THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

PERDIEM CO, LLC,	§	
	§	
v.	§	CASE NO. 2:15-cv-727-JRG-RSP
	§	
INDUSTRACK LLC, et al.	§	
	§	
	§	
	§	

CLAIM CONSTRUCTION
MEMORANDUM AND ORDER

On April 21, 2016, the Court held a hearing to determine the proper construction of disputed claim terms in United States Patents No. 8,223,012, 8,493,207, 8,717,166, 9,033,499, and 9,071,931. Having reviewed the arguments made by the parties at the hearing and in the parties' claim construction briefing (Dkt. Nos. 86, 91, and 94),[1] having considered the intrinsic evidence, and having made subsidiary factual findings about the extrinsic evidence, the Court hereby issues this Claim Construction Memorandum and Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

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[1] Citations to documents (such as the parties' briefs and exhibits) in this Claim Construction Memorandum and Order refer to the page numbers of the original documents rather than the page numbers assigned by the Court's electronic docket unless otherwise indicated.

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I. BACKGROUND

Plaintiff has alleged infringement of United States Patents No. 8,223,012 ("the '012 Patent"), 8,493,207 ("the '207 Patent"), 8,717,166 ("the '166 Patent"), 9,033,499 ("the '499 Patent"), and 9,071,931 ("the '931 Patent").

The '012 Patent, titled "System and Method for Conveying Object Location Information," issued on July 17, 2012, and bears an earliest priority date of December 23, 2005. The Abstract of the '012 Patent states:

> An improved system and method for defining an event based upon an object location and a user-defined zone and managing the conveyance of object location event information among computing devices where object location events are defined in terms of a condition based upon a relationship between user-defined zone information and object location information. One or more location information sources are associated with an object to provide the object location information. One or more user-defined zones are defined on a map and one or more object location events are defined. The occurrence of an object location event produces object location event information that is conveyed to users based on user identification codes. Accessibility to object location information, zone information, and object location event information is based upon an object location information access code, a zone information access code, and an object location event information access code, respectively.

The remaining four patents-in-suit are all related to the '012 Patent through continuations. Plaintiff thus submits that all of the patents-in-suit share a common specification. (Dkt. No. 86 at 5 n.1). Herein, as the parties have done in their briefing, the Court cites the specification of the '931 Patent.

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating discussion. Those preliminary constructions are set forth *infra* within the discussion for each term.

II. LEGAL PRINCIPLES

A.   Claim Construction

"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) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule—subject to certain specific exceptions discussed *infra*—is that each claim term is construed according to its ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) ("There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.") (vacated on other grounds).

"The claim construction inquiry . . . begins and ends in all cases with the actual words of the claim." *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). "[I]n all aspects of claim construction, 'the name of the game is the claim.'" *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). First, a term's context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Other asserted or unasserted claims can also aid in determining the claim's

meaning, because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term's meaning. *Id*. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id*. at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he 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.'" *Id*. (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, "'[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.'" *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. "[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool to supply the proper context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office ("PTO") and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, "because 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." *Id.* at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be "unhelpful as an interpretive resource").

Although extrinsic evidence can also be useful, it is "'less significant than the intrinsic record in determining the legally operative meaning of claim language.'" *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.* The Supreme Court recently explained the role of extrinsic evidence in claim construction:

> In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be "so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning"). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the "evidentiary underpinnings" of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 (2015).

B.   Departing from the Ordinary Meaning of a Claim Term

There are "only two exceptions to [the] general rule" that claim terms are construed according to their plain and ordinary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution."[2] *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) ("[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal."). The standards for finding lexicography or disavowal are "exacting." *GE Lighting Solutions*, 750 F.3d at 1309.

To act as his own lexicographer, the patentee must "clearly set forth a definition of the disputed claim term," and "clearly express an intent to define the term." *Id.* (quoting *Thorner*, 669 F.3d at 1365); *see also Renishaw*, 158 F.3d at 1249. The patentee's lexicography must appear "with reasonable clarity, deliberateness, and precision." *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee's statements in the specification or prosecution history must amount to a "clear and unmistakable" surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 ("The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.") "Where an applicant's statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable."

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[2] Some cases have characterized other principles of claim construction as "exceptions" to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

3M Innovative Props. Co. v. Tredegar Corp., 725 F.3d 1315, 1326 (Fed. Cir. 2013); *see also*

Avid Tech., Inc. v. Harmonic, Inc., 812 F.3d 1040, 1045 (Fed. Cir. 2016) ("When the prosecution

history is used solely to support a conclusion of patentee disclaimer, the standard for justifying

the conclusion is a high one.").

C.   Definiteness Under 35 U.S.C. § 112, ¶ 2 (pre-AIA) / § 112(b) (AIA) [3]

Patent claims must particularly point out and distinctly claim the subject matter regarded

as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence,

must "inform those skilled in the art about the scope of the invention with reasonable certainty."

Nautilus Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2129 (2014). If it does not, the claim

fails § 112, ¶ 2 and is therefore invalid as indefinite. *Id.* at 2124. Whether a claim is indefinite is

determined from the perspective of one of ordinary skill in the art as of the time the application

for the patent was filed. *Id.* at 2130. As it is a challenge to the validity of a patent, the failure of

any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *Id.* at

2130 n.10. "[I]ndefiniteness is a question of law and in effect part of claim construction." *ePlus,*

Inc. v. Lawson Software, Inc., 700 F.3d 509, 517 (Fed. Cir. 2012).

When a term of degree is used in a claim, "the court must determine whether the patent

provides some standard for measuring that degree." *Biosig Instruments, Inc. v. Nautilus, Inc.*,

783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective

term is used in a claim, "the court must determine whether the patent's specification supplies

some standard for measuring the scope of the [term]." *Datamize, LLC v. Plumtree Software, Inc.*,

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[3] Because the Asserted Patents have an effective filing date before September 16, 2012, the effective date of the America Invents Act ("AIA"), the Court refers to the pre-AIA version of § 112.

417 F.3d 1342, 1351 (Fed. Cir. 2005); *accord Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citing *Datamize*, 417 F.3d at 1351).

III. THE PARTIES' STIPULATED TERMS

The parties reached agreement on constructions as stated in their January 28, 2016 Joint Claim Construction and Prehearing Statement (Dkt. No. 61 at 1–2). The parties' agreements are set forth in Appendix A to the present Claim Construction Memorandum and Order.

IV. CONSTRUCTION OF DISPUTED TERMS

A. "information-sharing system," "information-sharing environment(s)," and "location information sharing environment(s)"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
"a computing network where the conveyance of information (e.g., location information, zone information, or event information) from a server to a group of users' computing devices can be controlled or configured"	"a computing[4] network including a map server and computing devices, and a plurality of users who are able to share information with each other through that network"

(Dkt. No. 86 at 4); (Dkt. No. 91 at 5); (Dkt. No. 97, App'x A at 18). Defendants submit that these disputed terms appear in Claims 17 and 19 of the '207 Patent and Claims 4–5, 9–10, 16, 19, and 24 of the '166 Patent.[5] (Dkt. No. 61, Ex. B at 5).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "a computing network where the conveyance of

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[4] Defendants have also proposed "computer" rather than "computing." (Dkt. No. 61, Ex. B at 5); (Dkt. No. 97, App'x A at 18).

[5] Plaintiff's portion of the Joint Claim Construction and Prehearing Statement suggests that: "Claims identified below are from Defendants' [P.R.] 4-2 disclosure, and therefore may not be accurate." (Dkt. No. 61, Ex. A at 10 n.4). The Court does not here conduct an independent investigation because the parties are in the best position to identify the claims at issue, in particular because Plaintiff has selected the asserted claims and because the Local Rules require the parties to identify the claims and terms in dispute. The Court therefore relies upon the identification of claims in Defendants' portion of the Joint Claim Construction and Prehearing Statement. *See* (*id.* at Ex. B).

information from a server to a group of users' computing devices can be controlled or configured."

<u>(1) The Parties' Positions</u>

Plaintiff argues that Defendants' proposal of a "users" limitation "is entirely inconsistent with the teaching that the users are removed from the automated process," and "Defendants' construction reads in another limitation ('map server') that wrongly suggests that the claims require a particular type of server." (Dkt. No. 86 at 4). Plaintiff also argues: "By analogy, the user identification codes are like the license plate on a car. The license plate number may identify the owner of the car, but it does not mean that the owner has to actually drive the car. Additionally, the license plate number allows any licensed driver to use the car, and the number does not change depending on the driver. Therefore, the driver is irrelevant to the license plate number." (*Id.* at 9). Plaintiff further urges that Defendants' proposal "may confuse the jury into wrongly concluding that the server has to store the maps, or that it cannot serve other purposes." (*Id.* at 10).

Defendants respond that "the proper analysis must begin with 'information sharing environment' and the express statements in the specification which characterize that term, *e.g.*, 'an information-sharing environment consists of a computing network including a map server and computing devices.'" (Dkt. No. 91 at 5) (quoting '931 Patent at 4:65–67). As to "plurality of users," Defendants argue "[t]he context of the claims and the specification illustrate that 'users' (as properly construed) are so inextricably woven into the fabric of the purported invention that it would be error for the Court to eliminate them from the construction of information sharing environment." (Dkt. No. 91 at 6). Finally, Defendants argue the claim language itself requires that "'sharing' must occur within the environment." (*Id.* at 7).

At the April 21, 2016 hearing, Defendants reiterated that the specification refers to the present invention as using a map server, and Defendants clarified that "map server" in their proposal refers to a server that is limited to providing maps. Defendants also emphasized *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011), as prohibiting the claim scope from departing from what the specification describes as the invention. Plaintiff responded that the specification discloses that servers can have various functions and that maps can be stored separately.

(2) Analysis

As to Defendants' proposal of requiring a "map server," the specification discloses:

> The present invention provides a system and method for defining an event that relates to a location of an object and managing the conveyance of related information among computing devices associated with corresponding user identification codes. *In accordance with the present invention, an information-sharing environment consists of a computing network including a map server and computing devices.* Objects associated with sources of location information provide object location information comprising one or more coordinates. *In an exemplary embodiment*, the coordinates correspond to one or more determined locations of the objects within an established coordinate system. In the system and method of the present invention, an object can comprise any device, thing, person or entity that can be located or tracked. A user of a computing device can *retrieve a map, for example, from a map server* and define a user-defined zone on the map. According to one aspect of the invention, an object location event is defined based on a relationship between one or more object locations and one or more user-defined zones, where the occurrence of the object location event is determined when a condition associated with the relationship is satisfied.

'931 Patent at 4:61–5:14 (emphasis added). Also of note, although the specification refers to the "Server" 110 shown in Figure 1 as "map server 110," the "map information 112" (labeled as "MAPS" in Figure 1) is illustrated in Figure 1 as distinct from the server. *See id.* at 6:4–8 ("Referring to FIG. 1, information-sharing environment 100 includes computing network 102 having wired and wireless network links 104, 106 and connectivity to the Internet 108 that provides access to a map server 110 and map information 112."). Further, the specification

discloses more generally that a "database of user information" can be maintained on a "company's computer server." *Id.* at 12:61–67.

On balance, the above-quoted disclosure of a map server being "[i]n accordance with" the present invention, particularly in light of the subsequent reference to "an exemplary embodiment,"[6] demonstrates that a "map server" is a specific feature of particular embodiments that should not be imported into the claims. *See Comark*, 156 F.3d at 1187; *see also Phillips*, 415 F.3d at 1323.

As to Defendants' proposal of requiring "users," Claim 17 of the '207 Patent recites "each user identification code being associated with a user" (emphasis added):

> 17. An *information-sharing system*, comprising:
>   a database storing user information associated with a plurality of groups of users of computing devices, each computing device having a corresponding user identification code stored in the database, *each user identification code being associated with a user within each group of users*; and
>   an administrator device that associates a first user identification code with an authorized user within a group of users, the authorized user of the group of users having an access privilege to location information of a computing device associated with a second user identification code of a user within the group of users that includes the authorized user, wherein the location information of the computing device associated with the second user identification code is conveyed based on an authorization by the authorized user.

Nonetheless, although parts of the claimed system are "associated" with users, the users are not recited as being part of the claimed system. Indeed, the specification discloses that a server communicates with other computers. *See, e.g.,* '931 Patent at 4:61–65 (quoted above). Further, the specification discloses that identification can be device-specific rather than user-specific. *See id.* at 2:18–20 ("association of a user identification code with a computing device can be an embedded association (e.g., hard-wired) or it can be based on a user log-in at the

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[6] The preceding paragraph also states that the "invention should not . . . be construed as limited to the embodiments set forth herein." '931 Patent at 4:56–57.

computing device") & 7:32–36 ("Certain computing devices (e.g., a PDA or smart phone) may allow a user identification code to be embedded or programmed into a computing device's memory such that any user of the computing device is considered to be the user owning the device.").

Although Defendants cite a disclosure that "[t]he invention requires defining a zone by the one or more users," no such limitation is apparent in the above-quoted claim. Moreover, Defendants have not demonstrated that any requirement of user-defined *zones* necessarily means that *users* themselves are a claim limitation. The Court thus rejects Defendants' proposal of requiring "a plurality of users."

Finally, as to Defendants' proposal that users must be able to "share information with each other through that network," the specification discloses for example that "[t]he sharing of information may be managed among a small number of users such as a family or group of friends, or among a very large number of users such as among employees of very large business, or among a worldwide user base such as a might be provided via an Internet service." *Id.* at 5:28–33. Because "sharing" appears in the disputed term itself and is adequately expressed by Plaintiff's proposal of "conveyance," the Court rejects Defendants' proposal in that regard as redundant and unnecessary.

The Court therefore hereby construes **"information-sharing system," "information-sharing environment(s),"** and **"location information sharing environment(s)"** to mean **"a computing network where the conveyance of information from a server to a group of users' computing devices can be controlled or configured."**

B. "varying levels of administrative privilege(s)"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
"a hierarchy of privileges for administering groups or sub-groups of users"	"a different administrator for configuring each information-sharing environment"

(Dkt. No. 86 at 11); (Dkt. No. 97, App'x A at 24). Defendants submit that these disputed terms appear in Claims 4, 5, 9, 10, 16, 19, and 24 of the '166 Patent and Claims 1, 4, 5, 12, and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 14).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Plaintiff's proposal of 'hierarchy' / Expressly rejecting Defendants' proposal of 'different administrator.'"

(1) The Parties' Positions

Plaintiff submits: "Each claim states that certain events occur based on the varying levels of administrative privileges. This means that there has to be a hierarchy of 'levels' of administrative privilege that allows certain events to occur." (Dkt. No. 86 at 12). Plaintiff argues that "Defendants seek a construction that improperly adds a new and conflicting requirement to the claims that a different administrator actually configure each information-sharing environment." (*Id.* at 13).

Defendants respond that "as an alternative to finding the term indefinite, a POSA [(person of ordinary skill in the art)] could conclude that the claim term 'varying levels of administrative privilege' refers to the 'various levels of administrator privilege' referenced in the specification." (Dkt. No. 91 at 8) (citing '931 Patent at 5:51–54) (footnote omitted). Further, Defendants argue, "from the fact that those various levels of administrator privilege exist

because there can be multiple smaller environments which are independent or independently configurable, the POSA would conclude there is a different administrator for each environment." (Dkt. No. 91 at 8–9).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

<u>(2) Analysis</u>

Claim 1 of the '499 Patent recites in relevant part (emphasis added): "said plurality of information-sharing environments are configurable based on *varying levels of administrator privileges*, said varying levels of administrator privilege comprising a first level of administrator privilege associated with a network administrator and a second level of administrator privileges associated with said plurality of authorized users."

Claim 1 of the '166 Patent, as another example, recites (emphasis added):

1. A method for conveying information related to locations of a plurality of mobile devices of users in a plurality of user groups, comprising:
    creating a plurality of information-sharing environments over a network of computing devices comprising interfaces for configuring the plurality of information-sharing environments for users based on *varying levels of administrative privileges*, wherein the plurality of information-sharing environments comprise a first information-sharing environment and a plurality of second information-sharing environments, said plurality of second information-sharing environments comprising a plurality of independently configurable location information sharing environments created within the first information sharing environment;
    configuring the first information-sharing environment based on a *first level of administrative privilege* to associate one or more users that use the plurality of location information sharing environment with each one of the plurality of user groups;
    configuring each one [of] the plurality of location information-sharing environments for each user group independent of one another based on at least one *second level of administrative privilege* by specifying one or more levels of location information access privilege for at least one authorized user in each user group; and

managing conveyance of information related to location of the plurality of
the mobile devices in the plurality of user groups based on a plurality of location
information access privileges associated with a plurality of authorized users.

The claims thus set forth how different levels of administrative privileges may be used,
and the claim does not recite multiple administrators or that multiple computers must be used to
perform configuration. Likewise, the specification discloses:

> Because smaller information-sharing environments can exist within larger
> information-sharing information environments, various levels of administrator
> privileges can exist.

'931 Patent at 5:51–54.

Also, the specification discloses that "*one* or more" administrators may configure the
environments:

> In one embodiment, *one or more administrators* may be given privileges to
> configure the information-sharing environment. Such configuration could include
> specifying authorized users of the environment and their access privileges, etc.
> Such configuration can also define groups of users as part of an established
> organizational structure associated with the information-sharing environment.

Id. at 5:39–45 (emphasis added); *see id.* at 7:7–19. Further, whereas Claim 1 of the '499 Patent
for example recites an "administrator," above-quoted Claim 1 of the '166 Patent does not. *See
id.* at 5:62–65 ("A family can set up its own information-sharing environment and an individual
may set up his or her own information-sharing environment.").

As to Plaintiff's proposal of a "hierarchy," however, Plaintiff has not demonstrated that
the existence of different "levels" necessarily requires a hierarchical organization. It is possible
for "varying levels of administrative privileges" to exist without those levels being arranged in a
hierarchy.

The Court therefore expressly rejects Plaintiff's proposed construction as well as
Defendants' proposed construction. No further construction is necessary. *See U.S. Surgical*

Corp. v. Ethicon, Inc., 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims."); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) ("Unlike *O2 Micro*, where the court failed to resolve the parties' quarrel, the district court rejected Defendants' construction."); *ActiveVideo Networks, Inc. v. Verizon Commcn's, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015).

The Court therefore hereby construes **"varying levels of administrative privilege(s)"** to have its **plain meaning.**

C. "user" and "authorized user"

"user" **('012 Patent, Claims 6, 9, 10, 23, 27;** **'207 Patent, Claims 17, 19;** **'166 Patent, Claims 4, 5, 9, 10, 16, 19, 24;** **'499 Patent, Claims 1, 4, 5, 12, 17;** **'931 Patent, Claim 6)**	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary	"a person who uses"

"authorized user" ('207 Patent, Claims 17, 19; '166 Patent, Claims 4, 5, 9, 10, 16, 19, 24; '499 Patent, Claims 1, 4, 5, 12, 17)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary. Alternatively, a user that is authorized.	Indefinite

(Dkt. No. 61, Ex. A at 79); (*id.*, Ex. B at 11); (Dkt. No. 86 at 15); (Dkt. No. 91 at 3); (Dkt. No. 97, App'x A at 1 & 18).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary constructions: "user" means "a person who uses"; and "authorized user" has its "Plain and ordinary meaning (applying the Court's construction of 'user')."

(1) The Parties' Positions

Plaintiff argues that "[i]n situations like this one, it is difficult to envision a claim construction that is clearer than the claim language itself." (Dkt. No. 86 at 15). Plaintiff also argues that Defendants' proposal "is a blatant attempt to interject a human-element into a claim where it does not exist" and "raises the question: uses what?" (*Id.* at 16). Further, Plaintiff argues, "the users are irrelevant to the automated system, and the 'user identification codes' may be hardwired or programmed," and "the Asserted Patents provide embodiments for tracking pets and other animals" rather than merely people. (*Id.*).

Defendants respond by explaining that "a 'user' is a person who is able to control at least some of the operation and behavior of the purported invention." (Dkt. No. 91 at 3). Defendants argue that "the specification differentiates between users (*i.e.*, the people who 'use' the system) and 'objects' (*i.e.*, 'things' that are merely tracked by the system)." (*Id.*). Further, Defendants

argue that "[w]hile a 'user' may be an 'object,' the reverse is not necessarily true." (*Id.* at 4).

Finally, Defendants argue: "The term 'authorized user' . . . is indefinite. 'Authorized users' and 'users' are claimed differently in the Asserted Patents, without any indication as to what distinguishes the two. In fact, all 'users' are described as being 'authorized.' ['931 Patent at] 5:54–57." (Dkt. No. 91 at 3 n.2).

At the April 21, 2016 hearing, Plaintiff had no objection to requiring a user to be a human being, but Plaintiff expressed concern that Defendants' proposal of "use" is intended to require that a user must be able to actively control operation of the claimed invention. Defendants responded that they are not proposing any construction of "use."

(2) Analysis

The specification refers to "users" in contexts in which users appear to be people:

> The sharing of information may be managed among a small number of users such as a family or group of friends, or among a very large number of users such as among employees of very large business, or among a worldwide user base such as a [*sic*] might be provided via an Internet service.
>
> * * *
>
> [A]n Internet service based on the present invention can be provided and administered such that anyone having access to the Internet can purchase the service and be an authorized user.

'931 Patent at 5:28–31 & 5:54–57.

> In accordance with the present invention, the users of the computing devices each have user identification codes that can be associated with the computing devices in order to manage the conveyance of information to the computing devices based upon the identify [*sic*, identity] of the user and information access privileges.
>
> * * *
>
> Furthermore, user identification codes are typically associated with other user information such as the user name, title, address information, email address, phone numbers, etc.

* * *

> Information maintained for a user typically includes a user account name and password and a user identification code, and may include a variety of information about the user including the user's name, address, phone number(s), email address(s), company name, title, birth date, etc.

Id. at 6:64–7:2, 7:23–26 & 12:67–13:4. Likewise, the specification refers to a "user log-in at the computing device":

> For example, association of a user identification code with a computing device can be an embedded association (e.g., hard-wired) or it can be based on a user log-in at the computing device.

Id. at 2:18–21; *see id.* at 7:29–31 ("user login process whereby a user enters a user account name and password"); *see also id.* at 7:50–52 ("by a user logging into a computing device, a given user identification code is associated with the computing device").

As to extrinsic evidence, Defendants have submitted a technical dictionary definition of "user" as meaning "end user," which in turn is defined as: "The *person* who uses a computer system and its application programs at home or at work to perform tasks and produce results." (Dkt. No. 91, Ex. 2) (*Webster's New World Computer Dictionary* 129, 387 (10th ed. 2003)) (emphasis added).

As to Plaintiff's argument that construing a "user" to be a "person" would violate the prohibition against claiming a human organism, the claims here at issue are directed to interactions between a person and a system rather than to the person as an organism. As noted above, at the April 21, 2016 hearing Plaintiff had no objection to requiring a user to be a human being. Although the specification refers to tracking pets, a pet is disclosed as being an object, not a user. *See* '931 Patent at 19:1–8; *see also id.* at 6:20–24 ("FIG. 1 also illustrates various examples of objects (e.g., devices, things, people, vehicles, animals, etc.) that can be associated

with location information sources enabling object location information to be conveyed to computing devices.").

As to Plaintiff's concerns regarding how Defendants' might be interpreting the word "use," Defendants are not proposing any construction or elaboration upon the word "use" and the Court does not adopt any. Instead, at least upon the present record, any question of "use" appears to be a factual question of infringement rather than a legal question for claim construction. *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) ("[A]fter the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact.").

Further, although Plaintiff argues that Defendants' proposed construction would render phrases such as "user identification code" nonsensical, such a phrase can be readily understood as referring to an identification code of a person who uses.

Finally, Defendants have not adequately supported their footnoted argument that "authorized user" is indefinite. (Dkt. No. 91 at 3 n.2). The Court therefore rejects Defendants' indefiniteness argument and finds that "authorized user" has its plain meaning apart from the Court's construction of the term "user."

The Court accordingly hereby construes the disputed terms as set forth in the following chart:

Term	Construction
"user"	**"a person who uses"**
"authorized user"	**Plain meaning apart from the Court's construction of "user"**

D. "administrator"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary	"a user who has rights to configure a computing network"

(Dkt. No. 86 at 16); (Dkt. No. 91 at 7); (Dkt. No. 97, App'x A at 1). Defendants submit that this disputed term appears in Claims 6, 9, 10, and 12 of the '012 Patent, Claims 17 and 19 of the '207 Patent, Claim 24 of the '166 Patent, and Claims 1, 4, 5, 12, and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 3).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' proposal that an administrator must be a 'user.'"

(1) The Parties' Positions

Plaintiff argues: "Once again, Defendants propose a construction that interjects unnecessary ambiguity into an already clear term. Moreover, Defendants propose the same construction for different contexts, leading to illogical constructions. Even worse, Defendants' construction improperly attempts to read a human-element into claims where there is none." (Dkt. No. 86 at 16). For example, Plaintiff notes that "[s]ometimes 'administrator' is used as a noun; sometimes it is used as an adjective." (*Id.* at 17).

Defendants respond that "[w]here 'administrator' is used in the specification, it refers to a person, not a device," and "[t]he only logical implication is that claims which use 'administrator' alone do not intend to remove the human element from the claim." (Dkt. No. 91 at 7–8) (citing '931 Patent at 5:39–48, 9:21–24 & 13:13–21).

At the April 21, 2016 hearing, Defendants urged that just as a "user" is a person who uses, an "administrator" is a person who administers. Plaintiff responded that the term "administrator" can encompass people as well as devices.

(2) Analysis

Claim 1 of the '012 Patent, for example, recites (emphasis added):

> 1. A method for conveying user location information, comprising:
>   interfacing with an *administrator* that authorizes a first user associated with a first user identification code to access an object location information from a location information source associated with a second user identification code that is different from the first identification code; and
>   conveying the object location information to a third user based on an information access code specified by said first user, said information access code being associated with a third user identification code that is different from the first and second user identification codes.

This claim language thus contains no indication that an administrator must be a "user" or that an administrator must be a person. Further, whereas Defendants' proposed construction uses the term "rights," the recital of "an administrator that authorizes" is sufficiently clear on its face and the specification does not refer to "rights."

Defendants argue that "[a]pplying principles of claim differentiation, the term 'administrator,' when used alone as a noun, must be broader than an 'administrator system' or 'administrator device.'" (Dkt. No. 91 at 7).

> [T]wo considerations generally govern this claim construction tool when applied to two independent claims: (1) claim differentiation takes on relevance in the context of a claim construction that would render additional, or different, language in another independent claim superfluous; and (2) claim differentiation "can not broaden claims beyond their correct scope."

Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1381 (Fed. Cir. 2006).

Defendants refer to the recital of an "administrator system" in Claim 7 of the '012 Patent, which is an independent claim (emphasis added):

7. An apparatus for conveying information related to groups of users, comprising:

an *administrator system* having access to object location information, zone information and object location event information associated with an information access code that specifies a user group associated with a plurality of user codes including 1) a privileged user code that is different from the information access code and 2) a second user code that is different from the first user code and information access code; and

a server configured to interface with a network comprising a plurality of mobile devices associated with corresponding user identification codes, wherein the second user code is associated with a location information source of one of the mobile devices of the plurality of mobile devices based on the privileged user code; and wherein an object location information provided by the location information source is conveyed based on the information access code.

On balance, no distinction is evident between "administrator" and "administrator system" that would warrant limiting "administrator" to a "user." *See Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1330 (Fed. Cir. 2009) ("Different terms or phrases in separate claims may be construed to cover the same subject matter where the written description and prosecution history indicate that such a reading of the terms or phrases is proper.") (citation and internal quotation marks omitted).

The Court therefore hereby expressly rejects Defendants' proposed construction, including Defendants' proposal of requiring a "user" and Defendants' argument that an "administrator" must be a person. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes **"administrator"** to have its **plain meaning**.

E. "conveyance . . . is managed based on an access list"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary	"conveyance is managed by entry of an access code that specifies an access list"

(Dkt. No. 86 at 17); (Dkt. No. 91 at 9); (Dkt. No. 97, App'x A at 29). Defendants submit that this disputed term appears in Claims 4, 9 and 10 of the '166 Patent. (Dkt. No. 61, Ex. B at 19).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' proposed 'access code' limitation."

(1) The Parties' Positions

Plaintiff argues that "[t]his is a classic case of a defendant trying to improperly import a limitation from the specification into the claims." (Dkt. No. 86 at 18). Plaintiff submits that "[t]he claim language is clear: the information is conveyed to a user if that user is included on the access list, and not conveyed if that user is not on the access list." (*Id.* at 17).

Defendants respond that "[t]he specification provides only one reference to an 'access list,'" and "[i]n that reference, an access code is paramount." (Dkt. No. 91 at 9) (citing '931 Patent at 8:4–14). Defendants argue that "[t]he specification never suggests the 'access list' may be alienated from the 'access code,' nor does it suggest the 'access list' itself is an 'access code.'" (Dkt. No. 91 at 9).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

(2) Analysis

Claims 4 and 8 of the '166 Patent recite (emphasis added):

4. The method of claim 3, wherein *conveyance of information related to locations of the mobile devices is managed based on an access list* comprising a plurality of user identification codes, including a first user identification code associated with a first mobile device and a second identification code associated with a second mobile device, wherein information related to a location of the second mobile device is conveyed to the first mobile device based on a location information access privilege specified for an authorized user in a user group, and wherein the location information of the second mobile device is conveyed to a

third mobile device associated with a third identification code different from the first and second user identification codes based on the location information access privilege specified for the authorized user.

* * *

8. The system of claim 5, wherein *conveyance of information related to locations of the mobile devices is managed based on an access list* comprising a plurality of user identification codes, including a first user identification code associated with a first mobile device and a second identification code associated with a second mobile device.

The specification discloses:

> Under still another arrangement, an *access code* specifies the individual users or groups having access to the information to which the access code is associated provided a given user knows the password. As such, the access code may specify one or more users and/or one or more groups that can enter the appropriate password in order to access the information. With this approach there are two conditions that must be met to gain access, being included on the *access list*, and having knowledge of the password allowing access to information to be managed by changing the *access list* and/or changing the password.

'931 Patent at 8:4–14 (emphasis added); *see also id.* at 7:37–8:23 ("access codes").

Thus, although the specification discloses that an "access code" may be used, the claims recite an "access list" without reference to an "access code." On balance, use of an "access code" is a specific feature of particular embodiments that should not be imported into the claims. *See Comark*, 156 F.3d at 1187; *see also Phillips*, 415 F.3d at 1323.

The Court therefore expressly rejects Defendants' proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly construes **"conveyance . . . is managed based on an access list"** to have its **plain meaning**.

F. Steps

Defendants argue that various terms require performance of actual steps rather than merely configuration. Plaintiff replies that "the claim language dictates that these terms describe a characteristic of another object." (Dkt. No. 94 at 10). The Court herein addresses the groupings of terms identified in the parties' briefing.

(1) "associate with," "associates," "to associate one or more users that use the plurality of location information sharing environment[s] with each one of the plurality of user groups," and "associate at least one user identification code with each one of a plurality of group identification codes"

Defendants have identified numerous terms in Appendix B to their responsive claim construction brief. *See* (Dkt. No. 91 at App'x B); *see also* (Dkt. No. 97 at App'x A).

(a) The Parties' Positions

Plaintiff argues that "the context of the term is clear from the claim language, and there is no special meaning given to the term in the intrinsic record." (Dkt. No. 86 at 19). Further, Plaintiff submits that "[i]n the more than 45 instances of the term Defendants have proposed for construction, only one instance requires an action of 'associating.'" (*Id.* at 20) (citing '166 Patent at Cl. 23).

Defendants respond: "Every Asserted Claim recites the term 'associate' in some form. That language must require proof of something for infringement: an affirmative step of association or, at a minimum, and [*sic*, an] actual state of association (*i.e.*, the product of an actual step of association), as distinguished from the mere capability of forming an association." (Dkt. No. 91 at 16). Defendants also argue that "method claim [6 of the '012 Patent] expressly requires steps that cannot be performed until after the required association steps are completed." (*Id.* at 17). Defendants further argue that in Claims 4 and 19 of the '166 Patent, "[t]he term 'to associate' modifies 'configuring' and makes clear that the action constituting 'configuring' is the

action of 'associating.'" (*Id.*). As to Claim 17 of the '207 Patent, Defendants argue that "the claim states that location information is conveyed, after the recited associations are actually made and the authorized user interacts with the 'system.'" (*Id.* at 18).

At the April 21, 2016 hearing, Defendants argued that all of the terms at issue recite method steps. Plaintiff responded that the terms at issue are not method steps but rather are merely descriptive of particular claim elements. Plaintiff nonetheless acknowledged that the "associate" terms require actual configuration rather than mere capability. Also, as to the limitation "configuring the first information-sharing environment based on a first level of administrative privilege to associate one or more users that use the plurality of location information sharing environment with each one of the plurality of user groups" in Claim 1 of the '166 Patent, the parties disputed whether the "to associate" phrase modifies "configuring" or "administrative privilege."

(b) Analysis

Plaintiff has not argued that the "associate" terms should be read out of the claims, and Plaintiff acknowledges that the "associating" limitations recited in Claim 23 of the '166 Patent are steps that must be performed. (Dkt. No. 94 at 10 n.7); *see* (Dkt. No. 86, App'x A at p. 14 #27). The remaining disputed terms require configuration as is evident from the context in which those terms are used. *See* (Dkt. No. 86 at App'x A); *see also Microprocessor Enhancement Corp. v. Tex. Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008) (noting that functional claim language is permissible); *cf. Summit 6*, 802 F.3d at 1291 (finding that the phrase "being provided to" was "not used as a verb" in the claim at issue but rather was "part of a phrase that conveys information about" a term).

As to the particular claims that have been addressed by Defendants, in Claim 6 of the '012 Patent the phrase "is associated" sets forth an attribute of the recited "second user identification code," and the "is conveyed" phrase recites that such conveyance is "based on the information access code." These limitations thus refer to configuration rather than actual method steps. Claim 18 of the '012 Patent is similar as to the word "associated." Claims 1, 4, and 19 of the '166 Patent and Claims 17 and 19 of the '207 Patent are also similar in this regard. For example, Claim 17 of the '207 Patent recites "an administrator device that associates . . .," but this merely sets forth a functional requirement rather than an actual method step. As to the flow charts in Figures 3–7 of the patents-in-suit, "patent coverage is not necessarily limited to inventions that look like the ones in the figures." *MBO Labs. Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1333 (Fed. Cir. 2007).

Because Defendants have not presented specific arguments as to the remainder of the 45 "associate" terms, the Court need not address each of those terms individually.

The parties' dispute at the April 21, 2016 hearing as to the above-noted "configuring . . . to associate" limitation (in Claim 1 of the '166 Patent) is illustrative of the inappropriateness of Defendants' proposal of construing the term "associate" categorically across all patents and claims. As to that specific dispute in Claim 1 of the '166 Patent, the Court hereby finds that the "to associate . . ." phrase modifies "configuring." This is evident from the parallel structure of the "configuring . . . by specifying" limitation that follows the "configuring . . . to associate" limitation in the claim. *See Phillips*, 415 F.3d at 1314 ("the claims themselves provide substantial guidance as to the meaning of particular claim terms"; "the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms") (citations and internal quotation marks omitted).

No further construction is necessary.

(2) "authorizes a first user"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary	Required step of authorizing a first user

(Dkt. No. 61, Ex. A at 99); (*id.*, Ex. B at 11); (Dkt. No. 97, App'x A at 1). Defendants submit that this disputed term appears in Claim 6 of the '012 Patent. (Dkt. No. 61, Ex. B at 11).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Requires that an administrator actually authorize a first user."

(a) The Parties' Positions

Plaintiff argues that this disputed term is merely descriptive of the "administrator" that "authorizes a first user with a first user identification code" in Claim 1 of the '012 Patent. (Dkt. No. 86 at 22).

Defendants respond that this disputed term "is written in present tense and describes an active and ongoing step in which the administrator authorizes a first user." (Dkt. No. 91 at 19).

At the April 21, 2016 hearing, Defendants argued that this authorizing must occur with or after the "interfacing." Plaintiff responded that "authorizes" is not a method step and could be done in advance.

(b) Analysis

Claim 1 of the '012 Patent recites (emphasis added):

1. A method for conveying user location information, comprising:
   interfacing with an administrator that *authorizes a first user* associated with a first user identification code to access an [*sic*] object location information from a location information source associated with a second user identification code that is different from the first identification code; and

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conveying the object location information to a third user based on an information access code specified by said first user, said information access code being associated with a third user identification code that is different from the first and second user identification codes.

This recital of "authorizes" does not refer to a mere capability or configuration for authorizing but rather sets forth an action performed by the administrator. Nonetheless, this does not give rise to a separate method step. Instead, this limitation is a condition on the claimed "administrator" in the "interfacing" step.

The Court accordingly hereby finds that the term **"authorizes a first user" is not a method step but requires that an administrator actually authorize a first user**.

(3) "to access an object location information from a location information source"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary	Required step of accessing an object location information source

(Dkt. No. 61, Ex. A at 101); (*id.*, Ex. B at 11); (Dkt. No. 97, App'x A at 1). Defendants submit that this disputed term appears in Claim 6 of the '012 Patent. (Dkt. No. 61, Ex. B at 11).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Refers to what is authorized rather than itself being a required method step."

(a) The Parties' Positions

Plaintiff submits that the limitation at issue is "*interfacing* with an administrator that authorizes a first user associated with a first user identification code *to access an object location information from a location information source* associated with a second user identification code," and "the method step is not *to access*, but rather, it is '*interfacing* . . . to access . . . .'" (Dkt. No. 86 at 22) (quoting '012 Patent at Cl. 1) (emphasis Plaintiff's).

Defendants respond that this disputed term recites a step that "must occur before the 'conveying . . .' steps can be completed" because "[o]therwise, the claimed method would be inoperable." (Dkt. No. 91 at 20).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

(b) Analysis

Claim 1 of the '012 Patent recites (emphasis added):

1. A method for conveying user location information, comprising:
     interfacing with an administrator that authorizes a first user associated with a first user identification code *to access an object location information from a location information* source associated with a second user identification code that is different from the first identification code; and
     conveying the object location information to a third user based on an information access code specified by said first user, said information access code being associated with a third user identification code that is different from the first and second user identification codes.

This recital of "authorizes a first user . . . to access . . . object location information" relates to what is authorized rather than any actual accessing.

The Court therefore hereby finds that the term **"to access an object location information from a location information source" refers to what is authorized rather than itself being a required method step**.

(4) "specified by said first user"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary	Required step of a first user specifying

(Dkt. No. 61, Ex. A at 102); (*id.*, Ex. B at 11); (Dkt. No. 97, App'x A at 1). Defendants submit that this disputed term appears in Claim 6 of the '012 Patent. (Dkt. No. 61, Ex. B at 11).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Refers to how an information access code has been specified rather than itself being a required method step."

(a) The Parties' Positions

Plaintiff submits that the limitation at issue is "conveying the object location information to a third user based on an *information access code specified by said first user*," and "[t]he action in this step is 'conveying the object location information,'" such that "'specified by said first user' is not used as a verb, but is *describing* the 'information access code.'" (Dkt. No. 86 at 22) (quoting '012 Patent at Cl. 1) (emphasis Plaintiff's).

Defendants respond that this disputed term recites a step that "must occur before the 'conveying . . .' steps can be completed" because "[o]therwise, the claimed method would be inoperable." (Dkt. No. 91 at 20).

At the April 21, 2016 hearing, the parties argued this term together with the term "authorizes a first user" (addressed above).

(b) Analysis

Claim 1 of the '012 Patent recites (emphasis added):

> 1. A method for conveying user location information, comprising:
>   interfacing with an administrator that authorizes a first user associated with a first user identification code to access an [*sic*] object location information from a location information source associated with a second user identification code that is different from the first identification code; and
>   conveying the object location information to a third user based on an information access code *specified by said first user*, said information access code being associated with a third user identification code that is different from the first and second user identification codes.

This recital of "specified by said first user" sets forth who specifies an information access code and requires an attribute of having been thus specified, but this does not amount to a

separate method step. The term "specified by said first user" recites a condition of the "information access code."

The Court therefore hereby finds that **"specified by said first user" refers to how an information access code has been specified rather than itself being a required method step.**

(5) "to define a relationship of an information package" and "to define an information package access code"

"to define a relationship of an information package"	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary	Required step of defining a relationship of an information package

"to define an information package access code"	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
No construction necessary	Required step of defining an information [package] access code

(Dkt. No. 61, Ex. A at 103–04); (*id.*, Ex. B at 11); (Dkt. No. 97, App'x A at 15). Defendants submit that these disputed terms appear in Claims 23 and 27 of the '012 Patent. (Dkt. No. 61, Ex. B at 11).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "These terms recite actions that must be performed as part of providing the interface."

Plaintiff argues surrounding claim language demonstrates that "[t]he step is . . . providing an interface, where the interface has the capability to define a relationship." (Dkt. No. 86 at 23) (citing '012 Patent at Cl. 18).

Defendants respond that the claims at issue also "expressly require the step of 'conveying [an] information package to a second computing device . . . based on [an] information package access code,'" and "in order for such a conveyance to be performed, someone must first interact with the 'interface' to define the information package and the information package access code." (Dkt. No. 91 at 20).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

(b) Analysis

Claim 18 of the '012 Patent recites (emphasis added):

18. A method for conveying information among a plurality of computing devices associated with a plurality of users including a first user, a second user, and a third user, the method comprising:
    providing an interface to a first computing device associated with the first user *to define a relationship of an information package* with at least one of a zone information, an object location information, or an object location event information and *to define an information package access code*;
    conveying the information package to a second computing device associated with one of the second user or the third user based on said information package access code.

Because the "conveying" step involves "the information package" and is "based on said information package access code," and because the interface is recited as being provided to enable defining these, the "to define" limitations must be performed.

The Court therefore hereby finds that **"to define a relationship of an information package" and "to define an information package access code" recite actions that must be performed as part of providing the interface.**

(6) "are used to specify"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary	Required step of specifying

(Dkt. No. 61, Ex. A at 119); (*id.*, Ex. B at 23); (Dkt. No. 97, App'x A at 32). Defendants submit that this disputed term appears in Claims 5, 9, 10, and 16 of the '166 Patent. (Dkt. No. 61, Ex. B at 23).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' proposal that this term sets forth a required method step."

(a) The Parties' Positions

Plaintiff argues: "This claim language is in a wherein clause describing the second levels of administrative privilege. This language does not require *actually* specifying one or more levels of location information access privilege, but rather describes what the privileges *are used for*." (Dkt. No. 86 at 23) (citing '166 Patent at Cl. 5).

Defendants respond that "[t]he phrase 'are used to specify' signifies an active step of specifying which is performed by a person with the requisite 'second level[] of administrative privilege.'" (Dkt. No. 91 at 19).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

(b) Analysis

Claim 5 of the '166 Patent recites (emphasis added):

5. A system for conveying information related to locations of mobile devices associated with one or more object location sources that provide location information for each mobile device comprising:

      one or more user information databases storing a plurality of user identification codes associated with a plurality of mobile devices in a plurality of user groups;

      one or more computing devices that create a plurality of information-sharing environments for users over a network comprising interfaces for configuring the plurality of information-sharing environments based on one or more varying levels of administrative privileges, said plurality of information-sharing environments comprising a first information-sharing environment and a plurality of second information-sharing environments within the first information-sharing environment, the first information-sharing environment being configurable based on a first level of administrative privilege by associating one or more users with each one of a plurality of user groups, said plurality of second information-sharing environment comprising a plurality of location information sharing environments that are configurable for each user group independent of one another based on one or more second levels of administrative privilege, wherein the one or more second levels of administrative privilege *are used to specify* one or more levels of location information access privilege for at least one authorized user in each user group, wherein conveyance of information related to locations of the plurality of mobile devices is managed based [on] a plurality of location information access privileges specified for a plurality of authorized users.

In the context of this system claim as a whole, the disputed term refers to configuration rather than to an actual action that must be performed, *see Microprocessor Enhancement*, 520 F.3d at 1375, *cf. Summit 6*, 802 F.3d at 1291, particularly in light of the disputed term appearing in a "wherein" clause.

The Court therefore hereby expressly rejects Defendants' proposed interpretation. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes **"are used to specify"** to have its **plain meaning**.

G. Indefiniteness

Plaintiff has submitted: "[Plaintiff] expects Defendants will not brief each and every one of these terms, just as [Plaintiff] does not expect Defendants will address every single term that they proposed. . . . [Plaintiff] will therefore respond to Defendants' allegations in its reply brief." (Dkt. No. 86 at 23).

Defendants have responded with arguments as set forth below.

(1) "user identification codes" and "authorized user identification code"

"user identification codes" ('012 Patent, Claims 6, 10, 12; '207 Patent, Claims 17, 19; '166 Patent, Claims 4, 5, 9, 10, 16, 19, 24; '499 Patent, Claims 1, 4, 5, 12, 17)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary. Or alternatively, a code that identifies a user.	Indefinite

"authorized user identification code" ('499 Patent, Claims 1, 4, 5, 12, 17)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary.	Indefinite

(Dkt. No. 61, Ex. A at 12 & 77); (*id.*, Ex. B at 1 & 24); (Dkt. No. 91 at 20–21); (Dkt. No. 97, App'x A at 2, 53 & 57).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument."

(a) The Parties' Positions

Defendants argue that whereas "[t]hese 'codes' are used to identify a person as a user to a computer program," "the specification deviates from that meaning without providing guidance as to the scope of the term." (Dkt. No. 91 at 21). Defendants also submit that "Plaintiff's assertion that the 'user identification code' can be any ID or other code demonstrates there is no constraint on what can qualify as the 'user identification code.'" (*Id.* at 22). Defendants further argue that the term "mobile object identification code" is indefinite for the same reasons. (*Id.* at 20 n.17); *see* (Dkt. No. 97, App'x A at 54 & 59).

Plaintiff replies that contrary to Defendants' arguments, "there is nothing 'conflicting' about the notion that a user identification code may include a user account name or user number, and the notion that a database may store a user identification code together with a user account name and password." (Dkt. No. 94 at 5). "Moreover," Plaintiff argues, "the fact that the user identification code may include and/or be stored with other user information (such as an account name) does not vitiate the basic point that a user identification code is a code that identifies a user." (*Id.*).

At the April 21, 2016 hearing, Defendants presented argument as to all of the "code" terms together. Defendants reiterated that the disclosures as to the various "codes" fail to describe the "code" terms with reasonable certainty. Defendants also submitted, for example, that whereas Plaintiff's infringement contentions refer to a license plate as a user identification code, a user is a person, not a vehicle.

(b) Analysis

Claim 1 of the '499 Patent, for example, recites (emphasis added):

1. A system for conveying a plurality of event information associated with a corresponding plurality of events that occur based on satisfactions of a corresponding plurality of specified event conditions related to locations of a corresponding plurality of mobile objects having a corresponding plurality of mobile object identification codes, wherein each mobile object is associated with at least one location information source that provides a corresponding location information over a wireless network, said system comprising:

one or more computer servers configured to create a plurality of information-sharing environments, said plurality of information-sharing environments providing user interfaces for a plurality of authorized users over a network of computing devices, said plurality of authorized users being associated with a corresponding plurality of *authorized user identification codes*, wherein said plurality of information-sharing environments are configurable based on varying levels of administrator privileges, said varying levels of administrator privilege comprising a first level of administrator privilege associated with a network administrator and a second level of administrator privileges associated with said plurality of authorized users, said first level of administrator privilege being used in a first information-sharing environment to allow for configuring a plurality of event information-sharing environments within said first information-sharing environment independent of one another, wherein said plurality of event information-sharing environments are configurable based on said second levels of administrator privileges for specifying the plurality of specified event conditions;

one or more access control systems that are configured to communicates [*sic*] with said one or more computer servers to control access to the plurality of information sharing environments, wherein access control to the plurality of information sharing environments is based on access control codes requiring multiple levels of access control comprising a first level of access control and a second levels [*sic*] of access control, wherein access to said first information sharing environment is controlled under the first level of access control based on access control codes associated with the plurality of *authorized user identification codes*, wherein access to said event information sharing environments is controlled under the second level of access control to access the plurality of specified event conditions independent of each other based on a corresponding plurality of event information access codes that are associated with the plurality of *authorized user identification codes*; and

an administrator system in communication with said one or more computer servers adapted to configure a corresponding plurality of access privileges for the plurality of authorized users that specify the specified event conditions based on the plurality of event information access codes, wherein conveyance of the plurality of event information is managed based on the plurality of access privileges.

Although Defendants argue that "there is no guidance in the claims or otherwise to distinguish an 'authorized user identification code' from a generic 'user identification code'" (Dkt. No. 91 at 21 n.18), the meaning of "authorized" in this context is sufficiently clear on its face, particularly in light of the recital of "a plurality of authorized users" in the above-quoted claim.

As to "user identification code," the specification discloses that an example could be a user account name, but the specification also discloses a user account name as being distinct from a user identification code:

> In accordance with the present invention, the users of the computing devices each have user identification codes that can be associated with the computing devices in order to manage the conveyance of information to the computing devices based upon the identify [*sic*, identity] of the user and information access privileges. Such user identification codes may be managed by a control station or may be established based on user unique user [*sic*] information. *Such codes would typically include an identifier (e.g., a user account name or user number)* and can be associated with one or more groups, and one or more information access privilege classifications, etc.
>
> * * *
>
> Information maintained for a user typically includes *a user account name and password and a user identification code*, and may include a variety of information about the user including the user's name, address, phone number(s), email address(s), company name, title, birth date, etc.

'931 Patent at 6:64–7:7 & 12:67–13:4 (emphasis added).

Contrary to Defendants' arguments, no clear contradiction is apparent. Instead, the specification thus discloses that whereas in some embodiments a user identification code may be a user account name, in other embodiments the user identification code could be something other than (or in addition to) a user account name.

Further, to the extent Defendants are arguing that these disputed terms are simply too broad, "[b]readth is not indefiniteness." *In re Gardner*, 427 F.2d 786, 788 (C.C.P.A. 1970); *see*

O.S. Sec. LLC v. BRK Brands, Inc., No. SACV 14-00310 AG, 2015 WL 6511400, at *7 (C.D. Cal. Mar. 16, 2015) (Guilford, J.) ("the 'input code' terms, although broad, have a reasonably certain scope" and "[t]hus they are not indefinite").

The Court therefore expressly rejects Defendants' indefiniteness arguments. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291. Defendants have cited *Maytag Corp. v. Electrolux Home Prods., Inc.*, 411 F. Supp. 2d 1008 (N.D. Iowa 2008), as authority for the proposition that construction is required because "asserting that [the ordinary meaning of a term] should apply, without further construction, merely begs the question of what that meaning is." (Dkt. No. 91 at 3 n.3) (quoting *Maytag*, 411 F. Supp. 2d at 1037–38). *Maytag* is not binding authority and, moreover, here the Court has resolved the parties dispute by rejecting Defendants' indefiniteness argument and Defendants' argument that the breadth of the "code" terms necessarily gives rise to a lack of reasonable certainty as to claim scope.

The Court accordingly hereby construes **"user identification codes"** and **"authorized user identification code"** to have their **plain meaning**.

(2) "user codes," "first user code," and "privileged user code"

"user codes"	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary. Or alternatively, a code that identifies a user.	Indefinite

"first user code"	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary. Or alternatively, a code that identifies a first user.	Indefinite

"privileged user code"	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary. Alternatively, a code that identifies a privileged user.	Indefinite

(Dkt. No. 61, Ex. A at 71 & 75); (Dkt. No. 91 at 22); (Dkt. No. 97, App'x A at 10–11). Defendants submit that these disputed terms appear in Claims 9, 10 and 12 of the '012 Patent. (Dkt. No. 61, Ex. B at 9–10).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction for "user code": "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument." The Court also provided the parties with the following preliminary constructions: "first user code" means "privileged user code"; and "privileged user code" means "code that identifies a privileged user."

(a) The Parties' Positions

Defendants argue that "[b]ecause these different terms are used in the same claim, they are presumed to have different meanings," but "'user code' is never used in the specification, and what distinguishes a 'user code' from a 'user identification code' is indeterminable." (Dkt. No. 91 at 22–23).

Plaintiff replies that "[t]he 'privileged user code' is also called a 'first user code' later in the claim, to distinguish it from the 'second user code' also recited in the claim." (Dkt. No. 94 at 6–7).

At the April 21, 2016 hearing, the parties presented oral argument as to all of the "code" terms together.

(b) Analysis

Claim 7 of the '012 Patent recites (emphasis added):

7. An apparatus for conveying information related to groups of users, comprising:
    an administrator system having access to object location information, zone information and object location event information associated with an information access code that specifies a user group associated with *a plurality of user codes* including 1) *a privileged user code* that is different from the information access code and 2) *a second user code* that is different from *the first user code* and information access code; and
    a server configured to interface with a network comprising a plurality of mobile devices associated with corresponding *user identification codes*, wherein *the second user code* is associated with a location information source of one of the mobile devices of the plurality of mobile devices based on *the privileged user code*; and wherein an object location information provided by the location information source is conveyed based on the information access code.

Although "the first user code" lacks explicit antecedent basis, antecedent basis can be implicit. *See Energizer Holdings Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1371 (Fed. Cir. 2006) (holding that "an anode gel comprised of zinc as the active anode component" provided implicit antecedent basis for "said zinc anode"); *see also Ex Parte Porter*, 25 U.S.P.Q. 2d (BNA) 1144, 1145 (B.P.A.I. 1992) ("The term 'the controlled fluid' . . . finds reasonable antecedent basis in the previously recited 'controlled stream of fluid . . . .'"). On balance, "the first user code" has sufficiently clear antecedent basis in "a privileged user code." *See id.*

Further, "privileged user code" is sufficiently clear on its face as meaning a code that identifies a privileged user, and the parties have not presented any substantive dispute as to the meaning of the word "privileged."

As to the term "user codes," the above-quoted claim also recites "user identification codes," and generally "we must presume that the use of . . . different terms in the claims connotes different meanings." *CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000); *see Primos, Inc. v. Hunter's Specialties, Inc.*, 451 F.3d 841, 848 (Fed. Cir. 2006) ("[T]he terms 'engaging' and 'sealing' are both expressly recited in the claim and therefore 'engaging' cannot mean the same thing as 'sealing'; if it did, one of the terms would be superfluous."); *see also Chi. Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1369 (Fed. Cir. 2012) (noting "[t]he general presumption that different terms have different meanings").

Nonetheless, "it is not unknown for different words to be used to express similar concepts, even though it may be poor drafting practice." *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1373 (Fed. Cir. 2004). The Court therefore hereby expressly rejects Defendants' indefiniteness arguments.

The Court accordingly hereby construes the disputed terms as set forth in the following chart:

Term	Construction
"user codes"	**Plain meaning**
"the first user code"	**"privileged user code"**
"privileged user code"	**"code that identifies a privileged user"**

(3) "group identification codes"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Not indefinite. No construction necessary. Alternatively, a code that identifies a group.	Indefinite

(Dkt. No. 61, Ex. A at 95); (Dkt. No. 91 at 23); (Dkt. No. 97, App'x A at 29). Defendants

submit that this disputed term appears in Claims 4 and 19 of the '166 Patent and Claims 12 and

17 of the '499 Patent. (Dkt. No. 61, Ex. B at 15).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with

the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting

Defendants' indefiniteness argument."

(a) The Parties' Positions

Defendants argue that this disputed term is indefinite for the same reasons as for the term

"user identification code," which is addressed above. (Dkt. No. 91 at 23).

At the April 21, 2016 hearing, the parties presented oral argument as to all of the "code"

terms together.

(b) Analysis

Claim 19 of the '166 Patent, for example, recites (emphasis added):

19. A method for conveying information relating to location of mobile devices
associated with one or more object location sources that provide location
information for each mobile device comprising:
    storing in one or more user information databases user identification codes
associated with a plurality of mobile devices;
    creating a plurality of information-sharing environments for users over a
network of computing devices comprising interfaces for configuring the plurality
of information-sharing environments based on one or more varying levels of
administrative privileges, said information-sharing environments comprising a
first information-sharing environment and a plurality of second information-
sharing environments that exist independent of each other, said plurality of second

information-sharing environments comprising a plurality of independently configurable location information sharing environments within the first information-sharing environment;

configuring the first information-sharing environment based on a first level of administrative privilege comprising a privilege to associate at least one user identification code with each one of a plurality of *group identification codes*;

configuring each one of the plurality of location information-sharing environments for each one of the plurality of *group identification codes* independent of one another based on a second level of administrative privilege that comprises at least one location information access privilege specified for an authorized of a [*sic*] user group; and

managing conveyance of information related to location of the plurality of mobile devices based [on] a plurality of location information access privileges specified for a plurality of authorized users.

The claim thus distinctly recites "user identification codes" and "group identification codes," and Defendants have not explained how this distinction is purportedly unclear. The Court therefore hereby expressly rejects Defendants' indefiniteness arguments. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes **"group identification codes"** to have its **plain meaning**.

(4) "information access code" and "information package access code"

"information access code" ('012 Patent, Claims 6, 9; '499 Patent, Claims 1, 4, 5, 12, 17)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary. Or alternatively, a code for controlling access to information.	Indefinite

"information package access code" ('012 Patent, Claims 23, 27)	
Plaintiff's Proposed Construction	**Defendants' Proposed Construction**
Not indefinite. No construction necessary. Or alternatively, a code for controlling access to an information package.	Indefinite

(Dkt. No. 61, Ex. A at 46–47); (*id.*, Ex. B at 2 & 7); (Dkt. No. 91 at 23); (Dkt. No. 97, App'x A at 2 & 17).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary constructions: "information access code" means "a code for controlling access to information"; and "information package access code" means "a code for controlling access to an information package."

(a) The Parties' Positions

Defendants argue that whereas "[a] POSA [(person of ordinary skill in the art)] would have understood the term 'access code' to be a 'password,'" here the specification and the prosecution history demonstrate that "the Plaintiff intended to deviate from this common usage." (Dkt. No. 91 at 24). Nonetheless, Defendants urge, "the specification . . . deviate[s] from the customary meaning of information access code without describing to a reasonable certainty what scope the term should have." (*Id.*).

Plaintiff replies that the plain meaning of these terms is sufficiently clear and is consistent with how the patentee used these terms. (Dkt. No. 94 at 6). Also, Plaintiff argues, Defendants have failed to show that "access code" would be understood in the art as synonymous with

"password" or that the patentee used "information access code" to mean anything broader than "a code for controlling access to information." (*Id.*).

At the April 21, 2016 hearing, Defendants reiterated that whereas the specification discloses an embodiment in which an "information access code" is a password, during prosecution the patentee distinguished a password from an "information access code." Defendants concluded that this contradiction gives rise to lack of reasonable certainty and, therefore, indefiniteness. Plaintiff responded that Defendants' argument is based on a false assumption that an "information access code" is limited to being a password. As to "information package access code," Defendants argued that the term lacks reasonable certainty because there is no way to determine whether, or how, this term differs from "information access code."

(b) Analysis

Claim 18 of the '012 Patent, for example, recites (emphasis added):

18. A method for conveying information among a plurality of computing devices associated with a plurality of users including a first user, a second user, and a third user, the method comprising:
    providing an interface to a first computing device associated with the first user to define a relationship of an information package with at least one of a zone information, an object location information, or an object location event information and to define an *information package access code*;
    conveying the information package to a second computing device associated with one of the second user or the third user based on said information package access code.

The specification discloses that an "access code" can be a password:

Under another arrangement, an access code is assigned to information in the form of a *user-defined access code (i.e., a password)* that a given user must have knowledge of in order to be granted access to the information. With this approach, the user associating the access code with information defines the user-defined access code and then conveys the user-defined access code to other trusted users to which the user desires to have access to the information. Those trusted users must enter the access code into their computing devices in order to be granted access to the information.

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'931 Patent at 7:61–8:3 (emphasis added).

During prosecution of parent United States Patent No. 7,525,425 ("the '425 Patent"),[7] however, the patentee distinguished an "information access code" from a password while discussing the "Irish" reference, United States Patent No. 6,691,032:

> . . . Irish does no[t] teach or suggest an access codes [*sic*], as conceded by the Action. The Action, however, argues that "access codes are no more than conventional pass words data that allow that allow [*sic*] user 18 access to certain authorized information." This argument is *incorrectly premised on equating the claimed requirement for the information access code with pass words for users.* As is well known by artisans, pass words are often selected by the users themselves to allow authorized access to information. If a user in the game system disclosed in Irish is given a pass word to prevent access to the user's location information, the game would not work. Therefore, one of ordinary skill in the art would have no reasons to pass word protect the user location information in Irish's game. According to the present invention, however, the required information access code are [*sic*] associated with the second user specifically to prevent unauthorized conveyance of information relating to the objects to unauthorized users. Based on the foregoing it is respectfully submitted that Irish does not teach or suggest 1) associating an information access code with information relating to an object 2) associating the information access code with a second user and 3) conveying information relating to the object based on the association.

(Dkt. No. 91, Ex. 6) (Nov. 24, 2008 Amendment in Response to Non-Final Office Action at 9–10) (emphasis added).

Nonetheless, this statement that a password is not equivalent to an access code does not amount to a definitive statement that the term "access code" cannot encompass a password. *See Omega Eng'g v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) ("As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on *definitive* statements made during prosecution.")

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[7] All of the patents-in-suit are related to the '425 Patent through continuations. *See Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004) ("the prosecution history of one patent is relevant to an understanding of the scope of a common term in a second patent stemming from the same parent application").

(emphasis added); *see also Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1332 (Fed. Cir. 2004) ("Because the statements in the prosecution history are subject to multiple reasonable interpretations, they do not constitute a clear and unmistakable departure from the ordinary meaning of the term . . . .").

Likewise, the specification discloses that a password may be required *in addition* to an access code:

> Under still another arrangement, an access code specifies the individual users or groups having access to the information to which the access code is associated provided a given user knows the password. As such, the access code may specify one or more users and/or one or more groups that can enter the appropriate password in order to access the information. With this approach there are two conditions that must be met to gain access, being included on the access list and having knowledge of the password allowing access to information to be managed by changing the access list and/or changing the password.

'931 Patent at 8:4–14; *see id.* at 8:15–21 (similar); *see also id.* at 7:37–8:23.

Thus, although the specification distinguishes between access codes and passwords, this disclosure confirms that the term "access code" is potentially broader than a password and may merely be used in conjunction with a password. Indeed, a technical dictionary submitted by Defendants defines "access code" as meaning: "an *identification number or password* used to gain access to a computer system." (Dkt. No. 91, Ex. 2) (*Webster's New World Computer Dictionary* 8 (10th ed. 2003)) (emphasis added).

The Court accordingly hereby construes the disputed terms as set forth in the following chart:

Term	Construction
"information access code"	**"a code for controlling access to information"**

"information package access code"	"a code for controlling access to an information package"

(5) "access control codes," "access control codes requiring multiple levels of access control," and "access control codes associated with the plurality of authorized user identification codes"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Not indefinite. No construction necessary. Alternatively, codes for controlling access.	Indefinite

(Dkt. No. 61, Ex. A at 123–24); (Dkt. No. 91 at 24); (Dkt. No. 97, App'x A at 56). Defendants submit that these disputed terms appear in Claims 1, 4, 5, 12, and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 27).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument."

(a) The Parties' Positions

Defendants submit that whereas surrounding claim language demonstrates that "access control codes" are for controlling access to information sharing environments, "the specification never describes 'access control codes' for accessing the environments themselves, only access to certain information within the environment." (Dkt. No. 91 at 25). Defendants argue that "[w]hen read in view of the corresponding disclosure, a POSA [(person of ordinary skill in the art)] is unable to determine with reasonable certainty whether the claim is proposing that the 'access control code' prompts access to *information* (as described in the specification) or the *environment* (as recited in the claim)." (*Id.*).

Plaintiff replies that "this is a distinction without a difference. The information-sharing environment is where location information is conveyed." (Dkt. No. 94 at 7).

At the April 21, 2016 hearing Defendants submitted that, whereas Plaintiff is proposing that these terms refer to controlling access to information, the claims refer to controlling access to environments. Defendants urged that this inconsistency gives rise to indefiniteness. Plaintiff responded that the specification discloses various codes for controlling various types of access, and the analysis should focus on the language of each claim.

(b) Analysis

Claim 1 of the '499 Patent recites (emphasis added):

1. A system for conveying a plurality of event information associated with a corresponding plurality of events that occur based on satisfactions of a corresponding plurality of specified event conditions related to locations of a corresponding plurality of mobile objects having a corresponding plurality of mobile object identification codes, wherein each mobile object is associated with at least one location information source that provides a corresponding location information over a wireless network, said system comprising:
    one or more computer servers configured to create a plurality of information-sharing environments, said plurality of information-sharing environments providing user interfaces for a plurality of authorized users over a network of computing devices, said plurality of authorized users being associated with a corresponding plurality of authorized user identification codes, wherein said plurality of information-sharing environments are configurable based on varying levels of administrator privileges, said varying levels of administrator privilege comprising a first level of administrator privilege associated with a network administrator and a second level of administrator privileges associated with said plurality of authorized users, said first level of administrator privilege being used in a first information-sharing environment to allow for configuring a plurality of event information-sharing environments within said first information-sharing environment independent of one another, wherein said plurality of event information-sharing environments are configurable based on said second levels of administrator privileges for specifying the plurality of specified event conditions;
    one or more access control systems that are configured to communicates [*sic*] with said one or more computer servers to control access to the plurality of information sharing environments, wherein access control to the plurality of information sharing environments is based on *access control codes* requiring multiple levels of access control comprising a first level of access control and a second levels [*sic*] of access control, wherein access to said first information

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sharing environment is controlled under the first level of access control based on *access control codes* associated with the plurality of authorized user identification codes, wherein access to said event information sharing environments is controlled under the second level of access control to access the plurality of specified event conditions independent of each other based on a corresponding plurality of event information access codes that are associated with the plurality of authorized user identification codes; and

an administrator system in communication with said one or more computer servers adapted to configure a corresponding plurality of access privileges for the plurality of authorized users that specify the specified event conditions based on the plurality of event information access codes, wherein conveyance of the plurality of event information is managed based on the plurality of access privileges.

The specification discloses:

Briefly, the present invention relates to conveying information relating to an object to one or more users. The invention requires defining a zone by the one or more users. An event is also defined in terms of a condition related to a relationship between an object location and the zone. The condition can relates [*sic*] to entry by the object into the zone, exit by the object from the zone, or proximity of the object to the zone[.] Upon meeting the condition, information regarding the event is conveyed to the at least one of the one or more users. The one or more users can access at least one of the location information, information relating to the zone or conveyed information regarding the event using one or more *access control codes*. The *access control codes* can be configured to require multiple levels of access control.

'931 Patent at 1:61–2:7 (emphasis added).

This above-quoted disclosure sufficiently demonstrates that "access control codes" are codes for controlling access. Because this is also clear from the claim language itself, no construction is necessary. Further, contrary to Defendants' arguments, the above-quoted surrounding claim language that refers to information sharing environments (rather than simply information) does not give rise to any contradiction or inconsistency. Instead, the claim language merely sets forth the nature of the access that is at issue.

The Court therefore hereby expressly rejects Defendants' indefiniteness arguments. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521

F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes **"access control codes," "access control codes requiring multiple levels of access control,"** and **"access control codes associated with the plurality of authorized user identification codes"** to have their **plain meaning**.

(6) Conveying or Managing Conveyance Based on Something other than Information Access Codes

The disputed terms here at issue are set forth in Appendix A to Defendants' responsive brief (Dkt. No. 91 at App'x A) and are: "conveyed . . . based on an authorization by the authorized user," "managing conveyance . . . based on a plurality of [location] information access privileges associated with a plurality of authorized users," "managing conveyance . . . based [on] a plurality of location information access privileges specified for a plurality of authorized users," "conveyance . . . is managed based [on] a plurality of location information access privileges specified for a plurality of authorized users," "conveyed . . . based on a location information access privilege specified for an authorized user," and "conveyance . . . is managed based on the plurality of access privileges." *See also* (Dkt. No. 97 at App'x A).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument."

(a) The Parties' Positions

Defendants argue that "[t]he specification only contemplates conveyance and managing conveyance of information based on 'user identification codes' and 'information access codes.'" (Dkt. No. 91 at 25). Defendants further urge that "conveyance based on broad, abstract concepts of 'authorization' and 'privileges' is never described in the specification, and is broader than

what is envisioned by the specification, leaving a POSA [(person of ordinary skill in the art)] unable to ascertain the scope of such conveyance." (*Id.* at 26).

Plaintiff replies that "this is not an indefiniteness argument at all. By arguing that these claim elements are unsupported by the specification, Defendants are really making a *written description* argument, which should be presented via a summary judgment motion or at trial." (Dkt. No. 94 at 8).

At the April 21, 2016 hearing, the parties did not present any oral argument as to these terms.

(b) Analysis

Defendants' arguments that what is claimed is "broader than what is envisioned by the specification" (Dkt. No. 91 at 25) may perhaps relate to issues such as enablement or written description but are not relevant in the present claim construction proceedings. *See Phillips*, 415 F.3d at 1327 ("we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction").

During prosecution of the parent '425 Patent, the patentee distinguished the "Irish" reference based on lack of use of access codes. (Dkt. No. 91, Ex. 6) (Nov. 24, 2008 Amendment in Response to Non-Final Office Action at 9–10) (emphasis added). Defendants have not demonstrated, however, that the same claim language was at issue in that prosecution history as is at issue here. Instead, the document cited by Defendants sets forth claim language explicitly reciting use of access codes. *See* (*id.* at 2, 6).

The Court therefore hereby expressly rejects Defendants' indefiniteness arguments. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521

F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes **"conveyed . . . based on an authorization by the authorized user," "managing conveyance . . . based on a plurality of [location] information access privileges associated with a plurality of authorized users," "managing conveyance . . . based [on] a plurality of location information access privileges specified for a plurality of authorized users," "conveyance . . . is managed based [on] a plurality of location information access privileges specified for a plurality of authorized users," "conveyed . . . based on a location information access privilege specified for an authorized user,"** and **"conveyance . . . is managed based on the plurality of access privileges"** to have their **plain meaning**.

(7) "levels of location information access privilege"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
"a hierarchy of privileges for accessing location information"	Indefinite

(Dkt. No. 86 at 11); (Dkt. No. 91 at 26); (Dkt. No. 97, App'x A at 25). Defendants submit that this disputed term appears in Claims 4, 5, 9, 10, and 16 of the '166 Patent. (Dkt. No. 61, Ex. B at 16).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Plaintiff's proposal of 'hierarchy' / Expressly rejecting Defendants' indefiniteness argument."

Defendants argue that whereas "the claims themselves distinguish between privileges for 'authorized users' and 'administrators,' and thus a POSA [(person of ordinary skill in the art)] would understand there must be a difference between the two," this disputed term has "no generally accepted definition," and "the specification provides no guidance on how multiple levels of 'location access privilege' for a single authorized user could be 'specified.'" (Dkt. No. 91 at 26–27).

Plaintiff replies that "this term plainly connotes how according to the level of access privilege(s) assigned, users are able to access certain information that other users with lower or without access privileges are unable to access." (Dkt. No. 94 at 8) (citation and internal quotation marks omitted).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

(b) Analysis

Claim 1 of the '166 Patent, for example, recites (emphasis added):

1. A method for conveying information related to locations of a plurality of mobile devices of users in a plurality of user groups, comprising:

creating a plurality of information-sharing environments over a network of computing devices comprising interfaces for configuring the plurality of information-sharing environments for users based on varying levels of administrative privileges, wherein the plurality of information-sharing environments comprise a first information-sharing environment and a plurality of second information-sharing environments, said plurality of second information-sharing environments comprising a plurality of independently configurable location information sharing environments created within the first information sharing environment;

configuring the first information-sharing environment based on a first level of administrative privilege to associate one or more users that use the plurality of location information sharing environment with each one of the plurality of user groups;

configuring each one [of] the plurality of location information-sharing environments for each user group independent of one another based on at least one second level of administrative privilege by *specifying one or more levels of location information access privilege for at least one authorized user in each user group*; and

managing conveyance of information related to location of the plurality of the mobile devices in the plurality of user groups based on a plurality of location information access privileges associated with a plurality of authorized users.

The specification discloses:

Because smaller information-sharing environments can exist within larger information-sharing information environments, various levels of administrator privileges can exist.

'931 Patent at 5:51–54. Although this disclosure refers to "administrator privileges" rather than location information access privileges, this disclosure is nonetheless instructive as to the significance of using multiple levels of privileges.

Further, although Defendants argue that "it is unclear how an 'authorized user' can have more than one level of privilege in a user group, as the specification suggests the privilege for the user is tied to the group with which the user is associated" (Dkt. No. 91 at 26–27), Defendants have not identified any persuasive evidence that warrants precluding a user from having multiple levels of location information access privilege.

As to Plaintiff's proposal of a "hierarchy," however, Plaintiff has not demonstrated that the existence of multiple "levels" necessarily requires a hierarchical organization.

The Court therefore hereby expressly rejects Plaintiff's proposed construction as well as Defendants' proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court therefore hereby construes **"levels of location information access privilege"** to have its **plain meaning**.

(8) "grouping configurations"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Not indefinite. No construction necessary.	Indefinite

(Dkt. No. 61, Ex. A at 98); (Dkt. No. 91 at 27); (Dkt. No. 97, App'x A at 59). Defendants submit that this disputed term appears in Claims 12 and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 25).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Claim 6 of the '499 Patent is indefinite because 'said plurality of specified event configurations' lacks sufficiently clear antecedent basis in Claim 1."

(a) The Parties' Positions

Defendants argue: "The term 'grouping configurations' is never recited in the specification. It is entirely unclear what 'grouping configurations associated with said plurality of specified event configurations' means within the claims." (Dkt. No. 91 at 27) (footnote omitted).

Plaintiff replies that "[c]ontrary to Defendants' argument, the claim language shows that this term refers to configurations by which certain authorized user ID codes or mobile object ID codes are associated with certain group ID codes *for certain events*." (Dkt. No. 94 at 8). "For example," Plaintiff argues, "different events will cause location information to be sent to different groups, depending on which authorized user and mobile object ID codes are associated with which groups for that event." (*Id.* at 9).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

(b) Analysis

"[A] claim could be indefinite if a term does not have proper antecedent basis where such basis is not otherwise present by implication or the meaning is not reasonably ascertainable." *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249 (Fed. Cir. 2008).

Claims 6 and 11 of the '499 Patent depend from Claim 1. Claims 1, 6, and 11 recite (emphasis added):

> 1. A system for conveying a plurality of event information associated with a corresponding plurality of events that occur based on satisfactions of a corresponding plurality of specified event conditions related to locations of a corresponding plurality of mobile objects having a corresponding plurality of mobile object identification codes, wherein each mobile object is associated with at least one location information source that provides a corresponding location information over a wireless network, said system comprising:
>
> one or more computer servers configured to create a plurality of information-sharing environments, said plurality of information-sharing environments providing user interfaces for a plurality of authorized users over a network of computing devices, said plurality of authorized users being associated with a corresponding plurality of authorized user identification codes, wherein said plurality of information-sharing environments are configurable based on varying levels of administrator privileges, said varying levels of administrator privilege comprising a first level of administrator privilege associated with a network administrator and a second level of administrator privileges associated with said plurality of authorized users, said first level of administrator privilege being used in a first information-sharing environment to allow for configuring a plurality of event information-sharing environments within said first information-sharing environment independent of one another, wherein said plurality of event information-sharing environments are configurable based on said second levels of administrator privileges for specifying the plurality of specified event conditions;
>
> one or more access control systems that are configured to communicates [*sic*] with said one or more computer servers to control access to the plurality of information sharing environments, wherein access control to the plurality of information sharing environments is based on access control codes requiring multiple levels of access control comprising a first level of access control and a second levels [*sic*] of access control, wherein access to said first information sharing environment is controlled under the first level of access control based on access control codes associated with the plurality of authorized user identification codes, wherein access to said event information sharing environments is controlled under the second level of access control to access the plurality of specified event conditions independent of each other based on a corresponding

plurality of event information access codes that are associated with the plurality of authorized user identification codes; and

an administrator system in communication with said one or more computer servers adapted to configure a corresponding plurality of access privileges for the plurality of authorized users that specify the specified event conditions based on the plurality of event information access codes, wherein conveyance of the plurality of event information is managed based on the plurality of access privileges.

* * *

6. The system of claim 1, further comprising one or more databases accessible by the one or more computer servers adapted to store a plurality of identification codes comprising said plurality of authorized user identification codes and mobile object identification codes, wherein said plurality of identification codes are associated with a plurality of user group identification codes in the one or more data bases under a plurality of *grouping configurations associated with said plurality of specified event configurations* for the plurality of mobile objects.

* * *

11. The system of claim 6, wherein said plurality of *grouping configurations* are user specified.

Because "said plurality of specified event configurations" in Claim 6 lacks sufficiently clear antecedent basis (in Claim 6 itself or in Claim 1, from which Claim 6 depends), **Claim 6 of the '499 Patent is indefinite**.

(9) Dependent Claims 6, 8, and 9 of the '012 Patent

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Not indefinite under 35 U.S.C. § 112(4)."

<u>(a) The Parties' Positions</u>

Defendants argue that "[d]ependent claims 012:6, 8, and 9 actually broaden the claims from which they depend (claims 1 and 7)" and are therefore indefinite. (Dkt. No. 91 at 27). Specifically, Defendants submit that whereas "independent claim 1 and 7 explicitly recite that

'object location information' is conveyed," "dependent claims 6, 8, and 9 are implicated if only zone or event information is conveyed." (Dkt. No. 91 at 27).

Plaintiff replies: "Defendants do not contest that the dependent claims add other limitations that narrow these claims. Thus, each dependent claim is narrower overall than its parent independent claim, just as [35 U.S.C.] Section 112 requires." (Dkt. No. 94 at 9).

At the April 21, 2016 hearing, Defendants argued that these dependent claims are indefinite because they attempt to be both broader and narrower than the claims from which they depend. Plaintiff responded that these dependent claims are not improperly broadening because they do not purport to remove any limitation. Further, Plaintiff argued that even if portions of the dependent claims are attempting to broaden rather than narrow, as Defendants contend, then the result would not be indefiniteness but would be merely that such portions are ineffective. *Cf. In re Johnston*, 435 F.3d 1381, 1384 (Fed. Cir. 2006) ("optional elements do not narrow the claim because they can always be omitted").

(b) Analysis

Claim 6 of the '012 Patent depends from Claim 5, which in turn depends from Claim 1. Claims 1, 5, and 6 of the '012 Patent recite (emphasis added):

1. A method for conveying user location information, comprising:
    interfacing with an administrator that authorizes a first user associated with a first user identification code to access an object location information from a location information source associated with a second user identification code that is different from the first identification code; and
    conveying the object location information to a third user based on an information access code specified by said first user, said information access code being associated with a third user identification code that is different from the first and second user identification codes.

* * *

5. The method of claim 1, wherein the second user identification code is associated with a zone information comprising a coordinate on a map; and

wherein at least one of the object location information or zone information is conveyed to the third user based on the information access code.

6. The method of claim 5, wherein the second user identification code is associated with an object location event information that relates the object location information to the zone information; and wherein at least one of the object location information or the zone information or the object location event information is conveyed to the third user based on the information access code.

Claim 9 of the '012 Patent depends from Claim 8, which in turn depends from Claim 7.

Claims 7–9 of the '012 Patent recite (emphasis added):

7. An apparatus for conveying information related to groups of users, comprising:
    an administrator system having access to object location information, zone information and object location event information associated with an information access code that specifies a user group associated with a plurality of user codes including 1) a privileged user code that is different from the information access code and 2) a second user code that is different from the first user code and information access code; and
    a server configured to interface with a network comprising a plurality of mobile devices associated with corresponding user identification codes, wherein the second user code is associated with a location information source of one of the mobile devices of the plurality of mobile devices based on the privileged user code; and wherein an object location information provided by the location information source is conveyed based on the information access code.

8. The apparatus of claim 7, wherein at least one zone information comprising a coordinate on a map is associated with the second user based on the privileged user code, and wherein at least one of the object location information or zone information is conveyed based on the information access code.

9. The apparatus of claim 8, wherein at least one object location event information that relates the object location information to the zone information is associated with the second user based on the privileged user code, and wherein at least one of the object location information or zone information or object location event information is conveyed based on the information access code.

Because the dependent claims recite additional limitations, Defendants have failed to demonstrate that any claim is impermissibly broader that any corresponding claim from which the claim depends. *See* 35 U.S.C. § 112, ¶ 4 ("a claim in dependent form shall contain a

reference to a claim previously set forth and then specify a further limitation of the subject matter claimed"). The Court therefore hereby expressly rejects Defendants' indefiniteness arguments.

H. Means-Plus-Function

(1) "administrator system"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary. Or alternatively, a system for administering. Not indefinite; Should not be construed in accordance with 35 U.S.C. § 112, ¶ 6.	Indefinite as written, or when construed in accordance with 35 U.S.C. § 112, ¶ 6. Function: [accessing] object location information, zone information and object location event information associated with an information access code ('012, cl. 7) Function: configure a corresponding plurality of access privileges for the plurality of authorized users that specify the specified event conditions based on the plurality of event information access codes ('499, cl. 1) No corresponding structure, material, or acts are disclosed.

(Dkt. No. 61, Ex. A at 70); (*id.*, Ex. B at 2); (Dkt. No. 97, App'x A at 9). Defendants submit that this disputed term appears in Claims 9, 10, and 12 of the '012 Patent and Claims 1, 4, 5, 12, and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 2).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "'a computer system for administering' / Expressly rejecting Defendants' indefiniteness argument / Expressly rejecting Defendants' argument that this term is governed by 35 U.S.C. § 112(6)."

(a) The Parties' Positions

Plaintiff submits as to Claim 1 of the '499 Patent that "the claim does not even recite a function for the 'administrator system' to perform" and "instead recites terms explaining how the

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administrator system *is adapted*, but there is nothing for the administrator system to perform."
(Dkt. No. 86 at 25). "Further," Plaintiff argues, "in the context of the asserted patents, the
'administrator system' designates structure to skilled artisans — namely, a component of the
information system that provides administration." (*Id.*). Plaintiff also argues that this term in
Claim 7 of the '012 Patent "is *not* expressed in terms using the words 'means' or 'step' for
performing a function, *no* specified function follows the recited element, and the term *would* be
understood as structure to a person skilled in the art." (*Id.* at 26).

Defendants respond that "[t]here is no generally accepted definition or structure in the art
for 'administrator system,'" "[t]he claims fail to disclose the scope of 'administrator system,' and
the specification never refers to any 'administrator system.'" (Dkt. No. 91 at 13). Alternatively,
Defendants argue that this is a means-plus-function term because "'system' is a known 'nonce'
term" and "[t]he modifier 'administrator' is merely functional." (*Id.* at 14). "Finally,"
Defendants urge, "there is no corresponding algorithm in the specification for implementing the
functions corresponding to the 'administrator system.' Rather, to the extent these functions may
be described, they are recited at a high level of abstractness and are not even tied to any 'system'
or 'device.'" (*Id.* at 15).

Plaintiff replies by incorporating the arguments set forth in its opening brief. *See* (Dkt.
No. 94 at 1 n.2).

At the April 21, 2016 hearing, Defendants reiterated that "system" is a nonce term that
fails to connote any structure for performing the recited functions. Plaintiff responded that the
claim language at issue recites configuration, not function.

(b) Analysis

Title 35 U.S.C. § 112, ¶ 6 provides: "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." "[T]he failure to use the word 'means' . . . creates a rebuttable presumption . . . that § 112, para. 6 does not apply." *Williamson v. Citrix Online LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015) (citations and internal quotation marks omitted). "When a claim term lacks the word 'means,' the presumption can be overcome and § 112, para. 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *Id.* at 1349 (citations and internal quotation marks omitted).

Williamson, in an *en banc* portion of the decision, abrogated prior statements that the absence of the word "means" gives rise to a "strong" presumption against means-plus-function treatment. *Id.* (citation omitted). *Williamson* also abrogated prior statements that this presumption "is not readily overcome" and that this presumption cannot be overcome "without a showing that the limitation essentially is devoid of anything that can be construed as structure." *Id.* (citations omitted). Instead, *Williamson* found, "[h]enceforth, we will apply the presumption as we have done prior to *Lighting World* . . . ." *Id.* (citing *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 382 F.3d 1354, 1358 (Fed. Cir. 2004)). In a subsequent part of the decision not considered *en banc*, *Williamson* affirmed the district court's finding that the term "distributed learning control module" was a means-plus-function term that was indefinite due to lack of

corresponding structure, and in doing so *Williamson* stated that "'module' is a well-known nonce word." *Id.* at 1350.

The term "system" as used here is different from the word "module" in *Williamson*. *Id.* at 1348 ("What is important is . . . that the term, as the name for structure, has a reasonably well understood meaning in the art.") (quoting *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996)).

In so finding, the Court applies long-standing principles articulated prior to the abrogated *Lighting World* decision. *See, e.g., Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1320 (Fed. Cir. 2004) ("when the structure-connoting term 'circuit' is coupled with a description of the circuit's operation, sufficient structural meaning generally will be conveyed to persons of ordinary skill in the art, and § 112 ¶ 6 presumptively will not apply"; noting "language reciting [the circuits'] respective objectives or operations"); *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003) ("While we do not find it necessary to hold that the term 'circuit' by itself always connotes sufficient structure, the term 'circuit' with an appropriate identifier such as 'interface,' 'programming' and 'logic,' certainly identifies some structural meaning to one of ordinary skill in the art."); *Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n*, 161 F.3d 696, 705 (Fed. Cir. 1998) ("Even though the term 'detector' does not specifically evoke a particular structure, it does convey to one knowledgeable in the art a variety of structures known as 'detectors.' We therefore conclude that the term 'detector' is a sufficiently definite structural term to preclude the application of § 112, ¶ 6."); *Greenberg*, 91

F.3d at 1583 (finding that "detent mechanism" was not a means-plus-function term because it

denotes a type of device with a generally understood meaning in the mechanical arts).[8]

Claim 1 of the '499 Patent recites, in relevant part (emphasis added):

1. A system for conveying a plurality of event information associated with a corresponding plurality of events that occur based on satisfactions of a corresponding plurality of specified event conditions related to locations of a corresponding plurality of mobile objects having a corresponding plurality of mobile object identification codes, wherein each mobile object is associated with at least one location information source that provides a corresponding location information over a wireless network, said system comprising:
        one or more computer servers configured to create a plurality of information-sharing environments, said plurality of information-sharing environments providing user interfaces for a plurality of authorized users over a network of computing devices, . . .;
        . . . and
        an *administrator system* in communication with said one or more computer servers adapted to configure a corresponding plurality of access privileges for the plurality of authorized users that specify the specified event conditions based on the plurality of event information access codes, wherein conveyance of the plurality of event information is managed based on the plurality of access privileges.

Claim 7 of the '012 Patent recites (emphasis added):

7. An apparatus for conveying information related to groups of users, comprising:
        an *administrator system* having access to object location information, zone information and object location event information associated with an information access code that specifies a user group associated with a plurality of user codes including 1) a privileged user code that is different from the information access code and 2) a second user code that is different from the first user code and information access code; and
        a server configured to interface with a network comprising a plurality of mobile devices associated with corresponding user identification codes, wherein the second user code is associated with a location information source of one of the mobile devices of the plurality of mobile devices based on the privileged user

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[8] *Greenberg*, 91 F.3d at 1583 ("'detent' denotes a type of device with a generally understood meaning in the mechanical arts, even though the definitions are expressed in functional terms"); *id.* ("It is true that the term 'detent' does not call to mind a single well-defined structure, but the same could be said of other commonplace structural terms such as 'clamp' or 'container.' What is important is not simply that a 'detent' or 'detent mechanism' is defined in terms of what it does, but that the term, as the name for structure, has a reasonably well understood meaning in the art.")

code; and wherein an object location information provided by the location information source is conveyed based on the information access code.

The specification refers to an administrator in the context of computer systems, as evident from discussion of using a database of user information:

> In accordance with the present invention, an *administrator* of an information-sharing environment *maintains a database* of user information for those having access to the information-sharing environment. Such a database can be maintained on a central or distributed control station that may be a company's *computer server* or on an individual's *personal computer*. Information maintained for a user typically includes a user account name and password and a user identification code, and may include a variety of information about the user including the user's name, address, phone number(s), email address(s), company name, title, birth date, etc. A user may be given access privileges to certain classes of information based on the user's position or role within a company or family, a Government security clearance, and/or for other reasons deemed appropriate for a given information-sharing environment.

> An *administrator* can define one or more groups to which a given user can be associated. Groups may be defined in accordance with an organizational structure or hierarchy. For example, an *administrator* for an information-sharing environment corresponding to a company may define groups for the various organizations within the company, such as legal, accounting, shipping, etc., and for groups of users not based on organization, such as executive, management, administrative, exempt employees, non-exempt employees, etc. After a group has been defined, the *administrator* can associate individual users with one or more of the defined groups. Similarly, a parent administering an information-sharing environment might define groups such as parents, teenagers, children, drivers, and so forth. Information maintained for a group typically includes a group name and group identification code, and may include a variety of information about the group including the group's address, phone number, email address, website, point-of-contact, etc. As such, a user may be associated with one or more groups defined by an *administrator* of an information-sharing environment.

'931 Patent at 12:61–13:29 (emphasis added).

Plaintiff's expert, Dr. Schonfeld, likewise persuasively opines that the term "administrator system" would be understood as referring to a computer system:

> 242. A person of ordinary skill in the art would recognize that "an administrator system" in both of these claims [(Claim 1 of the '499 Patent and Claim 7 of the '012 Patent], refers to a structural component of the information system described throughout the specification that provides the administration of the inventions in

those claims. More specifically, one skilled in the art would recognize from the specification that the administrator system is a computer system (e.g., server) with access to a database including information regarding the identification of objects in the information system, and any access privileges assigned to those objects. This is reflected in the claim language above, which describes the administrator system as one that has access to the different access privileges for the users of the information system.

(Dkt. No. 86, Ex. 6) (Feb. 20, 2016 Schonfeld Decl. at ¶ 242); *see Teva*, 135 S. Ct. at 841.

Such a reading is also consistent with the surrounding claim language in Claim 1 of the '499 Patent, quoted above, which recites that the administrator system is "in communication with . . . one or more computer servers." Although Defendants have cited authority for the proposition that "system" is a "nonce" term that is simply a substitute for the word "means," the authorities cited by Defendants are not binding on this Court and do not address circumstances analogous to the above-discussed intrinsic and extrinsic evidence. *See Joao Control & Monitoring Sys., LLC v. Protect Am., Inc.*, No. 1:14-CV-134, 2015 WL 4937464, at *5 (W.D. Tex. Aug. 18, 2015) (Yeakel, J.); *Vir2us, Inc. v. Invincea Labs, LLC*, No. 2:15-CV-162, Dkt. No. 78, slip op. at 12–13 (E.D. Va. Feb. 19, 2016) (Morgan, J.).

Thus, the Court hereby expressly rejects Defendants' arguments that "administrator system" is a means-plus-function term.

The Court accordingly hereby construes **"administrator system"** to mean **"a computer system for administering."**

(2) "one or more servers configured to" and "one or more computer servers configured to"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary. Not indefinite; Should not be construed in accordance with 35 U.S.C. § 112, ¶ 6.	Indefinite as written, or when construed in accordance with 35 U.S.C. § 112, ¶ 6. Function: interface with a network comprising a plurality of mobile devices associated with corresponding user identification codes ('012, cl. 7) Function: to create a plurality of information-sharing environments ('499, cl. 1) Function: to communicates [*sic*] with said one or more computer servers to control access to the plurality of information sharing environments ('499, cl. 1) Function: to control access to the plurality of information sharing environments ('499, cl. 19) Function: All steps of '931 patent, cl. 1 and 2 No corresponding structure, material, or acts are disclosed.

(Dkt. No. 61, Ex. A at 116); (*id.*, Ex. B at 4); (Dkt. No. 97, App'x A at 8). Defendants submit that these disputed terms appear in Claims 9, 10, and 12 of the '012 Patent, Claims 1, 4, 5, 12, and 17 of the '012 Patent, and Claims 2, 6, 12, 13, 16, 20, and 22–26 of the '931 Patent. (Dkt. No. 61, Ex. B at 4).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' argument that this term is governed by 35 U.S.C. § 112(6) / The Court construes

'configured to' to have its plain meaning, which the Court understands to require not merely being capable of being configured but rather being actually configured."

(a) The Parties' Positions

Plaintiff argues that "[C]laims 1 and 2 [of the '931 Patent] include clear structure in the claim itself" because "[a] 'server' is a well known term in the art, and is not a nonce term." (Dkt. No. 86 at 27) (emphasis omitted). As to Claims 1 and 19 of the '499 Patent and Claim 7 of the '012 Patent, Plaintiff likewise argues that "[t]he claims describe the configuration of the claimed element, but are not written in the style of a means plus function claim." (*Id.* at 29).

Defendants respond that Claim 1 of the '931 Patent "is a classic example of an attempt to exalt form over substance to avoid triggering § 112 ¶ 6." (Dkt. No. 91 at 10). Specifically, Defendants argue that the recital of "one or more servers" is a "black box" that lacks structure, and "'configured to' is merely a substitute for the word 'for.'" (*Id.*). In other words, Defendants argue that "the claim recites the server(s) in purely functional terms, failing to impart sufficient structure to perform each of the claims' functions." (*Id.* at 12). As to corresponding structure, Defendants argue that "[b]ecause this is a computer-implemented claim limitation, an algorithm must be disclosed in the specification," but "no algorithm is disclosed for performing any of the twelve functions recited in [the claim]." (*Id.*).

Defendants likewise respond as to Claim 1 of the '499 Patent that "the generic recitation of 'one or more servers' . . . provides insufficient structure for 'creat[ing] a plurality of information-sharing environments.'" (*Id.* at 13).

Plaintiff replies that the intrinsic evidence as well as case law demonstrate that the term "server" connotes structure such that 35 U.S.C. § 112, ¶ 6 does not apply. (Dkt. No. 94 at 1–4).

At the April 21, 2016 hearing, Defendants reiterated their arguments that the claims simply use the word "server" in place of "means" because the generic term "server" is insufficient to describe structure for performing the recited functions. Plaintiff responded that Defendants are attempting to apply the corresponding structure requirement of a means-plus-function analysis in an attempt to demonstrate that "server" is a means-plus-function term. Moreover, Plaintiff argued, a "server" is not a general-purpose computer but rather is a special-purpose computer.

(b) Analysis

Defendants have failed to demonstrate that the term "server" lacks sufficient structural meaning. *See, e.g., Nomadix, Inc. v. Hosp. Core Servs. LLC*, No. 14-08256, 2016 WL 344461, at *7–*8 (C.D. Cal. Jan. 27, 2016) (Pregerson, J.) ("'server' is . . . a well-known structural term"); *Atser Research Techs., Inc. v. Raba-Kistner Consultants Inc.*, No. SA-07-CA-93-H, 2009 WL 691118, at *13 (W.D. Tex. Mar. 2, 2009) (Hudspeth, J.) (finding "server" not a nonce term because it is "clear that a server is a noun that denotes a type of structure"); *cf. Intellectual Ventures II LLC v. BITCO Gen. Ins. Corp.*, No. 6:15-CV-59, 2016 WL 125594, at *14 (E.D. Tex. Jan. 11, 2016) (Gilstrap, J.) (regarding an "administrative interface" term, finding that "'interface' is not a verbal construct but rather connotes sufficiently definite structure to one skilled in the art").

The authorities cited by Defendants are unpersuasive. *Pi-Net*, which involved a "computer system" term, is unpersuasive because whereas the court emphasized that "the specification provides no details," the court did not address whether the term "computer system" itself connoted structure to a person of ordinary skill in the art. *Pi-Net Int'l Inc. v. JPMorgan Chase & Co.*, No. 12-282-SLR, 2014 WL 1997039, at *12–*13 (D. Del. May 14, 2014)

(Robinson, J.).   The *Intellectual Ventures I* cases are similar as to terms that included a

"processing device" and a "computing device." *Intellectual Ventures I, LLC v. Canon Inc.*, No.

13-473-SLR, 2015 WL 1458035, at *14 (D. Del. Mar. 27, 2015) (Robinson, J.); *Intellectual*

Ventures I, LLC v. Canon Inc., No. 11-792-SLR, 2014 WL 1392690, at *2–*3 (D. Del. Apr. 10,

2014) (Robinson, J.).

Likewise, *Soque Holdings* found that "if 'computer' is insufficient [corresponding]

structure for a 'means' limitation, the naked term 'computer' cannot describe sufficient structure

when recited directly in the claim limitation." *Soque Holdings Ltd. v. Keyscan, Inc.*, No.

C 09-2651, 2010 WL 2292316, at *12 (N.D. Cal. June 7, 2010) (Patel, J.).

> The Court of Appeals for the Federal Circuit, however, has rejected such an approach:

> The overall means-plus-function analysis is a two-step process. Naturally, there
> is some analytical overlap between these two steps. In the first step, we must
> determine if the claim limitation is drafted in means-plus-function format. As
> part of this step, we must construe the claim limitation to decide if it connotes
> "sufficiently definite structure" to a person of ordinary skill in the art, which
> requires us to consider the specification (among other evidence). In the second
> step, if the limitation is in means-plus-function format, we must specifically
> review the specification for "corresponding structure." Thus, while these two
> "structure" inquiries are inherently related, they are distinct.

> * * *

> [T]he first step in the means-plus-function analysis requires us to determine
> whether the entire claim limitation at issue connotes "sufficiently definite
> structure" to a person of ordinary skill in the art. . . . In so doing, we naturally
> look to the specification, prosecution history, and relevant external evidence to
> construe the limitation. While this inquiry may be similar to looking for
> corresponding structure in the specification, our precedent requires it when
> deciding whether a claim limitation lacking means connotes sufficiently definite
> structure to a person of ordinary skill in the art.

Apple Inc. v. Motorola, Inc., 757 F.3d 1286, 1296–97 (Fed. Cir. 2014) (citations omitted),

abrogated on other grounds by Williamson, 792 F.3d 1339.

Finally, Defendants have cited *Ex Parte Reddy*, a decision by the Patent Trial and Appeal Board ("PTAB") finding that "[t]he word 'server' is a generic nonce word that connotes no particular structure. Rather, the word describes a function, viz. serving." *Ex Parte Reddy*, No. 2012-000454, 2014 WL 5511407, at *6 (P.T.A.B. Oct. 29, 2014) This PTAB decision is not binding on this Court and is unpersuasive, in particular because *Ex Parte Reddy* cited no evidence for its finding that "server" does not connote structure. *See id.*

The Court therefore hereby expressly rejects Defendants' arguments that these disputed terms are means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6, and the Court hereby construes **"one or more servers configured to"** and **"one or more computer servers configured to"** to have their **plain meaning**, including as to the phrase "configured to," "which the Court understands to require not merely being capable of being configured but rather being actually configured." *SIPCO v. Amazon.com, Inc., et al.*, No. 2:08-CV-359, 2012 WL 5195942, at *56 (E.D. Tex. Oct. 19, 2012) (Gilstrap, J.).

(3) "administrator device"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary. Not indefinite; Should not be construed in accordance with 35 U.S.C. § 112, ¶ 6.	Indefinite as written, or when construed in accordance with 35 U.S.C. § 112, ¶ 6. Function: associates a first user identification code with an authorized user within a group of users No corresponding structure, material, or acts are disclosed.

(Dkt. No. 61, Ex. A at 82); (*id.*, Ex. B at 14); (Dkt. No. 97, App'x A at 21). Defendants submit that this disputed term appears in Claims 17 and 19 of the '207 Patent. (Dkt. No. 61, Ex. B at 14).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "'a computer system for administering' / Expressly rejecting Defendants' indefiniteness argument / Expressly rejecting Defendants' argument that this term is governed by 35 U.S.C. § 112(6)."

(a) The Parties' Positions

Plaintiff argues that "[o]ne of ordinary skill in the art would recognize that an 'administrator device' is a structural component that is, for example, a server with access to a database including information regarding the identification of objects in the information system, and any access privileges assigned to those objects." (Dkt. No. 86 at 29).

Defendants respond that "[t]he same rationale for the indefiniteness of 'administrator system' [(addressed above)] applies here." (Dkt. No. 91 at 15).

Plaintiff replies by incorporating the arguments set forth in its opening brief. *See* (Dkt. No. 94 at 1 n.2).

At the April 21, 2016 hearing, Defendants reiterated that "device" is a nonce term that fails to connote any structure for performing the recited functions. Plaintiff responded that the claim language at issue recites configuration, not function.

(b) Analysis

Claim 17 of the '207 Patent recites (emphasis added):

17. An information-sharing system, comprising:
      a database storing user information associated with a plurality of groups of users of computing devices, each computing device having a corresponding user identification code stored in the database, each user identification code being associated with a user within each group of users; and
      an *administrator device* that associates a first user identification code with an authorized user within a group of users, the authorized user of the group of users having an access privilege to location information of a computing device associated with a second user identification code of a user within the group of users that includes the authorized user, wherein the location information of the

computing device associated with the second user identification code is conveyed based on an authorization by the authorized user.

For substantially the same reasons set forth above as to the term "administrator system," the Court finds that "administrator device" is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Also of note, the usage of the modifier "administrator" throughout the intrinsic evidence demonstrates that an "administrator device" is a computer system. *See* '931 Patent at 12:61–13:29; *see also Williamson*, 792 F.3d at 1351 (noting that "the presence of modifiers can change the meaning of" an otherwise nonce term); (Dkt. No. 86, Ex. 6) (Feb. 20, 2016 Schonfeld Decl. at ¶ 247); *see Teva*, 135 S. Ct. at 841.

The Court therefore hereby construes **"administrator device"** to mean **"a computer system for administering."**

(4) "interfaces for configuring . . . based on varying levels of administrative privileges"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary. Not indefinite; Should not be construed in accordance with 35 U.S.C. § 112, ¶ 6.	Indefinite as written, or when construed in accordance with 35 U.S.C. § 112, ¶ 6. Function: configuring the plurality of information-sharing environments for users based on varying levels of administrative privileges No corresponding structure, material, or acts are disclosed.

(Dkt. No. 61, Ex. A at 84); (*id.*, Ex. B at 20); (Dkt. No. 97, App'x A at 26–27). Defendants submit that this disputed term appears in Claims 4, 5, 9, 10, 16, and 24 of the '166 Patent. (Dkt. No. 61, Ex. B at 20).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting

Defendants' indefiniteness argument / Expressly rejecting Defendants' argument that this term is governed by 35 U.S.C. § 112(6)."

(a) The Parties' Positions

Plaintiff argues: "'Interface' is not a nonce term. It refers to a user interface, which one of ordinary skill in the art would understand is a well-known component of a computer system that allows for the exchange of information in the systems." (Dkt. No. 86 at 29–30).

Defendants respond that this disputed term is "written in means-plus-function format without any sufficient structure to perform the functions. The term 'interface' is a generic term, and contrary to Plaintiff's position, is not a 'user interface.'" (Dkt. No. 91 at 10 n.6).

Plaintiff replies by incorporating the arguments set forth in its opening brief. *See* (Dkt. No. 94 at 1 n.2).

At the April 21, 2016 hearing, the parties did not present any oral argument as to these terms.

(b) Analysis

Claim 1 of the '166 Patent, for example, recites (emphasis added):

1. A method for conveying information related to locations of a plurality of mobile devices of users in a plurality of user groups, comprising:
    creating a plurality of information-sharing environments over a network of computing devices comprising *interfaces for configuring the plurality of information-sharing environments for users based on varying levels of administrative privileges*, wherein the plurality of information-sharing environments comprise a first information-sharing environment and a plurality of second information-sharing environments, said plurality of second information-sharing environments comprising a plurality of independently configurable location information sharing environments created within the first information sharing environment;
    configuring the first information-sharing environment based on a first level of administrative privilege to associate one or more users that use the plurality of location information sharing environment with each one of the plurality of user groups;

configuring each one [of] the plurality of location information-sharing environments for each user group independent of one another based on at least one second level of administrative privilege by specifying one or more levels of location information access privilege for at least one authorized user in each user group; and

managing conveyance of information related to location of the plurality of the mobile devices in the plurality of user groups based on a plurality of location information access privileges associated with a plurality of authorized users.

Defendants have failed to demonstrate that the term "interfaces" does not connote structure. *See Intellectual Ventures II*, 2016 WL 125594, at *14 (Gilstrap, J.) (regarding an "administrative interface" term, finding that "'interface' is not a verbal construct but rather connotes sufficiently definite structure to one skilled in the art"); *cf. Personalized Media*, 161 F.3d at 705 ("Even though the term 'detector' does not specifically evoke a particular structure, it does convey to one knowledgeable in the art a variety of structures known as 'detectors.' We therefore conclude that the term 'detector' is a sufficiently definite structural term to preclude the application of § 112, ¶ 6."); *Greenberg*, 91 F.3d at 1583 (finding that "detent mechanism" was not a means-plus-function term because it denotes a type of device with a generally understood meaning in the mechanical arts).

The Court therefore hereby expressly rejects Defendants' arguments that this "interfaces" term is a means-plus-function term. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes **"interfaces for configuring . . . based on varying levels of administrative privileges"** to have its **plain meaning**.

(5) "first level of administrator privilege being used in a first information-sharing environment to allow for configuring a plurality of event information-sharing environments"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary. Not indefinite; Should not be construed in accordance with 35 U.S.C. § 112, ¶ 6.	Indefinite as written, or when construed in accordance with 35 U.S.C. § 112, ¶ 6. Function: configuring a plurality of event information-sharing environments No corresponding structure, material, or acts are disclosed.

(Dkt. No. 61, Ex. A at 90); (*id.*, Ex. B at 25); (Dkt. No. 97, App'x A at 54). Defendants submit that this disputed term appears in Claims 1, 4, 5, 12, and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 25).

Plaintiff submits that "[t]he 'first level of administrator privilege' is one of the 'varying levels of administrative privilege,' for which both parties have set forth a construction." (Dkt. No. 86 at 30). Defendants' response brief does not address this term. *See* (Dkt. No. 91). Plaintiff replies by incorporating the arguments set forth in its opening brief. *See* (Dkt. No. 94 at 1 n.2). At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

Because Defendants have not presented any argument in their briefing, the Court does not construe this term.

(6) "access control systems"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
No construction necessary. Alternatively, systems for controlling access. Not indefinite; Should not be construed in accordance with 35 U.S.C. § 112, ¶ 6.	Indefinite as written, or when construed in accordance with 35 U.S.C. § 112, ¶ 6. Function: to communicates [*sic*] with said one or more computer servers to control access to the plurality of information sharing environments No corresponding structure, material, or acts are disclosed.

(Dkt. No. 61, Ex. A at 122); (*id.*, Ex. B at 26); (Dkt. No. 97, App'x A at 56). Defendants submit that this disputed term appears in Claims 1, 4, 5, 12, and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 26).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument / Expressly rejecting Defendants' argument that this term is governed by 35 U.S.C. § 112(6)."

(a) The Parties' Positions

Plaintiff argues that this disputed term "refers to structural components of an information system, such as servers, that control access to information for devices in the system." (Dkt. No. 86 at 30).

Defendants respond that "[t]he same rationale for the indefiniteness of 'administrator system' applies here." (Dkt. No. 91 at 15–16). In particular, Defendants argue that "the 'access control' modifier only describes the system's purported function and does not impart any structure." (*Id.* at 16).

Plaintiff replies by incorporating the arguments set forth in its opening brief. *See* (Dkt. No. 94 at 1 n.2).

At the April 21, 2016 hearing, the parties presented similar arguments as to this term as for "administrator system," which is addressed above.

(b) Analysis

Claim 1 of the '499 Patent recites, in relevant part (emphasis added):

1. A system for conveying a plurality of event information associated with a corresponding plurality of events that occur based on satisfactions of a corresponding plurality of specified event conditions related to locations of a corresponding plurality of mobile objects having a corresponding plurality of mobile object identification codes, wherein each mobile object is associated with at least one location information source that provides a corresponding location information over a wireless network, said system comprising:
    . . .
    one or more *access control systems* that are configured to communicates [*sic*] with said one or more computer servers to control access to the plurality of information sharing environments, wherein access control to the plurality of information sharing environments is based on access control codes requiring multiple levels of access control comprising a first level of access control and a second levels [*sic*] of access control, wherein access to said first information sharing environment is controlled under the first level of access control based on access control codes associated with the plurality of authorized user identification codes, wherein access to said event information sharing environments is controlled under the second level of access control to access the plurality of specified event conditions independent of each other based on a corresponding plurality of event information access codes that are associated with the plurality of authorized user identification codes; . . .
    . . . .

The language that follows this disputed term thus recites that the access control systems "are configured to communicates [*sic*] with said one or more computer servers." This weighs in favor of construing the disputed term in the context of computer systems. *See Phillips*, 415 F.3d at 1314 ("the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms") (citation and internal quotation marks omitted).

The specification likewise discusses access codes and access control in the context of computer systems. *See* '931 Patent at 7:37–8:23 & 10:30–39. Plaintiff's expert likewise opines: "One of ordinary skill in the art would understand that the 'access control systems' in claim 1 of the '499 patent refers to structural components of an information system. Namely, it refers to computing systems (e.g., servers) that control access to information for devices in the information system." (Dkt. No. 86, Ex. 6) (Feb. 20, 2016 Schonfeld Decl. at ¶ 262); *see Teva*, 135 S. Ct. at 841.

For these reasons, as well as substantially the same reasons set forth as to the term "administrator system" (addressed above), the Court hereby expressly rejects Defendants' arguments that "access control systems" is a means-plus-function term. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court hereby construes **"access control systems"** to have its **plain meaning**.

I. Computing Device / Mobile Device / Etc. Associated with a User Identification Code or User, or Having a User Identification Code

The disputed terms here at issue are set forth in Appendix B to Defendants' responsive brief (Dkt. No. 91 at App'x B) and are: "[object] associated with . . . user identification code [or user]"; "location information source associated with a second user identification code"; "the second user code is associated with a location information source of one of the mobile devices of the plurality of mobile devices based on the privileged user code"; "second computing device associated with one of the second user or the third user"; "first computing device associated with the first user"; "mobile devices associated with corresponding user identification codes"; "computing devices associated with a plurality of users"; "mobile device associated with a user identification code in the contact list"; "computing device having a . . . user identification code";

"computing device associated with a second user identification code"; "computing devices associated with the first and second user identification codes"; "each computing device having a corresponding user identification code stored in the database"; "a third user identification code is associated with a computing device . . ."; "mobile device associated with [the] second identification code"; "second identification code associated with a second mobile device"; "first user identification code associated with a first mobile device"; "a plurality of user identification codes associated with a plurality of mobile devices"; "third mobile device associated with a third identification code"; "plurality of mobile objects having a corresponding plurality of mobile object identification codes"; and "each mobile device is associated with an identification (ID)." *See* (Dkt. No. 97 at App'x A).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument."

(1) The Parties' Positions

Defendants argue that "'association' of a computing device (or the like) with a user or user identification code means a user identification code must either be embedded in, or entered into the computing device via a user log-in at, the computing device itself." (Dkt. No. 91 at 28).

Plaintiff replies that Defendants' arguments should be disregarded because "Dr. Heppe [Defendants' expert] offered these alternative constructions in his declaration, but Defendants never adopted them in their [P.R.] 4-2 disclosures or the Joint Claim Construction Statement." (Dkt. No. 94 at 10).

At the April 21, 2016 hearing, the parties did not present any oral argument as to these terms.

(2) Analysis

Defendants' response brief refers to these terms in a section titled "Indefinite Terms with Alternative Construction," but Defendants have presented no indefiniteness argument as to these terms aside from their arguments as to the terms "user identification codes" and "authorized user identification code," which are addressed above.

As to Defendants' proposal that a particular type of "association" is required, no such proposals appear in Defendants' submission in the Joint Claim Construction and Pre-Hearing Statement (Dkt. No. 61, Ex. B at 1, 5–6, 12–13, 17, 23 & 28). Further, although the specification discloses that "[f]or example, association of a user identification code with a computing device can be an embedded association (e.g., hard-wired) or it can be based on a user log-in at the computing device" ('931 Patent at 2:18–21; *see id.* at 6:64–7:2; *see also id.* at 7:29–31, 7:50–52 & 9:63–67), this is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Comark*, 156 F.3d at 1187; *see also Phillips*, 415 F.3d at 1323.

The Court therefore expressly rejects Defendants' proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court hereby construes these disputed terms to have their **plain meaning**.

J. "information access code" associated with, comprises, or specifies a "user identification code"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Not indefinite. No construction necessary.	Indefinite

(Dkt. No. 61, Ex. A at 48, 50, 51, 52); (*id.*, Ex. B at 7, 8 & 24); (Dkt. No. 91 at 29); *see, e.g.,* (Dkt. No. 97, App'x A at 3). Defendants submit that these disputed terms appear in Claims 6, 9,

10, and 12 of the '012 Patent and Claims 1, 4, 5, 12, and 17 of the '499 Patent. (Dkt. No. 61, Ex. B at 7–8 & 24).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument."

(1) The Parties' Positions

Defendants argue that "[a] POSA [(person of ordinary skill in the art)] would understand each of these terms to mean 'information access codes' corresponding with and designating certain 'user identification codes' or 'group identification codes' stored in a database, but the 'user identification codes' themselves are not the 'information access code.'" (Dkt. No. 91 at 29).

Plaintiff replies that "Dr. Heppe [Defendants' expert] offered these alternative constructions in his declaration, but Defendants never adopted them in their 4-2 disclosures or the Joint Claim Construction Statement." (Dkt. No. 94 at 10).

At the April 21, 2016 hearing, Defendants reiterated their argument that "information access code" must have a meaning different from "user identification code."

(2) Analysis

Defendants' response brief refers to these terms in a section titled "Indefinite Terms with Alternative Construction," but Defendants have presented no indefiniteness argument as to these terms aside from their arguments as to the terms "user identification codes" and "information access code," which are addressed above.

As to Defendants' proposal that "the 'user identification codes' themselves are not the 'information access code'" (Dkt. No. 91 at 29), no such proposals appear in Defendants'

submission in the Joint Claim Construction and Pre-Hearing Statement (Dkt. No. 61, Ex. B at 7, 8 & 24). Further, although the specification distinguishes between information access codes and user identification codes (*see* '931 Patent at 7:46–60 ("[i]n one arrangement," "an access code would typically include specific user identification codes and/or group codes")), this is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Comark*, 156 F.3d at 1187; *see also Phillips*, 415 F.3d at 1323. The specification explains that usage of particular access codes is implementation-specific and may involve layers of access control. *See* '931 Patent at 10:30–39.

The Court therefore hereby expressly rejects Defendants' proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes these disputed terms to have their **plain meaning**.

K. "based on the information access code"

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Not indefinite. No construction necessary.	Indefinite

(Dkt. No. 61, Ex. A at 55); (*id.*, Ex. B at 8); (Dkt. No. 91 at 30); (Dkt. No. 97, App'x A at 4). Defendants submit that this disputed term appears in Claims 6, 9, 10, and 12 of the '012 Patent. (Dkt. No. 61, Ex. B at 8–9).

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "Plain and ordinary meaning. / Expressly rejecting Defendants' indefiniteness argument."

(1) The Parties' Positions

Defendants argue that "a POSA [(person of ordinary skill in the art)] would understand these terms to mean conveyance contingent on the entry of an 'information access code' into a specific 'access code' field in the user interface of a computer program." (Dkt. No. 91 at 30).

Plaintiff replies that "Dr. Heppe [Defendants' expert] offered th[is] alternative construction[] in his declaration, but Defendants never adopted [it] in their 4-2 disclosures or the Joint Claim Construction Statement." (Dkt. No. 94 at 10).

At the April 21, 2016 hearing, the parties did not present any oral argument as to this term.

(2) Analysis

Defendants' response brief refers to these terms in a section titled "Indefinite Terms with Alternative Construction," but Defendants have presented no indefiniteness argument as to these terms aside from their arguments as to the terms "user identification codes" and "information access code," which are addressed above.

As to Defendants' proposal that a "specific 'access code' field" must be used (Dkt. No. 91 at 30), no such proposal appears in Defendants' submission in the Joint Claim Construction and Pre-Hearing Statement (Dkt. No. 61, Ex. B at 8). Further, although the specification discloses a user entering an access code into a device (*see* '931 Patent at 7:64–8:3 & 20:16–24 ("Configuration Screen 1000 provides fields for entering a user data access code, user phone number, log file name, and a user domain or IP address.")), this is a specific feature

of particular disclosed embodiments that should not be imported into the claims. *See Comark*, 156 F.3d at 1187; *see also Phillips*, 415 F.3d at 1323.

The Court therefore hereby expressly rejects Defendants' proposed construction. No further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568; *see also O2 Micro*, 521 F.3d at 1362; *Finjan*, 626 F.3d at 1207; *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291.

The Court accordingly hereby construes **"based on the information access code"** to have its **plain meaning**.

L. Hybrid Claims

Shortly before the start of the April 21, 2016 hearing, the Court provided the parties with the following preliminary construction: "The Court rejects Defendants' indefiniteness arguments regarding purported hybrid claiming. No further construction is necessary."

(1) The Parties' Positions

Defendants argue:

Certain apparatus/system claims (012:7–12; 207:17, 19; 166:5, 8–10, 15, 16; 499:1, 3–6, 11, 12, 16, and 17) improperly require method steps which "create confusion as to when direct infringement occurs because [the claim is] directed both to systems and to actions" and render those claims indefinite. *In re Katz Interactive Call Processing Patent Lit.*, 639 F.3d 1303, 1318 (Fed. Cir. 2011) (wherein clause in system claim signified a method step directed to user action which rendered claim indefinite); *IPX[L] Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377 (Fed. Cir. 2005). Appendix E sets forth the pertinent language for asserted claims which raise this issue, along with an explanation of the context.

(Dkt. No. 91 at 30).

Plaintiff replies that the claims at issue "merely recite the *functional capabilities* of the claimed system/apparatus, by stating that certain types of information be 'associated' with

certain elements or stating the criteria that the system/apparatus employs for 'conveying' information." (Dkt. No. 94 at 9).

(2) Analysis

Defendants' response brief contains 30 pages of argument, which is the usual maximum number of pages permitted under the Court's Local Rules. *See* P.R. 4-5(e) & L.R. CV-7(a). Because Defendants' arguments as to these purported hybrid claims appear in a nine-page Appendix E, which is outside of the 30-page limit, the Court need not consider these arguments.

Alternatively, on the merits, Defendants have not demonstrated that any of the claims at issue recite active method steps. Instead, the limitations at issue set forth functional capabilities or configurations. In particular, the principles set forth in *Yodlee, Inc. v. CashEdge, Inc.*, No. 05-01550, 2006 WL 3456610, at *4–*6 (N.D. Cal. Nov. 29, 2006) (Illston, J.), are applicable:

> A simple analogy would be a claim which physically describes a pair of scissors designed to cut paper, then states, "upon opening and closing the sharp edges of the scissors on a piece of paper, the paper is cut." The language describes the capability of the scissors; it is function language. Infringement occurs upon the manufacturing and sale of scissors that are capable of cutting paper. The *IPXL* rule would apply only if the patent claimed the physical description of the scissors, then stated within the same claim: "and the method of using said scissors to cut a piece of paper." The claims at issue here are analogous to the former example. They describe what the apparatuses do, when used a certain way. They do not claim *use* of the apparatuses. Thus, they do not "recit[e] both an apparatus and a method of using that apparatus." *IPXL*, 430 F.3d at 1384.

Yodlee, 2006 WL 3456610, at *5. Although *Yodlee* is not binding authority upon this Court, the reasoning is persuasive here.

The Court therefore hereby expressly rejects Defendants' indefiniteness arguments regarding purported hybrid claiming. No further construction is necessary in this regard.

V. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit.

The parties are ordered to not refer to each other's claim construction positions in the presence of the jury. Likewise, in the presence of the jury, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court. The Court's reasoning in this order binds the testimony of any witnesses, but any reference to the claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

SIGNED this 7th day of July, 2016.

_____

ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE

Term	Parties' Agreement
"second information-sharing environment" ('166 Patent, Claims 5, 9, 10, 16)	"second information-sharing environments"
"based a plurality" ('166 Patent, Claims 5, 9, 10, 16, 19)	"based on a plurality"
"mobile devices" ('166 Patent, Claim 16)	"mobile device"
"different the first user identification code" ('166 Patent, Claim 16)	"different from the first user identification code"
"different the first and second user identification codes" ('166 Patent, Claim 16)	"different from the first and second user identification codes"
"based a first level of administrative privilege" ('166 Patent, Claim 24)	"based on a first level of administrative privilege"
"first user identification" ('166 Patent, Claim 24)	"first user identification code"
"first identification code" ('166 Patent, Claim 24)	"first user identification code"
"communicates" ('499 Patent, Claims 1, 4, 5, 12, 17)	"communicate"
"second levels" ('499 Patent, Claims 1, 4, 5, 12, 17)	"second level"

"related a"	"related to a"
('499 Patent, Claim 17)	

(Dkt. No. 61 at 2).