's proposed construction is ambiguous and "would result in confusion for the jury." The Court declines to adopt plaintiffs' construction at this juncture. Rather, the Court will construe the term "similarly encrypted" to comport with its ordinary meaning.

5. medical information that characterizes a group
(`892 Patent, claim 11; `685 Patent, claim 7)

The parties next dispute the construction of "medical information that characterizes a group." Milliman submits that the meaning of the term "medical information that characterizes a group" is plain and construction of the term is unwarranted because both a POSA and a lay jury would readily understand the term. Gradient contends, however, that "medical information" has a special meaning, and thus proposes:

Information characterizing health status of the group as a whole.

Defendants' construction which proffers a special meaning is based on changes to the continuation-in-part ("CIP") specification for the `892 and `685 patents. Citing Wang Lab'ys, Inc. v. Am. Online, Inc., 197 F.3d 1377 (Fed. Cir. 1999), Gradient suggests that replacing "medical information" with "information" in over 30 locations in the CIP and adding six references to "health status" intentionally shifts the focus of the invention. It maintains that its construction reflects those amendments and appropriately informs a POSA's understanding of the claim term.

In response, plaintiffs criticize Gradient for introducing two limitations, "health status" and "as a whole." The Court agrees that "medical information" is not synonymous with "health

status" and, in fact, the CIP specification did not replace the term "medical information" with "health status," as Gradient proposes to do here. Moreover, the intrinsic evidence does not support the addition of "as a whole." The specification proffers examples where information is provided for a subset of group members, not the entire group. Thus, it would be misleading to add the limitation "the group as a whole."

The term "medical information that characterizes a group" is composed of commonly used words that a lay jury is able to understand. There is a

heavy presumption in favor of [construing terms according to] the ordinary meaning of claim language

Prima Tek II, L.L.C. v. Polypap, S.A.R.L., 318 F.3d 1143, 1148 (Fed. Cir. 2003). The Court finds no reason to ignore that presumption when the claim term is readily understandable. Therefore, the Court will construe the term "medical information that characterizes a group" according to its ordinary meaning.

6. **absent authorization from the individuals in the group / absent authorization from individuals in the group / absent authorization from the group / without the individuals in the group having authorized production of such medical information / has been produced without the individuals in the group having authorized production of such healthcare information that characterizes the group** (`641 Patent, claim 7; `892 Patent, claim 11; `685 Patent, claim 7; `651 Patent, claim 7; `375 Patent, claim 7; `012 Patent, claim 7)

The last disputed terms are a set of five terms that the parties describe as the "absent authorization" terms. Milliman submits that the five terms, although somewhat different, are comprised entirely of commonly used words that would be readily understood by a jury and thus require no construction. Gradient urges that all five terms be construed as

Authorization was not given to produce the (healthcare/medical) information in response to the request.

Gradient's construction removes a limitation and adds two new limitations. First, it removes the claim requirement that the authorization is absent from the "individuals in the group." It addresses Milliman's concerns about the removal by offering the alternative construction of

authorization from (the) individuals in the group was not given to produce the (healthcare/medical) information in response to the request.

Defendant argues in favor of adding two limitations: "to produce the (healthcare/medical) information" and "in response

to the request.” In support of the second limitation, defendants contend that, because the patentee added the phrase “at any time” to the `641 patent during prosecution, a POSA would understand that where the “absent authorization” term appears without “at any time” juxtaposed, the information was solicited “in response to a request.”

The Court has determined that if “at any time” is not recited in a claim, “in response to a request” should not automatically be read into the claim. The Federal Circuit has reiterated that it is not the district court’s role in construing claims “to redefine claim recitations or to read limitations into the claims” but rather to “give meaning to limitations actually contained in the claims.” See Am. Piledriving Equip. v. Geoquip, Inc., 637 F.3d 1324 (Fed. Cir. 2011) (emphasis added).

Furthermore, the terms include all non-technical words without special meanings and thus the Court will not flout the presumption in favor of construing terms according to their ordinary meaning. See Prima Tek II, L.L.C., 318 F.3d at 1148. Accordingly, the Court concludes that no further construction is needed and it will adopt the ordinary meaning of the five “absent authorization” terms.

ORDER

In accordance with the foregoing,

- 1) the term "token" means "an identifier associated with an individual that does not reveal the identity of the individual";
- 2) the term "server" means "a computer, with a processor and a memory, on a network that provides information in response to requests from another computer";
- 3) the term "encryption server" needs no further construction;
- 4) the term "similarly encrypted" needs no further construction;
- 5) the term "medical information that characterizes a group" needs no further construction; and
- 6) the term "absent authorization from the individuals in the group / absent authorization from individuals in the group / absent authorization from the group / without the individuals in the group having authorized production of such medical information / has been produced without the individuals in the group having authorized production of such healthcare information that characterizes the group" needs no further construction.

So ordered.

/s/ Nathaniel M. Gorton
Nathaniel M. Gorton
United States District Judge

Dated: January 19, 2023