UNITED STATES DISTRICT COURT

DISTRICT OF NEVADA

APPLICATIONS IN INTERNET TIME, LLC, Plaintiff, vs. SALESFORCE.COM, Inc., Defendant.	3:13-cv-00628-RCJ-CLB **ORDER**

On November 8, 2013, Plaintiff Applications in Internet Time, LLC ("AIT") brought this suit against Defendant Salesforce.com, Inc. ("Salesforce") alleging infringement of two patents that AIT owns: U.S. Patent No. 7,356,482 ("'482 patent") and U.S. Patent No. 8,484,111 ("'111 patent"). The parties have submitted several claim terms on which they dispute the proper construction and/or whether are indefinite. After full briefing, this Court held a Markman hearing whereby it heard all the issues pertaining to the construction of these terms, on August 23, 2021. The Court now addresses these arguments.

PROCEDURAL BACKGROUND

In 2014, Salesforce answered and brought counterclaims seeking to invalidate both patents. Salesforce also filed petitions for covered business method patent review (CBM) with the United

States Patent & Trademark Office's Patent Trial and Appeal Board (PTAB) challenging the validity of the patents in suit here, Salesforce moved for a stay of this suit pending resolution of the CBMs. AIT stipulated to the stay, and the Court stayed the proceedings on August 25, 2014. On April 27, 2015, after the PTAB denied Salesforce's petitions for CBM, the Court lifted the stay. The parties then began briefing claim construction, beginning with a Joint Claim Construction and Prehearing Statement (ECF No. 63) and AIT's opening claim construction brief (ECF No. 65). Then, on October 9, 2015, Salesforce filed a second motion to stay (ECF No. 66) pending *inter partes* review (IPR) filed with the PTAB by RPX Corporation ("RPX") challenging the validity of the patents-in-suit here. In October 2015, Salesforce filed its responsive claim construction brief, and AIT replied. (ECF Nos. 67, 74.)

The Court denied the motion to stay without prejudice because the PTAB had not yet instituted the RPX's petitions for IPR. (ECF No. 76.) On March 30, 2016, Salesforce renewed the motion because the PTAB had instituted RPX's petitions for IPR. (ECF No. 77.) AIT opposed this renewed motion on April 13, 2016 (ECF No. 78), and Salesforce replied on April 20, 2016. (ECF No. 80.) On June 14, 2016, the Court granted Salesforce's renewed motion and stayed the action. (ECF No. 82.)

On December 28, 2016, the PTAB entered final written decisions (FWDs) in the IPR proceedings concluding that the challenged claims of the two patents-in=suit are unpatentable. On July 9, 2018, after AIT appealed the PTAB's final written decisions, the Court of Appeals for the Federal Circuit vacated the FWDs and remanded to the PTAB. On August 8, 2018, the Court ordered a status conference for September 17, 2018. (ECF No. 87.)

On September 7, 2018, RPX petitioned the Federal Circuit for rehearing en banc. On September 17, 2018, the Court conducted a status conference and therein ordered that the stay of

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the case be kept in place. The Court further ordered the parties to file status reports regarding the PTAB's IPR proceedings every six months. (ECF No. 96.)

On October 30, 2018, the Federal Circuit issued its formal mandate to the PTAB in accordance with its July 9, 2018 judgment. On January 15, 2019, AIT's '111 patent expired. On April 25, 2019, with all briefing complete, the PTAB held an oral hearing on whether Salesforce is a real party-in-interest or privy of RPX.

On August 27, 2019, AIT filed a motion to lift stay and expedite proceedings. (ECF No. 105.) On September 10, 2019, Salesforce filed an opposition to the motion. (ECF No. 109.) On September 17, 2019, AIT filed a reply in support of the motion. (ECF No. 110.)

On November 25, 2019, while the motion was pending in this Court, AIT emailed the PTAB, with copies to RPX (the opposing party), inquiring: 1) as to the status of the case; and 2) as to whether a panel reassignment will issue. Specifically, AIT inquired whether a decision on the remand was going to issue in the near term and whether, in light of the Federal Circuit's decision in *Arthrex, Inc. v. Smith & Nephew, Inc.* Case No. 2018-2140, October 31, 2019, the case could or should be reassignment to a different panel. On November 27, 2019, the PTAB responded to all counsel that "the decision on remand will issue in due course."

On January 7, 2020, this Court issued its Order denying AIT's motion to lift stay. (ECF No. 116.) On May 4, 2020, RPX filed a motion with the Court of Appeals for the Federal Circuit to recall its October 2018 mandate to the PTAB, vacate its judgment (which itself vacated the PTAB's December 2016 decisions) and reinstate the appeal which dates to 2017. AIT opposed the RPX motion on May 28, 2020, and the following day the Federal Circuit denied RPX's motion.

On April 30, 2020, RPX emailed the PTAB seeking permission to file a motion for stay in anticipation of the motion RPX filed with the Federal Circuit on May 4. On May 5, the PTAB had a conference call with counsel and later that day issued an order authorizing RPX to file its motion

for stay. On May 12, 2020 RPX filed the motion to stay the IPRs pending the Federal Circuit's decision on RPX's May 4, 2020 motion. On May 19, 2020 AIT opposed RPX's motion for stay. On May 29, 2020, in response to the Federal Circuit's denial of its motion, RPX notified the PTAB that its motion for stay was moot. The PTAB has not ruled on the motion for stay nor taken any other action with respect to RPX's motion for stay.

On July 2, 2020, the parties filed a Joint Case Status Report. (ECF No. 120). On August 3, 2020, AIT petitioned the United States Court of Appeals for the Federal Circuit for Writ of Mandamus to the PTAB. In its petition, AIT requested an expanded PTAB panel and a final decision from the PTAB in 30 days. On August 3, 2020, the Federal Circuit ordered responses to AIT's petition from the Director of the USPTO and from RPX.

On August 11, 2020, the Federal Circuit granted AIT's withdrawal of its Petition for Writ of Mandamus based upon agreement of the USPTO that the PTAB will issue decisions in the three IPRs on or before September 9, 2020. On September 9, 2020, the PTAB issued a decision under seal terminating the IPRs. In its decision, the PTAB determined Salesforce was a real party-in-interest to the IPRs and, accordingly, that RPX's petitions were time-barred under 35 U.S.C. § 315(b).

On October 2, 2020, the PTAB issued a public version of its decision. On October 9, 2020, RPX filed a request for rehearing of the PTAB's decision terminating the IPRs. On October 13, 2020, AIT filed a Notice of Decision by the Patent Trial and Appeal Board. (ECF No. 127). On October 23, 2020, AIT filed its response to RPX's rehearing request. On October 30, 2020, RPX filed its reply brief in support of its rehearing request.

On November 2, 2020, AIT filed a Motion to Lift Stay of the instant proceedings. (ECF No. 130). Salesforce challenged this motion claiming the then-pending motion for rehearing could potentially moot the case against it. (ECF No. 134.) Before this Court ruled on the motion, the

PTAB denied the motion for rehearing, so the Court granted the motion to lift the stay. (ECF No. 145.) The Court issued a briefing schedule for the claim construction hearing ("Markman hearing") and hearing date. (ECF No. 147.) AIT has filed an opening brief and a reply brief. (ECF Nos. 153, 158.) Salesforce filed a response brief and sur-reply. (ECF Nos. 154, 159.) The Court held the hearing on August 23, 2021. (ECF No. 167.)

II. FACTUAL BACKGROUND

In the late 90's, Alternative Systems, Inc. ("ASI") developed and commercialized a new software technology, called Integrated Change Management Unit ("ICMU"), that allowed the user interface and functionality of an application to be modified without having to reprogram the underlying code. On December 18, 1998, ASI filed the patent application that led to the Patents based on that technology. In 2012, ASI assigned the Asserted Patents to AIT.

The Patents are directed to a software architecture (the ICMU technology) that allows applications to be designed and maintained without requiring the reprogramming of the underlying software code. This feature addressed the problem of "continual reprogramming of the database software" required for the maintenance of software applications. (ECF No. 153 Ex. A at Col. 8:5.)[1] One of the features that enables the ICMU architecture to overcome that problem is its use of a "data-driven" architecture. (*Id.* at Col. 10:17–20 ("Unlike 'hard-coded' systems, in which business functionality and content is managed by explicit lines of code, the metadata architecture of the invention is entirely data-driven.").) The use of the data-driven architecture not only avoided the need for reprogramming; it also allowed application development to be accomplished more simply, such as by non-programmers. The Patents explain that the "[n]ormal programming steps are decomposed into pieces that can be combined by a non-programmer into a coherent set of procedures that define a unique system." (*Id.* at Col. 15:46–49.)

[1] The specifications in the asserted patents are substantially identical.

The invention is summed up well in Claim 1 of the '482 Patent. It states:

> a server computer;
> one or more client computers connected to the server computer over a computer network;
> a first layer associated with the server computer containing information about the unique aspects of a particular application;
> a second layer associated with the server computer containing information about the user interface and functions common to a variety of applications, a particular application being generated based on the data in both the first and second layers;
> a third layer associated with the server computer that retrieves the data in the first and second layers in order to generate the functionality and user interface elements of the application; and
> a change management layer for automatically detecting changes that affect an application,
> each client computer further comprising a browser application being executed particular application is distributed to the browser application and dynamically generated when the client computer connects to the server computer.

(*Id.* at Col. 32:9–34.)

The invention can be understood as a "server computer," supporting four software "layers." Each layer has a specific function that interrelates with the other layers. Figure 1 of the '482 Patent provides a helpful visual.

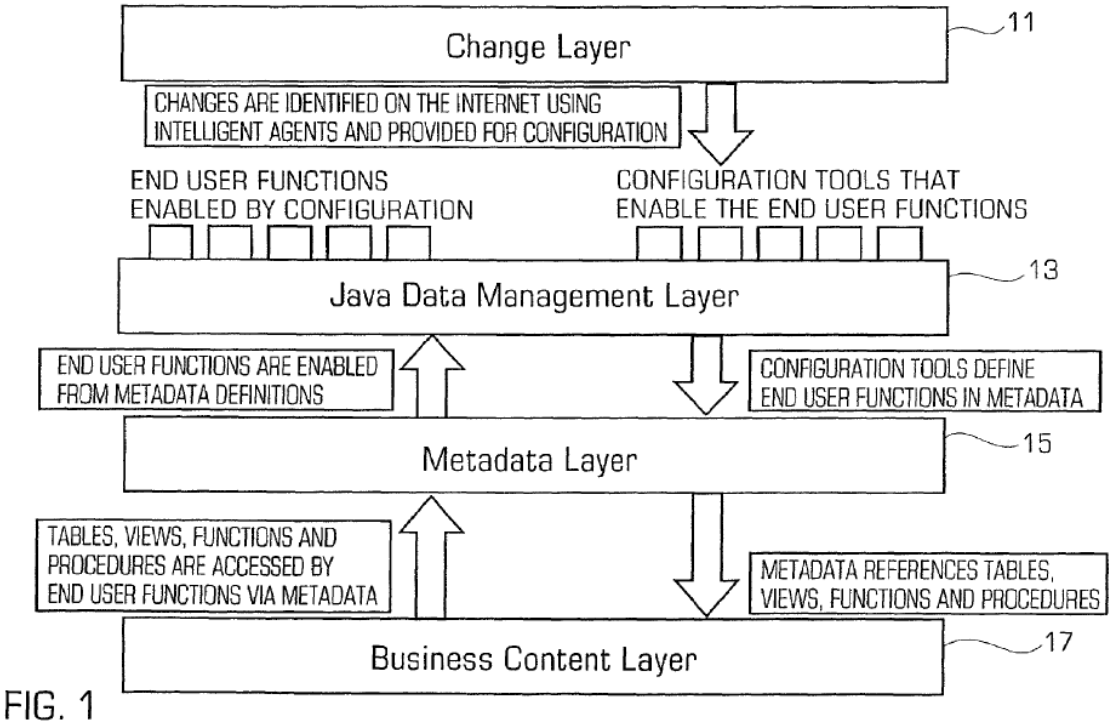

FIG. 1

(*Id.* at Sheet 1 of 13.) The specifications clarify the functions of the layers.

The bottom business content layer contains business content including information regarding the unique aspects of a particular application. The specification explains that "[w]ithin the business content layer, the relevant items are stored (and changed, as appropriate) for the specific business operations of concern to the end user." (*Id.* at Col. 9:56–59.) The specification further explains that the "business content" contained in this layer may "include[] business knowledge, logical designs, physical designs, physical structures, relationships, and data associated with a selected area of business activity." (*Id.* at Col. 12:16–20.)

The next layer up is the metadata layer, which contains information about the user interface and functions common to a variety of applications. (*Id.* at Col. 9:41–46 ("[The] metadata layer 15 . . . provides and/or defines data about every feature of the user interface including, without limitation, tools, worklists, data entry forms, reports, documents, processes, formulas, images, tables, views, columns, and other structures and functions[.]").) The metadata architecture "stores all of the information used to create the front-end business application and manage the back-end business database." (*Id.* at Col. 10:15–17.)

The second from the top layer, Java[2] data management layer, uses the information stored in the business content layer and the metadata layer to generate the functionality and user interface elements of the application. For example, this layer may "provide[] a graphical user interface . . . which allows a web browser user to communicate with the metadata and business content layers on a server . . . ." (*Id.* at Col. 15:5–10.) As the application information is contained in the business content layer and the metadata layer, the Java data management layer is not required to be reprogrammed in response to changes in application requirements. (*Id.* at Col. 15:11–16.)

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[2] Java is a programming language for Internet applications.

The topmost layer, or change management layer, automatically detects the changes that affect an application. The Patents recognize that the changes detected by the change management layer may include changes in any factor "that materially affects operations and/or information management requirements of a particular business." (*Id.* at Col. 9:2–4.) In a disclosed embodiment, the "change management layer . . . includes one or more change agents that . . . identify and bring to the user's attention relevant regulatory and non-regulatory changes . . . that may affect a user's business[.]" (*Id.* at Col. 9:34–38.)

As depicted by the arrows in Fig. 1, each layer "uses" the layers below it and is "used by" the layers above it. For example, the metadata layer acts as an interface between the business content layer and the Java data management layer. (*Id.* at Col. 9:52–56 ("Within the metadata layer, the relevant items (data entry forms, etc.) in the business content layer are defined, regulatory and non-regulatory changes in these items are implemented, and access thereto is provided."); Col. 9:59–61 ("A business area . . . in the business content layer is referenced and described by the metadata layer to enable management by the data management layer.").) The business content layer "is defined by and referenced in the metadata layer so that the necessary . . . procedures and data can be read and updated by the Java data management layer." (*Id.* at Col. 12:24–28.) Finally, the Java data management layer includes "change configuration functions" that enable the change management layer to modify the content of the business content layer and the metadata layer in response to automatic detection of changes that affect an application: "The Change Configuration functions support creation and change of End User functions through a variety of flexible and intelligent manual routines, such as intelligent agents, screens, fields, reports, documents and logic that can be changed without requiring programming skills." (*Id.* at Col. 10:6–10.)

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III. LEGAL STANDARD

A. Claim Construction

Claim construction generally begins with the words of the claims themselves. *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 457 F.3d 1293, 1301 (Fed. Cir. 2006). Where possible, courts give claim terms "their ordinary and customary meaning." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). That is to say, courts strive to give the terms "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005). "[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314. For example, "the context in which a term is used in the asserted claim can be highly instructive," and "[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term." *Id.* "In some cases, the ordinary meaning of claim language . . . 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.*

The specification "is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315. Nonetheless, there is a "stringent standard for narrowing a claim term beyond its plain and ordinary meaning," *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1330 (Fed. Cir. 2012). Narrowing may only be done "1) when a patentee sets out a definition and acts as [its] own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Id.* (quoting *Thorner v. Sony Computer Entertainment America L.L.C.*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)). Such special definitions or disavowals must be express and unambiguous. *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1254 (Fed. Cir. 2011) ("[E]ven where a patent describes only a single embodiment, claims

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.").

The importation of requirements from the disclosed embodiments into the claims is the "cardinal sin" of claim construction. *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys. Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001). That is because the specification itself does not delimit the right to exclude. That is the function and purpose of the claims. *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009) ("The claims, not specification embodiments, define the scope of patent protection."); *see Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) ("In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves . . . .").

A court may also turn to the prosecution history to inform it of the proper construction of the claim term. The Federal Circuit has cautioned against placing too much emphasis on the prosecution history because statements in the prosecution history are often not models of clarity. *Phillips*, 415 F.3d at 1317 ("[B]ecause the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes."). As such, the standard for importing requirements from prosecution history statements into the claims is high, demanding "clear and unmistakable" disavowal of claim scope. *3M Innovative Properties Co. v. Tredegar Corp.*, 725 F.3d 1315, 1325 (Fed. Cir. 2013) ("[I]n order for prosecution disclaimer to attach, the disavowal must be both clear and unmistakable."). The Federal Circuit has explained that a "clear and unmistakable disclaimer" cannot exist if "a prosecution argument is subject to more than one reasonable interpretation." *01 Communique Lab., Inc. v. LogMeIn, Inc.*, 687 F.3d 1292, 1297 (Fed. Cir. 2012) (citations and quotations omitted).

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Lastly, extrinsic evidence may be considered and it "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. Extrinsic evidence is generally viewed as less reliable than intrinsic evidence and cannot be used to alter the meaning of a claim term based on the claims themselves, the specification, or the prosecution history. *See id.* at 1318–19.

B. Indefiniteness

A party may get a court to declare that a patent claim is invalid for indefiniteness by failing to satisfy 35 U.S.C. § 112(b), which reads, "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention." Because patents are presumed valid, a party claiming indefiniteness bears the burden of proving this claim by clear and convincing evidence. *See Young v. Lumenis, Inc.*, 492 F.3d 1336, 1344–45 (Fed. Cir. 2007). Proving indefiniteness requires a party to establish "claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014). Satisfaction of § 112(b) requires only reasonable certainty, not absolute certainty or precision. *Id.* at 910. The Federal Circuit has explained that constructions rendering claims invalid or meaningless should be avoided unless such construction "is the 'only claim construction that is consistent with the claim's language and the written description.'" *Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1368 (Fed. Cir. 2012) (quoting *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999)).

IV. ANALYSIS

In total, the parties disagree regarding the proper construction of eight categories of claim terms: "automatically detect"; "changes that affect a particular application"; "dynamically

generate a functionality and a user interface"; "layer"; "unique aspects of a particular application"; "business content database"; "logical design"; and "builder module."[3] The Court will deal with each category of terms in turn.

A. "Automatically Detect"

In Claims 1 and 21 of '482 Patent and Claim 13 of '111 Patent, the claims use the term "automatic dectect[ing]." In its brief, AIT proposed a construction of "detecting without direct human intervention." (ECF No. 153 at 7.) Salesforce argues that AIT's proposal is indefinite and, in the alternative, proposes "requiring at least 'detecting without any intervention by a human operator through the use of one or more intelligent agents.'" (ECF No. 154 at 9.) At the hearing, AIT agreed to remove "direct" from its construction, whereby the parties largely agreed. The Court adopts the construction of "detecting without human intervention through the use of one or more intelligent agents."

1. "Human Intervention"

The Court starts with the claim language. The term "automatic" by definition means "without human intervention." (ECF No. 154-2 ¶¶ 80–82 (collecting dictionary definitions).) And Salesforce's construction proposal correctly notes this common meaning of the term, while AIT's proposal in its brief does not.

In its brief, AIT argued its construction of amorphous human intervention is required because for "any software process, a certain level of human interaction is required to, *e.g.*, to [sic] turn on a device and/or initiate the software process." (ECF No. 153 at 8.) For support, AIT pointed to cases such as *CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225 (Fed. Cir. 2005). There the Federal Circuit ruled that a "machine still performs the claimed functions without manual

[3] The parties are also disputing variants of these terms. For example, in addition to disputing "logical design," they also dispute the related terms "physical design" and "physical structure." The Court will address each variant as they arise in each category.

operation, even though a human may initiate or interrupt the process." *Id.* at 1235. While true, Salesforce correctly notes this argument misses the mark. AIT was attempting to allow for human involvement of the supposedly automatic process itself—not merely the human ability to start and stop the process. AIT was therefore correct to concede its initial insistence of "direct."

2. Intelligent Agents

Salesforce proposes the "automatic detection" process include the "use of one or more intelligent agents" as part of its construction. AIT disputes this addition, but this Court agrees with Salesforce.

The patents repeatedly discuss intelligent agents as an integral component of the claimed invention. For example, it states, "The following example illustrates how a change, made to a regulation, is *identified on the Internet and incorporated and managed by the invention*." (ECF No. 153 Ex. A at Col. 10:21–49 (emphasis added).) Also, "The invention begins tracking change using one or more intelligent agents ("IA's")." (*Id.* at Col. 9:33–37.) Courts frequently construe statements made in the patents about "the invention" as limiting the scope of the claims. *Forest Labs., LLC v. Sigmapharm Labs., LLC*, 918 F.3d 928, 933 (Fed. Cir. 2019) ("When a patent . . . describes the features of the 'present invention' as a whole, this description limits the scope of the invention."). AIT contends "the specification does not contain an express disavowal of claim scope requiring the use of intelligent agents." (ECF No. 153 at 15.) But the quoted statements are such "express disavowal[s]."

Even more, the specification distinguished itself from prior art. For example, the specification states, "Various attempts have been made to manage regulatory compliance, but no solution has been developed before that provides a comprehensive, integrated framework for . . . *automatically making application and database changes using intelligent agent routines* . . . ." (ECF No. 153 Ex. A at Col. 7:47–53 (emphasis added).) Such statements should be construed to

circumvent the criticized art. *See, e.g.*, *Chicago Bd. Options Exch., Inc. v. Int'l Secs. Exch., LLC*, 677 F.3d 1361, 1372 (Fed. Cir. 2012).

AIT asserts the use of intelligent agents is merely a possible means of automatic detection but not an exclusive one. It cites to two parts of the specification for support. First, it quotes, "The Change Configuration functions support creation and change of End User functions through a variety of flexible and intelligent manual routines, such as intelligent agents, screens, fields, reports, documents and logic that can be changed without requiring programming skills." (ECF No. 153 Ex. A at Col 10:6–14.) While this does include intelligent agents as one of many means, the next few lines describe the functions these means are used for: data entry, data analysis, document generation, document distribution and reporting." (*Id.* at Col. 10:12–13.) This list fails to include the process of "automatic detection" and therefore fails to abrogate the other statements in the specifications. Second, it points to the following passage: "An IA can be used to identify changes in laws, statutes, ordinances, regulations and related issues, changes in technical requirements, to provide feedback, and to perform Change Configuration tasks." (ECF No. 153 Ex. A at Col. 20:3–6.) While this sentence does describe various capabilities of different types of intelligent agents, it does not imply that they are optional to the invention as reflected in this claim limitation.

B. "Changes that Affect . . ."

The parties next dispute the construction of the terms "changes that affect the information in the first portion of the server or the information in the second portion of the server" for Claim 13 of '111 Patent and "changes that affect a (particular) application" for Claims 1 and 21 of '482 Patent. Salesforces proposes "modifications to regulatory, technological, or social requirements stored in a third-party repository that affect information about unique aspects of a particular application or functions common to various applications" and "modifications to regulatory,

technological, or social requirements stored in a third-party repository that affect an application" respectively. AIT claims there is no construction necessary. The Court agrees with AIT and finds the terms do not need a construction.

There are two disputes for this claim construction: whether third-party repositories are part of the claim and whether the changes are to regulatory, technological, and social requirements exclusively.

1. Third-Party Repositories

The specification repeatedly and consistently discloses the changes as coming from repositories outside the described and claimed "integrated system," such as the Internet. The '482 Patent always refers to the changes in such a manner. For example, it states, "This invention monitors, responds to, and incorporates changes in, federal, state and local laws, statutes, ordinances and regulations (referred to collectively herein as "regulations") and changes in technology in one or more regulated areas of commercial activity . . . ." (ECF No. 153 Ex. A at Col. 9:10–16.) The use of the word "incorporate" evinces the changes are usually external to the system. Further, the types of changes that are specified are external to the system: changes in laws, regulations, and technology.

AIT correctly counters by pointing to the claim language, which never so limits the claim. It merely states, "a change management layer for automatically detecting changes that affect an application." (*Id.* at Col. 32:27–28.) It also correctly notes that, while the specification points to extraneous sources for changes, it never expressly limits the searches to such results. This argument is sufficient for the Court's conclusion. *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) ("Disavowal requires that 'the specification . . . make[s] clear that the invention does not include a particular feature.'" (quoting *SciMed Life Sys., Inc. v. Advanced*

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Cardiovascular Sys., Inc., 242 F.3d 1337, 1341 (Fed. Cir. 2001)). The Court will nonetheless address some additional arguments from AIT that it finds to be less persuasive.

AIT also argues from the following quotes from the specification: "The change layer primarily involves an intranet or the Internet and uses one or more intelligent agents (IAs) that continually search on the Web for relevant changes in a selected business area." (*Id.* at Col. 16:18–21.) AIT only includes the first part of this quote about the change layer "involve[ing] an intranet or the Internet," excluding the part that it "continually search[es] on the Web for relevant changes." The reference to intranet here merely refers to the location of the change layer—not the changes. It next quotes:

> Intelligent Agent launches one or more intelligent agents (IAs) to pursue internal and external Web activities. An 'intelligent agent' is a specialized program that makes decisions and performs tasks based on predefined rules and objectives. An IA can be used to identify changes in laws, statutes, ordinances, regulations and related issues, changes in technical requirements, to provide feedback, and to perform Change Configuration tasks.

(*Id.* at 19:66–20:6.) While this quote does state that IAs "pursue internal and external Web activities," the entirety of the quote makes clear that it is not referring only to the changes at issue here. Lastly, "[T]he system is, or may be arranged to be, accessed and used through an Internet connection, the system is not limited to stand-alone or local applications." (*Id.* at 22:29–31.) Again, this quote merely refers to the location of the system—not where the IAs are searching for changes.

2. Regulatory, Technological, or Social Requirements

As quoted above, the specification lists the following changes: "changes in federal, state and local laws, statutes, ordinances and regulations . . . and changes in technology in one or more regulated areas of commercial activity, such as environmental health and safety (EH&S), and food, drugs, cosmetics, medical devices and treatments . . . ." (ECF No. 153 Ex. A at Col. 9:10–16.) Again, however, AIT correctly notes that the specification does not expressly limit the changes to

these fields, so the Court is not persuaded that the limit must be inferred from the list. The Court accordingly agrees with AIT and finds no additional construction is necessary for this term.

C. "Dynamically Generate . . ."

The parties argue over the proper construction of the phrase, "dynamically generate a functionality and a user interface," in Claim 13 of '111 Patent. Salesforce proposes that this Court construct this term as requiring at least "generate [both a functionality and a user interface] immediately and concurrently without any modification of software by a user." AIT proposes "dynamically generate" be constructed as "generate or update when needed" and that the remainder of the term needs no construction. The parties also dispute the similar term, "dynamically [re-] generate[d,ing]"; in Claims 1 and 21 of '482 Patent. AIT proposes the same construction, "generate or update when needed," but Salesforce proposes "generated again after an initial generation" for "re-generated." These opposing proposals boil down to two issues: whether such dynamic generation occurs "without any modification of software by a user" and whether it occurs "immediately and concurrently."

1. Modification of Software by a User

The specification distinguished itself from prior art by claiming that its dynamic generation of information *without requiring* modifications by the users. The '482 Patent states the following:

> One recurring problem with any database that frequently changes is maintenance of the database as current. Where a database depends upon the current regulatory state . . . continual reprogramming of the database software is required to reflect a constant stream of changes. This approach is not cost effective and, in effect, mortgages the database maintainer's future. . . .
> These needs are met by the invention that, in one integrated system . . . converts the relevant changes into changes in work/task lists, data entry forms, reports, data processing, analysis and presentation (by printing, electronic display, network distribution and/or physical distribution) of data processing and analysis results to selected recipients, *without requiring the services of one or more programmers to re-program and/or recode the software items affected by the change* . . . .

(ECF No. 153 Ex. A at Col. 8:1–46.)

AIT argues, while its invention may not require a user to reprogram, it doesn't forbid such reprogramming. This argument is persuasive to the Court—requiring does not entail that some user reprogramming is not permitted.

2. Immediately and Concurrently

"Dynamically" entails that the generation occur "immediately and concurrently." That is the usual definition of the term in this art and the Court finds this does not need any construction. (ECF No. 68-14.) The definition in this dictionary states, "Occurring immediately and concurrently. The term is used in describing both hardware and software; in both cases it describes some action or event that occurs when and as needed." AIT points to the end of the definition to support its contention that it occurs "when needed." Salesforce correctly points out that the "when and as needed" portion of the definition simply refers to the fact that the "immediate and concurrent" operation can happen at any given time (or put another way, can be triggered at any given moment based on a particular condition).

This "immediate and concurrent" construction is further supported by the specification, which states the dynamic generation occurs "when the client computer connects to the server computer." (ECF No. 153 Ex. A at Col. 32:33–34.) This indicates an immediate and automatic response as opposed to a response "as needed."

For these reasons, the Court finds that the terms need no additional construction.

D. "Layer"

The parties dispute the term "layer" in '482 Patent for claims 1, 3, 5, 10, 20, 21, 23, 25, 30, and 40. Salesforce proposes "a group of data and/or functions that is separate and distinct from other such groups," and AIT proposes "a set of functionally or logically related software components." Similarly, the parties dispute the claim "portion of the server" or "portion" in '111 Patent for claims 13–17. Salesforces proposes "a subset of a server computer separate and distinct

from other subsets," and AIT proposes "a functionally or logically related subset of one or more server computers." This controversy can be reduced to whether the layers are allowed to overlap. The Court agrees with Salesforce, the invention displays layers that are functionally and logically distinct. In claim 1 of the '482 Patent, it recites the layers and each of their functions:

> a first layer associated with the server computer containing information about the unique aspects of a particular application;
> a second layer associated with the server computer containing information about the user interface and functions common to a variety of applications, a particular application being generated based on the data in both the first and second layers;
> a third layer associated with the server computer that retrieves the data in the first and second layers in order to generate the functionality and user interface elements of the application; and
> a change management layer for automatically detecting changes that affect an application.

(ECF No. 153 Ex. A at Col. 32:15–28.) One of ordinary skill in the art would have understood that "layer" required a group of data and/or functions that is separate and distinct from other such groups. (ECF No. 154-2 ¶¶ 155–56.)

The specification further supports the conclusion that there is not overlap between the layers. It states that "the invention" is represented in Figure 1. (*Id.* at Col. 8:50–51.) This figure clearly shows these layers as separate and distinct from each other. (*Id.* at Sheet 1 of 13.) "Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct component[s] of the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (quotation omitted).

AIT counters the patentee did not expressly rule out a level of overlap, but this argument overlooks the meaning of "layer" in this context would lead a person having ordinary skill in the art to understanding a separate and distinct group of date and/or functions. Further, AIT points to two cases where courts rejected a party's contention of distinctness: *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1231–32 (Fed. Cir. 2011); *Linear Tech. Corp. v. Int'l Trade Comm'n*, 566

F.3d 1049, 1055 (Fed. Cir. 2009). These cases are inapposite because each specification in these cases expressly taught such overlap—unlike here.

The Court therefore finds AIT's argument inapposite and adopts the following constructions: "a set of functionally or logically separated software components" for "layer" and "a functionally or logically separately subset of one or more server computers" for "portion of the server."

E. "Unique Aspects . . ."

Salesforce claims the terms "unique aspects," "information about user interface elements and one or more functions common to various applications," and "information about the user interface and functions common to a variety of applications" in Claims 1 and 21 of '482 Patent and Claim 13 of '111 Patent are all indefinite. The Court disagrees. The terms are understandable by persons with skill in the art and are therefore amenable to construction. Information that is "common to a variety of applications" is "common" information, and that information that is not "common" to such applications is "unique" information. At least two courts have held such terms to be definite. *Intellectual Ventures I, LLC v. Motorola Mobility LLC*, 81 F. Supp. 3d 356, 369–70 (D. Del. 2015); *In re Maxim Integrated Prod., Inc. MDL 2354, No. MDL 2354*, 2014 WL 3696137, at *11 (W.D. Pa. July 23, 2014).

F. "Business Content Database"

AIT proposes "a data store containing data specific to particular business operations" for the term "business content database" in Claim 3 of '482 Patent. Salesforce argues Claim 3, which is dependent on Claim 1, contradicts Claim 1 and therefore is indefinite. *See Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1366-67 (Fed. Cir. 2016) (internally contradictory claims invalid as indefinite); *Multilayer Stretch Cling Film Holdings, Inc. v. Berry Plastics Corp.*, 831

F.3d 1350, 1362 (Fed. Cir. 2016) ("A dependent claim that contradicts, rather than narrows, the claim from which it depends is invalid.").

Claim 1 states that the "first layer" contains "information about the unique aspects of a particular application." (ECF No. 153 Ex. A at Col. 32:15–17.) The specification defines as the invention's "Business Content Layer," which "may be characterized as a business content database." (*Id.* at Col. 12:16–29.) Claim 3 however states that the "second layer [i.e., the metadata layer] comprises a business content database." (*Id.* at Col. 32:41–42.)

AIT relies on its argument that the layers are permitted to overlap in claiming that there is no contradiction. However, the Court has already rejected this argument. The claims are therefore contradictory, so the Court finds that Claim 3 is invalid.[4]

G. "Logical Design"

The parties next dispute three terms from Claim 24 of '482 Patent and Claim 15 of '111 Patent: "logical design," "physical design," and "physical structure." AIT claims no construction is necessary as the plain and ordinary meaning will suffice. AIT claims this meaning is "data about one or more different predetermined business applications" within the "business content database" for all three of these terms. Salesforce proposes "an arrangement of data in a series of logical relationships referred to as entities or attributes," "description of a physical database including tables and constraints, and "structure of a database that can be seen and operated on by the operating system, such as the physical files stored on a disk" respectively.

The crux of Salesforce's contention appears to be that its constructions "provide guidance for a lay jury to understand how these terms would be understood by one of ordinary skill in the

[4] The Court notes that Claim 23 also contains the term "Business Content Database." Claim 23 states, "[T]he *first* layer comprises a business content database having data about one or more different predetermined business applications." (ECF No. 153 Ex. A at Col. 33:65–67 (emphasis added).) The Court finds that neither the term in Claim 23 nor Claim 1 are indefinite as they are not contradictory—only the term in Claim 3.

art." (ECF No. 154 at 27:26–27.) Salesforce argues where there is a dispute among the parties that the Court must adopt a construction based on *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351 (Fed. Cir. 2008). It misreads the case. Per the case, the Court must merely resolve the dispute for the jury, which may be a ruling that no construction is necessary. *See id.* at 1360 ("When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute."). Salesforce mistakes the Court's job for that of the parties' experts at trial. The Court resolves the disputes, and their experts explain the meanings of the terms of art.

H. "Builder Module"

Lastly, Salesforce contends "Builder Module" in Claim 10 of '482 Patent is indefinite under 35 U.S.C. § 112(f), which reads:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Salesforce alternatively proposes, "self-contained unit of software capable of generating part of an application," and AIT proposes, "a software tool to construct an application or part of an application." The claim reads, "The system of claim 1, wherein the server further comprises a builder module for permitting a user to build a user interface for a particular application using the second layer." (ECF No. 153 Ex. A at Col. 31:1–4.)

"To determine whether [§ 112(f)[5]] applies to a claim limitation, the essential inquiry is not merely the presence or absence of the word 'means' but 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." *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015).

[5] Congress recently added subsections to this statute without changing its substance.

"When a claim term lacks the word 'means,' the presumption can be overcome and § 112[f] will apply if the challenger demonstrates that the claim term . . . recites 'function without reciting sufficient structure for performing that function.'" *Id.* "Module" is a "well-known nonce word that can operate as a substitute for 'means.'" *Id.* at 1006. Thus, if a claim limitation uses "module"—and other language does not impart any structure for performing the claimed function—the limitation must be construed in accordance with § 112(f).

Here, the specification imparts the meaning of "module." The specification explains that a "module" is a collection of "data entry forms, reports and documents." (ECF No. 153 Ex. A at Col. at 11:16–17.) As such, "module" is not here a nonce word as Salesforce's own expert previously recognized. (ECF No. 68-1 ¶ 156.) The Court accordingly finds this term is a not indefinite and turns to whether the term needs to be "self-contained."

Salesforce contends that someone trained in the art would understand the term to mean a "self-contained unit of software." However, this construction is in conflict with the specification, which states:

> Within the Java management layer, configuration tools take the place of a programmer and define various end user functions in terms of metadata, and metadata definitions are used to implement the desired end user functions. Within the metadata layer, the relevant items (data entry forms, etc.) in the business content layer are defined, regulatory and non-regulatory changes in these items are implemented, and access thereto is provided.

(ECF No. 153 Ex. A at Col. 9:49–52.) "Thus, consistent with the specification, 'builder module' refers generally to a software tool that can be used to construct an application or part of an application based on metadata." (ECF No. 153 Ex. F ¶ 88.)

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CONCLUSION

IT IS HEREBY ORDERED that the term "automatic dectect[ing]" shall be constructed as "detecting without human intervention through the use of one or more intelligent agents."

IT IS FURTHER ORDERED that the term "changes that affect the information in the first portion of the server or the information in the second portion of the server" requires no construction.

IT IS FURTHER ORDERED that the term "dynamically generate a functionality and a user interface" requires no construction.

IT IS FURTHER ORDERED that the term "layer" shall be constructed as "a set of functionally or logically separated software components."

IT IS FURTHER ORDERED that the term "portion of the server" shall be constructed as "a functionally or logically separately subset of one or more server computers."

IT IS FURTHER ORDERED that the terms "unique aspects," "information about user interface elements and one or more functions common to various applications," and "information about the user interface and functions common to a variety of applications" are not indefinite and require no construction.

IT IS FURTHER ORDERED that the term "business content database" in Claim 3 is indefinite. For Claim 1 and Claim 23, the term "business content database" shall be constructed as "a data store containing data specific to particular business operations."

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IT IS FURTHER ORDERED that the terms "logical design," "physical design," and "physical structure" require no construction.

IT IS FURTHER ORDERED that the term "builder module" is not indefinite and requires no construction.

IT IS SO ORDERED.

Dated November 8, 2021.

ROBERT C. JONES
United States District Judge