EON Corp IP Holdings LLC v. Sensus USA Inc et al Doc. 979

United States District Court
Northern District of California

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

EON CORP IP HOLDINGS LLC,

Plaintiff,

v.

ARUBA NETWORKS INC, et al.,

Defendants.

Case No. 12-cv-01011-JST

REVISED ORDER CONSTRUING AND DETERMINING VALIDITY OF CLAIMS OF UNITED STATES PATENT NO. 5,592,491

On May 10, 2013, the Court held a hearing for the purpose of construing disputed terms in the claims of United States Patent No. 5,592,491. ECF No. 711. At that hearing, the Court requested further briefing on issues regarding the invalidity of two of the claims of the patent.[1] The parties provided that supplemental briefing on May 24, May 31, and, at Defendants' request, on July 3, 2013, at which point the Court took the matter under submission. ECF Nos. 722, 724, 728, & 746.

After consideration of the arguments and evidence presented by the parties, and the relevant portions of the record, the Court issued an order construing the terms and determining that claims 1 and 13 were invalid. Order Construing and Determining Validity of Claims of United States Patent No. 5,592,491 ("Claim Construction Order"), ECF No. 748, 2013 WL

[1] The parties' dispute over the validity of the "switching means" term, discussed at Part II, infra, is significantly informed by the testimony of EON's expert, Dr. David Lyon. EON did not timely disclose Dr. Lyon as an expert in this case and failed to disclose his opinions and testimony as required by Patent Local Rule 4-2. Magistrate Judge Laporte granted Defendants' motion to compel Dr. Lyon's deposition testimony and produce the material on which his opinion is based eight days before the claims construction hearing, and the deposition occurred the day before the claim construction hearing. ECF Nos. 702 & 722-2. While the Court had the discretion to rule on the validity of the term without considering Dr. Lyon's testimony, the Court concluded that it would be more equitable to rule on the validity of the patent only after permitting both parties to review and respond to the deposition testimony of the patentholder's expert.

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3455631, 2013 U.S. Dist. LEXIS 95003 (N.D. Cal. July 8, 2013). In February 2014, the Court granted EON's motion to reconsider the Court's invalidity determination and clarify its construction of the "modem communicatively coupled" term. Order Granting Motion for Reconsideration, ECF No. 965, 2014 WL 793323, 2014 U.S. Dist. LEXIS 24781 (N.D. Cal. Feb. 25, 2014). The Court hereby issues this revised claim construction order in conformance with its order granting the motion for reconsideration.

I. BACKGROUND

Plaintiff EON Corp. IP Holdings ("EON") filed this case in the Eastern District of Texas ("the Texas Court") on October 22, 2010. Plaintiff EON Corp. IP Holdings, LLC's Original Complaint, Case No. 2:10-cv-00448-DF (E.D. Tex. Oct. 22, 2010), ECF No. 1. The current defendants are Aruba Networks, Inc., BroadSoft, Inc., Cisco Systems, Inc., Meru Networks, Inc., SerComm Corporation, Sonus Networks, Inc., Sprint Spectrum L.P., HTC America, Inc., United States Cellular Corporation, Motorola Mobility LLC, and. Motorola Solutions, Inc. (collectively, the "Defendants"). In January 2012, the Texas Court granted Defendants' motion to transfer venue to this Court. Order granting Joint Motion to Transfer Venue to the Northern District of California, Case No. 2:10-cv-00448-DF (E.D. Tex. Jan. 9, 2012), ECF No. 277.

EON asserts that defendants Sprint and U.S. Cellular directly infringe on United States Patent No. 5,592,491 ("the '491 Patent"), entitled "Wireless Modem," and that the remaining defendants indirectly infringe. Joint Case Management Statement, ECF No. 650, at 2:15-23. The '491 Patent is a continuation-in-part of U.S. Patent No. 5,388,101 ("the '101 Patent"), and the '101 Patent is expressly incorporated into the '491 Patent.[2] Both before and after this case was transferred, the Texas Court issued claim construction opinions and summary judgment orders regarding the '491 Patent in other litigation brought by EON.

Defendants contend that a means-plus-function term in Claims 1 and 13 of the '491 Patent is indefinite and that therefore those claims and their dependents are invalid. See Part II, infra.

[2] At various points in this opinion, the Court refers to the claims and specification of the '101 Patent. Where it does so, it is because there is no intrinsic evidence in the '491 Patent that provides superior evidence on the point at issue.

EON and Defendants have also proposed competing constructions of terms in Claims 1, 5, 12, 13, and 17 of the '491 Patent. See Part III, infra.

II. INVALIDITY FOR INDEFINITENESS

A. Legal Standard

The 1952 Patent Act authorizes functional claiming: "[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. § 112, ¶ 6. This provision is "intended to permit use of means expressions without recitation of all the possible means that might be used in a claimed apparatus." O.I. Corp. v. Tekmar Co., Inc., 115 F.3d 1576, 1583 (Fed. Cir. 1997). But the other side of this coin is that the "statutory provision was meant to preclude the overbreadth inherent in open-ended functional claims . . . which effectively purport to cover any and all means so long as they perform the recited functions." Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1256, n. 7 (Fed. Cir. 2008). The "duty to link or associate structure to function is the quid pro quo for the convenience of employing § 112, ¶ 6." Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc., 412 F.3d 1291, 1300-02 (Fed. Cir. 2005).

"A challenge to a claim containing a means-plus-function limitation as lacking structural support requires a finding, by clear and convincing evidence, that the specification lacks disclosure of structure sufficient to be understood by one skilled in the art as being adequate to perform the recited function." Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc., 336 F.3d 1308, 1319 (Fed. Cir. 2003). If the patent does not disclose adequate structure, the patent is invalid for failing to particularly point out and distinctly claim the invention as required by 35 U.S.C. § 112, ¶ 2. In re Donaldson Co. Inc., 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc). "[I]n order for a claim to meet the particularity requirement of ¶ 2, the corresponding structure(s) of a means-plus-function limitation must be disclosed in the written description in such a manner that one skilled in the art will know and understand what structure corresponds to the means limitation." Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374,

1382 (Fed. Cir. 1999). "Otherwise, one does not know what the claim means." Id. "[A] bare statement that known techniques or methods can be used does not disclose structure." Biomedino, LLC, v. Waters Techs. Corp., 490 F.3d 946, 952 (Fed. Cir. 2007).

"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," and "like claim construction, [it] is a question of law." Atmel, 198 F.3d at 1378. Therefore, it is appropriate for the Court to address indefiniteness issues at the claim construction stage. See Exxon Research and Eng'g Co. v. U.S., 265 F.3d 1371, 1376 (Fed. Cir. 2001).

B. Analysis: "Switching means for selecting a communication path within said network" (Claims 1 and 13)

Disputed Claim Terms	EON's Proposal	Defendants' Proposal
"switching means for selecting a communication path within said network" (Claim 1) "switching means for selecting a communication path within said network" (Claim 13)	The phrase is governed by 35 U.S.C. § 112, ¶ 6. The claimed function is selecting a communication path within said network/communication system. Structure: electronic switch 13 and equivalents	Indefinite under 35 U.S.C. § 112, ¶6: Claimed Function: selecting a communication path within said network/communication system Corresponding Structure: The patent does not disclose sufficient structure corresponding to the function.

As both parties agree, these claim terms are each means-plus-function limitations. Pursuant to 35 U.S.C. § 112, ¶ 6, "such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." To be sufficiently definite and valid, the patent must "set forth in the specification an adequate corresponding disclosure showing what is meant by that language." Blackboard, Inc. v. Desire2Learn Inc., 574 F.3d 1371, 1382 (Fed. Cir. 2009).

The method in the claims is a "switching means." '491 Patent, at 6:21, 8:48. The specification discloses that "[a]s shown in FIG. 2, subscriber unit 12 includes switching means such as, for example, an electronic switch 13 for selecting the path of communication between

subscriber unit 12 and local base station repeater cell 10." Id., at 3:36-39. This description -- an "electronic switch" -- is the only disclosure showing what is meant by the language of a "switching means." Defendants argue that this disclosure fails to set forth adequate structure to perform the function perform the function of "selecting a communications path."

The Court agrees that the term "selecting," as understood by a layperson outside of the context of the patent, connotes an intelligent determination rather than merely "assuming a position." But the Court must construe the term based primarily on the intrinsic record, as it would be understood by a person of ordinary skill in the art. "The construction of a means-plus-function limitation includes two steps . . . [f]irst, we determine the claimed function," and "[s]econd, we identify the corresponding structure in the written description that performs that function." JVW Enterprises, Inc. v. Interact Accessories, Inc., 424 F.3d 1324, 1330 (Fed. Cir. 2005); see also Applied Med. Res. Corp. v. U.S. Surgical Corp., 448 F.3d 1324, 1332 (Fed. Cir. 2006). "Ordinary principles of claim construction govern interpretation of the claim language used to describe the function" of a means-plus-function term. Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc., 296 F.3d 1106, 1113 (Fed. Cir. 2002) (internal citation omitted).

The '101 Patent, of which the '491 Patent is a continuation-in-part, discloses elements that perform the functions of gathering information about rf signal, and determining whether the unit is able to receive rf signals. A disclosed "frequency control component" is disclosed to monitor transmission frequency, a disclosed "data processor" enables the subscriber unit to make rf signal strength assessments, and disclosed subscriber unit software assesses whether signal strength goes below a threshold value. '101 Patent at 9:14-19, 10:15-31, 10:39-43. Therefore, EON argues that a person of ordinary skill of the art would understand these functions to be performed by other previously disclosed elements which are incorporated within the "subscriber unit" claimed in the '491 Patent. See '491 Patent at 1:43–52, 2:3-11. On this reading, the subscriber unit's capability to monitor and assess rf signal was already fully disclosed in the parent '101 Patent, and it would redundant to construe the "selecting" function claimed in the '491 Patent to also include those functions. In light of this, a person of ordinary skill of the art could conclude that "selecting a communications path," within the context of these patents, is a fairly narrow function akin to

"toggling," or "assuming a position."

At the very least, the patent is amenable to such a construction. See Exxon Res. & Eng'g Co. v. United States, 265 F.3d 1371, 1380 (Fed. Cir. 2001) ("If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds"); see also Rhine v. Casio, Inc., 183 F.3d 1342, 1345 (Fed. Cir. 1999) (claims are to be construed to preserve validity, if possible); see also Biosig Instruments, Inc. v. Nautilus, Inc., 715 F.3d 891, 898 (Fed. Cir. 2013) cert. granted, ___ U.S. ___, 134 S. Ct. 896 (U.S. 2014) (citing Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1347 (Fed.Cir.2005) ("[a] claim is indefinite only when it is 'not amenable to construction' or 'insolubly ambiguous.').[3] The plausibility of this construction is reinforced by the fact that the Texas Court reached the same conclusion. EON Corp. IP Holdings, LLC v. T-Mobile USA, Inc., Case No. 6:10-CV-0379 LED-JDL, 2012 WL 3073432, at *3-5 (E.D. Tex. Feb. 8, 2012) report and recommendation adopted sub nom. EON Corp. IP Holdings, LLC v. Skyguard, LLC, Case No. 6:11-CV-15-LED-JDL, 2012 WL 3073907 (E.D. Tex. July 27, 2012) ("[t]he recited function of 'selecting the path of communication' refers to selecting a communication path, not deciding which path to use").

Defendants have not submitted clear and convincing evidence that a person of ordinary skill in the art would find an "electronic switch" insufficient to perform this narrowly understood claim function. Therefore, Defendants have not demonstrated that Claims 1 and 13 of the '491 Patent are invalid for indefiniteness.

III. CLAIM CONSTRUCTION

A. Legal Standard

The construction of terms found in patent claims is a question of law to be determined by the Court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). "[T]he interpretation to be given a term can only be determined and

[3] As of this writing, these standards remaining the governing law of the Federal Circuit regarding indefiniteness, although the Court is aware that the question is currently being reviewed by the Supreme Court. Nautilus, Inc. v. Biosig Instruments, Inc., ___ U.S. ___, 134 S. Ct. 896 (2014)

confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (quoting Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998)). Consequently, courts construe claims in the manner that "most naturally aligns with the patent's description of the invention." Id.

The first step in claim construction is to look to the language of the claims themselves. "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, 415 F.3d at 1312 (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). A disputed claim term should be construed in light of its "ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." Phillips, 415 F.3d at 1312. In some cases, the ordinary meaning of a disputed term to a person of skill in the art is readily apparent, and claim construction involves "little more than the application of the widely accepted meaning of commonly understood words." Id., at 1314. Claim construction may deviate from the ordinary and customary meaning of a disputed term only if (1) a patentee sets out a definition and acts as his own lexicographer, or (2) the patentee disavows the full scope of a claim term either in the specification or during prosecution. Thorner v. Sony Computer Entm't Am. LLC, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

Ordinary and customary meaning is not the same as a dictionary definition. "Properly viewed, the 'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks transforming the meaning of the claim term to the artisan into the meaning of the term in the abstract, out of its particular context, which is the specification." Id., at 1321. Typically, the specification "is the single best guide to the meaning of a disputed term." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). It is therefore "entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of claims." Phillips, 415 F.3d at 1315. However, while the specification may

describe a preferred embodiment, the claims are not necessarily limited only to that embodiment. Id.

Finally, courts may consider extrinsic evidence in construing claims, such as "expert and inventor testimony, dictionaries, and learned treatises." Markman, 52 F.3d at 980. Expert testimony may be useful to "provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field." Phillips, 415 F.3d at 1318. However, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." Id. If intrinsic evidence mandates the definition of a term that is at odds with extrinsic evidence, courts must defer to the definition supplied by the former. Id.

B. Analysis

As a preliminary matter, the Court notes that most of the Defendants' proposed 'constructions' cannot be simply inserted into the language of the patent. See infra at III-B-1, III-B-3, III-B-4, and III-B-5. Instead, Defendants propose that the Court read a particular limitation into the claim, or hold that certain specific factual scenarios fall outside of the scope of the claim. See, e.g., infra at III-B-5-a ("[a] user rendering the subscriber unit unable to communicate with the local base station repeater cell does not fall within the scope of the claim"). In response, Plaintiff has proposed only that "no construction is necessary" of most of the disputed terms. See generally infra.

On the one hand, "It is well settled that claims may not be construed by reference to the accused device." NeoMagic Corp. v. Trident Microsystems, Inc., 287 F.3d 1062, 1074 (Fed. Cir. 2002). "[T]he role of a district court in construing claims is not to redefine claim recitations or to read limitations into the claims to obviate factual questions of infringement and validity but rather to give meaning to the limitations actually contained in the claims." American Piledriving Equipment, Inc. v. Geoquip, Inc., 637 F.3d 1324, 1331 (Fed. Cir. 2011). "[A] court must construe claims without considering the implications of covering a particular product or process."

SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1340 (Fed. Cir. 2005).

On the other hand, "[t]o determine what claim scope is appropriate in the context of the patents-in-suit," it is necessary to construe even "ordinary" terms if applying ordinary meaning does not resolve the parties' dispute over claim scope. O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd., 521 F.3d 1351, 1361 (Fed. Cir. 2008). Quoting Markman for the proposition that "[t]he purpose of claim construction is to 'determin[e] the meaning and scope of the patent claims asserted to be infringed,'" the O2 Micro court held that a district court committed legal error by finding that it was unnecessary to construe the term "only if," since by doing so the Court failed to resolve the parties' "dispute regarding the proper scope of the claims." 521 F.3d at 1360-61 (quoting Markman, 52 F.3d at 976). The Federal Circuit has also held that "where the specification makes clear at various points that the claimed invention is narrower than the claim language might imply, it is entirely permissible and proper to limit the claims." Alloc, Inc. v. ITC, 342 F.3d 1361, 1370 (Fed. Cir. 2003), cert. denied, 541 U.S. 1063 (2004).

The rules of NeoMagic Corp. and O2 Micro are in some conflict. In order to know whether it is resolving the parties' dispute over the scope of the term, the Court must often understand the parties' views about the accused products. When one party proposes that a term be construed solely to rule out a particular factual situation that relates to its accused product, and the other party asserts that no construction is necessary, the parties place the Court squarely at the heart of that conflict.

To strike the right balance, the Court will proceed as follows. The Court will only understand the accused products as far as is necessary to understand the scope of the parties' dispute. The rule against construing claims with reference to the accused devices "does not forbid awareness of the accused product or process to supply the parameters and scope of the infringement analysis, including its claim construction component," and "does not forbid any glimpse of the accused product or process during or before claim construction." Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1331 (Fed. Cir. 2006).

The Court will not, however, use the accused product or the infringement contentions as any kind of evidence in construing the claims. The constructions in this order are judgments of

claim scope, not infringement determinations. If the Court agrees with a party that a term needs no construction, the Court is holding as a matter of law that the limitations proposed by the other party do not inhere in the term, and the parties will not be able to argue for such a limitation to a jury. The corollary is that, if the Court agrees with a party who has proposed a construction with limitations, the Court is holding as a matter of law that those limitations do in fact inhere in the term, except where clearly stated otherwise. Hopefully, this should avoid the problem of the Court repeatedly revisiting the same issues of claim scope.

Even though some of Defendants' proposals do not fit precisely as "constructions" of the claim term, the Court must fulfill its obligation to establish the legal scope of the claim, using the arguments and record before it. The Court will go as far as it can to resolve these disputes without going so far as to "obviate factual questions of infringement and validity," since the ultimate question of whether a product actually infringes must be left to the domain of the finder of fact.

Finally, as a matter of case management and pretrial procedure, it is well established that district courts have the authority only to construe those terms they deem likely to lead to a dispositive outcome. See, e.g., Microstrategy Inc. v. Bus. Objects Americas, 410 F. Supp. 2d 348, 355 (D. Del. 2006) aff'd, 238 F. App'x 605 (Fed. Cir. 2007) (construing only two claims of the several the parties had submitted for construction). In other words, district courts have not read O2 Micro to prohibit them from limiting the number of terms they construe at any one pretrial proceeding. The Federal Circuit permits this practice, provided that the patentee is not permanently deprived of the opportunity to later add claims that present unique issues as to liability or damages. See In re Katz Interactive Call Processing Patent Litigation, 639 F.3d 1303, 1310 (Fed. Cir. 2011); Stamps.com, Inc. v. Endicia, Inc., 437 Fed. Appx. 897, 902-03 (Fed. Cir. 2011) (unpublished).

In this case, the parties identified six terms whose construction is "likely to be most significant to resolving the parties' dispute," pursuant to Patent Local Rule 4-2(b). See Joint Claim Construction and Prehearing Statement, ECF No. 579, at 2-5. The Court proceeds to construe only those terms, since the parties believe construction of such terms is likely to lead to a dispositive outcome. The Court will revisit the other submitted claim terms only if these

constructions do not lead to a dispositive outcome, the unconstrued terms pose unique issues of liability or damages, and it is necessary to avoid submitting the dispute over their scope to a jury.

1. "Modem communicatively coupled" (Claims 1, 12 and 13)

Disputed Claim Terms	EON's Proposed Construction	Defendant's Proposed Construction
"a modem communicatively coupled to said local subscriber units and said local base station repeater cell" (claim 1) "a modem communicatively coupled to said local subscriber units and said digital transmitter" (claim 12) "a modem communicatively coupled to said at least one subscriber unit and said network hub switching center" (claim 13)	No construction is necessary, but if one is adopted: "a modem capable of communication with local subscriber units and said local base station repeater cell"	"a modem is situated between the local subscriber units, on one side, and the local base station repeater cell, on the other, and is connected to both for the purpose of communications between the two. ("The connection requirement.") When the two are communicating, the modem receives digital information from the subscriber units and it then modulates an analog carrier signal to encode that digital information for transmission to the local base station repeater cell. The modem also demodulates such a carrier signal to decode digital information transmitted from the local base station repeater cell and then transmits that digital information to the subscriber units." ("The modem requirement.")

The first sentence of Defendants' proposed construction reflects the parties' dispute over whether "communicatively coupled" requires a connection or merely the capability of one (the "connection requirement"). In the second and third sentences of the construction, Defendants seek to apply this communicative coupling within the context of a specific modem technology ("the modem requirement"), a limitation that EON denies inheres in the term.

a. The "connection requirement"

The term "coupled," within the context of the patent, requires a connection, not merely the capability of such a connection. Claim 1 recites that the modem is "communicatively coupled" to subscriber units and the local base station repeater cell "for transferring said multiplexed synchronously related digital data messages of variable lengths between said set of local subscriber units and said local base station repeater cell." '491 Patent, at 6:58-60. The

specification discloses an embodiment in which the modem "communicates with subscriber unit 12 via an rf link 26," not one in which the modem is merely capable of being so linked. Id., at 3:63. EON provides no support for its contention that a person skilled in the art would understand the term "communicatively coupled" to require only the capacity to connect.

This construction is reinforced by extrinsic evidence -- the everyday understanding of the term "coupled." In In re Translogic Tech, Inc., 504 F.3d 1249, 1258 (Fed. Cir. 2008), the Federal Circuit noted that "'coupled to' . . . defines a connection," in contrast to the term "coupled to receive," which the intrinsic evidence of that patent required only that the object be "capable of receiving." See also Digeo, Inc. v. Audible, Inc., Case No. C05-464JLR, 2006 WL 828861, at *4 (W.D. Wash. Mar. 27, 2006) ("the ordinary meaning of 'coupled' is 'connected,' and the adverb 'communicatively' suggests that the coupling is for the purpose of communication"). We would not call two entities "coupled" simply because they are capable of communicating with each other, and EON does not offer any evidence to suggest that a person skilled in the art would understand the term "coupled" to require only the capability of connection. Indeed, a great many electronic machines (especially modems) are "capable of connection" to each other, if set up and configured to communicate. They cannot all fall within the scope of this claim.

Finjan, which EON cites, does not hold otherwise, since that case did not involve the term "coupled." 626 F.3d at 1204-05. And the other case EON cites, In re Translogic, as discussed supra, actually supports Defendants' construction of the term "communicatively coupled."

The difficulty with Defendants' proposed construction is that the words "situated between" and "on one side" imply a spatially or geographically specific type of connection that is not reflected in the intrinsic record. Especially given that the patent is entitled "wireless modem," it would be inappropriate to limit the terms to apply only to any specific physical configuration. At the hearing, Defendants conceded that their intent was not to impose any such limitation but merely "to make clear that the modem that is communicatively coupled . . . has to be part of the network, and in order for the claim to make sense, there has to be a modem that is communicating with two different things." Transcript, at 19:1-6. Therefore, the Court will not construe the term to include Defendants' proposed spatial limitations. This should also assuage any concerns EON

has that Defendants' construction "suggests a physical connection." See Opening Br., at 20:3. It does not. See Resp. Claim Constr. Br., at 12:20-22 ("a coupling between the modem and local subscriber units/local base station repeater cell . . . is not merely a physical connection, such as a wire or cable").

b. the "modem" language

Defendants contend that the second and third sentences are necessary to resolve the parties' dispute over whether the subscriber unit, by itself, can satisfy the requirement of being the claimed modem.

Defendant's construction would seem to exclude the preferred embodiment, which does not require a specific type of communication link but rather contemplates a connection through "any means." '491 Patent, at 3:56-62, 4:9-12. A construction which excludes "a preferred . . . embodiment in the specification . . . is rarely, if ever, correct." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed. Cir. 1996).

Therefore, the Court does not adopt the second and third sentences of Defendants' proposed construction.

c. Conclusion

The Court construes the term to require a connection, but does not construe the terms to contain the spatial limitations, or either of the second and third sentences, proposed by Defendants. Therefore, the Court construes the term (as it appears in Claim 1) as follows: "a modem is connected to the local subscriber units and the local base station repeater cell for the purpose of communications between the two." Corresponding versions of these terms in Claims 12 and 13 are listed in Part V, infra.

The Court's construction does not imply that the connection must occur in a circuit-switched rather than packet-switched network. See Order Granting Motion for Reconsideration, 2014 WL 793323, at *3-4, 2014 U.S. Dist. LEXIS 24781, 15-17.

2. "Network hub switching center" (Claims 1, 13 and 17)

Disputed Claim Terms	EON's Proposed Construction	Defendants' Proposed Construction

"network hub switching center" (Claims 1, 13, and 17)	No construction necessary	a centralized switching center that performs all of the switching functions needed for operation of the subscriber units in the group of cells that the switching center services

The Texas Court found this term not to require construction. EON Corp. IP Holdings, LLC v. T-Mobile USA, Case No. 6-10-cv-0379-LED-JDL, 2012 WL 405492, at *19 (E.D. Tex. Feb. 8, 2012); EON Corp. IP Holdings, LLC, 741 F.Supp.2d 783, 812-13 (E.D. Tex. 2010). However, Defendants now urge that construction is necessary to resolve the parties' dispute over whether the scope of these claims encompasses a switching center that is not part of the network. It appears that this particular issue was not before the Texas Court when it declined to construe the term, and indeed the Texas Court stated that it declined to construe "without prejudice to [defendants] re-urging" at trial. EON Corp. IP Holdings, LLC v. T-Mobile USA, Inc., Case No. 6:10-cv-379-LED-JDL, ECF No. 1053 (Sep. 19, 2012). Given that a dispute remains between the parties about the scope of the claim, this Court finds that construction is necessary.

EON, relying on a treatise definition, previously submitted to the Texas Court that "[a] network hub switching center is a well understood structural element in hierarchical networks such as described in the inventions," and, in a footnote, cited the following treatise definition: "The Mobile Switching Centre (MSC) is linked to the BS [Base Station] . . . and performs all the switching functions needed for the operation of the [subscriber equipment] in the group of cells it services." EON's Opening Claim Construction Brief, EON Corp. IP Holdings, LLC v. Sensus USA, Inc., Case No. 6:09-cv-116-LED-JDL, ECF No. 157, at 12. Defendants draw their proposed construction from this submission by EON, and suggest, in essence, that EON should be judicially estopped from disputing that "network hub switching center" should be similarly construed in this case. EON's earlier submission was made in the context of whether the phrase connoted sufficient structure pursuant to § 112, ¶ 6. For that among other reasons, the Court is not persuaded that the high bar for judicial estoppel has been cleared in this case.[4] The Court will construe the term

[4] See SanDisk Corp. v. Memorex Products, Inc., 415 F.3d 1278, 1290-91 (Fed. Cir. 2005) (quoting New Hampshire v. Maine, 532 U.S. 742, 749 (2001)) (internal citations omitted) ("[i]n New Hampshire, the Supreme Court identified several factors guiding the decision to apply judicial estoppel: (1) the party's later position must be 'clearly inconsistent' with the earlier position; (2)

based on the intrinsic evidence, rather than confine itself to a particular construction because of briefs filed in previous litigation.

Turning to the language of the claim, EON objects to Defendants' proposed construction for proposing two limitations it claims are not reflected in the record: that the switching center is "centralized," and that the switching center "performs all the switching functions" for a particular group of cells.

a. "centralized"

If the Court were to construe the term to include the concept "centralized," a jury would be likely to look for a specific type of geographic or spatial arrangement. The intrinsic record does not reflect the geographical specificity that the word "centralized" connotes. For example, Claim 2 of the '101 Patent recites a hub switching center that is "located remotely" from the base station. '101 Patent, at 11:56-58. Defendants point to a portion of the specification of the preferred embodiment disclosing that repeater stations in different geographic locations communicate "under control of a data and switching control center 2." Id., at 8-9. But the fact that the switching center controls the communication does not mean that the switching center itself is "centralized." Neither does the fact that EON once, in prosecuting a different patent, distinguished a hub switch from a "distributed" switching system. See Resp. Br., at 19:27-20:12.

Defendants argue that "[t]he term 'hub' suggests, if not requires, that the switching center be 'centralized.'" Resp. Br., at 19:25-26. The term suggests that, but does not require it. While the dictionary definition of "hub" does imply centrality, this extrinsic evidence cannot override the intrinsic evidence. The switching center need not be "centralized" in the sense that a jury would likely apply that term.

b. "all of the switching functions . . . for . . . the group of cells that the switching center services"

In its papers, EON's primary objection to this construction is that the switching center does

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the party must have succeeded in persuading a court to adopt the earlier position in the earlier proceeding; and (3) the courts consider 'whether the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped.' These factors, while not exclusive, must guide the court's application of its equitable powers.")

not perform all of the switching functions. For example, claims 1 and 13 recite switching means in subscriber units. '491 Patent, at 6:21-22 & 8:39-40. This point was conceded by Defendants at the claim construction hearing. Transcript of Proceedings, ECF No. 717, at 40:24-41:1, 44:25-45:1.

But beyond this objection, EON provides little reason to oppose the concept that the switching center relates to a particular group of cells that it services. In its papers, EON states only that "[t]he intrinsic record provides no support for any express relations between a particular network hub switching center and particular cells. Only claims 1 and 12 refer to cell sites, and claim 12 does not even recite a network hub switching center." Open. Br., at 5:3-5. EON's brief does not address features of the '101 Patent that provide the primary definitions of the switching center. For example, in the '101 Patent, Claim 1 recites a "hub switching center for routing communications" from subscriber units "served by a base station." '101 Patent, at 11:19-25. This very strongly indicates that the switching center serves those units that are part of the network. "[W]here the specification makes clear at various points that the claimed invention is narrower than the claim language might imply, it is entirely permissible and proper to limit the claims." Alloc, Inc., 342 F.3d at 1370. This is even truer where other claims themselves contradict the scope a patentee seeks to apply to one of the terms in the patent.

At the hearing, EON raised the issue that there are embodiments in which the switching center communicates only with a subscriber unit because there is no local base station cell in the area. See '491 Patent, at Fig. 3; 3:25-27; 5:1-5. The Court does not agree that Defendants' construction would be inconsistent with these embodiments. It is still possible to construe the switching center as an object the performs the switching functions for a particular group of units, even if in one particular embodiment the switching center happens temporarily to not be connected to those units.

In its papers, and at the hearing, EON seems to be maintaining that the scope of this term is broad enough to encompass a switching center that serves any cells anywhere in the world, even those completely unrelated to the network. After carefully reviewing the intrinsic record, the Court concludes that this is not the appropriate "understanding of what the inventors actually

invented and intended to envelop with the claim." Phillips, 415 F.3d at 1316.

The Court agrees with EON that it would be inappropriate to construe the term to include the terms "centralized" and "all." But the remainder of the construction accurately captures the scope of the claim terms as reflected in the intrinsic record. Therefore, the Court construes "network hub switching center" as follows: "a switching center that performs the switching functions needed for operation of the subscriber units in a group of cells that the switching center services."

3. The "Cell subdivision" Terms (Claims 1 and 12)

Disputed Claim Terms	EON's Proposed Construction	Defendants' Proposed Construction
"a local remote receiver disposed within one of a plurality of cell subdivision sites partitioned from said local base station geographic area associated with said local base station repeater cell, said plurality of cell subdivision sites dispersed over said local base station geographic area, said local remote receiver being adapted to receive low power digital messages transmitted from said local subscriber units within range of said local remote receiver" (Claim 1)	"Remote receiver" means "a receiver remote from or collocated with a transmitter, base station, and/or repeater."	the transmission area of each radio transmitter of the local base station repeater cell is covered by a plurality of smaller response areas dispersed throughout, and each response area has a local remote receiver for receiving low power digital messages transmitted from local subscriber units within range of the local remote receiver
"a cell site divided into a plurality of subdivided zones, . . . a cell site communication system including a digital transmitter for communication with individual identified subscriber units geographically located within the/said cell site, a set of receive only digital receivers positioned in said subdivided zones, each said digital receiver being coupled by a transmission link with the/said cell site communication system to relay received digital communications" (Claim 12)	No construction necessary	the radio transmission area of the digital transmitter of a cell site communication system is covered by a plurality of smaller response areas, and each response area has a receive only digital receiver coupled by a transmission link to the cell site communication system to relay digital communications received from subscriber units

The parties dispute whether the claims permit a remote receiver to be collocated with the

local base station repeater, and whether each subdivision site or zone requires its own remote receiver.

EON's primary objection to Defendants' constructions it that they "effectively require the receivers to be located apart from the transmitter, base station, or repeater." Opening Br., at 14:1-2. EON argues that this is inconsistent with the preferred embodiment, since Figure 1 of the '101 Patent discloses a local area repeater station that is collocated with the remote receiver. But the claims themselves indicate that for each radio transmitter, there is a corresponding coverage area further subdivided by sites or zones that have remote receivers.

EON objects that Defendants' proposed construction limits the claims to "one-way communication," which is inconsistent with the "two-way arrow" disclosed in Fig. 1 of the '101 Patent and in its specification. '101 Patent, at 10:13-15. But the construction does not add that concept to the terms. Defendants' proposed construction of Claim 12 uses the term "receive only," but only because the claim uses that term. Defendants' proposed construction of Claim 1 does not use the term.

On the other hand, EON's construction of Claim 1 reads the term "remote" out of the term "remote receiver," by suggesting that the receiver can be both "remote from" or "collocated with" another device. This paradoxical construction cannot be correct.

The Court therefore adopts Defendants' constructions of these terms.

4. "Receive only" (Claims 5 and 12)

Disputed Claim Terms	EON's Proposed Construction	Defendants' Proposed Construction
"receive only" (claims 5 and 12)	No construction is necessary.	"receive only" refers to the communication of messages to and from the base station cells and the subscriber units. That is, the subscriber unit can only receive digital messages directly from the base station cell and not from the receiver units. The receiver unit's role with respect to those messages is simply to receive them from the low powered subscriber units and to pass them along to the base station cell. This does not however, forbid routine handshaking, error checking, and other control signals from being communicated between the receiver units and the subscriber units.

Disputed Claim Terms	EON's Proposed Construction	Defendants' Proposed Construction
"receive only digital receivers" (claim 12)	"a receiver for receiving and relaying digital communications"	No construction necessary except with respect to the subphrase "receive only," but if the Court determines that this term needs a construction, that construction should be: "a device that receives and relays digital communications from a local subscriber unit to the local base station repeater cell but that does not relay digital communications from the local base station repeater cell to the local subscriber unit."
"receive only receiver unit" (claim 5)	"a receiver for receiving transmissions"	No construction necessary except with respect to the subphrase "receive only," but if the Court determines that this term needs a construction, that construction should be: "a device that receives and relays communications from a local subscriber unit to the local base station repeater cell but that does not relay communications from the local base station repeater cell to the local subscriber unit"

The parties dispute whether a "receive only" digital receiver or receiver unit should be generally construed to include a receiver or unit that also transmits messages. Construing a "receive only" receiver or unit to both receive and transmit would seem to excise an basic element of the claim term, in violation of the established rule that claims should be interpreted to give effect to all terms in the claim. Bicon, Inc., 441 F.3d at 950. The language of the claim terms indicates that, at least as a general rule, the "receive only" receiver and receiver unit only receive.[5] In Figure 2 of the specification, the arrow between the subscriber unit and the remote receiver points in only one direction. The term "receive only" should be construed generally to exclude the possibility of transmitting messages.[6]

Rules have exceptions, of course. The fact that a "receive only" receiver generally

[5] Defendants also state that "the specification . . . provides that a 'receive only receiver unit' is a device that receives and relays communications from a local subscriber unit to the local base station repeater cell, but that does not relay communications from the local base station repeater cell to the local subscriber unit." Resp. at 22:4-8. The cited portion of the specification, '491 Patent at 1:28-41, does not state that "receive only receiver units" do not transmit data; it says that the "subscriber units" do not.

[6] The Court also notes that EON acknowledged a very similar construction in other cases. Resp. at 21:13. As discussed supra, this alone is not a sufficient reason for the Court to adopt this construction, but it has some persuasive force.

receives messages does not mean that it cannot, in some limited way, transmit some types of communications. This fact, too, is not disputed. The only dispute, then, is what kinds of transmissions the "receive only" receivers and units are disclosed to transmit.

The only evidence EON submits to contradict Defendants' construction is a double-headed arrow that appears at Figure 1 of a sister Patent, U.S. Patent No. 5,481,546. Given the overall function of the receive-only units and receivers within the context of the '491 Patent, and the other aspects of the specification showing only one-way communication, this bi-directional arrow in a different patent cannot override the meaning of "receive only" to allow general two-way communication. The Court agrees with Defendants that, to the extent this figure is relevant, the bidirectional arrow within it reflects a limited exception to the normally "receive only" function of the receivers and units. That exception is the one acknowledged in Defendants' construction: the fact that a unit or receiver is "receive only" does not "forbid routine handshaking, error checking, and other control signals from being communicated between the receiver units and the subscriber units." In its Opening Brief, it was exactly these types of communications that EON pointed to in arguing that "the specification (and knowledge of one skilled in the art) supplies reasons for two-way communication." Opening Br., at 15:20-23. EON does not argue that the Patent claims any exception other than this one, or that a person skilled in the art would understand the term "receive only" to require any more than this.

Therefore, to resolve any dispute the parties have over the extent to which "receive only" receivers and units transmit messages, the Court adopts Defendants' proposed construction of "receive only." The Court also agrees that it is unnecessary to further construe the larger terms "receive only digital receivers" and "receive only receiver unit."[7]

5. The Conditional "If" Terms (Claims 1, 5, 12, 13 and 17)

Several claims include conditional language:

[7] EON also disputes whether it is appropriate to use the term "device" to refer to the receiver units and receivers. Defendants appear to concede that they do not seek to re-define the receivers and units in using this term, and that the term "receiver" (and, presumably, "receiver unit") can be substituted for the term "device" in their proposed constructions. Resp. at 21:21-26. The Court will adopt this amendment in its construction.

- "transferring . . . if said local subscriber units are unable to directly communicate with said local base station repeater cell" (claim 1)
- "if said subscriber unit is receiving a signal from said local base station repeater cell, performing the steps of . . ." (claim 5)
- "transferring . . . if said subscriber units are unable to communicate directly with said digital transmitter" (claim 12)
- "transferring . . . if said at least one subscriber unit is unable to communicate directly with a local base station repeater cell" (claim 13)
- "if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of . . ." (claim 17)

At first glance, it might not be apparent that the term "if" requires construction. But the O2 Micro court found that it was necessary to construe the term "only if" where failing to do so would leave the parties' dispute over claim scope unresolved. Here, the parties dispute whether the scope of the claim extends to the user voluntarily disabling one of the pathways, or to situations in which communication was impaired in the past.

Defendants note that their construction reflects limitations that the Texas Court determined that the claims contain. EON makes a few specific objections to Defendants' constructions on the grounds that they are inconsistent with the intrinsic record, and where the Court agrees that Defendants' constructions are unsupported by the record, it will not adopt those constructions. But EON's primary argument is not about specific deficiencies in Defendants' constructions. EON's primary objection is that the Court should not proceed to construe the claims at this point in this manner. As they put it, "Defendants present an army of Frankenstein constructions brought to life for the purpose of invading the province of the jury." Open. Br., at 1:12-13. EON notes particularly that many of the citations Defendants are citations to summary judgment orders and motions to strike, not claim construction orders.

The issues raised, however, are legal issues of claim scope, not specific factual determinations of infringement. Whether the determination of claim scope occurs at claim construction or (as it did in the Texas Court) in the first part of a summary judgment order, the

determination is a legal one rather than a factual issue for a jury. Therefore, where the Court agrees that a proposed limitation is supported by the intrinsic record, it will construe the term to be so limited. As discussed more fully supra, the Court's determination about claim scope is not based on the accused products.

Defendants have proposed one set of constructions for the terms as they appear in Claims 1, 12 & 13, and a separate set of constructions that apply to Claims 5 & 17.

a. The "transferring . . . if" terms in Claims 1, 12 & 13

Disputed Claim Terms	EON's Proposed Construction	Defendants' Proposed Construction
"transferring . . . if said local subscriber units are unable to directly communicate with said local base station repeater cell" (claim 1) "transferring . . . if said subscriber units are unable to communicate directly with said digital transmitter" (claim 12) "transferring . . . if said at least one subscriber unit is unable to communicate directly with a local base station repeater cell" (claim 13)	No construction necessary.	The system is binary, meaning the subscriber unit either communicates over Path A or Path B. (*The "binary limitation"*.) The "transferring function" of the modem is conditioned on whether the subscriber unit is unable to directly communicate with the local base station repeater cell. (*The "conditional" limitation*.) A user rendering the subscriber unit unable to communicate with the local base station repeater cell does not fall within the scope of the claim. (*The "user intervention" limitation*.)

Defendants' proposed construction contains three sentences, which the parties in their papers call the "binary limitation" the "conditional limitation," and the "user intervention" limitation. The Court addresses each in turn.

1) The "binary" limitation

The Texas Court held that "the claim language speaks for itself and the '491 patent discloses a binary system where the subscriber unit either communicates over Path A or Path B." EON Corp. IP Holdings, LLC v. T-Mobile USA, Inc., Case No. 6:10-CV-0379 LED-JDL, 2012 WL 405492, at *15 (E.D. Tex. Feb. 8, 2012) ("T-Mobile Claim Construction Order"). The Texas

Court's use of the terms "Path A" and "Path B" language arose in the context of the particular embodiment discussed in that order. EON objects that it creates confusion to replace the actual language of the claims with "Path A" and "Path B."

It should be simple enough to resolve this objection by simply rearticulating the limitation by using the terms that actually appear in the claim. For example, the Court could construe the terms as follows:

- "The system is binary, meaning the subscriber units either communicate with the modem or with the base station repeater cell." (claim 1)
- "The system is binary, meaning the subscriber units either communicate with the modem or with the digital transmitter." (claim 12)
- "The system is binary, meaning the subscriber unit either communicates with the modem or with the local base station repeater cell." (claim 13)

EON also argues that the limitations inappropriately insert functional language into an apparatus claim. But "it is entirely proper to consider the functions of an invention in seeking to determine the meaning of particular claim language." ICU Med., Inc. v. Alaris Med. Sys., Inc., 558 F.3d 1368, 1375 (Fed. Cir. 2009) (quoting Medrad Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005)).

In all, EON provides little reason to dispute that the claims recite a communication pathway that is an either/or proposition. This Court finds that the "binary" limitation is a justified construction for the same reasons discussed by the Texas Court. T-Mobile Claim Construction Order, 2012 WL 405492, at *12-15. The overall structure of the claims supports this construction, as does the specification, which describes electronic switch 13 as selecting either one path or the other, but not both. '491 Patent, at Fig. 2.

2) The "conditional" limitation

On its face, the "conditional" limitation seems to be a redundant reinterpretation of the word "if." However, Defendants argue that construction is necessary because the parties dispute whether the claim scope extends only to situations in which the condition of being unable to communicate exists, or whether it also extends to situations in which the condition ever existed in

the past. Open. Br. at 22 (emphasis added). At the claim construction hearing, EON's counsel did indeed argue that the latter construction properly describes the claim's scope. See Transcript, at 58:14-60:7. Construction is necessary to resolve this dispute.

The claims only recite present-tense conditions. The claims state that transferring occurs when subscriber units are unable to communicate directly; it does not say that transferring also occurs when subscriber units were unable to communicate at any point in the past. EON's papers do not dispute this; instead, they accuse Defendants of improper motive in arguing for the limitation. Reply, at 3:19. EON also claims that "the concept of timing makes no sense in the context of these apparatus claims," but does not explain why. In fact, the reverse is true – it makes perfect sense to provide for transfer when a subscriber unit is otherwise unable to communicate now, but it makes no sense to link the capability of transfer to an inability to communicate that happened at an undefined time in the past. Therefore, the Court adopts the conditional limitation proposed by Defendants.

3) The "user intervention" limitation

The Court agrees that the user intervention limitation is connoted by the claim terms, and is a natural deduction from the previous two limitations. Nothing in the claims, or in the specification, contemplates a role for the user in affirmatively selecting one path over another. In Am. Calcar, Inc. v. Am. Honda Motor Co., Inc., 651 F.3d 1318, 1339-40 (Fed. Cir. 2011), the Federal Circuit construed a similar claim containing the terms "in response to" and "when." The court found that the "language of the claim itself suggests that when a vehicle condition is detected, the processing element identifies a provider automatically as opposed to requiring further user interaction," and that "the specification fails to disclose any embodiment that requires any type of user interaction prior to identification of a service provider." Id. For these reasons, the Federal Circuit upheld the district court's decision to construe the term to contain a limitation that there must not be any intervening action by the user between the two events. Id.

A similar logic applies here. The claims recite a simple "if, then" automatic switching. They do not suggest an apparatus generally designed to switch at the user's whim. It may be possible to practice the invention that way, but that is not what is claimed as novel. This Court

joins the Texas Court in concluding that "a user solely choosing to turn off the cellular radio, without more, cannot be the reason the subscriber unit is "unable to communicate.'" EON Corp. IP Holdings, LLC v. T-Mobile USA, Inc., Case No. 6:10-cv-379-LED-JDL, ECF No. 1001 (E.D. Tex. Sep. 7, 2012), at 4-5 ("T-Mobile Order on Motion to Strike").

The problem with Defendants' proposed construction is it is ambiguous as to what it means for a user to "render[]" the subscriber unit unable to communicate. If a user wanders into an area where the signal strength is too weak for the unit to communicate, his action has might be said to "render" the unit unable to communicate. But Defendants do not dispute that this type of situation falls within the scope of the claim; indeed, this situation is disclosed in the specification. '491 Patent, at 3:26-32, 4:32-37. The Texas Court also implied – although it did not hold, as EON claims – that it would fall within the scope of the claim for a user to disable the unit's communication in response to impaired communication.[8]

For these reasons, as well as for the reason that Defendant's proposed limitation as phrased bears an uncomfortable resemblance to a specific noninfringement determination, the Court does not adopt the "user intervention" limitation as it is proposed by Defendants.

A different version of the limitation, however, would resolve this dispute over claim scope. Namely, Claim 1 could be construed as "transferring . . . if said local subscriber units are unable, for some reason other than the user intentionally disabling said unit, to directly communicate with said local base station repeater cell." A user wandering into a basement is not intentionally disabling the unit. And a user could still respond to an inability to communicate without falling outside of the scope of the claim. But the user's own action cannot itself cause the condition, if that condition does not otherwise obtain.

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[8] EON claims that the Texas Court "held that 'turning off the cellular data satisfies the 'unable to communicate' condition [if] communication had been and may be expected to still be impaired." Open. Br., at 23. In the quotation EON cites, the Texas Court was characterizing the opinion of Dr. Lyon, not adopting that opinion as its own. See T-Mobile Order on Motion to Strike, at 4-5. The Texas Court held that "to the extent Dr. Lyon asserts that user choice alone satisfies the condition of the system claims, such testimony should be stricken." Id., at 5.

4) Conclusion

The Court agrees with the functional limitation, although the Court will adjust it to avoid specific references to "Path A" and "Path B." The Court also adopts the "conditional" limitation. The Court adopts a modified version of the "user intervention" limitation. Complete descriptions of the Court's constructions appear at Part V, infra.

b. The conditional "if" limitations in Claims 5 & 17

Disputed Claim Terms	EON's Proposed Construction	Defendants' Proposed Construction
"if said subscriber unit is receiving a signal from said local base station repeater cell, performing the steps of . . ." (claims 5, 17) "if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of . . . " (claims 5, 17)	No construction necessary.	The method steps listed after "if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of" are not performed if the subscriber unit is determined to be receiving a signal from said local base station repeater cell." ("the binary *limitation"*) Using the modem to communicate without there first being a determination that there is no signal reception and using the modem to communicate regardless of whether there is signal reception does not fall within the scope of the claim. ("the conditional limitation")

The two sentences of Defendants' proposed construction are referred to as the "binary limitation" and the "conditional limitation."

1) The "binary" limitation

Like the "binary" limitation discussed at III-B-5-a-1, supra, this proposed "binary" limitation is intended to reflect the Texas Court's determination that only one path may be used at a time. The Court agrees with the thrust of this construction for the same reasons discussed supra.

However, EON argues that by including the phrase "is determined to be," the construction could be read to require a system that is constantly re-determining whether or not a signal is being received. See Reply at 6:2-11. Nothing in the intrinsic record supports such a limitation.

Therefore, the Court adopts a modified version of the construction which eliminates the

offending language: "the method steps listed after 'if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of' are not performed if the subscriber unit is receiving a signal from said local base station repeater cell." This is essentially a restatement of the claim, but provides confirmation of the binary nature of the system.

2) The "conditional" limitation

While this is phrased as a noninfringement determination, the Court will consider adopting it if it properly describes the scope of the claim. If excised of its middle clause, the limitation would be unobjectionable: "using the modem to communicate without there first being a determination that there is no signal reception . . . does not fall within the scope of the claim." But by also stating that it falls outside the claim to "[use] the modem to communicate regardless of whether there is signal reception," this limitation too may imply that the only products that fall within the scope of the claim are those that constantly re-determine signal reception. Such a construction is neither required by any previous court order nor compelled by the language of the claim.

The Court will adopt a version of this limitation without the middle statement as an interpretation of claim scope.

IV. CONCLUSION

For the foregoing reasons, the Court construes the disputed claim language as follows:

Claim	Term	Construction
1	"network hub switching center"	"a switching center that performs the switching functions needed for operation of the subscriber units in a group of cells that the switching center services."

1	"a local remote receiver disposed within one of a plurality of cell subdivision sites partitioned from said local base station geographic area associated with said local base station repeater cell, said plurality of cell subdivision sites dispersed over said local base station geographic area, said local remote receiver being adapted to receive low power digital messages transmitted from said local subscriber units within range of said local remote receiver"	The transmission area of each radio transmitter of the local base station repeater cell is covered by a plurality of smaller response areas dispersed throughout, and each response area has a local remote receiver for receiving low power digital messages transmitted from local subscriber units within range of the local remote receiver
1	"a modem communicatively coupled to said local subscriber units and said local base station repeater cell"	"a modem is connected to the local subscriber units and the local base station repeater cell for the purpose of communications between the two."
1	"transferring . . . if said local subscriber units are unable to directly communicate with said local base station repeater cell"	"transferring . . . if said local subscriber units are unable, for some reason other than the user intentionally disabling said unit, to directly communicate with said local base station repeater cell." The system is binary, meaning the subscriber unit either directly communicates with the base station repeater cell or the modem. The "transferring function" of the modem is conditioned on whether the subscriber unit is unable to directly communicate with the local base station repeater cell.
5	"if said subscriber unit is receiving a signal from said local base station repeater cell, performing the steps of . . ." "if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of . . . "	The method steps listed after 'if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of' are not performed if the subscriber unit is receiving a signal from said local base station repeater cell. Using the modem to communicate regardless of whether there is signal reception does not fall within the scope of the claim.

5	"receive only"	"receive only" refers to the communication of messages to and from the base station cells and the subscriber units. That is, the subscriber unit can only receive digital messages directly from the base station cell and not from the receiver units. The receiver unit's role with respect to those messages is simply to receive them from the low powered subscriber units and to pass them along to the base station cell. This does not however, forbid routine handshaking, error checking, and other control signals from being communicated between the receiver units and the subscriber units.
12	"a cell site divided into a plurality of subdivided zones, . . . a cell site communication system including a digital transmitter for communication with individual identified subscriber units geographically located within the/said cell site, a set of receive only digital receivers positioned in said subdivided zones, each said digital receiver being coupled by a transmission link with the/said cell site communication system to relay received digital communications"	The radio transmission area of the digital transmitter of a cell site communication system is covered by a plurality of smaller response areas, and each response area has a receive only digital receiver coupled by a transmission link to the cell site communication system to relay digital communications received from subscriber units
12	"receive only"	"receive only" refers to the communication of messages to and from the base station cells and the subscriber units. That is, the subscriber unit can only receive digital messages directly from the base station cell and not from the receiver units. The receiver unit's role with respect to those messages is simply to receive them from the low powered subscriber units and to pass them along to the base station cell. This does not however, forbid routine handshaking, error checking, and other control signals from being communicated between the receiver units and the subscriber units.
12	"a modem communicatively coupled to said local subscriber units and said digital transmitter"	"a modem is connected to the local subscriber units and the digital transmitter for the purpose of communications between the two."

12	"transferring . . . if said subscriber units are unable to communicate directly with said digital transmitter"	"transferring . . . if said local subscriber units are unable, for some reason other than the user intentionally disabling said unit, to directly communicate with said digital transmitter." The system is binary, meaning the subscriber unit either communicates directly with the digital transmitter or the modem. The "transferring function" of the modem is conditioned on whether the subscriber unit is unable to directly communicate with the digital transmitter.
13	"network hub switching center"	"a switching center that performs the switching functions needed for operation of the subscriber units in a group of cells that the switching center services."
13	"a modem communicatively coupled to said at least one subscriber unit and said network hub switching center"	"a modem is connected to the local subscriber unit and the network hub switching center for the purpose of communications between the two."
13	"transferring . . . if said at least one subscriber unit is unable to communicate directly with a local base station repeater cell"	"transferring . . . if said local subscriber units are unable, for some reason other than the user intentionally disabling said unit, to directly communicate with said local base station repeater cell." The system is binary, meaning the subscriber unit either communicates directly with the local base station repeater cell or the modem. The "transferring function" of the modem is conditioned on whether the subscriber unit is unable to directly communicate with the local base station repeater cell.
17	"if said subscriber unit is receiving a signal from said local base station repeater cell, performing the steps of . . ." "if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of . . . "	The method steps listed after 'if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of' are not performed if the subscriber unit is receiving a signal from said local base station repeater cell. Using the modem to communicate regardless of whether there is signal reception does not fall within the scope of the claim.

17	"network hub switching center"	"a switching center that performs the switching functions needed for operation of the subscriber units in a group of cells that the switching center services."

IT IS SO ORDERED.

Dated: March 5, 2014

JON S. TIGAR
United States District Judge

United States District Court
Northern District of California