UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
SHERMAN DIVISION

SB IP HOLDINGS, LLC, *Plaintiff*	§	
v.	§	CIVIL ACTION NO. 4:20-CV-886 (Judge Mazzant)
VIVINT SMART HOME, INC. and VIVINT, INC. *Defendants*	§	

CLAIM CONSTRUCTION MEMORANDUM OPINION AND ORDER

Before the Court are Plaintiff SB IP Holdings, LLC and SkyBell Technologies, Inc.'s ("Plaintiff's" or "SBIP's" or "SB IP's") Opening Claim Construction Brief (Dkt. #55) and SBIP's Responsive Claim Construction Brief (Dkt. #58).[1] Also before the Court are Defendants Vivint Smart Home, Inc. and Vivint, Inc.'s ("Defendants'" or "Vivint's") Opening Claim Construction Brief (Dkt. #54) and Vivint's Claim Construction Reply Brief (Dkt. #59). Further before the Court are the parties' P.R. 4-3 Amended Joint Claim Construction and Prehearing Statement (Dkt. #53) and the parties' P.R. 4-5(d) Joint Claim Construction Charts (*see* Dkt. #66; *see also* Dkt. #60).

The Court held a claim construction hearing on November 18, 2021, to determine the proper construction of the disputed claim terms in United States Patents No. 9,432,638, 9,485,478, 9,516,284, 9,635,323, 9,648,290, 9,414,030, and 10,674,120 (the "Skybell Patents" or the "patents-in-suit").

[1] Shortly before the November 18, 2021 claim construction hearing, the parties filed a joint motion to transfer Vivint's patent infringement counterclaims to the Central District of California (Dkt. #63), which the Court granted (Dkt. #65). The present Claim Construction Memorandum Opinion and Order therefore addresses only the Skybell Patents.

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The Court issues this Claim Construction Memorandum Opinion and Order and hereby incorporates-by-reference the claim construction hearing and transcript as well as the parties' demonstrative slides presented during the hearing.

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BACKGROUND

SBIP alleges infringement of United States Patents No. 9,414,030 (the "'030 Patent"), 9,432,638 (the "'638 Patent"), 9,485,478 (the "'478 Patent"), 9,516,284 (the "'284 Patent"), 9,635,323 (the "'323 Patent"), 9,648,290 (the "'290 Patent"), and 10,674,120 (the "'120 Patent"). (Dkt. #55, Exs. 1–7). The parties refer to these patents collectively as the "SBIP Patents" or the "Skybell Patents."

The Skybell Patents are all titled "Communication and Monitoring System," and SBIP submits that all seven of these patents are related to one another by continuation applications and all share the same specification. (Dkt. #55, at p. 1). All of the Skybell Patents claim priority to a provisional patent application filed on October 15, 2002.

The '638 Patent, for example, issued on August 30, 2016, and the Abstract of the '638 Patent states:

> An audio-video communication system comprises a wireless exterior module located proximate an entrance, a computerized controller running a software application, and a remote peripheral device. The wireless exterior module includes a proximity sensor for detecting a person at the entrance, a video camera for recording an image of the person at the entrance, a microphone for recording the person at the entrance, a speaker for playing audio to the person at the entrance, a transmitter for communicating sounds and images of the person at the entrance, and a receiver for receiving communications at the wireless exterior module. The computerized controller is disposed in wireless electronic communication with the wireless exterior module via the transmitter and the receiver of the wireless exterior module. The remote peripheral device is configured to electronically communicate with the computerized controller for viewing an image from the video camera communicated from the wireless exterior module.

SBIP also asserted the '638 Patent and '120 Patent (as well as other patents) in an International Trade Commission proceeding, Investigation No. 337-TA-1242.

LEGAL STANDARDS

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995). The purpose of claim construction is to resolve the meanings and technical scope of claim terms. *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). When the parties dispute the scope of a claim term, "it is the court's duty to resolve it." *O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008).

"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) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent's intrinsic evidence to define the patented invention's scope. *Id.* at 1313–14; *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification, and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court's construction of claim terms. *Phillips*, 415 F.3d at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Other claims, asserted and unasserted, can provide additional instruction because "terms are normally used consistently throughout the patent." *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* at 1315 (quoting *Markman*, 52 F.3d at 979). "[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). In the specification, a patentee may define his own terms, give a claim term a different meaning than it would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own lexicographer. *See Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex*, 299 F.3d at 1325. For example, "[a] claim interpretation that excludes a preferred embodiment from the scope of the claim 'is rarely, if ever, correct.'" *Globetrotter Software, Inc. v. Elan Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics*, 90 F.3d at 1583). But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); *accord Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent."). The well-established doctrine of prosecution disclaimer "preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution." *Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). "Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover." *Spectrum Int'l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988) (quotation omitted). "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." *Omega Eng'g*, 334 F.3d at 1324. However, the prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002). Statements will constitute disclaimer of scope only if they are "clear and unmistakable statements of disavowal." *See Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1358 (Fed. Cir. 2003). An "ambiguous disavowal" will not suffice. *Schindler Elevator Corp. v. Otis Elevator Co.*, 593 F.3d 1275, 1285 (Fed. Cir. 2010) (citation omitted).

Although "less significant than the intrinsic record in determining the legally operative meaning of claim language," the Court may rely on extrinsic evidence to "shed useful light on the relevant art." *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad

definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but "conclusory, unsupported assertions by experts as to the definition of a claim term are not useful." *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 of the United States has "read [35 U.S.C.] § 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, 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). "A determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), *abrogated on other grounds by Nautilus,* 134 S. Ct. 2120. "Indefiniteness must be proven by clear and convincing evidence." *Sonix Tech. Co. v. Publ'ns Int'l, Ltd.*, 844 F.3d 1370, 1377 (Fed. Cir. 2017).

ANALYSIS

Agreed Claim Terms

In their October 18, 2021 P.R. 4-3 Amended Joint Claim Construction and Prehearing Statement, the parties submit they have not agreed on any constructions. (Dkt. #53, at p. 2).

Disputed Claim Terms

As noted for certain disputed terms herein, the Court proposed constructions during the November 18, 2021 hearing, to promote discussion by the parties and to facilitate oral arguments addressing the Court's concerns and impressions after having reviewed the parties' briefing. The Court also permitted the parties to state their positions regarding those proposed constructions in

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a written filing shortly after the hearing on November 18, 2021. (Dkt #67 (SBIP); Dkt. #68 (Vivint)). The Court addresses those proposed constructions and the parties' responses as to particular disputed terms herein.

A. "keypad" and "keypad comprising/having one or more buttons"

"keypad" ('638 Patent, Claims 1, 6, 13; '478 Patent, Claims 1, 9, 21; '284 Patent, Claims 1, 6, 9, 13; '323 Patent, Claims 1, 13; '290 Patent, Claim 1; '030 Patent, Claims 1, 6, 13; '120 Patent, Claims 5, 7, 8)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a set of keys (finger operated switches employed to enter characters and commands into a computer)"
"keypad comprising one or more buttons" ('638 Patent, Claims 1, 6)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a set of keys (finger operated switches employed to enter characters and commands into a computer) comprising one or more buttons"
"keypad having one or more buttons" ('478 Patent, Claims 1, 9, 21; '284 Patent, Claims 1, 6, 13; '323 Patent, Claims 1, 13; '030 Patent, Claims 1, 6, 13)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a set of keys (finger operated switches employed to enter characters and commands into a computer) having one or more buttons"

(Dkt. #53, Ex. A, at pp. 1–3; Dkt. #60, Ex. A, at pp. 1–2).

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1. The Parties' Positions

SBIP argues that "[t]he ITC has previously rejected Vivint's similar proposed construction for the term 'keypad,'" and "Vivint seeks to limit the scope of the claims by asserting that a keypad cannot include a button on a video doorbell that when pressed informs the presence of a person. Vivint's proposal is improper and should be rejected." (Dkt. #55, at p. 4). SBIP also submits that "set of keys" appears nowhere in the specification, and the claims refer to "*one or more* buttons." (*Id.*, at p. 5). Further, SBIP argues that Vivint attempts to import limitations from various disclosed embodiments. (*Id.*)

Vivint argues that "[t]he claims in the patent family show that the term 'keypad' must add a limitation separate and apart from 'one or more buttons.'" (Dkt. #54, at p. 5). Vivint also argues that its proposal is supported by a technical dictionary definition and that "a keypad is consistently described as providing a selection for the visitor to enter characters and commands into the device." (*Id.*; *see id.* at 5–7).

SBIP responds that "[t]he problem with the [dictionary] definition used by Vivint is that it would create multiple buttons/keys where the claims require only 'one or more buttons.'" (Dkt. #58, at 2). SBIP notes that "[f]or a single word, Vivint proposes a claim construction that would add two functions and a new physical device to 'keypad.'" (*Id.*) SBIP also emphasizes that Claim 6 of the '638 Patent recites "keypad comprising *one or more* buttons." (*Id.*) (emphasis added).

Vivint responds that "[b]y asserting that a single button constitutes a keypad, Skybell impermissibly reads 'keypad' out of the claim." (Dkt. #59, at p. 3). As to claims that recite "a keypad having one or more buttons," Vivint argues: "The language that a keypad may separately have one or more buttons does not mean that the keypad itself is one or more buttons. Rather the

set of keys (keypad) may separately include one or more buttons that are separate and apart from the keypad as depicted in Figure 3, which shows a keypad that additional[ly] includes a mute switch 61." (*Id.*, at p. 5). Finally, Vivint argues that "[t]he specification contemplates that doorbell buttons are used for more than just communicating that a visitor is present at the door and provides additional features to help address these additional circumstances." (*Id.*, at p. 7).

At the November 18, 2021 hearing, Vivint urged that the word "keypad" has a well-established meaning and plainly connotes more than one button. SBIP noted the recitals of "one or more buttons" in these claims and argued that using multiple buttons is an embodiment, not a limitation. As to Vivint's proposal of "finger operated switches," SBIP argued that Vivint's cited definition of "key" is not necessarily applicable to the different term "keypad."

2. Analysis

As a threshold matter, SBIP's reliance on the ITC proceedings is unpersuasive because, as Vivint points out, those proceedings resulted in a finding of invalidity without any claim construction order having been entered. *See* Investigation No. 337-TA-1242, Order #16 (Sept. 15, 2021). Administrative Law Judge Clark S. Cheney noted at the claim construction hearing in those proceedings that the views expressed by Judge Cheney were "my impressions today. These are by no means a determination or an order. They are just my thoughts at the end of the day." (Dkt. #59, Ex. 14, June 16, 2021 Hr'g Tr. at 137:19–23; *see id.* at 137:25–140:11).

Nonetheless, Vivint does not persuasively justify requiring a "set" of multiple keys. As listed in the chart above, many of the claims recite a "keypad comprising one or more buttons" or "a keypad having one or more buttons," and Vivint does not persuasively support its assertion that the phrase "one or more buttons" refers to buttons provided *in addition to* the keypad. *See* '478 Patent at 9:1 & Fig. 3 (illustrating mute switch 61).

The specification does not compel otherwise. To the extent that the specification refers to keypads having more than one button, this is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See also id.* at 8:31–34 & Fig. 2; *see also id.* at 10:49–62 & Fig. 5 ("The Visitor, using the DVMS keypad, enters the correct door lock code (e.g. 4321#).").

Finally, the extrinsic evidence cited by Vivint is unpersuasive. (*See* Dkt. #54, Ex. 10, *The New Penguin Dictionary of Computing* 267–68 (2001) (VIVINT_SBIP0002708–09) (defining "key" as: "A finger-operated switch employed to enter characters and commands into the computer"; defining "keypad" as: "A small set of keys arranged for a particular task, which may form part of a larger keyboard or constitute a separate device. Keypads are typically used for rapid entry of numeric data . . . ."). First, these definitions are from a technical dictionary that pertains to computer systems, not necessarily to security, surveillance, or doorbell systems. Second, "[a] claim should not rise or fall based upon the preferences of a particular dictionary editor." *Phillips*, 415 F.3d at 1322. The Court therefore rejects Vivint's proposal of requiring multiple keys and requiring "finger operated switches employed to enter characters and commands into a computer."

The Court therefore hereby expressly rejects Vivint's proposed construction, and no further construction is necessary. *See O2 Micro*, 521 F.3d at 1362 ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims."); *see also 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."); *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 977–79 (Fed. Cir. 2021).

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The Court accordingly hereby construes **"keypad," "keypad comprising one or more buttons,"** and **"keypad having one or more buttons"** to have their **plain meaning**.

B. "database"

"database" ('638 Patent, Claims 2, 9, 11, 20; '478 Patent, Claims 19; '284 Patent, Claims 2, 3, 11, 12, 18, 19; '323 Patent, Claims 13, 16; '290 Patent, Claims 1, 13; '030 Patent, Claims 2, 7, 9, 11; '120 Patent, Claims 1, 6, 16, 19)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a collection of data stored with a plurality of criteria used for organizing and locating the stored data"

(Dkt. #53, Ex. A, at p. 3; Dkt. #60, Ex. A, at p. 2).

1. The Parties' Positions

SBIP argues that Vivint's proposal lacks support in the intrinsic record and "excludes databases that include, for example, non-related files or a single file and/or a collection of data accessible and organized by tables, views, functions, stored procedures, and other database objects." (Dkt. #55, at p. 6). SBIP urges: "The claims do not specify a particular type of database, the organizational structure of the database, or that they should be stored 'with a plurality of criteria.' Instead, where the term 'database' must be limited in some way, the claims themselves provide the limitation." (*Id.*, at p. 6) (citations omitted). Further, SBIP argues that "the specification of the Asserted Patents also uses the term database broadly and without the limitations the Respondents [*sic*] impose." (*Id.*, at 7).

Vivint argues that "[a] database requires both data and structure," and "Vivint's construction captures this meaning and is consistent with the use of 'database' in the specification." (Dkt. #53, at p. 8).

SBIP responds: "Vivint relies on two sentences from the specification describing two embodiments where video or audio is saved in a database along with a timestamp or an occupant's mailbox number. These two examples of storage of video and audio in a database are just that – examples. Neither example is accompanied by any indication that the patentee intended to limit the term 'database' to these two specific types of uses. Neither example provides lexicography or clear disavowal of claim scope." (Dkt. #58, at p. 6) (citing Dkt. #54 at 8) (citing '478 Patent at 8:16–20 & 11:31–34). SBIP also argues that "[w]here the term 'database' must be limited in some way, the claims themselves provide the limitation." (*Id.*, at p. 7) (citing '290 Patent, Cl. 1, '120 Patent, Cl. 1 & '323 Patent, Cl. 13).

Vivint responds that "[n]othing cited by Skybell contradicts Vivint's proposed construction." (Dkt. #59, at p. 7). Vivint argues: "Skybell appears to reject the notion that the database must have *some* organizational structure. This is contrary to the plain and ordinary meaning of a database and contrary to the very examples cited by Skybell." (*Id.*, at p. 8).

At the November 18, 2021 hearing, SBIP reiterated that Vivint is importing limitations from particular embodiments. Vivint responded that the disclosed examples of criteria demonstrate that there indeed are some criteria used for locating the data at a later time.

2. Analysis

Vivint persuasively argues that a database requires organization, but Vivint does not persuasively support its proposal of requiring "a plurality of criteria." Vivint cites the following disclosures as support for requiring "criteria":

> The proximity sensor 26 activates the camera 22 upon detection of movement, which in turn relays an image or streaming video to the personal computer 80 where it is saved by the personal computer 80 in a database in association with a timestamp.
>
> * * *
>
> The message or call is stored in computer readable medium, such as database, by the personal computer 80 in association with a beginning timestamp and an ending timestamp along with the occupant's mailbox number.

'478 Patent at 8:16–20 & 11:31–34.

These criteria are specific features of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323. Finally, Vivint's proposal of "locating" is unnecessary if the construction requires the collection of data to be organized.

The Court therefore hereby construes **"database"** to mean **"an organized collection of data."**

C. "hierarchy of storage" and "storage hierarchy"

"hierarchy of storage" **"storage hierarchy"** ('638 Patent, Claims 9, 11, 20; '478 Patent, Claim 19; '284 Patent, Claims 3, 11, 19; '323 Patent, Claims 1, 3, 13; '290 Patent, Claim 1; '030 Patent, Claims 7, 9, 11; '120 Patent, Claims 1, 16)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"an organization scheme that links records into a family tree, where parent records own child records, so that any record type has only a single owner"

(Dkt. #53, Ex. A, at p. 6; Dkt. #60, Ex. A, at pp. 2–3).

1. The Parties' Positions

SBIP argues that "[t]he phrases 'storage hierarchy' or 'hierarchy of storage' (the 'hierarchy phrases') are well-known terms of art that do not require construction," and "[t]he ITC previously rejected Vivint's similar proposed construction." (Dkt. #55, at p. 8). SBIP urges that "[a]lthough a hierarchy may in some instances imply organization 'into a family a [*sic*] tree,' neither the claims nor the specification requires a specific type of hierarchy." (*Id.*)

Vivint argues that whereas "[a] defined hierarchy connotes a specific type of data storage," "[t]he specification do[es] not define, or otherwise provide guidance as to the meaning of 'hierarchy of storage' or 'storage hierarchy.'" (Dkt. #54, at p. 11). Vivint submits that its proposal is consistent with a technical dictionary definition, and Vivint argues that "[t]his structure is commonly seen in computer file folders, where each folder is another layer to the hierarchy and each file belongs to a specific file." (*Id.*, at pp. 11–12).

SBIP responds that "Vivint's construction would exclude hierarchical databases where more than one parent is associated with a child record, such as relational databases that were well-known at the time of the invention and excludes other types of hierarchies." (Dkt. #58, at p. 8) (citing '478 Patent at 17:8–11 & Fig. 10). SBIP argues that "[t]he patentee left the choice to determine the specific type of hierarchy based on the particularities of the system to one skilled in the art." (*Id.*) (citing '478 Patent at 9:46–10:8).

Vivint responds that "[a] storage hierarchy is a specific type [of] data storage scheme," and "Skybell seeks to void this clear limitation by defining 'hierarchy' out of the claim." (Dkt. #59, at p. 8.) Vivint urges that "[t]he extrinsic evidence is rather clear that a relational database is something entirely different than a hierarchical database." (*Id.*, at p. 9).

At the November 18, 2021 hearing, SBIP argued that a "storage hierarchy" can encompass what SBIP referred to as a "hierarchy of relationships" and can thereby encompass a relational database. As to the technical definitions submitted by Vivint, SBIP emphasized that the terms at issue are not "hierarchical database." SBIP thus argued that the terms "hierarchy of storage" and "storage hierarchy" are broader than the phrase "hierarchical database." Vivint responded that the word "hierarchy" in this context is a term of art, chosen by the patentee, that is known in the art as referring to a tree-like database structure rather than a relational database. SBIP replied that even if the technical definitions submitted by Vivint are relevant, those definitions use "tree" merely as an example.

2. Analysis

As noted above regarding the "keypad" terms, SBIP's reliance on the ITC proceedings is unpersuasive. (Dkt. #59, Ex. 14, June 16, 2021 Hr'g Tr. at 137:19–23 ("These are by no means a determination or an order. They are just my thoughts at the end of the day."); *see id.* at 137:25–140:11; *see also* Investigation No. 337-TA-1242, Order #16 (Sept. 15, 2021).).

Claim 9 of the '638 Patent, for example, recites (emphasis added):

> 9. The system of claim 6 further comprising a database comprising various levels of user access; wherein the database comprises at least one declared occupant and a password associated with the at least one declared occupant; wherein the database further comprises a *storage hierarchy* for the video and audio data associated with the camera; wherein the video data is associated with a time-stamp; wherein the user can selectively sort the audio and video data associated with the exterior device and stored by the database.

Vivint cites a technical dictionary that contains the following definitions regarding "hierarchy":

> **hierarchical** Any system consisting of a sequence of ordered groupings, examples of which can be found in social affairs, botanical classification, and extensively in computing. For example, FILES are hierarchically organized into FOLDERS and SUBFOLDERS in all the major computer operating systems. The

> advantage of hierarchical classification systems — which may be visualized as TREE structures — is that when properly designed they can minimize the number of items that need to be examined to locate a particular element.
>
> **hierarchical database** A kind of DATABASE MANAGEMENT SYSTEM that links records into a family tree, where *parent records own child records, so that any record type has only a single owner*. For example, an order is owned by a single customer. Widely used in the 1950s on early MAINFRAME computers, *but now almost entirely replaced by the RELATIONAL DBMS*, because their restrictive structure was often incapable of modelling complex real world relationships.
>
> **hierarchical file system** Any FILE SYSTEM which permits files to be nested within other files, to assist in managing large numbers of them. A file that is a container for other files is called a DIRECTORY, and the whole hierarchy resembles a notional TREE in which the branches and twigs are directories, while the leaves are the data files. All modern operating systems including Windows, Unix, MacOS and MS-DOS employ such hierarchical file systems.

(Dkt. #54, Ex. 10, *The New Penguin Dictionary of Computing* 225 (2001)) (VIVINT_SBIP0002706) (italics added).

The patentee thus chose to use a term, "hierarchy," which has had a well-established meaning in the relevant art, and this above-reproduced evidence explains that a hierarchy is different from a relational database. *Id.*

This term chosen by the patentee should be given effect in the claim scope by applying the well-established meaning in the relevant art. *See Phillips*, 415 F.3d at 1318 ("Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, those resources have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention.") (citation omitted).

Nothing in the claim language, such as reproduced above, suggests otherwise. *See, e.g.,* '638 Patent, Cl. 9. Despite differences among the claims here at issue reciting or not reciting a "database," all of the claims here at issue use these disputed terms in the context of data storage.

Despite SBIP's arguments that Figure 10 illustrates a hierarchy that is not tree-like, this is not apparent from Figure 10 or the disclosures in the specification regarding Figure 10. *See* '638 Patent at Fig. 10 & 16:66–17:56, *esp.* at 17:9–10. Finally, SBIP cites claim language that places additional limitations on the recited hierarchy, such as requiring that the hierarchy is "based upon the location of the entrance" (*see* '638 Patent, Cl. 20; *see also* '284 Patent, Cl. 3), but this does not undercut the above-discussed finding that "hierarchy" in this context is a term of art that refers to a tree-like structure.

Finally, SBIP's reliance on disclosure that an administrator can define the hierarchy is also unavailing. *See* '478 Patent at 9:46–10:8. This disclosure regarding *how*, or *by whom*, a storage hierarchy may be defined does not address what a storage hierarchy *is*.

The Court therefore hereby construes **"hierarchy of storage"** and **"storage hierarchy"** to mean **"storage organized into a tree-like structure, in which 'parent' records own 'child' records such that each record has only a single owner."**

D. "replications of a database," "database is replicated," and "replicating the video"

"replications of a database" ('030 Patent, Claim 9)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"copies of the data of a database and the structure of the data of the database"
"database is replicated" ('284 Patent, Claim 12; '120 Patent, Claims 6, 19)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"data and structure of the database is copied"

"replicating the video" ('638 Patent, Claim 20)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"copying the video data and structure of the video data"

(Dkt. #53, Ex. A, at pp. 9–10; Dkt. #60, Ex. A, at p. 3).

1. The Parties' Positions

SBIP argues that "there is nothing in the intrinsic record that supports unduly limiting these claim terms," and "[t]he ITC agrees." (Dkt. #55, at p. 10). SBIP also argues that "[w]here the claims require a specific manner in which the claimed 'replication' is to occur, the claims themselves delineate the requirement." (*Id.*) (citations omitted).

Vivint argues that "Vivint's constructions reflect the plain and ordinary meaning of 'replicate' which requires making a copy of the video and database," which Vivint argues is consistent with the specification and with a technical dictionary definition. (Dkt. #54, at p. 19; *see id.* at pp. 18–19).

SBIP responds that even Vivint's own evidence does not support requiring copying the entire structure of the database. (Dkt. #58, at p. 8). Instead, SBIP argues, "[t]he express language of the claims provides the necessary guidance on what should be replicated and to what extent." (*Id.*, at p. 9).

Vivint responds that whereas "Skybell largely argues that 'replication' has no limitation," "replication of a database requires copies of the structure and data of the database" because "a database requires both data and structure." (Dkt. #59, at p. 18).

At the November 18, 2021 hearing, SBIP acknowledged that "replications" are more than simply copies of raw data, but SBIP argued that Vivint's proposal might be interpreted as requiring copying all data and the entire structure in all instances. In response, Vivint agreed that less than an entire database could be "replicated."

2. Analysis

As to the term "replicating the video" in Claim 20 of the '638 Patent, the parties reached the following agreement as to this term: "No construction necessary." (Dkt. #66, Ex. A at 3.) The parties evidently now agree that "replicating the video" does not require copying "structure of the video data" as Vivint had previously proposed.

As to "replications of a database" and "database is replicated," Claim 9 of the '030 Patent for example recites (emphasis added)

> 9. The system of claim 6 wherein the system further comprises *replications of a database* comprising at least one user password to access the database, a network designation of at least one exterior device, and a defined hierarchy of storage of audio or video data that has been time-stamped and recorded by the exterior device.

In this context, the term "replications of a database" connotes more than simply a copy of the data contained in the database. A similar context is presented in Claim 12 of the '284 Patent and Claims 6 and 19 of the '120 Patent. As discussed above, the term "database" requires some organization, so creating a replica of a database requires copying not just the data within the database but also the structure of the database.

At the November 18, 2021 hearing, as noted above, the parties expressed a mutual understanding that "replicating" does not requiring copying *all* data and structure of a database. Rather, the parties agreed, portions could be copied. SBIP argued that because the parties agree on this point, no construction is necessary, but the Court finds that "some construction of the

disputed claim language will assist the jury to understand the claims." *TQP Dev., LLC v. Merrill Lynch & Co.*, No. 2:08-CV-471-WCB, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J., sitting by designation).

With that understanding, the Court hereby construes these disputed terms as set forth in the following chart:

Term	Construction
"replications of a database"	**"copies of data of a database and structure of the database"**
"database is replicated"	**"data and structure of the database are copied"**
"replicating the video"	**Plain meaning**

E. "redundant system"

"redundant system" ('638 Patent, Claim 20; '284 Patent, Claims 3, 19; '323 Patent, Claims 1, 15; '290 Patent, Claim 1)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"duplication of the hardware or software components of the system"[2]

(Dkt. #53, Ex. A, at p. 9; Dkt. #60, Ex. A, at p. 4).

Shortly before the November 18, 2021 hearing, the parties reached the following agreement for this term: "No construction necessary." (Dkt. #66, Ex. A, at p. 4). The Court therefore hereby construes **"redundant system"** to have its **plain meaning**.

[2] Vivint previously proposed: "duplication of the hardware *and* software components of the system." (Dkt. #53, Ex. A, at p. 9) (emphasis added).

F. "streaming video" and "streaming digital video"

"streaming video" **"streaming digital video"** ('638 Patent, Claims 1, 2, 3, 6, 12; '478 Patent, Claims 1, 5, 9, 20, 21; '284 Patent, Claims 1, 6, 8, 13; '323 Patent, Claims 1, 4, 5, 13, 14; '290 Patent, Claims 1, 19; '030 Patent, Claims 1, 6, 7, 12, 13; '120 Patent, Claims 1, 2, 16, 20)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"video data that is capable of being played before the entire video data file is downloaded onto a viewing device"[3]

(Dkt. #53, Ex. A, at p. 7; Dkt. #60, Ex. A, at p. 4).

Shortly before the November 18, 2021 hearing, the parties reached the following agreement for this term: "No construction necessary." (Dkt. #66, Ex. A, at p. 4). The Court therefore hereby construes **"streaming video"** and **"streaming digital video"** to have their **plain meaning**.

G. "encrypting the digital streaming video"

"encrypting the digital streaming video" ('120 Patent, Claims 1, 16)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"encoding the audio and video data of the digital streaming video so that it may be read only by authorized parties"

(Dkt. #53, Ex. A, at p. 11; Dkt. #60, Ex. A, at p. 5).

[3] Vivint previously proposed: "video data that is played before the entire video data file is downloaded onto a viewing device." (Dkt. #53, Ex. A, at p. 7).

1. The Parties' Positions

SBIP argues that Vivint's proposal is narrower than the plain and ordinary meaning and "is also inconsistent with the way the phrase is used in the Asserted Patents specifications and claims." (Dkt. #55, at p. 14). SBIP also argues that in Vivint's proposal "it is unclear whether 'party' contemplates a human, a device, both, or neither." (*Id.*)

Vivint argues that its proposal is supported by the specification and the prosecution history. (Dkt. #54, at p. 21).

SBIP responds that in the prosecution history cited by Vivint, "[t]he applicant explained to the examiner that video encoding and encryption are simply not the same thing and offered a non-limiting explanation of encryption." (Dkt. #58, at p. 12) (citation omitted). Further, SBIP argues that "[i]t is also unclear who or what qualifies as an 'authorized party' and who or what determines whether a 'party' is authorized." (*Id.*)

Vivint responds: "Vivint's proposal does not incorporate an abstract concept of authorizing specific individuals. Rather, as Skybell admits, anyone with decryption keys may decrypt the encrypted data. Skybell Brief at 14. There is no dispute over the identity of an authorized party." (Dkt. #59, at p. 20). Vivint also argues that, in light of the patentee's statements during prosecution, "Skybell cannot now claim that data transport protocols involved in data transfer is encryption as claimed in the patent." (*Id.*, at pp. 20–21).

2. Analysis

During prosecution, the patentee stated:

> Independent claim 1 further recites "wherein the system is capable of encrypting the digital streaming video transmitted from the device." The examiner asserts that encoding as described in [the] Foodman [reference] is the same as encryption. See Office Action at 7. However, *encoding and encryption each serve a distinct purpose*. Encoding transforms data using a public or proprietary scheme that can easily be reversed using that scheme. *The purpose of encoding is typically to*

> *facilitate transmission over a communications channel or storage on a medium.* For example, characters can be encoded in ASCII or Unicode for transmission across and storage on digital medium. As explained in Foodman, for example, "[a] video encoder 317 receives the video output signal of a camera and prepares the video signal for transmission by transmitter 319. Transmitter 319 uses a communication standard such as MPEG or JPEG for transmission of the data, voice, and video information from system 311." Foodman, paragraph 0030. "Video/audio encoder 317 encodes video signals in a selected data format." Foodman, paragraph 0033. Such encoding is often necessary when preparing an analog signal (like audio captured on a microphone) for transmission or storage in a digital medium. *Encryption, by contrast, transforms data in such a way that only specific individuals can reverse the transformation.* Encryption transforms data using an algorithm in conjunction with one or more keys to produce a ciphertext. *The purpose of encryption is to keep the contents of the data secret.* Unlike encoding, encryption requires the ciphertext, the algorithm, and the key or keys in order to recover the original data from the ciphertext.

(Dkt. #58, Ex. 4, Nov. 26, 20219 Response to Office Action, at 8) (emphasis modified).

The patentee thus explained that "encrypting" requires transforming data in such a way than an algorithm and one or more keys are required to be able to read the data. These definitive statements by the patentee should be given effect in the Court's construction. *See Omega Eng'g*, 334 F.3d at 1324.

At the November 18, 2021 hearing, the Court proposed construing this disputed term to mean "transforming the digital streaming video data so that an algorithm and one or more keys are required to read the data." Vivint agreed with the Court's proposed construction. (Dkt. #68). SBIP maintained that "SBIP continues to believe the term should be given its plain and ordinary meaning," but SBIP submitted that if the Court is inclined to construe this term, SBIP agrees with the Court's proposed construction. (Dkt. #67).

On balance, "some construction of the disputed claim language will assist the jury to understand the claims." *TQP Dev., LLC v. Merrill Lynch & Co.*, No. 2:08-CV-471-WCB, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J., sitting by designation).

In light of the parties' above-noted agreement in the event that the Court finds that this disputed term should be construed, the Court hereby construes **"encrypting the digital streaming video"** to mean **"transforming the digital streaming video data so that an algorithm and one or more keys are required to read the data."**

H. "motion sensor," "proximity sensor," and "proximity detector"

"motion sensor" ('120 Patent, Claims 1, 4, 5, 10, 15, 17)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a piece of computer hardware that detects physical movements of objects and converts the physical movements into electrical signals"
"proximity sensor" ('638 Patent, Claims 1, 7, 13, 14; '478 Patent, Claims 1, 11, 20, 22; '284 Patent, Claims 13, 14, 18, 19; '290 Patent, Claim 1; '030 Patent, Claims 13, 14)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a piece of computer hardware that detects the distance of an object to the hardware within a fixed range of the hardware"
"proximity detector" ('638 Patent, Claim 6; '478 Patent, Claim 21; '284 Patent, Claims 1, 4, 6; '323 Patent, Claims 1, 13, 14; '290 Patent, Claims 4, 6; '030 Patent, Claims 1, 6)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"the ability to detect the distance of an object within a fixed range"

(Dkt. #53, Ex. A, at pp. 7–9; Dkt. #60, Ex. A, at pp. 5–6).

1. The Parties' Positions

SBIP argues: "Vivint manufactures a distinction between 'motion' and 'proximity' that is not in the intrinsic record and attempts to limit the term 'sensor' to 'a piece of computer hardware' to fit its noninfringement theory. However, when read in light of the intrinsic evidence, these phrases are readily understood to one skilled in the art and do not require construction." (Dkt. #55, at p. 15).

Vivint argues that "[t]he specification discuss[es] attributes of a motion sensor and identif[ies] the motion sensor as a piece of hardware which detects physical movements of persons or objects." (Dkt. #54, at p. 14). Vivint also cites dependent Claim 7 of the '638 Patent, arguing that "[t]he narrowing effect of a dependent claim confirms that a detector (software or hardware) is broader than a sensor (hardware only)." (*Id.*, at p. 15). As to "proximity sensor," Vivint submits that "the specification list[s] the proximity sensor has [*sic*, as] a piece of hardware, along with the other hardware that exists in the DVMS module (such as cameras, speakers, microphones, etc.)," and Vivint also argues that the claims recite the proximity sensor along with other pieces of hardware. (*Id.*, at p. 16). Vivint presents the same arguments as to "proximity detector." (*Id.*, at p. 17).

SBIP responds that "[t]here is no evidence in the intrinsic record to distinguish 'motion' from 'proximity,'" and instead "[t]he patentee expressly uses both terms synonymously." (Dkt. #58, at p. 13) (discussing '284 Patent, Cl. 19 & '478 Patent at 8:17–18). SBIP also argues that Vivint's proposal regarding detecting distance is an improper attempt to import a limitation from a disclosed embodiment and, moreover, the specification does not refer to detecting a particular distance. (*Id.*, at p. 14). Further, SBIP argues that "[t]he claims use the terms 'sensor' and 'detector' synonymously," and "[b]oth 'sensor' and 'detector' may be implemented in hardware,

software, or a combination of the two." (*Id.*, at p. 16). Finally, SBIP argues that "[a]lthough hardware sensors provide electrical signals (as Vivint points out based on an embodiment shown in Figure 2), a requirement that the *only type* of sensor claimed is one that is 'a piece of computer hardware' that must *always* convert electrical signals is concocted purely from Vivint's dictionary definition, has no intrinsic support, and should be rejected." (*Id.*, at p. 17).

Vivint responds that "Skybell's insistence on conflating terms and ignoring language underscores the need to construe these terms." (Dkt. #59, at p. 14) (citation omitted). Vivint also argues, for example: "Nothing in Vivint's proposed construction forecloses a proximity sensor from detecting motion. Rather Vivint's construction comports with the plain language use of 'proximity' and descriptions in the specification that tie a proximity sensor to a given range of the sensor itself." (*Id.*, at p. 15).

At the November 18, 2021 hearing, SBIP submitted that all three of the "motion sensor," "proximity sensor," and "proximity detector" serve the same function, detecting a person. Vivint responded that the word "sensor" connotes hardware and the word "proximity" connotes distance.

Also at the November 18, 2021 hearing, the Court proposed construing "motion sensor" to mean "hardware or software that detects physical movement," and the Court proposed construing "proximity sensor" and "proximity detector" to mean "hardware or software that detects presence of an object within a predetermined range."

SBIP is generally amenable to the Court's proposed constructions except that SBIP proposes, as it discussed during the hearing, "hardware *and/or* software." (*See* Dkt. #67). In its post-hearing filing, SBIP proposes that "motion sensor" should be construed as "hardware and/or

software that detects an indication of movement." (*Id.*). Vivint "maintains that sensors must be hardware." (Dkt. #68).

As to "proximity sensor" and "proximity detector," SBIP proposes "hardware and/or software that detects an indication of the presence of an object and/or person within a range." (Dkt. #67). Vivint proposes "[h]ardware or software for detecting an object within a predetermined distance." (Dkt. #68). SBIP disagrees with using the word "predetermined." (Dkt. #67).

2. Analysis

SBIP does not persuasively demonstrate that the patentee used "motion" and "proximity" as synonyms. *See CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.") The disclosures cited by SBIP refer to detecting the presence of a person by a motion sensor or a proximity sensor (*see* '478 Patent at Abstract, 4:13–15, 16:17–18 & 16:49–52), but SBIP does not persuasively show how it necessarily follows that "motion" and "proximity" are the same. Indeed, the specification explains that "or" indicates alternatives rather than synonyms. *See* '478 Patent at 6:40–46.

The specification discloses, for example, "proximity sensor 26":

> When the visitor departs, and is out of the range of the proximity sensor 26, all recording is stopped and saved in the database record, along with an ending timestamp.

Id. at 11:38–44. The specification also discloses a "motion sensor":

> The set of digital video operating parameters may include parameters selected from the group of a default camera position; a number of frames per second; sensitivity and threshold of a motion sensor; length of a session; frequency of motion detection; and sensitivity and threshold of the motion detector.
>
> * * *

> As previously stated, the camera 210 has a motion sensor 220 for detecting the presence of a person or a moving object with an adjustable level of sensitivity and a trigger threshold for initiating video recording, and, optionally issuing a verbal response, such as a greeting. * * * The recording further can be transmitted to the personal computer 240 for saving for later viewing. In an alternative embodiment, the camera does not include a motion sensor 220 in the form of an additional piece of hardware but, instead, detects motion via a *software* application that analyzes the video images.

Id. at 14:46–51 & 16:17–39 (emphasis added).

Vivint's proposal of referring to "hardware" is inconsistent with the above-reproduced disclosure that a motion sensor can be implemented in software. *See id.* at 16:34–39. Dependent Claim 7 of the '638 Patent, cited by Vivint, does not compel otherwise. Also, Vivint does not demonstrate any distinction in the record that would require the term "detector" to encompass the term "sensor" or that would compel finding that the term "sensor" necessarily refers to hardware rather than potentially software. *See, e.g.,* '120 Patent, Cls. 15 & 17 ("two or more sensors which comprise a motion sensor, a door detector, a temperature detector, a window detector, an open window detector, a radon detector, or any combination thereof").

Vivint also proposes that a "proximity sensor" or "proximity detector" must "detect the distance" between the sensor and an object, but the above-reproduced disclosure refers to whether an object is within "range." On balance, Vivint does not sufficiently support a narrow interpretation of "proximity" as referring to a distance rather than simply whether an object is within some predetermined range of the sensor or detector. To whatever extent the parties dispute whether the word "range" necessarily refers to a distance or instead could refer to a portion of a field of view, the Court expressly rejects SBIP's apparent suggestion during the November 18, 2021 hearing that "range" in this context could refer to a portion of a field of view. Instead, the specification appears to use "proximity" in accordance with its ordinary

meaning in common parlance (*see, e.g., id.* at 11:38–44 (quoted above)), and so the Court's construction herein refers to "predetermined range" so as to refer to some distance (albeit without necessarily measuring what the distance actually is).

Finally, the word "predetermined" in the Court's construction does not preclude something from being changed, such as by a user, and the word "object" in the Court's construction is used not to exclude a person but rather to express that the disputed terms encompass detecting not only a person but also an inanimate object.

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

Term	Construction
"motion sensor"	**"hardware and/or software that detects physical movement"**
"proximity sensor"	**"hardware and/or software that detects presence of an object within a predetermined range"**
"proximity detector"	**"hardware and/or software that detects presence of an object within a predetermined range"**

I. "actuating the camera"

"actuating the camera" ('478 Patent, Claim 8)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"mechanically move a part of the camera"

(Dkt. #53, Ex. A, at p. 5; Dkt. #60, Ex. A, at p. 6).

SBIP argued that "[w]hile actuation can include mechanical actuation and the physical movement of parts, one of ordinary skill in the art would understand the term to include other types of actuation as well, such as electronic actuation." (Dkt. #55, at p. 17). SBIP further argued that "Vivint's proposal, however, would actually largely preclude remote actuation which is typically accomplished electronically and preclude actuation that results in operations other than the movement of parts, like zooming or recording." (*Id.*, at p. 18).

Vivint argued that "the specification discuss[es] remotely actuating a camera by zooming or panning[] the camera[,] both of which require mechanical movement through gears that move the position of the camera or by moving lenses to zoom . . . ." (Dkt. #54, at p. 9) (discussing '478 Patent at 4:10–16, 11:62–67 & 16:11–16). "Further," Vivint argued, "Vivint's construction is supported by the definition of 'actuator' from the Dictionary of Computing . . . ." (Dkt. #54, at pp. 9–10) (citing *id.*, Ex. 10, at VIVINT_SBIP0002701).

SBIP responded that "the specification never mentions gears nor requires that zooming or panning be performed mechanically," and "zooming and panning can also be performed digitally." (Dkt. #58, at p. 17). SBIP also argued: "Vivint's reliance on the definition of 'actuator' is irrelevant. The definition of 'actuator,' a particular class of device, has no bearing on the meaning or scope of the broader concept of 'actuating.'" (*Id.*, at p. 18).

Vivint responded that whereas SBIP has relied on an apparently recent Google search, the relevant priority date is in 2003, and Vivint emphasized that its cited 2001 technical dictionary "defines 'actuator' as '[a]n electronic device that turns an electrical current into motion, for example to close a door or turn a valve.'" (Dkt. #59, at pp. 12–13) (quoting *id.*, Ex. 10, at 5 (VIVINT_SBIP0002701)). Vivint also argued that disclosures in the specification that involve actuating involve physical movement. (*Id.*, at pp. 13–14).

During the November 18, 2021 hearing, the parties reached agreement to construe "actuating the camera" to mean "causing the camera to operate." (Dkt. #67; Dkt. #68). Based on the arguments presented by the parties, as well as based on the intrinsic evidence (*see, e.g.,* '478 Patent at 16:11–16), the Court understands that this agreed-upon construction requires a change to occur but does not require physical movement.

With this apparent mutual understanding between the parties, the Court hereby construes **"actuating the camera"** to mean **"causing the camera to operate."**

J. "control settings"

"control settings" ('290 Patent, Claim 9)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"options to enact physical changes"

(Dkt. #53, Ex. A, at p. 11).

In their November 8, 2021 Joint Claim Construction Chart, the parties submit the following as being agreed upon by the parties: "No construction necessary." (Dkt. #60, Ex. A, at p. 6).

In accordance with this agreement reached by the parties, the Court hereby construes **"control settings"** to have its **plain meaning**.

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K. "control parameters associated with the device"

"control parameters associated with the device" ('120 Patent, Claims 1, 16)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"options to enact physical changes to the device"

(Dkt. #53, Ex. A, at p. 11; Dkt. #60, Ex. A, at pp. 6–7).

Shortly before the November 18, 2021 hearing, the parties reached the following agreement for this term: "No construction necessary." (Dkt. #66, Ex. A, at pp. 6–7). The Court therefore hereby construes **"control parameters associated with the device"** to have its **plain meaning**.

L. "wireless device"

"wireless device" ('478 Patent, Claims 1, 9, 10, 11, 15, 18, 20, 21, 23)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a device that operates without external wires"

(Dkt. #53, Ex. A, at p. 12; Dkt. #60, Ex. A, at p. 7).

Shortly before the November 18, 2021 hearing, the parties reached the following agreement for this term: "No construction necessary." (Dkt. #66, Ex. A, at pp. 7). The Court therefore hereby construes **"wireless device"** to have its **plain meaning**.

M. "declared occupant"

"declared occupant" ('638 Patent, Claims 9, 20; '284 Patent, Claim 3)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"a user designated in the system as occupying the structure"[4]

(Dkt. #53, Ex. A, at p. 6; Dkt. #60, Ex. A, at p. 7).

1. The Parties' Positions

SBIP argues that "the specification contemplates the declared occupant can be a configurable variable or stored in a database that is easily updatable . . . ." (Dkt. #55, at p. 23) (citing '478 Patent at 9:39–50 & Fig. 5).

Vivint argues that the specification teaches that a declared occupant must be identified in the system as a user that occupies the home or office. (Dkt. #54, at p. 13; *see id.* at pp. 12–13) (discussing '478 Patent at 9:39–46, 12:1–5 & Fig. 5).

SBIP's response addresses Vivint's previously proposed construction, which referred to source code. (*See* Dkt. #58, at p. 19).

Vivint responds: "There does not appear to be any dispute over this construction given Skybell's arguments. Skybell concedes that a 'declared occupant' is defined as an occupant in the system. Skybell points to two examples, both of which include a declared occupant being defined as an occupant of the structure in at least a database. Skybell Brief at 22–23. Accordingly, Vivint has adopted Skybell's proposal as outlined in its brief and submits the

[4] Vivint previously proposed: "a user designated in *source code* as occupying the structure." (Dkt. #53, Ex. A, at p. 6) (emphasis added).

modified construction of "a user designated in ~~*source code*~~ *the system* as occupying the structure." (Dkt. #59, at p. 10).

At the November 18, 2021 hearing, SBIP disagreed with Vivint's revised proposal, arguing that the claim language already explains where the "declared occupant" is stored. SBIP also argued that referring to "occupying the structure" would be an added limitation that lacks support.

2. Analysis

Claim 9 of the '638 Patent, for example, recites (emphasis added):

> 9. The system of claim 6 further comprising a database comprising various levels of user access; wherein the database comprises at least one *declared occupant* and a password associated with the at least one *declared occupant*; wherein the database further comprises a storage hierarchy for the video and audio data associated with the camera; wherein the video data is associated with a time-stamp; wherein the user can selectively sort the audio and video data associated with the exterior device and stored by the database.

In light of Vivint's above-noted revision of its proposed construction to refer to "the system" rather than "source code," little substantive dispute remains between the parties.

Also, the Background of the Present Invention section of the specification explains than the term "occupant" refers to "the resident of [a] home or occupant of [an] office":

> There are numerous problems presently associated with receiving visitors at a home or office. When the resident of the home or occupant of the office (*hereinafter generally referred to as either resident or occupant*) is absent, there is often no message for the visitors, no means to leave an interactive message for the resident, and no means to ensure that unwanted access is not obtained.

'478 Patent at 1:34–40 (emphasis added); *see id.* at 9:30–32 ("The users in the system 100 are referred to as 'occupants' reflecting their relation to the home or office."); *see also id.* at 9:39–42 ("examples of configuration settings of the software application that are determined by the administrator include: aliases for a declared occupant such as, e.g., 'Daddy' or 'Momma'").

Also, the specification refers to a "declared occupant" entering a home or office, which weighs against limiting the term "declared occupant" to only those who are present:

> In the method, upon the entering of a valid access code assigned to a declared occupant, the software application optionally notifies the administrator or his designated representative that the declared occupant has now entered the home or office. The administrator would know who the individual should be. The administrator thus can confirm, by remotely viewing the recorded video, that the actual person who entered the access code is the declared occupant, and/or make a follow-up telephone call to the home or office.

Id. at 12:1–9. This disclosure weighs against limiting the term "declared occupant" to only those who are present because by stating that a "declared occupant" *enters* a home, this disclosure implies that a person can be a "declared occupant" of a home even when not present in the home. Moreover, the above-reproduced portion of the Background of the Present Invention section of the specification refers to an occupant potentially being absent. *Id.* at 1:34–40 ("When the resident of the home or occupant of the office . . . is *absent* . . . .").

The Court therefore hereby construes **"declared occupant"** to mean **"a user designated in the system as being a resident of a home or an occupant of an office."**

N. "associated with a respective user"

"associated with a respective user" ('638 Patent, Claim 6; '478 Patent, Claim 9; '284 Patent, Claim 6; '323 Patent, Claim 1; '030 Patent, Claim 6)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
No construction necessary, plain and ordinary meaning.	"linking one unique device to one unique user"

(Dkt. #53, Ex. A, at p. 5; Dkt. #60, Ex. A, at p. 7).

Shortly before the November 18, 2021 hearing, the parties reached the following agreement for this term: "No construction necessary." (Dkt. #66, Ex. A, at p. 7). The Court therefore hereby construes **"associated with a respective user"** to have its **plain meaning**.

O. "coordinating multiple communication devices to define responses to events"

"coordinating multiple communication devices to define responses to events" ('290 Patent, Claim 16)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
Definite	Indefinite

(Dkt. #53, Ex. A, at p. 12; Dkt. #60, Ex. A, at p. 8).

Shortly before the November 18, 2021 hearing, the parties reached the following agreement for this term: "No construction necessary." (Dkt. #66, Ex. A, at p. 7). Vivint thus evidently no longer asserts indefiniteness as to this term. The Court therefore hereby construes **"coordinating multiple communication devices to define responses to events"** to have its **plain meaning**.

P. "irregular activity" and "irregular visitor activity"

"irregular activity" **"irregular visitor activity"** ('323 Patent, Claims 2, 11, 12)	
SBIP's Proposed Construction	**Vivint's Proposed Construction**
Definite	Indefinite

(Dkt. #53, Ex. A, at p. 10; Dkt. #60, Ex. A, at 8).

1. The Parties' Positions

SBIP argues that these terms are readily understandable in light of disclosures in the specification, such as that "the claimed system is capable of detecting pranks or a visitor's failure to enter a correct code." (Dkt. #55, at p. 27) (citation omitted).

Vivint argues that these terms "are indefinite as undefined terms of degree and provide no standard for determining what would and would not constitute 'irregular activity' and 'irregular visitor activity.'" (Dkt. #54, at p. 26).

SBIP responds that "[t]he phrase 'irregular activity' is not a term of degree and is understood by those skilled in the art when read in light of the intrinsic record." (Dkt. #58, at p. 23). Also, SBIP argues that even if these terms are deemed to be terms of degree, such terms are not necessarily indefinite. (*Id.*) SBIP further submits: "Like the teachings of the specification that allow an administrator to determine what constitutes 'irregular activity,' Vivint's lurker detection feature allows a user to set a time frame after which a visitor's stay is no longer considered normal and, thus, 'irregular.' Accordingly, Vivint's claim of indefiniteness is inconsistent with its own implementation and understanding of what constitutes 'irregular activity.'" (*Id.*, at p. 24).

Vivint responds that "irregular is a subjective term without any metes or bounds described in the specification." (Dkt. #59, at p. 25). As to disclosures in the specification cited by SBIP regarding detecting pranks or detecting a visitor's failure to enter a code, Vivint argues that "[i]n neither of these references are these activities referred to as being irregular." (*Id.*, at pp. 25–26) (citing '478 Patent at 10:65–11:2 & Figs. 4 & 5).

At the November 18, 2021 hearing, SBIP argued that it is irrelevant what criteria are used. Rather, SBIP argued, what matters is that some criteria are used to categorize an activity

and then some action is taken. Vivint responded that the claim scope is unclear because there is no way to know what category should be selected for any particular activity. Vivint urged that whether an activity is "irregular" is subjective and depends on the perspective of the user and on the context in which the activity occurs.

2. Analysis

Vivint does not persuasively show that "irregular" is a term of degree in the context of the patents here at issue. For example, the specification discloses:

> The software application keeps track of the number of times a wrong number is entered and can generate a variety of responses to pranks, including calling the police, issuing warnings and/or a loud noise, or just thanking the visitor and asking him to return another time.

'478 Patent at 10:65–11:2; *see id.* at 11:56–61; *see also id.* at Figs. 4 & 5.

Indeed, these patents frame the claimed invention in the context of "numerous problems presently associated with receiving visitors at a home or office," such as "security risks" and problems that arise when "the resident . . . is absent" and "there is often no message for the visitors, no means to leave an interactive message for the resident, and no means to ensure that unwanted access is not obtained." *See id.* at 1:34–49.

In light of this context provided by the specification, Defendants do not meet their burden to show that the claim fails to "inform those skilled in the art about the scope of the invention with reasonable certainty." *Nautilus*, 134 S. Ct. at 2129; *see Sonix*, 844 F.3d at 1377. Defendants present no alternative proposed construction.

The Court therefore hereby construes **"irregular activity"** and **"irregular visitor activity"** to have their **plain meaning**.

CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patents-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

IT IS SO ORDERED.

SIGNED this 7th day of December, 2021.

AMOS L. MAZZANT
UNITED STATES DISTRICT JUDGE

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