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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

**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. Now, after consideration of the arguments and evidence presented by the parties, and the relevant portions of the record, the Court construes the terms as set forth below, and offers the following invalidity determination.

I. BACKGROUND

Plaintiff EON Corp. IP Holdings (“EON”) filed this case in the Eastern District of Texas

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.

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

9 EON asserts that defendants Sprint and U.S. Cellular directly infringe on United States
10 Patent No. 5,592,491 (“the ‘491 Patent”), entitled “Wireless Modem,” and that the remaining
11 defendants indirectly infringe. Joint Case Management Statement, ECF No. 650, at 2:15-23. The
12 ‘491 Patent is a continuation-in-part of U.S. Patent No. 5,388,101 (“the ‘101 Patent”), and the
13 ‘101 Patent is expressly incorporated into the ‘491 Patent.² Both before and after this case was
14 transferred, the Texas Court issued claim construction opinions and summary judgment orders
15 regarding the ‘491 Patent in other litigation brought by EON.

16 Defendants contend that a means-plus-function term in Claims 1 and 13 of the ‘491 Patent
17 is indefinite and that therefore those claims and their dependents are invalid. See Part II, *infra*.
18 EON and Defendants have also proposed competing constructions of terms in Claims 1, 5, 12, 13,
19 and 17 of the ‘491 Patent. See Part III, *infra*.

20 **II. INVALIDITY FOR INDEFINITENESS**

21 **A. Legal Standard**

22 The 1952 Patent Act authorizes functional claiming: “[a]n element in a claim for a
23 combination may be expressed as a means or step for performing a specified function without the
24 recital of structure, material, or acts in support thereof, and such claim shall be construed to cover
25 the corresponding structure, material, or acts described in the specification and equivalents
26

27 ² At various points in this opinion, the Court refers to the claims and specification of the ‘101
28 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.

1 thereof.” 35 U.S.C. § 112, ¶ 6. This provision is “intended to permit use of means expressions
2 without recitation of all the possible means that might be used in a claimed apparatus.” O.I. Corp.
3 v. Tekmar Co., Inc., 115 F.3d 1576, 1583 (Fed. Cir. 1997). But the other side of this coin is that
4 the “statutory provision was meant to preclude the overbreadth inherent in open-ended functional
5 claims . . . which effectively purport to cover any and all means so long as they perform the recited
6 functions.” Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1256, n. 7 (Fed. Cir.
7 2008). The “duty to link or associate structure to function is the quid pro quo for the convenience
8 of employing § 112, ¶ 6.” Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc., 412
9 F.3d 1291, 1300-02 (Fed. Cir. 2005).

10 “A challenge to a claim containing a means-plus-function limitation as lacking structural
11 support requires a finding, by clear and convincing evidence, that the specification lacks
12 disclosure of structure sufficient to be understood by one skilled in the art as being adequate to
13 perform the recited function.” Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of
14 Westchester, Inc., 336 F.3d 1308, 1319 (Fed. Cir. 2003). If the patent does not disclose adequate
15 structure, the patent is invalid for failing to particularly point out and distinctly claim the invention
16 as required by 35 U.S.C. § 112, ¶ 2. In re Donaldson Co. Inc., 16 F.3d 1189, 1195 (Fed. Cir.
17 1994) (en banc). “[I]n order for a claim to meet the particularity requirement of ¶ 2, the
18 corresponding structure(s) of a means-plus-function limitation must be disclosed in the written
19 description in such a manner that one skilled in the art will know and understand what structure
20 corresponds to the means limitation.” Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374,
21 1382 (Fed. Cir. 1999). “Otherwise, one does not know what the claim means.” Id. “[A] bare
22 statement that known techniques or methods can be used does not disclose structure.” Biomedino,
23 LLC, v. Waters Techs. Corp., 490 F.3d 946, 952 (Fed. Cir. 2007).

24 “A determination of claim indefiniteness is a legal conclusion that is drawn from the
25 court’s performance of its duty as the construer of patent claims,” and “like claim construction, [it]
26 is a question of law.” Atmel, 198 F.3d at 1378. Therefore, it is appropriate for the Court to
27 address indefiniteness issues at the claim construction stage. See Exxon Research and Eng’g Co.
28 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
<p>“switching means for selecting a communication path within said network” (Claim 1)</p> <p>“switching means for selecting a communication path within said network” (Claim 13)</p>	<p>The phrase is governed by 35 U.S.C. § 112, ¶ 6.</p> <p>The claimed function is selecting a communication path within said network/communication system.</p> <p>Structure: electronic switch 13 and equivalents</p>	<p>Indefinite under 35 U.S.C. § 112, ¶6:</p> <p>Claimed Function: selecting a communication path within said network/communication system</p> <p>Corresponding Structure: The patent does not disclose sufficient structure corresponding to the function.</p>

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.”

As Defendants acknowledge, the Texas Court rejected this argument. EON Corp. IP Holdings, LLC v. T-Mobile USA, Inc., Case No. 6:10-CV-0379 LED-JDL, 2012 WL 3073432, at *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-Mobile Invalidity Order”). “Since Markman, various district courts have

1 taken slightly different approaches to other courts’ claim constructions, but despite the [Supreme]
 2 Court’s suggestion [in Markman], none has applied stare decisis.” Rambus Inc. v. Hynix
 3 Semiconductor Inc., 569 F. Supp. 2d 946, 965 (N.D. Cal. 2008). Courts in this district have also
 4 noted that the Markman court “made a distinction between intrajurisdictional uniformity and
 5 interjurisdictional uniformity,” and that consideration weighs against deference in this case. Visto
 6 Corp. v. Sprogit Technologies, Inc., 445 F. Supp. 2d 1104, 1108 (N.D. Cal. 2006). Therefore, like
 7 the Federal Circuit, this Court will, “in the interests of uniformity and correctness . . . consult[] the
 8 claim analysis of different district courts on the identical terms in the context of the same patent,”
 9 but will not rigidly defer to those courts. Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323,
 10 1329 (Fed. Cir. 2008).³

11 The Texas Court concluded that “[t]he recited function of ‘selecting the path of
 12 communication’ refers to selecting a communication path, not deciding which path to use.”
 13 T-Mobile Order, 2012 WL 3073432, at *3. In other words, the Texas Court, like EON’s counsel
 14 at oral argument, views the concepts of “selecting” and “deciding” to be distinct. The Texas Court
 15 concluded that in “selecting,” the switching means performs an essentially ministerial task; it does
 16 nothing more than a light switch does in yielding to a person’s finger.

17 This Court does not read the claim the same way. Rather, it views the task of “selecting”
 18 as comparable to the concept of “deciding.” Defendant’s expert, Dr. Paul Min, opined that “a
 19 person of ordinary skill in the art at the relevant time would have recognized that ‘switching’ is
 20 different from ‘selecting.’” Exh. 5 to Hannah Decl., at ¶ 22. The intrinsic evidence in the ‘491
 21 Patent indicates that the switching means determines which path should be used. The
 22 specification discloses that “if subscriber unit 12 is able to detect rf signals . . . switching means 13
 23 assumes a default position ‘Path A,’” and “when subscriber unit 12 is unable to receive rf signals .

24
 25 ³ The Court gives these constructions what the Visto court called “reasoned deference.” 445 F.
 26 Supp. 2d at 1108. That is to say, the orders are “entitled to ‘reasoned deference,’ with such
 27 deference turning on the persuasiveness of the order; ‘in the end, [however, the Court] will render
 28 its own independent claim construction.’” Id. (quoting Maurice Mitchell Innovations, L.P. v. Intel
Corp., Case No. 2:04-CV-450, 2006 WL 1751779, at *4 (E.D. Tex. June 21, 2006) (alterations in
 the original).

1 . . . switching means 13 selects ‘Path B.’ ‘491 Patent, at 3:39-43, 3:49-51. This indicates that the
2 switching means gathers information about how much rf signal the subscriber unit is receiving,
3 determines whether the subscriber unit is ‘able’ or ‘unable’ to receive rf signals, on this basis
4 selects the appropriate path, and then performs the switch. In other words, it makes a
5 determination.

6 No other feature of the invention performs this function. It must be the “switching means.”
7 EON argues that the “logic for determining which path to select is found separate from ‘switching
8 means,’ in the specification, in portions of Claim 1’s description of a “network hub switching
9 center,” and in a portion of Claim 13 disclosing a “modem communicatively coupled.” ‘491
10 Patent, at 5:3-7, 6:62-64, and 8:46-51. But those terms do not indicate that something other than
11 the ‘switching means’ does the selecting, and in any case they provide no functional detail. They
12 merely re-describe the outcome of the switching process where necessary to do so in the context of
13 other aspects of the invention. The same is true of the language EON cites from the ‘101 Patent.
14 ‘101 Patent, at 9:7-11.

15 The innovation claimed in the ‘491 Patent is the capability to determine which
16 communications path to use, not merely the physical capacity to be able to switch from one path to
17 another. The extrinsic evidence strongly buttresses this construction, since the definition of the
18 verb “select” is “to choose from a number or group.” Webster’s Third New International
19 Dictionary, at 2058, col. 1 (1993). Choosing is not merely switching. Had this term intended to
20 claim only the capacity to switch from one path to another, a term such as ‘toggle’ would have
21 been more appropriate.

22 Since the claimed function is “selecting” a path, not merely the ability to switch between
23 paths, disclosing only an “electronic switch” is inadequate to explain what is meant by the term
24 “switching means.” As Dr. Lyon states, electronic switches “do not in and of themselves decide
25 which position to take or selection to make.” Deposition of Dr. David L. Lyon (“Lyon Depo.”), at
26 50:15-18. ECF No. 724-6.

27 In finding a similar means-plus-function claim indefinite, the Blackboard court held that a
28 disclosed structure was “essentially a black box that performs a recited function,” because “how it

1 does so is left undisclosed.” Blackboard, 574 F.3d at 1383; see also Aristocrat Techs. Austl. Pty
2 Ltd. v. Int’l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008) (holding that a general reference to
3 “a standard microprocessor-based gaming machine with appropriate programming” was
4 insufficient disclosure of structure to perform a claimed function) and Noah Sys., Inc. v. Intuit
5 Inc., 675 F.3d 1302, 1319 (Fed. Cir. 2012) (“[c]omputer-implemented means-plus-function claims
6 are indefinite unless the specification discloses an algorithm to perform the function associated
7 with the limitation”). The disclosure at issue in this case suffers from the same deficit. It
8 discloses only that an “electronic switch” will perform the function of selecting a path, and leaves
9 undisclosed how it will do so. See also Finisar, 523 F.3d at 1340-41 (“[s]imply reciting ‘software’
10 without providing some detail about the means to accomplish the function is not enough” to
11 satisfy § 112, ¶ 6).

12 EON argues that this Court should limit the reach of Blackboard, Aristocrat and Noah
13 Systems to apply only to the specific factual situation in which a patent discloses that a computer
14 or microprocessor is the means of performing a function but does not disclose the corresponding
15 algorithm. While that might have been the specific situation in which those disputes arose, the
16 holding of the cases was not limited to their facts, and that principle has been applied to patents of
17 different kinds. For example, in Biomendio, 490 F.3d at 953, “a bare statement that known
18 techniques or methods can be used” was insufficient to render the disclosure in a biomedical
19 testing patent adequate. This was the case even though expert opinion reflected the fact that there
20 were “many known ways to operate” the structure in the specification so that it performed the
21 claimed function. Id. at 951.

22 EON also suggests that the Court should defer to Dr. Lyon’s opinion that the method is
23 sufficiently definite, since “[u]nder [Federal Circuit] case law interpreting § 112, ¶6, knowledge of
24 one skilled in the art can be called upon to flesh out a particular structural reference in the
25 specification for the purpose of satisfying the statutory requirements of definiteness.” Creo Prods.
26 V. Presstek, Inc., 305 F.3d 1337, 1347 (Fed. Cir. 2002). But Dr. Lyon’s opinion provides no flesh
27 on the bones of the claim’s structure. Dr. Lyon’s opinion is that “a person of ordinary skill in the
28 art at the time the invention was made would recognize, in the context of the ’491 Patent drawings

1 and text, that an ‘electronic switch’ described in the ’491 Patent could select a communication
2 path within a network.” Declaration of David Lyon in Support of EON’s Opposition to
3 Defendants’ Motion for Summary Judgment of Invalidity for Indefiniteness (“Lyon Decl.”), Exh.
4 4 to Declaration of Cary D. Ferchill, ECF No. 724-5, at ¶ 32. Whether an ‘electronic switch’
5 could select a communication path within a network is not the only question. The question is also
6 how, i.e., whether the means provides the specificity required under § 112, ¶ 2 to “point out and
7 distinctly claim the invention,” and the specificity required under § 112, ¶ 6 to show what is meant
8 by the language of the means term. While expert testimony might be available to “flesh out” a
9 structural reference, “the testimony of one of ordinary skill in the art cannot supplant the total
10 absence of structure from the specification.” Default Proof, 412 F.3d at 1302.

11 EON argued in its initial claim construction briefing that “[o]ne skilled in the art would
12 recognize the switching means may be implemented by a variety of electronic switch types
13 consistent with the operation of the switching means disclosed in Figure 2 and Figure 3 to achieve
14 the purposes of the invention without undue experimentation.” EON Corp. IP Holdings, LLC’s
15 Opening Claim Construction Brief (“Opening Br.”), ECF No. 628, at 18:15-18. And in their
16 supplemental briefing, EON again notes that Dr. Lyon’s testimony is that “an electronic switch
17 can take many forms.” EON’s Response to Defendants’ Supplemental Briefing on Indefiniteness
18 Relating to the ‘Switching Means’ Term (“Suppl. Resp. Br.”), ECF No. 724, at 525:-6:1. This
19 type of open-ended disclosure is exactly the kind the Blackboard court identified as inadequate:

20 That ordinarily skilled artisans could carry out the recited function
21 in a variety of ways is precisely why claims written in “means-plus-
22 function” form must disclose the particular structure that is used to
23 perform the recited function. By failing to describe the means by
24 which the access control manager will create an access control list,
25 Blackboard has attempted to capture any possible means for
26 achieving that end. Section 112, paragraph 6, is intended to prevent
27 such pure functional claiming.

28 574 F.3d at 1385.

EON attempts to distinguish Blackboard because the claims in that case “simply described
an outcome,” and attempted to “capture any possible means for achieving that end.” Suppl. Resp.,
at 6:26-28. In contrast, argues EON, the ’491 Patent does disclose a structure: namely, an

1 “electronic switch.” This is a thin distinction. If a patent claimed a means-plus-function term for
2 mixing paint, the patentee would not be able to avoid the definiteness requirements of 35 U.S.C. §
3 112, ¶ 6 by pointing to the fact that the invention accomplished this function through the structure
4 of a “mixer,” and demonstrating that one skilled in the art would understand a “mixer” to be a
5 structural component capable of mixing paint. That was the basic holding of Aristocrat, in which
6 the specification did disclose structure (“any standard microprocessor base [sic] gaming machine
7 [with] appropriate programming”), but the structure failed to adequately disclose what was meant
8 by the claim language. 521 F.2d at 1334.

9 The patent does not need to explain precisely how the invention is made and used. But it
10 must provide “an adequate corresponding disclosure showing what is meant by [the] language” of
11 the means term. Blackboard, 574 F.3d at 1382. And it will not suffice to say that “what is meant
12 by the language” is a method that is, in some undisclosed manner, capable of performing the
13 function. “The price that must be paid for use of . . . [¶ 6’s] convenience is limitation of the claim
14 to the means specified in the written description and equivalents thereof.” O.I. Corp., 115 F.3d at
15 1583. “If the specification is not clear as to the structure that the patentee intends to correspond to
16 the claimed function, then the patentee has not paid that price but is rather attempting to claim in
17 functional terms unbounded by any reference to structure in the specification.” Med.
18 Instrumentation & Diagnostics Corp. v. Elekta AB, 344 F.3d 1205, 1211 (Fed. Cir. 2003).

19 The Court concludes that there is clear and convincing evidence that the “switching
20 means” term is indefinite under 35 U.S.C. § 112, ¶ 6, and therefore the limitations of Claims 1 and
21 13, and their dependents, are invalid.

22 This conclusion might obviate the need to construe any other terms in Claims 1 and 13.
23 However, the parties have asked the Court to construe terms in Claims 1 and 13 that also appear in
24 other claims. Therefore, the Court will proceed to consider all five remaining terms as they appear
25 in all claims.

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1 **III. CLAIM CONSTRUCTION**

2 **A. Legal Standard**

3 The construction of terms found in patent claims is a question of law to be determined by
4 the Court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc),
5 aff'd, 517 U.S. 370 (1996). “[T]he interpretation to be given a term can only be determined and
6 confirmed with a full understanding of what the inventors actually invented and intended to
7 envelop with the claim.” Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (quoting
8 Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).
9 Consequently, courts construe claims in the manner that “most naturally aligns with the patent's
10 description of the invention.” Id.

11 The first step in claim construction is to look to the language of the claims themselves. “It
12 is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the
13 patentee is entitled the right to exclude.” Phillips, 415 F.3d at 1312 (quoting Innova/Pure Water,
14 Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). A disputed claim
15 term should be construed in light of its “ordinary and customary meaning,” which is “the meaning
16 that the term would have to a person of ordinary skill in the art in question at the time of the
17 invention, i.e., as of the effective filing date of the patent application.” Phillips, 415 F.3d at 1312.
18 In some cases, the ordinary meaning of a disputed term to a person of skill in the art is readily
19 apparent, and claim construction involves “little more than the application of the widely accepted
20 meaning of commonly understood words.” Id., at 1314. Claim construction may deviate from the
21 ordinary and customary meaning of a disputed term only if (1) a patentee sets out a definition and
22 acts as his own lexicographer, or (2) the patentee disavows the full scope of a claim term either in
23 the specification or during prosecution. Thorner v. Sony Computer Entm't Am. LLC, 669 F.3d
24 1362, 1365 (Fed. Cir. 2012).

25 Ordinary and customary meaning is not the same as a dictionary definition. “Properly
26 viewed, the ‘ordinary meaning’ of a claim term is its meaning to the ordinary artisan after reading
27 the entire patent. Yet heavy reliance on the dictionary divorced from the intrinsic evidence risks
28

1 transforming the meaning of the claim term to the artisan into the meaning of the term in the
2 abstract, out of its particular context, which is the specification.” Id., at 1321. Typically, the
3 specification “is the single best guide to the meaning of a disputed term.” Vitronics Corp. v.
4 Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). It is therefore “entirely appropriate for a
5 court, when conducting claim construction, to rely heavily on the written description for guidance
6 as to the meaning of claims.” Phillips, 415 F.3d at 1315. However, while the specification may
7 describe a preferred embodiment, the claims are not necessarily limited only to that embodiment.
8 Id.

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

19 **B. Analysis**

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

28 On the one hand, “It is well settled that claims may not be construed by reference to the

1 accused device.” NeoMagic Corp. v. Trident Microsystems, Inc., 287 F.3d 1062, 1074 (Fed. Cir.
2 2002). “[T]he role of a district court in construing claims is not to redefine claim recitations or to
3 read limitations into the claims to obviate factual questions of infringement and validity but rather
4 to give meaning to the limitations actually contained in the claims.” American Piledriving
5 Equipment, Inc. v. Geoquip, Inc., 637 F.3d 1324, 1331 (Fed. Cir. 2011). “[A] court must construe
6 claims without considering the implications of covering a particular product or process.”
7 SmithKline Beecham Corp. v. Apotex Corp., 403 F.3d 1331, 1340 (Fed. Cir. 2005).

8 On the other hand, “[t]o determine what claim scope is appropriate in the context of the
9 patents-in-suit,” it is necessary to construe even “ordinary” terms if applying ordinary meaning
10 does not resolve the parties’ dispute over claim scope. O2 Micro Int’l Ltd. v. Beyond Innovation
11 Tech. Co., Ltd., 521 F.3d 1351, 1361 (Fed. Cir. 2008). Quoting Markman for the proposition that
12 “[t]he purpose of claim construction is to ‘determin[e] the meaning and scope of the patent claims
13 asserted to be infringed,’” the O2 Micro court held that a district court committed legal error by
14 finding that it was unnecessary to construe the term “only if,” since by doing so the Court failed to
15 resolve the parties’ “dispute regarding the proper scope of the claims.” 521 F.3d at 1360-61
16 (quoting Markman, 52 F.3d at 976). The Federal Circuit has also held that “where the
17 specification makes clear at various points that the claimed invention is narrower than the claim
18 language might imply, it is entirely permissible and proper to limit the claims.” Alloc, Inc. v. ITC,
19 342 F.3d 1361, 1370 (Fed. Cir. 2003), cert. denied, 541 U.S. 1063 (2004).

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

26 To strike the right balance, the Court will proceed as follows. The Court will only
27 understand the accused products as far as is necessary to understand the scope of the parties’
28 dispute. The rule against construing claims with reference to the accused “does not forbid

1 awareness of the accused product or process to supply the parameters and scope of the
2 infringement analysis, including its claim construction component,” and “does not forbid any
3 glimpse of the accused product or process during or before claim construction.” Wilson Sporting
4 Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1331 (Fed. Cir. 2006).

5 The Court will not, however, use the accused product or the infringement contentions as
6 any kind of evidence in construing the claims. The constructions in this order are judgments of
7 claim scope, not infringement determinations. If the Court agrees with a party that a term needs
8 no construction, the Court is holding as a matter of law that the limitations proposed by the other
9 party do not inhere in the term, and the parties will not be able to argue for such a limitation to a
10 jury. The corollary is that, if the Court agrees with a party who has proposed a construction with
11 limitations, the Court is holding as a matter of law that those limitations do in fact inhere in the
12 term, except where clearly stated otherwise. Hopefully, this should avoid the problem of the
13 Court repeatedly revisiting the same issues of claim scope.

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

19 Finally, as a matter of case management and pretrial procedure, it is well established that
20 district courts have the authority only to construe those terms they deem likely to lead to a
21 dispositive outcome. See, e.g., Microstrategy Inc. v. Bus. Objects Americas, 410 F. Supp. 2d 348,
22 355 (D. Del. 2006) aff’d, 238 F. App’x 605 (Fed. Cir. 2007) (construing only two claims of the
23 several the parties had submitted for construction). In other words, district courts have not read
24 O2 Micro to prohibit them from limiting the number of terms they construe at any one pretrial
25 proceeding. The Federal Circuit permits this practice, provided that the patentee is not
26 permanently deprived of the opportunity to later add claims that present unique issues as to
27 liability or damages. See In re Katz Interactive Call Processing Patent Litigation, 639 F.3d 1303,
28 1310 (Fed. Cir. 2011); Stamps.com, Inc. v. Endicia, Inc., 437 Fed. Appx. 897, 902-03 (Fed. Cir.

1 2011) (unpublished).

2 In this case, the parties identified six terms whose construction is “likely to be most
3 significant to resolving the parties’ dispute,” pursuant to Patent Local Rule 4-2(b). See Joint
4 Claim Construction and Prehearing Statement, ECF No. 579, at 2-5. The Court proceeds to
5 construe only those terms, since the parties believe construction of such terms is likely to lead to a
6 dispositive outcome. The Court will revisit the other submitted claim terms only if these
7 constructions do not lead to a dispositive outcome, the unconstrued terms pose unique issues of
8 liability or damages, and it is necessary to avoid submitting the dispute over their scope to a jury.

9 **1. “Modem communicatively coupled” (Claims 1, 12 and 13)**

Disputed Claim Terms	EON’s Proposed Construction	Defendant’s Proposed Construction
<p>13 “a modem communicatively coupled to said local subscriber units and said local base station repeater cell” (claim 1)</p> <p>14</p> <p>15</p> <p>16 “a modem communicatively coupled to said local subscriber units and said digital transmitter” (claim 12)</p> <p>17</p> <p>18</p> <p>19</p> <p>20 “a modem communicatively coupled to said at least one subscriber unit and said network hub switching center” (claim 13)</p> <p>21</p> <p>22</p>	<p>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”</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p>	<p>13 “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. (“<u>The connection requirement.</u>”) 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.” (“<u>The modem requirement.</u>”)</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p>

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

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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

1 would be inappropriate to limit the terms to apply only to any specific physical configuration. At
2 the hearing, Defendants conceded that their intent was not to impose any such limitation but
3 merely “to make clear that the modem that is communicatively coupled . . . has to be part of the
4 network, and in order for the claim to make sense, there has to be a modem that is communicating
5 with two different things.” Transcript, at 19:1-6. Therefore, the Court will not construe the term
6 to include Defendants’ proposed spatial limitations. This should also assuage any concerns EON
7 has that Defendants’ construction “suggests a physical connection.” See Opening Br., at 20:3. It
8 does not. See Resp. Claim Constr. Br., at 12:20-22 (“a coupling between the modem and local
9 subscriber units/local base station repeater cell . . . is not merely a physical connection, such as a
10 wire or cable”).

11 **b. the “modem” language**

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

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

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

22 **c. Conclusion**

23 The Court construes the term to require a connection, but does not construe the terms to
24 contain the spatial limitations, or either of the second and third sentences, proposed by
25 Defendants. Therefore, the Court construes the term (as it appears in Claim 1) as follows: “a
26 modem is connected to the local subscriber units and the local base station repeater cell for the
27 purpose of communications between the two.” Corresponding versions of these terms in Claims
28 12 and 13 are listed in Part V, *infra*.

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

1 high bar for judicial estoppel has been cleared in this case.⁴ The Court will construe the term
2 based on the intrinsic evidence, rather than confine itself to a particular construction because of
3 briefs filed in previous litigation.

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

8 **a. “centralized”**

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

19 Defendants argue that “[t]he term ‘hub’ suggests, if not requires, that the switching center
20 be ‘centralized.’” Resp. Br., at 19:25-26. The term suggests that, but does not require it. While
21 the dictionary definition of “hub” does imply centrality, this extrinsic evidence cannot override the
22 intrinsic evidence. The switching center need not be “centralized” in the sense that a jury would
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24 ⁴ See SanDisk Corp. v. Memorex Products, Inc., 415 F.3d 1278, 1290-91 (Fed. Cir. 2005) (quoting
25 New Hampshire v. Maine, 532 U.S. 742, 749 (2001)) (internal citations omitted) (“[i]n New
26 Hampshire, the Supreme Court identified several factors guiding the decision to apply judicial
27 estoppel: (1) the party’s later position must be ‘clearly inconsistent’ with the earlier position; (2)
28 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.”)

1 likely apply that term.

2 **b. “all of the switching functions . . . for . . . the group of cells that the**
3 **switching center services”**

4 In its papers, EON’s primary objection to this construction is that the switching center does
5 not perform all of the switching functions. For example, claims 1 and 13 recite switching means
6 in subscriber units. ‘491 Patent, at 6:21-22 & 8:39-40. This point was conceded by Defendants at
7 the claim construction hearing. Transcript of Proceedings, ECF No. 717, at 40:24-41:1, 44:25-
8 45:1.

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

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

1 In its papers, and at the hearing, EON seems to be maintaining that the scope of this term is
2 broad enough to encompass a switching center that serves any cells anywhere in the world, even
3 those completely unrelated to the network. After carefully reviewing the intrinsic record, the
4 Court concludes that this is not the appropriate “understanding of what the inventors actually
5 invented and intended to envelop with the claim.” Phillips, 415 F.3d at 1316.

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

12 **3. The “Cell subdivision” Terms (Claims 1 and 12)**

Disputed Claim Terms	EON’s Proposed Construction	Defendants’ Proposed Construction
<p>15 “a local remote receiver disposed 16 within one of a plurality of cell 17 subdivision sites partitioned from said 18 local base station geographic area 19 associated with said local base station 20 repeater cell, said plurality of cell 21 subdivision sites dispersed over said 22 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)</p>	<p>“Remote receiver” means “a receiver remote from or collocated with a transmitter, base station, and/or repeater.”</p>	<p>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</p>

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Disputed Claim Terms	EON’s Proposed Construction	Defendants’ Proposed Construction
<p>“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)</p>	<p>No construction necessary</p>	<p>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</p>

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 is 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”

1 another device. This paradoxical construction cannot be correct.

2 The Court therefore adopts Defendants’ constructions of these terms.

3 **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.
“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”

22 The parties dispute whether a “receive only” digital receiver or receiver unit should be
 23 generally construed to include a receiver or unit that also transmits messages. Construing a
 24 “receive only” receiver or unit to both receive and transmit would seem to excise an basic element
 25 of the claim term, in violation of the established rule that claims should be interpreted to give
 26 effect to all terms in the claim. Bicon, Inc., 441 F.3d at 950. The language of the claim terms

1 indicates that, at least as a general rule, the “receive only” receiver and receiver unit only receive.⁵
2 In Figure 2 of the specification, the arrow between the subscriber unit and the remote receiver
3 points in only one direction. The term “receive only” should be construed generally to exclude the
4 possibility of transmitting messages.⁶

5 Rules have exceptions, of course. The fact that a “receive only” receiver generally
6 receives messages does not mean that it cannot, in some limited way, transmit some types of
7 communications. This fact, too, is not disputed. The only dispute, then, is what kinds of
8 transmissions the “receive only” receivers and units are disclosed to transmit.

9 The only evidence EON submits to contradict Defendants’ construction is a double-headed
10 arrow that appears at Figure 1 of a sister Patent, U.S. Patent No. 5,481,546. Given the overall
11 function of the receive-only units and receivers within the context of the ‘491 Patent, and the other
12 aspects of the specification showing only one-way communication, this bi-directional arrow in a
13 different patent cannot override the meaning of “receive only” to allow general two-way
14 communication. The Court agrees with Defendants that, to the extent this figure is relevant, the
15 bidirectional arrow within it reflects a limited exception to the normally “receive only” function of
16 the receivers and units. That exception is the one acknowledged in Defendants’ construction: the
17 fact that a unit or receiver is “receive only” does not “forbid routine handshaking, error checking,
18 and other control signals from being communicated between the receiver units and the subscriber
19 units.” In its Opening Brief, it was exactly these types of communications that EON pointed to in
20 arguing that “the specification (and knowledge of one skilled in the art) supplies reasons for two-
21 way communication.” Opening Br., at 15:20-23. EON does not argue that the Patent claims any
22 exception other than this one, or that a person skilled in the art would understand the term “receive
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24 ⁵ Defendants also state that “the specification . . . provides that a ‘receive only receiver unit’ is a
25 device that receives and relays communications from a local subscriber unit to the local base
26 station repeater cell, but that does not relay communications from the local base station repeater
27 cell to the local subscriber unit.” Resp. at 22:4-8. The cited portion of the specification, ‘491
28 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.

1 only” to require any more than this.

2 Therefore, to resolve any dispute the parties have over the extent to which “receive only”
3 receivers and units transmit messages, the Court adopts Defendants’ proposed construction of
4 “receive only.” The Court also agrees that it is unnecessary to further construe the larger terms
5 “receive only digital receivers” and “receive only receiver unit.”⁷

6 **5. The Conditional “If” Terms (Claims 1, 5, 12, 13 and 17)**

7 Several claims include conditional language:

- 8 • “transferring . . . if said local subscriber units are unable to directly communicate with
9 said local base station repeater cell” (claim 1)
- 10 • “if said subscriber unit is receiving a signal from said local base station repeater cell,
11 performing the steps of . . .” (claim 5)
- 12 • “transferring . . . if said subscriber units are unable to communicate directly with said
13 digital transmitter” (claim 12)
- 14 • “transferring . . . if said at least one subscriber unit is unable to communicate directly
15 with a local base station repeater cell” (claim 13)
- 16 • “if said subscriber unit is not receiving a signal from said local base station repeater
17 cell, performing the steps of . . .” (claim 17)

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

23 Defendants note that their construction reflects limitations that the Texas Court determined
24 that the claims contain. EON makes a few specific objections to Defendants’ constructions on the
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26 ⁷ EON also disputes whether it is appropriate to use the term “device” to refer to the receiver units
27 and receivers. Defendants appear to concede that they do not seek to re-define the receivers and
28 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.

1 grounds that they are inconsistent with the intrinsic record, and where the Court agrees that
2 Defendants’ constructions are unsupported by the record, it will not adopt those constructions.
3 But EON’s primary argument is not about specific deficiencies in Defendants’ constructions.
4 EON’s primary objection is that the Court should not proceed to construe the claims at this point
5 in this manner. As they put it, “Defendants present an army of Frankenstein constructions brought
6 to life for the purpose of invading the province of the jury.” Open. Br., at 1:12-13. EON notes
7 particularly that many of the citations Defendants are citations to summary judgment orders and
8 motions to strike, not claim construction orders.

9 The issues raised, however, are legal issues of claim scope, not specific factual
10 determinations of infringement. Whether the determination of claim scope occurs at claim
11 construction or (as it did in the Texas Court) in the first part of a summary judgment order, the
12 determination is a legal one rather than a factual issue for a jury. Therefore, where the Court
13 agrees that a proposed limitation is supported by the intrinsic record, it will construe the term to be
14 so limited. As discussed more fully supra, the Court’s determination about claim scope is not
15 based on the accused products.

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

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

Disputed Claim Terms	EON’s Proposed Construction	Defendants’ Proposed Construction
<p>“transferring . . . if said local subscriber units are unable to directly communicate with said local base station repeater cell” (claim 1)</p> <p>“transferring . . . if said subscriber units are unable to communicate directly with said digital transmitter” (claim 12)</p> <p>“transferring . . . if said at least one subscriber unit is unable to communicate directly with a local base station repeater cell” (claim 13)</p>	<p>No construction necessary.</p>	<p>The system is binary, meaning the subscriber unit either communicates over Path A or Path B. (<i>The “binary limitation”</i>.) 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. (<i>The “conditional” limitation.</i>) 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. (<i>The “user intervention” limitation.</i>)</p>

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:

- 1 • “The system is binary, meaning the subscriber units either communicate with the
2 modem or with the base station repeater cell.” (claim 1)
- 3 • “The system is binary, meaning the subscriber units either communicate with the
4 modem or with the digital transmitter.” (claim 12)
- 5 • “The system is binary, meaning the subscriber unit either communicates with the
6 modem or with the local base station repeater cell.” (claim 13)

7 EON also argues that the limitations inappropriately insert functional language into an
8 apparatus claim. But “it is entirely proper to consider the functions of an invention in seeking to
9 determine the meaning of particular claim language.” ICU Med., Inc. v. Alaris Med. Sys., Inc.,
10 558 F.3d 1368, 1375 (Fed. Cir. 2009) (quoting Medrad Inc. v. MRI Devices Corp., 401 F.3d 1313,
11 1319 (Fed. Cir. 2005)).

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

18 2) The “conditional” limitation

19 On its face, the “conditional” limitation seems to be a redundant reinterpretation of the
20 word “if.” However, Defendants argue that construction is necessary because the parties dispute
21 whether the claim scope extends only to situations in which the condition of being unable to
22 communicate exists, or whether it also extends to situations in which the condition ever existed in
23 the past. Open. Br. at 22 (emphasis added). At the claim construction hearing, EON’s counsel did
24 indeed argue that the latter construction properly describes the claim’s scope. See Transcript, at
25 58:14-60:7. Construction is necessary to resolve this dispute.

26 The claims only recite present-tense conditions. The claims state that transferring occurs
27 when subscriber units are unable to communicate directly; it does not say that transferring also
28 occurs when subscriber units were unable to communicate at any point in the past. EON’s papers

1 do not dispute this; instead, they accuse Defendants of improper motive in arguing for the
2 limitation. Reply, at 3:19. EON also claims that “the concept of timing makes no sense in the
3 context of these apparatus claims,” but does not explain why. In fact, the reverse is true – it makes
4 perfect sense to provide for transfer when a subscriber unit is otherwise unable to communicate
5 now, but it makes no sense to link the capability of transfer to an inability to communicate that
6 happened at an undefined time in the past. Therefore, the Court adopts the conditional limitation
7 proposed by Defendants.

8 **3) The “user intervention” limitation**

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

20 A similar logic applies here. The claims recite a simple “if, then” automatic switching.
21 They do not suggest an apparatus generally designed to switch at the user’s whim. It may be
22 possible to practice the invention that way, but that is not what is claimed as novel. This Court
23 joins the Texas Court in concluding that “a user solely choosing to turn off the cellular radio,
24 without more, cannot be the reason the subscriber unit is “unable to communicate.” EON Corp.
25 IP Holdings, LLC v. T-Mobile USA, Inc., Case No. 6:10-cv-379-LED-JDL, ECF No. 1001 (E.D.
26 Tex. Sep. 7, 2012), at 4-5 (“T-Mobile Order on Motion to Strike”).

27 The problem with Defendants’ proposed construction is it is ambiguous as to what it
28 means for a user to “render[.]” the subscriber unit unable to communicate. If a user wanders into

1 an area where the signal strength is too weak for the unit to communicate, his action has might be
2 said to “render” the unit unable to communicate. But Defendants do not dispute that this type of
3 situation falls within the scope of the claim; indeed, this situation is disclosed in the specification.
4 ‘491 Patent, at 3:26-32, 4:32-37. The Texas Court also implied – although it did not hold, as EON
5 claims – that it would fall within the scope of the claim for a user to disable the unit’s
6 communication in response to impaired communication.⁸

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

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

17 **4) Conclusion**

18 The Court agrees with the functional limitation, although the Court will adjust it to avoid
19 specific references to “Path A” and “Path B.” The Court also adopts the “conditional” limitation.
20 The Court adopts a modified version of the “user intervention” limitation. Complete descriptions
21 of the Court’s constructions appear at Part V, *infra*.

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25 ⁸ EON claims that the Texas Court “held that ‘turning off the cellular data satisfies the ‘unable to
26 communicate’ condition [if] communication had been and may be expected to still be impaired.’”
27 Open. Br., at 23. In the quotation EON cites, the Texas Court was characterizing the opinion of
28 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.

b. The conditional “if” limitations in Claims 5 & 17

Disputed Claim Terms	EON’s Proposed Construction	Defendants’ Proposed Construction
<p>“if said subscriber unit is receiving a signal from said local base station repeater cell, performing the steps of . . .” (claims 5, 17)</p> <p>“if said subscriber unit is not receiving a signal from said local base station repeater cell, performing the steps of . . .” (claims 5, 17)</p>	<p>No construction necessary.</p>	<p>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”)</p> <p>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”)</p>

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.

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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	“switching means for selecting a communication path within said network”	Indefinite under 35 U.S.C. § 112, ¶ 6.
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

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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.

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12	<p>“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”</p>	<p>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</p>
12	<p>“receive only”</p>	<p>“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.</p>
12	<p>“a modem communicatively coupled to said local subscriber units and said digital transmitter”</p>	<p>“a modem is connected to the local subscriber units and the digital transmitter for the purpose of communications between the two.”</p>
12	<p>“transferring . . . if said subscriber units are unable to communicate directly with said digital transmitter”</p>	<p>“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.</p>
13	<p>“switching means for selecting a communication path within said network”</p>	<p>Indefinite under 35 U.S.C. § 112, ¶ 6.</p>

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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: July 8, 2013


JON S. TIGAR
United States District Judge