

Patents are substantially similar.¹ The asserted claims include: (1) claims 1, 4, 9, 11, 13, 15, 17, 19, 22, and 24 of the '941 Patent; (2) claims 1, 4, 7–10, 17–19, and 37 of the '773 Patent; and (3) claims 1, 3, 7, 8, 9, 16–18, 20, and 22 of the '898 Patent.

The Asserted Patents generally relate to monitoring and managing advertising devices (e.g., billboards or electronic displays). The prior art techniques for monitoring and managing advertising devices are described as requiring periodic physical inspections of the operating conditions of the advertising devices. Such operating conditions may include, for example, the conditions of billboard lights. '941 Patent 1:5–25, 2:37–40. The Abstract of the '941 Patent provides:

In one general aspect, a request to determine a status of a first of a plurality of advertising devices is received. The advertising devices are spatially separated. Operating conditions of the first advertising device are identified. The status of the first advertising device is determined based, at least in part, on the operating conditions. A presentation including information indicating the status of the first advertising device is transmitted.

'941 Patent Abstract.

More specifically, a system is disclosed in which a plurality of advertising devices 102 are connected through a network 108 to a server 104 and a client 106. *Id.* at 1:65–2:34, Figure 1. Via electronic communication, the advertising devices can be monitored and managed remotely. *Id.* at 2:4–25. The operating conditions and status of the advertising device may be collected by the server 104 and provided from the server 104 to the client 106 through a presentation that includes information indicating the status of the advertising device. *Id.* at 1:34–35, 3:51–59, 6:36–37, 7:43–53, Figure 1, Figure 3.

¹ Specification citations by the parties, and as used herein, are generally made to the '941 Patent.

LEGAL PRINCIPLES

“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)). 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 fact finding must be reviewed for clear error on appeal.

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

A. 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

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).

unmistakable.” *3M Innovative Proprs. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

B. 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.*, 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).

³ Because two of the applications resulting in the Asserted Patents was filed before September 16, 2012, the effective date of the AIA, the Court refers to the pre-AIA version of § 112.

AGREED TERMS

The parties agreed to the following terms:

Term	Agreed Construction
“data processing apparatus” (’941 Patent: Claim 13)	“a data processing apparatus”
“configuration file” (’773 Patent: Claims 1,18)	“file including parameters, variables, policies, algorithms, instructions, settings, directives, or other technical information used for managing the advertising device”

(Dkt. #54–1 at p. 3; Dkt. #63 at p. 1.)

DISPUTED TERMS

1. “operating conditions/operating parameters” (’941 Patent: Claims 1, 4, 11, 13, 15, 17, 19; ’773 Patent: Claims 1, 4, 7, 8, 9, 17, 18; ’898 Patent: Claims 1, 3, 8, 16, 17, 18)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning. In the alternative: information or instruction concerning the operation of a device	Information provided by the advertising device/billboard describing whether the device is working as expected

The primary disputes are whether it is proper to limit the term to “describing whether the device is working as expected” and limit the term to “information provided by the advertising device.”

Positions of the Parties

Lites Out objects to Outdoorlink’s inclusion of “describing whether the device is working as expected.” Lites Out contends this conflicts with ’941 Patent dependent claim 10 which claims that the “operating conditions comprise a schedule for activating and deactivating the advertising device.” Lites Out contends that an operating condition that comprises a “schedule” directly conflicts with Outdoorlink’s construction. Lites Out contends that a schedule does not

expressly describe whether the device is working as expected, yet operating conditions can include a schedule. (Dkt. #30 at pp. 3–4.) Lites Out contends that a schedule of when lights are supposed to turn on and turn off does not indicate if they actually did, and thus does not show whether the device is working as expected. (Dkt. #41 at p. 1.)

Lites Out further contends that in the specification, “operating conditions” is not limited to describing whether the device is working as expected: “status of the first advertising device is determined based, at least in part, on the operating conditions” (’941 Patent 1:32–34) and an interface presents “device information associated with advertising devices, including operating conditions.” (’941 Patent 4:16–18.) Lites Out contends that thus operating conditions are broader and can provide other information about the advertising device, even neutral information such as schedule information. (Dkt. #30 at p. 4.)

Lites Out also objects to Outdoorlink’s requirement that the information is “*provided by* the advertising device.” Lites Out contends that the specification is clear that operating conditions can also be *sent to* the advertising device. Lites Out contends that the “schedule” of claim 10 is an example where operating conditions, including a schedule for activating and deactivating the device, are transmitted to the device. (Dkt. #30 at p. 5.) Lites Out also contends that limiting operating conditions to information provided by the advertising device conflicts with ’941 Patent dependent claim 8. Lites Out contends that claim 8 has the extra step of receiving a request to update the operating conditions of the first device and then transmitting a command, while claim 10 recites that the operating conditions comprise a schedule. Lites Out states that if the operating conditions are updated, and the update includes a schedule, then the operating conditions can be sent to the device. (Dkt. #41 at p. 2.)

Outdoorlink contends that its construction provides context for the otherwise ambiguous term “operating conditions/operating parameters.” Outdoorlink contends that the specification passage at 4:16–18 cited by Lites Out is not referring to “operating conditions” but rather to “information” provided from a graphical user interface. Outdoorlink contends that this passage does not indicate that “operating conditions” are broader:

In some embodiments, GUI 116 presents device information associated with advertising devices 102, including operating conditions, and associated buttons and receives commands from the user of client 106 via one of the input devices. This information may be presented in tabular, graphical, and any other suitable format.

'941 Patent 4:13–21.

As to claim 10 and its use of “schedule,” Outdoorlink contends that its construction does not exclude scheduling information from “operating conditions.” Outdoorlink contends that, rather, when a schedule has been set for activating and deactivating the device, determining whether the device is working as expected naturally includes determining whether the activation/deactivation schedule is being followed. (Dkt. #40 at pp. 5–6.)

Outdoorlink contends that Lites Out’s position that “operating conditions/operating parameters” must include information “sent to” the advertising device conflicts with the claims as none of the claims of the patents-in-suit are directed to an embodiment in which such information is sent to the device. Outdoorlink contends that '941 Patent claim 1 references “receiving operating conditions from a plurality of advertising devices.” '941 Patent claim 1. Outdoorlink notes that Lites Out contends that the “schedule” of '941 Patent claim 10 is an example of an operating condition that can be sent to an advertising device. However, Outdoorlink points out that claim 10 depends from claim 1 which explicitly includes the requirement of “receiving operating conditions from a plurality of advertising devices.”

Outdoorlink contends that the claims of the other patents are in conformance with the '941 Patent claims, pointing to '773 Patent claim 36. Outdoorlink contends that this claim is “[a] method for controlling the operation of a billboard,” and as in the claims of the '941 Patent, “commands” are received at a transceiver of a billboard which are in turn operable to control the operating conditions of the billboard. Outdoorlink contends that it is “commands” that can be sent to the billboard, not “operating conditions.” (Dkt. #40 at pp. 6–7.) Outdoorlink also contends that the '898 Patent claims recite a billboard including a wireless transceiver “to wirelessly transmit ... information representative of the current operating conditions.” '898 patent, claim 1.

Outdoorlink contends that there is no mention anywhere, in the claims or the specification of any of the Asserted Patents of operating conditions being sent to, or received by the billboard or advertising device.

Analysis

“whether a device is working as expected”

Outdoorlink seeks to limit “operating conditions” to information which indicates whether a device is working as expected. However, Outdoorlink has not pointed to evidence in the intrinsic record that would exclude merely the conditions of the operating device, whether such conditions were expected or not. Specifically, Outdoorlink has not pointed to clear language in the intrinsic record of lexicography, disavowal, or disclaimer mandating that the operating conditions must describe whether the device is working as expected. *See 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.”); *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.”).

Further, claim 10 explicitly includes “wherein the operating conditions comprise a schedule for activating and deactivating the advertising device.” The schedule for activation and deactivation does not necessarily also include information as to whether the device is working as expected. Outdoorlink’s construction would require the “operating conditions” to further include such information. However, Outdoorlink has not identified intrinsic evidence of a disclaimer or disavowal. The use of a schedule to control the advertising device (such as ON/OFF times for lights) is described at various portions of the specification, including but not limited to, ’941 Patent 5:41–58, Figure 2A, Figure 2D.

“information provided by the advertising device/billboard”

Outdoorlink also seeks to limit “operating conditions to “information provided by the advertising device/billboard.” Again, Outdoorlink does not point to language of lexicography, disavowal, or disclaimer. Outdoorlink generally relies on other elements of the claims, which reference the operating conditions being received from the advertising devices. However, those limitations do not generally redefine “operating conditions,” but only establish when operating conditions are received from or transmitted from the advertising device. Thus, for example, in claim 1, the claim already defines where the operating conditions are received from (“receiving operating conditions from a plurality of advertising devices... wherein each of the plurality of advertising devices include cellular technology to wirelessly transmit operating condition to and receive commands to update operating conditions from a cellular network.” (’941 Patent claim

1). It is this language that provides for transmitting the operating conditions, not the term “operating conditions” itself.

Thus, Lites Out’s position does not change that certain other elements of the claims may require “receiving operating conditions from a plurality of advertising devices,” (’941 Patent claim 1) or “the plurality of billboards each includes a wireless transceiver to wirelessly transmit the alert over the wireless network, the alert including information representative of the current operating conditions of the one of the plurality of the billboards.” (’898 Patent claim 1). It is those particular limitations which require transmission from the billboard, not the nature of the term “operating conditions” itself.

Further, as discussed above, the claims reference the operating conditions being a schedule. Outdoorlink has not pointed to any reason why a schedule cannot be provided *to* an advertising device or evidence that would limit schedules to only being something provided *by* the advertising device. In fact, the specification contemplates the schedule being provided to the billboard. ’941 Patent 5:41–58, Figure 2A, Figure 2D.

Further, the claims and specification also reference “specified operation conditions.” For example, ’941 Patent recites: “determining the status of the first advertising device comprises determining whether the components are operating within specified operating conditions” (’941 Patent claim 3) and “[i]n response to at least one component violating specified operating conditions, a notification indicating the violation is generated.” (’941 Patent 1:38–40). The ranges and values that define the “specified operating conditions” are described in the specification as being provided from the server 104 through use of the configuration file 135 and monitoring engine 140. ’941 Patent 6:5–14, 6:65–7:14. This is further indication that “operating conditions” generically do not have to be only provided by the advertising device. Outdoorlink

has not pointed to evidence that would limit “specified operation conditions” to only being provided from an advertising device, as opposed to the specified operation condition being provided elsewhere as described in the specification.

Having resolved the claim construction disputes, the Court finds no further construction of the terms is needed. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“district 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.”).

The Court construes “operating conditions” and “operating parameters” to have their plain and ordinary meaning.

2. Network Terms

“cellular technology/cellular network” (’941 Patent: Claims 1, 13, 19)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning.	Wireless network using bandwidth provided by a cellular carrier that is not an IP network or a digital packet network

“Internet Protocol (IP) network” (’941 Patent Claims 1, 13)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning. In the alternative: “network which comprises an IP address”	Network in which each connected device is assigned a unique IP address that is not a cellular network or a digital packet network

“digital packet network” (’773 Patent: Claims 1, 17, 18)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning. In the alternative: “network which can transmit information in digital packets”	Packet-switched network that is not a cellular network or an IP network

“wireless network” (’898 Patent: Claims 1, 17, 18, 22)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning.	Over-the-air network that is not a cellular network, an IP network, or a digital packet network

The primary dispute raised with regard to the network terms is whether the various networks can have overlapping meanings or whether the networks must be mutually exclusive as recited in Outdoorlink’s constructions.

Positions of the Parties

Lites Out contends the plain meaning for each term is clear. Lites Out objects to the negative limitations in each of Outdoorlink’s constructions. Lites Out contends that the inclusion of negative limitations within claim construction generally requires support from the intrinsic evidence. (Dkt. #30 at p. 6 (citing *Parthenon Unified Memory Architecture LLC v. ZTE Corp.*, 2016 U.S. Dist. LEXIS 8038, *22 (E.D. Tex. Jan. 25, 2016) (citing *Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012) (“Negative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation.”)))) Lites Out contends that negative limitations are not proper absent an express disclaimer which justifies the negative limitation. *Id.* (citing *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1322–23 (Fed. Cir. 2003) (declining to add a negative limitation when there was no “express disclaimer or

independent lexicography in the written description that would justify adding that negative limitation”).) Lites Out contends that Outdoorlink fails to cite any intrinsic evidence that supports the negative limitations.

Further, Lites Out contends that the specification teaches the opposite:

Network 108 facilitates wireless or wireline communication between advertising devices 102, server 104, client 106 and any other local or remote computer. Network 108 encompasses any internal or external network, networks, sub-network, ***or combination thereof operable to facilitate communications between various computing components in system 100.*** Network 108 may communicate, for example, Internet Protocol (IP) packets, Frame Relay frames, Asynchronous Transfer Mode (ATM) cells, voice, video, data, and other suitable information between network addresses. Network 108 may include one or more local area networks (LANs), radio access networks (RANs), metropolitan area networks (MANs), wide area networks (WANs), all or a portion of the global computer network known as the Internet, and/or any other communication system or systems at one or more locations.

’941 Patent 3:9–24 (emphasis added).

Lites Out contends that “any internal or external network, networks, sub-network, or combination thereof. . . .” makes clear that the network can communicate “Internet Protocol (IP) packets, Frame Relay frames, Asynchronous Transfer Mode (ATM) cells, voice, video, data, and other suitable information between network addresses.” *Id.* Further, Lites Out states that this passage makes clear that “network” can include “all or a portion of the global computer network known as the Internet, and/or any other communication system or systems at one or more locations.” *Id.* at 3:21–24. Lites Out contends that, thus, the term “network” can include all of the above and combinations thereof. (Dkt. #30 at p. 7.)

Lites Out contends that the claims themselves also make clear that “cellular” can include “Internet Protocol.” Lites Out points to claim 11 of the ’941 Patent as a claim explicitly including transmitting wireless cellular signals to a cellular network. However, Lites Out notes that the claims explicitly state that the apparatus is assigned not only a cellular phone number but

also a network address: “the apparatus is assigned a cellular phone number and a network address.” Lites Out contends that this makes clear that cellular, as used in the specification, is a broad term which can include communications routed via a network address. (Dkt. #30 at pp. 7–8.)

Lites Out also points to the depiction of the network 108 in Figure 1. Lites Out contends that the network is depicted as a single item, and does not illustrate a separate cellular network, a separate IP network, a separate wireless network, etc. Lites Out contends that had Applicant intended that cellular network be a completely dissimilar network from the Internet Protocol network, then one would expect the two networks would be illustrated separately in the figures. *Id.*

Lites Out notes that the specification teaches that the advertising device may have a cellular connection “to the GSM/GPRS network for receiving and transmitting data.” ’941 Patent 2:59–62. However, Lites Out also notes that the specification continues that the advertising device can process “SMS messaging” and also include a CDPD (Cellular Digital Packet Data) modem. *Id.*; *Id.* at 3:1–3. Lites Out contends that this makes clear that the term “cellular”, as used by the specification, is broad and can include other capabilities such as transmitting digital packet data. (Dkt. #30 at p. 9.)

Lites Out contends that there is nothing to suggest that there cannot be overlap between the various networks such as a “wireless network” and “cellular network” overlapping, or both of such networks overlapping with an “Internet Protocol network.” Lites Out contends that both the specification and the plain meaning of “cellular” make clear that cellular does not exclude an Internet Protocol network. Lites Out contends that cellular networks have long processed voice and data, and have long included the capability to proceed through an Internet Protocol network.

(Dkt. #30 at p. 9.) As a further example, Lites Out contends that it is difficult to imagine how devices that communicate according to a cellular, IP network or digital data packet protocol, or a combination of these, cannot do so over a wireless network. (Dkt. #30 at p. 15.)

Outdoorlink contends that the specification does not assign all possible meanings to the term “network,” as evidenced by the various types of networks it identifies. ’941 Patent, 3:9–24. Outdoorlink contends that the patentee drafted the specification and claims using different terms, and “different claim terms are presumed to have different meanings.” (Dkt. #40 at p. 8 (citing *Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1333 (Fed. Cir. 2014) (quoting *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1382 (Fed. Cir. 2008))).) Outdoorlink contends that, thus, the various networks identified in the claims cannot all have the same functionality and features. Outdoorlink contends that the “cellular technology/cellular network” of the claims of the ’941 Patent must be different from an “Internet Protocol (IP) network” in the same claims; the “digital packet network” referenced in the ’773 Patent claims must differ from either of those networks; and the “wireless network” in the ’898 Patent also must differ from an “IP network” or “digital packet network.”

Outdoorlink contends that while these various networks may fit into a hierarchy such that one is a subset of another, they cannot all be the same. *Id.* at 9. Outdoorlink states that the specification of the patents explains that various types of networks have different features, such as use of different communication protocols. *See* ’941 Patent 3:9–24. Outdoorlink contends that the specification sets forth the various types and features of the networks precisely because they are not the same. Because that is the case, construction is even more important to aid a jury in understanding how the various network terms relate to one another, and how they are different.

Outdoorlink contends that as demonstrated by the language of claim 1 in the '941 Patent, each of an IP network and cellular network is mentioned. Outdoorlink contends that therefore the terms are presumed different, such that a cellular network is not an IP network. '941 Patent claim 1.

Outdoorlink contends that given the different types of networks referenced in the claims, distinctions are presumed to exist between them. Outdoorlink contends that construction is necessary to aid a jury in understanding these differences. Outdoorlink contends that Lites Out has not offered any explanation of the differences that exist between these networks and seeks to conflate the terms and use them interchangeably, effectively reading these limitations out of the claims.

In reply, Lites Out states that it does not argue that the various terms are identical. Lites Out contends that even Outdoorlink acknowledges that “these various networks may fit into a hierarchy such that one is a subset of another. . . .” (Dkt. #41 at p. 3.) Lites Out contends that certainly a cellular network, an IP network, and a digital packet networks can be considered a subset of the larger umbrella of a wireless network. Lites Out states that Outdoorlink would exclude each of these networks from the construction of “wireless network.”

Lites Out has proposed alternative constructions for “Internet Protocol (IP) network” and “digital packet network” and contends that these constructions show that some overlap and distinguishing limitations may exist without expressly excluding networks with the negative limitations Outdoorlink proposes. (Dkt. #41 at pp. 4–5.) Lites Out contends that the plain and ordinary meaning of “digital packet network” refers to “a network which can transmit information in digital packets.” Lites Out states that such a construction properly allows an

overlap between network, cellular, digital packet, which is consistent with the specification, while providing additional distinguishing limitations. (Dkt. #341 at p. 5.)

Analysis

Outdoorlink link seeks to define the terms in question primarily through negative limitations. Outdoorlink has pointed to no language of disclaimer, disavowal, or lexicography in the intrinsic record. 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.” *GE Lighting Solutions*, 750 F.3d at 1309 (quoting *Thorner*, 669 F.3d at 1365). 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*, 561 F.3d at 1329; *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.”). Outdoorlink has not met such a standard.

In contrast, the specification provides a broad generalized discussion of networks. Thus, the general network 108 may include:

any internal or external network, networks, sub-network, or combination thereof operable to facilitate communications between various computing components in system 100. Network 108 may communicate, for example, Internet Protocol (IP) packets, Frame Relay frames, Asynchronous Transfer Mode (ATM) cells, voice, video, data, and other suitable information between network addresses. Network 108 may include one or more local area networks (LANs), radio access networks (RANs), metropolitan area networks (MANs), wide area networks (WANs), all or a portion of the global computer network known as the Internet, and/or any other communication system or systems at one or more locations.

’941 Patent 3:9–24.

Further, in the immediate preceding paragraph, the wireless communication network is described as explicitly including cellular communications and the network includes digital packet transmissions:

To enable wireless communication with network 108, advertising device 102 may include a receiver and transmitter ... In some embodiments, advertising device 102 maintains a connection to the GSM/GPRS network for receiving and transmitting data. Advertising device 102 may use other suitable wireless protocols such as a wireless modem. ... In some embodiments, advertising device 102 includes a CDPD (Cellular Digital Packet Data) or GPRS (General Packet Radio Service) wireless modem.

'941 Patent 2:55–3:4.

In these passages it is clear that cellular networks may be a type of wireless network and that cellular and wireless networks may communicate in standard digital packet protocols.

Further, the cellular connection can provide Internet Protocol communications. *Id.* at 1:58–2:4, 3:9–24. The specification further states: “[f]or example, each advertising device 102 may be dynamically assigned an IP address such that request may [sic] routed through a packet-switched network to the advertising device 102 using the IP address.” *Id.* at 7:20–23. Elsewhere the specification references “Internet Protocol (IP) packets,” providing further indication that an IP network may be a packet based network. *Id.* at 3:16.

In totality, these passages make clear that the various descriptions of networks are not mutually exclusive, but rather are overlapping concepts. Merely because the claim uses multiple terms does not require each term to be non-overlapping and mutually exclusive. *See Linear Technology Corp. v. International Trade Commission*, 566 F.3d 1049, 1055 (Fed. Cir. 2009) (finding that the use of “second circuit” and “third circuit” does not require entirely separate and distinct circuits). A cellular network may be a type of wireless network, a cellular network may communicate with Internet Protocol network protocols, a wireless network may communicate

with digital packet network protocols, etc. Outdoorlink’s position that each of these network concepts must be mutually exclusive is not supported in the intrinsic record.⁴ Further, as noted by Lites Out, the claims note the apparatus may include a cellular number and a network address, and the network address may be an Internet Protocol (IP) address. ’941 Patent Claims 11 and 26.

By rejecting Outdoorlink’s negative limitations which defines the terms at issue as being mutually exclusive (in contrast to the specification which teaches that the various terms may overlap), the Court has resolved the claim construction dispute between the parties. Having resolved the claim construction dispute, the Court finds no further construction of the terms is needed. *See O2 Micro*, 521 F.3d at 1362; *Finjan, Inc.*, 626 F.3d at 1207.

The Court construes “cellular technology,” “cellular network,” “Internet Protocol (IP) network,” “digital packet network,” and “wireless network” to have their plain and ordinary meaning.

3. “spatially separated” (’941 Patent: Claims 1,13)

Lites Out’s Construction	Outdoorlink’s Construction
<p>No construction necessary. Plain and ordinary meaning.</p> <p>In the alternative: “two or more objects which do not occupy the same space”</p>	<p>Not affixed to the same tower or geographic anchor</p>

The primary dispute raised in the briefing is whether limiting the term to multiple towers and anchors is appropriate. Further, the parties dispute whether multiple faces of one advertising

⁴ It is also telling that when arguing that terms such as “wireless network” do not overlap with the term “cellular network” or that a cellular network cannot include Internet Protocol communications, Outdoorlink indicated at the hearing that Outdoorlink did not know how one skilled in the art would interpret such terms. (*See* Dkt. # 64 at p. 33.) Consistent with that admission, Outdoorlink presented no evidence as to how one skilled in the art would interpret the network terms.

device are “spatially separated.” The parties also dispute whether Lites Out’s alternative construction provides any meaningful limitation.

Positions of the Parties

Lites Out contends that Outdoorlink imports the limitation of multiple towers or geographic anchors. Further, Lites Out contends that neither the term “tower” nor “anchor” is ever used in the specification. Lites Out contends that nothing in the claim speaks to the number of advertising devices that may be affixed to a single tower or anchor. Lites Out contends that advertising devices, such as signs, can be situated vertically on a single tower, horizontally on a single tower, or back-to-back on a single tower, yet still be “spatially separated” or separated by space. (Dkt. #30 at pp. 17–18.) Lites Out contends that Outdoorlink effectively rewrites the claims to require multiple towers or anchors. Lites Out contends that this conflicts with the specification example which discusses adjusting “operating conditions of different sides of a specific advertising device 102 at different times.” ’941 Patent 5:59–61. Lites Out contends that many billboards comprise “faces” on opposing sides while sharing the same tower or anchor. Lites Out contends that the specification makes clear that each face can be adjusted independently despite the fact that they share the same anchor. (Dkt. #30 at p. 18.)

Lites Out states that Outdoorlink contends that the Asserted Patents solve the problem of having to individually visit widespread advertising devices to check on operating conditions of various components. Lites Out contends that this solution does not prohibit two or more advertising devices being situated on the same tower or anchor. Lites Out contends that two advertising devices arranged vertically or horizontally on the same tower can still be spatially separated because the maintenance worker can still address components of each advertising device through one control unit. (Dkt. #41 at p. 5.)

As an alternative, Lites Out proposes “two or more objects which do not occupy the same space.” (Dkt. #30 at p. 18.)

Outdoorlink objects to Lites Out’s construction for suggesting that the term “spatially separated” should be construed as including even devices that are affixed to the same tower or geographic anchor. Outdoorlink contends that Lites Out acknowledges that the purpose of the Asserted Patents is to overcome the previous problem that required technicians to travel to advertising devices that are “not centrally located” but are “scattered around towns, along highways, etc.” (Dkt. #40 at pp. 10–11 (quoting Dkt. #30 at p. 5).) Outdoorlink contends that the problem the Asserted Patents describe is burden of inspecting these scattered devices: “[g]enerally, in order to maintain advertising devices in operating conditions, an individual would have to periodically physically inspect each advertising device to ensure that device components (*e.g.*, power supply, light source) were operating correctly.” ’941 Patent 2:12–17. Outdoorlink contends that physical, geographic separation of the *devices* is a critical contextual limitation of the patents-in-suit. *Id.* at 11. Outdoorlink contends that Lites Out would strip the term of having any meaning by including advertising devices that are positioned “back-to-back on a single tower.” Outdoorlink contends that if two devices can be positioned “back-to-back” on the same tower and remain “spatially separated,” it is unclear whether it is even possible for two such devices to *not be* spatially separated. *Id.* Outdoorlink contends that two devices cannot be positioned closer to one another than when positioned “back-to-back.”

As to the multiple sides, Outdoorlink contends that the specification describes devices that “may be single, double-faced, or multi-faced displays.” ’941 Patent, 2:47–49. Outdoorlink contends this is still only one device. Outdoorlink contends that even if “opposing sides” of a device are “spatially separated,” that is not what the claims require; the devices themselves must

be spatially separated. (Dkt. #40 at pp. 11–12 (citing ’941 Patent claim 1 (“wherein the *advertising devices* are spatially separated.”)).) Outdoorlink contends that a *single device* cannot be “spatially separated” from itself.

Analysis

The specification describes “advertising devices” in the context of: “[a]n organization’s advertising devices (e.g., billboards, video displays) are... .” ’941 Patent 1:10–11. The specification further elaborates:

Advertising device 102 can include any hardware, software, and/or firmware operable to provide advertising information to individuals and/or devices within a proximity of advertising device 102. Advertising information may include a static visual display (e.g., billboard), a dynamic display (e.g., video display), video, audio, text, an electromagnetic signal encoding data (e.g., Bluetooth), and/or other information. In some embodiments, advertising device 102 may include components 110 (e.g., lights, controller, camera, receiver, transmitter, override switch, push-to-talk button) that enable advertising device 102 to provide associated advertising information. For example, advertising device 102 may comprise a billboard 102 with lights 110a to illuminate billboard 102. In this case, billboard 102 may be single, double-faced, or multi-faced displays with associated lights 110a.

’941 Patent 2:34–49.

In this context, it is clear that the “advertising device” is not merely the display (such as the billboard or video display) but also the hardware, software, firmware, lights, controllers, etc. Moreover, the specification is clear that multiple faces of an advertising device are part of that same advertising device: “[f]or example, advertising device 102 may comprise a billboard 102 with lights 110a to illuminate billboard 102. In this case, billboard 102 may be single, double-faced, or multi-faced displays with associated lights 110a.” ’941 Patent 2:47–49. Likewise, the specification states that: “[c]onfiguration file 135 may include directives to adjust operating conditions of different sides of a specific advertising device 102 at different times.” ’941 Patent

at 5:58–61. This statement again clearly treats different sides of a billboard structure as being one advertising device, not multiple advertising devices.

Each of the parties' constructions has faults. Lites Out is correct that Outdoorlink's construction adds limitations ("tower" and "anchor") that are not explicitly recited in the intrinsic record. Further, Outdoorlink is correct that Lites Out's construction provides no meaningful limitation, as two physical devices such as advertising devices would inherently not occupy the same space.⁵

The claims in question both recite "a plurality of advertising devices" and "wherein the advertising devices are spatially separated." As noted, the specification is clear that multiple faces of one advertising device (for example multiple faces of one billboard device) are still part of that one advertising device: "[f]or example, advertising device 102 may comprise a billboard 102 with lights 110a to illuminate billboard 102. In this case, billboard 102 may be single, double-faced, or multi-faced displays with associated lights 110a." '941 Patent 2:47–49. Similarly, the "[c]onfiguration file 135 may include directives to adjust operating conditions of different sides of a specific advertising device 102 at different times." '941 Patent 5:58–61.

As noted above, the claims call for a "plurality of advertising devices" and it is this plurality of advertising devices that are subject to the limitation: "wherein the advertising devices are spatially separated." At the oral hearing, it became evident that Lites Out potentially intended its construction to mean that merely the different faces of one advertising device need be spatially separated. When asked at the oral hearing as to whether the specification treats the different sides of an advertising device as a single structure, Lites Out responded:

⁵ At the oral argument, Lites Out appeared to concede that two devices inherently never occupy the exact same space. (Dkt. #64 at pp. 38–39.)

Yes, sir, I think it can. In one embodiment absolutely it can, but I think you can also have -- there's no requirement that you have a single controller per tower, I would say. You could have a controller -- that would be the more efficient way to do it is to have one controller that controls three sides of a billboard, but you could absolutely have a single controller for one face, per face.

(Dkt. #64 at p. 38.)

However, the claim limitations in question do not relate to the number of controllers but rather “a plurality of advertising devices” and the spatial separation of these devices. The intrinsic record thus provides context to the meaning of a “plurality of advertising devices” and the “wherein the advertising devices are spatially separated.” In this context, the various sides of the same advertising device are not “the advertising devices are spatially separated.” In conjunction with the hearing, the Court requested the parties to consider a construction of: “advertising devices that are separated in space, multiple sides of the same advertising device are not spatially separated.” Outdoorlink agreed to such a construction, Lites Out did not. (Dkt. #63 at p. 1.) To address the claim dispute that is presented to the Court, the Court construes the more complete phrase “wherein the advertising devices are spatially separated.” By addressing the effect of the various sides of an advertising device, the Court resolves the issue presented to the parties regarding spatial separation.

The Court construes “wherein the advertising devices are spatially separated” to mean “wherein the plurality of advertising devices are separated in space, multiple sides of the same advertising device are not spatially separated advertising devices.”

4. “transmitting a presentation” (’941 Patent: Claims 1, 13)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning.	Sending status information formatted for Display

The primary dispute is whether the information must be “formatted for display.”

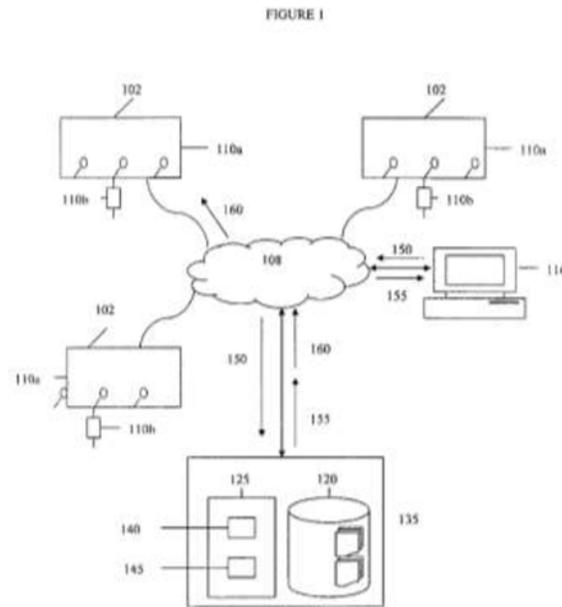
Positions of the Parties

Lites Out contends that the Court and the jury will understand the term “transmitting a presentation.” Lites Out contends that Outdoorlink’s construction only offers a more confusing phrase. Lites Out also contends that Outdoorlink’s construction imports “formatted for display” into the claim. Lites Out contends that the claim simply states that the presentation is transmitted; the claim has no requirement as to how it is formatted. (Dkt. #30 at p. 19.) Lites Out contends that Outdoorlink’s construction, thus, requires that the presentation be “formatted” for display.

Lites Out also objects to Outdoorlink’s construction as raising questions as to when the presentation is formatted for display: is it when it is sent, or when it is received by software that can then compile the data? Lites Out states that, for example, sending a digital photograph is sending a multitude of 1s and 0s. Lites Out questions what point the presentation is formatted for display, as the photograph is only properly viewable after software has read the 1s and 0s creating an image. (Dkt. #30 at p. 19.)

Outdoorlink contends that the “presentation” that is transmitted is not simply information in a machine-readable format, but rather status information that is formatted for display to a user. Outdoorlink contends that this important limitation is not readily apparent, and without construction of the term, a jury will be left without guidance about whether formatting of the transmitted information occurs before or after transmission. (Dkt. #40 at p. 12.)

Outdoorlink contends that the claim language itself, “transmitting *a presentation*” indicates that the presentation itself is transmitted, not data that can be formatted for display later to generate a presentation. Outdoorlink contends that the word “presentation” alone implies information that is viewable, such as displayed on a screen. (Dkt. #40 at 12–13.) Outdoorlink contends that the specification supports this understanding by describing a “presentation engine” that generates a graphical user interface (“GUI”) which a user views. ’941 Patent 9:46–62. Outdoorlink further states that the specification describes a “[p]resentation engine 145 [that] generates a GUI 116 and, in accordance with request 150, populates GUI 116 with associated data from device profiles 130. [The] [p]resentation engine 145 transmits a response 155 including GUI 116 to client 106 to present the request data to the user.” ’941 Patent 7:61–66. Outdoorlink contends that Figure 1 shows that the presentation engine (’941 Patent FIG. 1, item 145) transmits a presentation (*e.g.*, GUI 116) that is already formatted for display by a graphical user interface or “GUI” (’941 Patent FIG. 1, item 116).



’941 Patent FIG. 1.

Outdoorlink contends that the flowchart of Figure 3 also describes a method in which the step of generating the presentation is shown to precede the step of transmitting the presentation to the user: “[a]t step 334, presentation engine 145 generates a GUI including at least a portion of the data. Presentation engine 145 transmits GUI 116 to client 106 for presenting to user at step 336.” ’941 Patent 9:46–62.

Outdoorlink contends that the example cited in Lites Out’s brief, of sending a digital photograph, is consistent with Outdoorlink’s proposed construction. Outdoorlink contends that if a digital photograph is sent between two devices, both devices see the same thing: an image that is digitally formatted for display. Outdoorlink contends that in the context of the patents-in-suit, formatting of the “presentation” for display occurs at a “presentation engine” before transmission, so that each of the devices on each side of the transmission both see the same “presentation.” (Dkt. #40 at p. 15.) Outdoorlink contends that Lites Out intends to deny this key limitation.

In reply, Lites Out contends that Outdoorlink ignores the specification statement that “many of the steps in this flowchart may take place simultaneously and/or in different orders as shown.” ’941 Patent 9:18–20. Lites Out also states that Outdoorlink’s construction is a mischaracterization of Figure 3. Lites Out asserts that while Figure 3 shows a presentation being generated and then transmitted, that does not require that the generated presentation is formatted for display at that moment. (Dkt. #41 at p. 6.) Lites Out contends that Outdoorlink’s construction suggests that the presentation is transmitted in a human viewable format which is why they include “for display.” Lites Out contends, however, that nothing transmitted is readily viewable by humans without electronic compilation. As an example, Lites Out states that a Microsoft Excel spreadsheet is a presentation of data. Lites Out states that if that presentation is

transmitted to another computer, the receiving computer can only display the spreadsheet if it includes the Excel program which can order the data as required by the Excel program. Lites Out contends that this example would certainly include generating a presentation (i.e., the spreadsheet) and transmitting a presentation; but, at the moment of transmitting it is not formatted for display. (Dkt. #41 at p. 6.) Rather, during transmitting it is a series of digital 0s and 1s which can only be displayed if the receiving computer has the proper program. (Dkt. #41 at p. 6.)

Analysis

The term in question includes “*presentation.*” Lites Out attempts to read “presentation” as merely being “information” such that the disputed term is merely “transmitting information.” When pressed at the oral hearing, Lites Out stated that “presentation” is merely “just a selection of information.” (Dkt. #64 at pp. 46–47.) Such a broad generalization still reads out the term “presentation” and conflicts with the meaning presented in the intrinsic record.

The specification makes clear that what is transmitted between the server 104 and the client 106 is more than just the information or data. Rather, as noted by Outdoorlink, a “presentation engine” in the server generates a graphical user interface (“GUI”) which a user views. This GUI is transmitted from the server to the client for use by the user ’941 Patent 9:55–

62. The procedure occurs as follows:

...presentation engine 145 retrieves operating parameters. Presentation engine 145 generates a GUI 116 and, in accordance with request 150, populates GUI 116 with associated data from device profiles 130. Presentation engine 145 transmits a response 155 including GUI 116 to client 106 to present the request data to the user.

’941 Patent 7:60–66.

The specification, therefore, provides context that the presentation is the GUI that the user views. In this context, a “presentation” is more than just raw data, as the term itself implies. It is clear that a “presentation” is not just data. Rather, the data is formatted in some manner for viewing.

To oppose giving meaning to the term, Lites Out attempts to argue that “formatted for display” would require the data to be in a human readable format when transmitted. However, the Court does not agree with such an interpretation. Further, Outdoorlink explicitly stated that its construction does not require human readability when transmitted. (Dkt. #64 at pp. 48–49.) Further, even Lites Out’s hypothetical example of a Microsoft Excel spreadsheet contradicts such concern as the spreadsheet is not human readable at the point of transmission, but it is formatted for display. (Dkt. #64 pp. 45–48.)

In addition to limiting “presentation” to “information formatted for display,” Outdoorlink’s construction seeks to limit “presentation” to “status information.” Although the patent specification does suggest that a “presentation *including* information indicating the status of the first advertising device is transmitted” (‘941 Patent Abstract, emphasis added), this does not strictly mean that the presentation transmitted in the claims must be limited to “status information,” as suggested by Outdoorlink’s construction. Assuming that GUI 116 is the “presentation” that is being transmitted in the claims (*see*, Fig. 3 steps 336 and 342; 9:57–62), the various views of GUI 116 shown in Figs. 2A–E clearly show that GUI 116 is not limited to displaying only status information: the street address view in GUI 116b of FIG. 2B, the scheduling and location information view in GUI 116d of FIG. 2D, and the company view of GUI 116e of FIG. 2E. None of these GUI views include “status information.” At the oral

hearing, Outdoorlink agreed with the removal of “status” from its construction. (Dkt. #64 at pp. 50–51.)

The Court construes “transmitting a presentation” to mean “sending information formatted for display.”

5. “transmitting the notification to a user via a network” (’941 Patent: Claims 4, 15)⁶

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning.	Transmitting the notification to a user via a network other than the IP network or the cellular network

The primary dispute is whether “a network” has to be a different network than the IP network and cellular network which are recited earlier in claims 1 and 13.

Positions of the Parties

Lites Out notes that Outdoorlink’s construction includes all the language in the claim term itself, indicating that the term itself is understandable. Lites Out contends that the claim just requires “a network.” Lites Out contends that the IP network and the cellular network can be considered networks. Lites Out further states that the specification figures do not illustrate any network which is separate and distinct from cellular and IP networks. (Dkt. #41 at p. 7.)

Lites Out contends that just because the claim earlier recites an IP network and a cellular network, the later use of “a network” does not mean that the claim term cannot be one of the earlier recited networks. (Dkt. #30 at p. 21.) Lites Out contends the situation is analogous to *Mobile Telcoms Techs, LLC*, in which the claim at issue recited “information” then subsequently recited “a first block of information,” “a second block of information” and “a third block of information.” *Mobile Telcoms Techs, LLC v. Leap Wireless Int’l, Inc.* 2015 U.S. District LEXIS

⁶ The parties joint claim chart included claim 19 in the claim list for this term. (Dkt. #54–1 at p. 3.) The term is not found, however, in claim 19. ’941 Patent 12:4–16.

12765, *26 (E.D. Tex. May 13, 2015). Lites Out contends that the Court stated that the use of the term “a” is not necessarily inconsistent with the first, second, and third blocks being from among the plurality of blocks mentioned in the above (prior) steps. (Dkt. #30 at pp. 21–22.)

Outdoorlink contends that under well-established claim drafting principles, indefinite articles such as “a” or “an” are used to introduce new claim elements, while definite elements such as “the” are used to refer to an element that has been established earlier in the claim. *See Tuna Processors, Inc. v. Haw. Int’l Seafood, Inc.*, 327 F. App’x 204, 210 (Fed. Cir. 2009). Outdoorlink contends that if the term “a network” referred to either the “IP network” or “cellular network” recited previously in the claims, the patentee presumably would have acknowledged the antecedent basis by reciting definite articles such as “the” or “said” rather than the indefinite article “a” or recited the “IP Network” the “cellular network. (Dkt. #40 at pp. 15–16.) Outdoorlink contends that as the patentee did not use such language, “a network” should be presumed to refer to a new element that is different from an “IP network” or the “cellular network.” (Dkt. #40 at pp. 15–16.) Outdoorlink contends that different terms are presumed to have different meanings. *See Augme Techs., Inc. v. Yahoo! Inc.*, 755 F.3d 1326, 1333 (Fed. Cir. 2014).

Outdoorlink contends that the examples Lites Out cites are inapplicable as the claims here do not first recite a “plurality” of networks from which “a network” can be selected. (Dkt. #40 at p. 16.)

Analysis

The specification indicates that a notification is sent to the user with regard to the flowchart of Figure 3. Note, no special network is designated. Further, Figure 3 is stated to be a flow diagram of using the management system of 100 of Figure 1. In Figure 1, only a generic

network 108 is illustrated as providing the notifications and the other communications. '941 Patent 1:65–4, 3:9–24, 9:14–16, 9:42–46, Figure 1, Figure 3. The specification, however, then describes that the network 108 illustrated in Figure 1 can take any of many forms including transmissions via “Internet Protocol (IP) packets.” '941 Patent 3:15–16. Further, the specification explicitly further characterizes the network to include: “[n]etwork 108 may include one or more local area networks (LANs), radio access networks (RANs), metropolitan area networks (MANs), wide area networks (WANs), all or a portion of the global computer network known as the Internet, and/or any other communication system or systems at one or more locations.” '941 Patent 3:18–24. Thus, Outdoorlink’s construction would exclude explicitly recited preferred embodiments. A construction that excludes a preferred embodiment “is rarely, if ever, correct and would require highly persuasive evidentiary support.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

Further, Outdoorlink ignores the most natural reading of the claims. The claims call out (in claim 1) receiving from advertising devices operating conditions through an IP network. The claim also recites (in claim 1) that the advertising devices include cellular technology to transmit operating conditions to and receive commands from a cellular network. Then, in dependent claim 4, the notifications are transmitted to a user “via a network.” No specific network is required, and nothing excludes the use of the IP network or cellular network recited earlier in the claims or a cellular network that uses IP network protocols as discussed above with regard to the network terms. This also conforms to the description in the specification to the broad general network description cited above for network 108. Merely because the claim uses multiple terms does not require each term to be non-overlapping and mutually exclusive. *See Linear*

Technology Corp., 566 F.3d at 1055 (finding that the use of “second circuit” and “third circuit” does not require entirely separate and distinct circuits).

By rejecting Outdoorlink’s “other than the IP network or the cellular network” negative limitation, the Court has resolved the claim construction dispute between the parties. Having resolved the claim construction dispute, the Court finds no further construction of the term is needed. *See O2 Micro*, 521 F.3d at 1362; *Finjan, Inc.*, 626 F.3d at 1207.

The Court construes “transmitting the notification to a user via a network” to have its plain and ordinary meaning.

6. “the selection independent of other advertising devices” (’941 Patent: Claims 8, 17)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning. Further, the claim is not indefinite.	The term is indefinite

The primary dispute is whether the term is indefinite for lack of antecedent basis and whether the term is indefinite for not being understandable as used in the claims.

Positions of the Parties

Lites Out contends that the term meets the “reasonable certainty” standard of *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124, 189 L. Ed. 2d 37 (2014).

Lites Out notes that the relevant clause of claim 8 states “transmitting a command to the first advertising device based, at least in part, on the selection independent of other advertising devices.” Lites Out contends that claim 1 claims a plurality of advertising devices, and claim 8 further restricts this by stating the command is transmitted based, at least in part, on the selection of a particular advertising device. (Dkt. #30 at pp. 22–23.)

Lites out contends that the specification indicates that one advertising device, out of a plurality, can be selected independently. Specifically, Lites Out points to the example in the

specification that states that the “management system 100 is operable to identify a plurality of advertising devices 102, receive a selection from a user of client 106, and independently manage one of the plurality of advertising devices 102 in response to the user selection.” ’941 Patent 2:4–10. Lites Out states that another example is when the specification states that “intelligence of system 100 is centrally located at server 104, and, in this case, server 104 manages individual advertising devices 102 independent of other advertising devices. In other words, server 104 may independently turn on and off individual advertising devices by transmitting a message routed directly to the specific advertising devices.” ’941 Patent 2:27–33.

Outdoorlink contends that the term is nonsensical as it appears in its respective claims. Outdoorlink contends that given the terms internal incoherence, the specification cannot give the term a meaning that would allow a person of ordinary skill to reasonably understand the term. Outdoorlink contends that Lites Out merely relies on attorney speculation to ascribe meaning to the term. (Dkt. #40 at p. 17.)

Outdoorlink contends that “the selection independent of other advertising devices” in claims 8 and 17 of the ’941 Patent lacks antecedent basis. Outdoorlink acknowledges that a claim is not indefinite for lack of antecedent basis when the “meaning of the claim would reasonably be understood by persons of ordinary skill when read in light of the specification.” (Dkt. #40 at p. 17 (citing *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006) (“When the meaning of the claim would reasonably be understood by persons of ordinary skill when read in light of the specification, the claim is not subject to invalidity upon departure from the protocol of ‘antecedent basis.’”))).) Outdoorlink contends, however, that here, the specification does not provide support for this phrase, and no meaning is apparent from the claim language or the specification.

Outdoorlink contends that the term is nonsensical on its face because it is unclear what “selection” has been made and how it could be “independent of” or dependent on an “advertising device” in any event. Outdoorlink contends that the specification excerpts Plaintiff cites do not clarify the incoherence of this term. (Dkt. #40 at pp. 17–18.)

Outdoorlink contends that no evidence exists that can establish the clear intent of the patentee, and thus any meaning ascribed to this term would be pure speculation. Further, Outdoorlink contends that Lites Out should not be permitted to introduce new words to these terms to give them a new meaning. (Dkt. #40 at p. 19.)

Analysis

The definiteness standard of 35 U.S.C. § 112, ¶ 2 requires 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. The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is unattainable.

Nautilus, Inc. 134 S. Ct. at 2129–30.

Lites Out, in effect, seeks to interpret “the selection independent of other advertising devices” to mean “a selection of the first advertising device independent of other advertising devices.” (Dkt. #30 at pp. 22–23.) When directly asked this at the oral hearing, Lites Out acknowledged that Lites Out seeks to interpret the phrase to mean “selecting the first advertising device independent of the other advertising devices.” (Dkt. #64 at p. 59.)

As drafted, the claim is unclear as to what is meant by “the selection independent of other advertising devices.” Lites Out seeks to have the ambiguous claim language corrected. However, judicial correction of a claim is held to a high standard. The Federal Circuit has made clear the requirements needed for a district court to correct an error:

This case presents the question whether a district court can act to correct an error in a patent by interpretation of the patent where no certificate of correction has been issued. We hold that a district court can do so only if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.

Novo Industries, LP v. Micro Molds Corp., 350 F.3d 1348, 1354 (Fed. Cir. 2003).

If the claim language might mean several different things and no informed and confident choice is available among the contending definitions, the claim is indefinite. *See Interval Licensing LLC v. AOL Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citing *Nautilus, Inc.*, 134 S.Ct. at 2130, n.8 (2014)).

The literal language of the claim raises ambiguity due to the antecedent issue and the fact that something seems to logically and grammatically be missing from the other language of the term. Lites Out has identified one plausible way of correcting the claim language. Such a correction could reasonably be read to conform to portions of the specification at '941 Patent 2:4–10, 2:27–33.

At the oral hearing, Outdoorlink raised other approaches to correct the claim. (Dkt. #64 at pp. 64–66.) One other reasonable correction that could be made has the selection relating to a selection of the operating conditions to update. For example, dependent claim 8 adds the limitation of receiving a request to “update the operating conditions” and then “transmitting a command to the first advertising device based, at least in part, on the selection independent of other advertising devices.” (Dkt. #64 at p. 59.) A natural reading of the claim itself could have the transmitted command relate to the “request to update the operating conditions.” (Dkt. #64 at p. 59.) In such case, the “selection” may be a selection of the particular operating condition that is to be updated. (Dkt. #64 at p. 59.) Thus, in light of the claim language itself, the term could reasonably be interpreted as “selecting the operating condition to update independent of the other

advertising devices.” Such an interpretation would also be a reasonable construction when reading the surrounding claim language in light of the specification. ’941 Patent 1:41–44, 9:57–62, Figure 3.

Because the correction is “subject to reasonable debate based on consideration of the claim language and the specification,” the Court cannot provide the correction that Lites Out seeks. *Novo Industries*, 350 F.3d at 1354. The claim, thus, fails the “reasonable certainty” test of *Nautilus*.

The Court finds that the term “the selection independent of other advertising devices” is indefinite.

7. “a selection via the presentation” (’941 Patent: Claim 9)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning. Further, the claim is not indefinite.	The term is indefinite

The primary dispute is whether the term is understandable as used in the claims.

Positions of the Parties

The relevant clause of claim 9 states, the “method of claim 8, wherein the request comprises a selection via the presentation.” Lites Out contends that the specification teaches that the “management system 100 is operable to identify a plurality of advertising devices 102, receive a selection from a user of client 106, and independently manage one of the plurality of advertising devices 102 in response to the user selection.” ’941 Patent 2:4–10. Lites Out also points to the specification passage that states that the user:

logs into server 104 (may be secured access) through GUI 116, which then presents a list of advertising devices 102. By selecting a particular advertising device 102, GUI 116 may display activity history, alert history, operating conditions, scheduled activity, and other information associated with advertising device 102.

'941 Patent 3:59–65.

Lites Out also contends that the specification states that the user, using the presentation, can make status requests and commands to change operating conditions by making a selection. (Dkt. #30 at p. 24 (citing '941 Patent 3:12–34).) Lites Out states claim 8 recites that a request is made to update the operating conditions. Lites Out contends that then, in claim 9, the request is made through the presentation. (Dkt. #30 at p. 24 (citing '941 Patent 3:12–34).)

Outdoorlink presents much of the same arguments presented above for the “the selection independent” term. Outdoorlink contends that the term is nonsensical as it appears in its respective claims. Outdoorlink contends that given their internal incoherence, the specification cannot give these terms a meaning that would allow a person of ordinary skill to reasonably understand them. Outdoorlink contends that Lites Out merely relies on attorney speculation to ascribe meaning to the term. (Dkt. #40 at pp. 17–18.)

Outdoorlink contends that it is unclear what “selection” is being made, or how the claimed “selection” can be made “via the presentation”, as required by claim 9. (Dkt. #40 at p. 18.) Outdoorlink contends that incorporating the language of the independent claim provides no further insight. Outdoorlink states that read in conjunction with claim 8, from which claim 9 depends, claim 9 would read, “[t]he method of claim 8, wherein the request [to update the operating condition of the first advertising device] comprises a selection via the presentation.” Outdoorlink contends that it is impossible to know what the claimed “selection” refers to.

Analysis

As claimed, the language itself is clear. The request of claim 8 comprises “a selection via a presentation.” The specification provides for selections being made through use of the GUI provided to the user and that the GUI is called a “presentation.” '942 Patent 1:65–2:8, 3:53–65

7:43–66, 8:32–36, 8:55–60, 9:55–62, Figure 3. In light of the intrinsic record, it is clear that selections may be made via the presentation.

As raised in the oral hearing, Outdoorlink fundamentally objects that the claim is not limited to a particular selection. (Dkt. #64 at pp. 65–66.) However, the fact that the claim is not limited to a particular selection does not render the claim ambiguous. As claimed, “a selection via the presentation” is provided. Thus, merely a selection is claimed, not a particular type of selection. That the claim is not limited to a particular selection does not render the language unclear. The Court finds that the term satisfies the “reasonable certainty” test of *Nautilus*.

The Court construes “a selection via the presentation” to have its plain and ordinary meaning.

8. “operating conditions of a maintenance visit” (’898 Patent: Claim 8; ’773 Patent: Claim 8)

Lites Out’s Construction	Outdoorlink’s Construction
No construction necessary. Plain and ordinary meaning. Further, the claim is not indefinite.	The term is indefinite

The primary dispute is whether the specification makes clear how a “maintenance visit” can have “operating conditions.”

Positions of the Parties

In claim 8 of the ’773 Patent, the term is found in the clause which states “wherein receiving operating conditions for a plurality of billboards comprises receiving operating conditions of a maintenance visit.” Lites Out contends that this term references operating conditions related to a maintenance visit. (Dkt. #30 at p. 28.) Lites Out contends that the specification includes references to information that can be gleaned from or about a maintenance visit including “an index of faults and associated time periods, maintenance log including time of

fault detection and repair, maintenance cost graph, historical data, graphical representation of energy cost. . . .” ’941 Patent 3:66–4:4. Lites Out states that the specification also states that the system may collect detectable errors regarding power consumption, ballast failures, etc. and consequently “maintenance crews may be able to have the proper material before arriving at the site.” ’941 Patent 7:10–12. Lites Out contends that this makes clear that there are a host of operating conditions which relate to a maintenance visit.

Lites Out contends that anyone who has worked around equipment can attest to the wealth of important information which surrounds a maintenance visit. Lites Out contends that copious notes are taken before, after, and during maintenance to determine if a maintenance visit was successful. As another example, Lites Out states that if safety protocol requires that the power be off during a maintenance visit, it would be helpful to know if the power was in fact on. (Dkt. #41 at p. 10.)

Outdoorlink presents much of the same arguments as presented above for the “the selection independent” term. Outdoorlink contends that the term is nonsensical as it appears in its respective claims. Outdoorlink contends that given their internal incoherence, the specification cannot give these terms a meaning that would allow a person of ordinary skill to reasonably understand them. Outdoorlink contends that Lites Out merely relies on attorney speculation to ascribe meaning the term. (Dkt. #40 at p. 17.)

Outdoorlink contends that the specification never describes the term “operating conditions of a maintenance visit” used in claim 8 of the ’898 Patent and claim 8 of the ’773 Patent. Outdoorlink contends that the term itself is nonsensical because it is unclear how a “maintenance visit” can have “operating conditions.” (Dkt. #40 at p. 18.) Outdoorlink contends that the specification defines “operating conditions” in the context of billboards as including

“one or more of the following: power outage, tripped breaker, lamp outage, or ballast failure.” ’941 Patent 6:16–19. Outdoorlink contends that the term “operating conditions related to a maintenance visit” is not mentioned in the specification, and “operating conditions” are never tied to an actual “maintenance visit.” (Dkt. #40 at pp. 18–19.)

Outdoorlink contends that Lites Out’s construction either does not describe “operating conditions” (*see* ’941 Patent 4:63–5:7 (referring to a “device profile”)) or does not describe information “of a maintenance visit” that has already occurred (*see* ’941 Patent 4–12 (referring to data a monitoring engine uses to determine operating conditions)). Outdoorlink contends that the claim still doesn’t make any sense, because there is no clear relationship between the claimed “operating conditions” and a maintenance visit and there is no suggestion whether these “operating conditions” are observed before, during, or after a maintenance visit, or whether they relate to a billboard or to the maintenance visit itself. ’941 Patent 4–12.

Analysis

The specification provides linkage between maintenance visits and operating conditions, such as repair data and times, and the conditions that cause a maintenance visit, such as cited by Lites Out in the specification passages at 4:65–5:4 and 7:4–12. In this context, it is reasonably clear that there can be operating conditions of a maintenance visit. Thus, in context of the specification, the Court rejects Outdoorlink’s assertion that it is not reasonable for there to be a linkage between operating conditions and maintenance visits. The Court finds that the term satisfies the “reasonable certainty” test of *Nautilus*.

The Court construes “operating conditions of a maintenance visit” to have its plain and ordinary meaning.

SIGNED this 30th day of October, 2017.


AMOS L. MAZZANT

UNITED STATES DISTRICT JUDGE