

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

COX COMMUNICATIONS INC., et al.,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	Civ. No. 12-487-SLR
	)	
SPRINT COMMUNICATIONS	)	
COMPANY L.P., et al.,	)	
	)	
Defendants.	)	

MEMORANDUM ORDER

At Wilmington this ~~14th~~ day of March, 2016, having reviewed Cox's motion for partial summary judgment and the papers filed in connection therewith, and having heard argument on the same;

IT IS ORDERED that said motion (D.I. 271) is granted in part and denied in part for the reasons that follow:

1. **Background.** On May 16, 2012, plaintiffs¹ (collectively "Cox") filed a declaratory action for invalidity and non-infringement of twelve Sprint patents,² and for

¹ Cox Communications, Inc.; CoxCom, LLC; Cox Arkansas Telcom, L.L.C.; Cox Communications Arizona, LLC; Cox Arizona Telcom, L.L.C.; Cox Communications California, LLC; Cox California Telcom, L.L.C.; Cox Colorado Telcom L.L.C.; Cox Connecticut Telcom, L.L.C.; Cox District of Columbia Telcom, L.L.C.; Cox Florida Telcom, L.P.; Cox Communications Georgia, LLC; Cox Georgia Telcom L.L.C.; Cox Iowa Telcom, L.L.C.; Cox Idaho Telcom L.L.C.; Cox Communications Kansas, L.L.C.; Cox Kansas Telcom, L.L.C.; Cox Communications Gulf Coast, L.L.C.; Cox Communications Louisiana, L.L.C.; Cox Louisiana Telcom, L.L.C.; Cox Maryland Telcom L.L.C.; Cox Missouri Telcom, LLC; Cox Nebraska Telcom, L.L.C.; Cox Communications Omaha, L.L.C.; Cox Nevada Telcom, L.L.C.; Cox Communications Las Vegas, Inc.; Cox North Carolina Telcom L.L.C.; Cox Ohio Telcom, L.L.C.; Cox Oklahoma Telcom, L.L.C.; Cox Rhode Island Telcom, L.L.C.; Cox Virginia Telcom, L.L.C.; and Cox Communications Hampton Roads, L.L.C.

² U.S. Patent Nos. 6,452,932; 6,463,052; 6,633,561; 7,286,561; 6,473,429; 6,298,064; 6,343,084 ("the '084 patent"); 6,262,992 ("the '992 patent"); 6,330,224 ("the '224

infringement of two Cox patents³ by defendants Sprint Communications Company L.P. ("Sprint Communications"), Sprint Spectrum, L.P. (Sprint Spectrum"), Sprint Solutions, Inc. ("Sprint Solutions") (collectively, "Sprint"). (D.I. 1) On September 17, 2013, Sprint filed, by stipulation, a second amended answer and counterclaims.⁴ (D.I. 114; D.I. 115) On October 7, 2013, Cox answered Sprint's second amended counterclaims and asserted counterclaims.⁵ (D.I. 119) On October 24, 2013, Sprint answered Cox's counterclaims. (D.I. 123) The court has jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

2. Plaintiff Cox Communications, Inc. (CCI) is a Delaware corporation with its principal place of business in Atlanta, Georgia. CCI provides general corporate, accounting, and management services to the other Cox plaintiffs. CCI is the direct or indirect parent of the other Cox plaintiffs. (D.I. 1 at ¶ 4) CoxCom, LLC ("CoxCom") is a Delaware corporation with its principal place of business in Atlanta, Georgia. CoxCom is a wholly owned subsidiary of CCI and does not directly provide telephony services or

patent"); 6,563,918 ("the '918 patent"); 6,697,340 ("the '340 patent"); and 6,639,912. Six of these patents (U.S. Patent Nos. 6,452,932; 6,463,052; 6,633,561; 7,286,561; 6,473,429; and 6,298,064) were subject to an early motion for summary judgment that the limitation "processing system" was indefinite, which motion was granted. (D.I. 231) These six patents are subject to a final judgment (D.I. 302) and the decision is on appeal (D.I. 319).

³ U.S. Patent Nos. 7,992,172 and 7,836,474.

⁴ Having previously filed an answer and counterclaims for infringement of seven other Sprint patents (U.S. Patent Nos. 5,742,605; 6,108,339; 6,452,931; 6,870,832; 8,121,028; 5,793,853; and 7,995,730) on July 9, 2012 (D.I. 41) and, by stipulation, a first amended answer and counterclaims for infringement of each of the nineteen Sprint patents on July 12, 2013 (D.I. 96, 97). Sprint's counterclaims are asserted by Sprint Communications and Sprint Spectrum only.

⁵ Having previously filed an answer to Sprint's counterclaims and asserted counterclaims on August 13, 2012 (D.I. 53) and filed an answer to Sprint's first amended counterclaims and asserted counterclaims on August 2, 2013 (D.I. 102).

technology to end users. CoxCom is the parent of each of the Cox plaintiffs except for Cox Communications Georgia, LLC, Cox Georgia Telcom, LLC, Cox Communications Las Vegas, Inc., LLC, and Cox Nevada Telcom LLC, all of which are direct or indirect subsidiaries of CCI. CoxCom supplies certain of the Cox plaintiffs with technology used by those entities in providing telephony products and services, including the Cox Digital Telephone and SIP Trunking service and other related telephony services. (D.I. 1 at ¶ 5) Each of the other Cox plaintiffs are Delaware corporations with principal places of business in the corresponding State in which it is located. (D.I. 1 at ¶¶ 6-35) The Cox plaintiffs are leading cable entertainment and broadband services providers and, amongst other things, are well known for pioneering the bundling of television, Internet and telephone services together, offering consumers the ability to consolidate these services with one provider. (D.I. 1 at ¶ 58)

3. Defendants Sprint Communications and Sprint Spectrum are limited partnerships organized and existing under the laws of the State of Delaware, with principal places of business in Overland Park, Kansas. (D.I. 115 at 23, ¶¶ 1-2) Defendant Sprint Solutions is a corporation organized and existing under the laws of the State of Delaware, with a principal place of business in Overland Park, Kansas. (D.I. 115 at ¶¶ 40, 56) Sprint is a provider of wireless and wireline communications services. (D.I. 1 at ¶ 59)

4. **Standard.** "The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(a). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *Matsushita Elec.*

Indus. Co. v. Zenith Radio Corp., 415 U.S. 475, 586 n. 10 (1986). A party asserting that a fact cannot be—or, alternatively, is—genuinely disputed must be supported either by citing to “particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for the purposes of the motions only), admissions, interrogatory answers, or other materials,” or by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party has carried its burden, the nonmovant must then “come forward with specific facts showing that there is a genuine issue for trial.” *Matsushita*, 415 U.S. at 587 (internal quotation marks omitted). The Court will “draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

5. To defeat a motion for summary judgment, the non-moving party must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita*, 475 U.S. at 586-87; see also *Podohnik v. U.S. Postal Service*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment “must present more than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue”) (internal quotation marks omitted). Although the “mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment,” a factual dispute is genuine where “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986). “If the evidence is merely

colorable, or is not significantly probative, summary judgment may be granted.” *Id.* at 249-50 (internal citations omitted); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated “against a party who fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial”).

6. **Analysis.** The court has resolved the parties’ claim construction disputes for the five patents at issue in this motion⁶ and construed certain claim limitations as restricted to ATM technology. Specifically,⁷ independent claim 1 of the ‘084 patent is limited to ATM technology by, *inter alia*, the construction of the limitation “interworking unit;” independent claim 1 of the ‘224 patent by the construction of the limitations “interworking unit” and “communication system;” independent claim 11 of the ‘340 patent by the construction of the limitation “communication system;” independent claim 11 of the ‘918 patent by the construction of the limitations “interworking unit” and “communication system;” and independent claim 1 of the ‘992 patent by the construction of the limitations “interworking unit” and “communication system.”⁸

7. Cox argues that if the claims are limited to ATM technology, there can be no literal infringement, as the accused devices are used in IP networks, not in ATM networks. (D.I. 357 at 25) Sprint does not provide an argument to the contrary, responding “[i]f the claims are construed to require ATM, Sprint has alleged

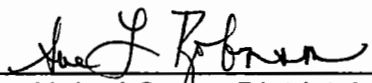
⁶ The ‘084, ‘224, ‘340, ‘918, and ‘992 patents.

⁷ Sprint alleges Cox’s VoIP services infringe claims 1, 4, and 7 of the ‘084 patent, claims 1, 4, 7, 12, 13, and 14 of the ‘224 patent, claims 11, 14, and 17 of the ‘340 patent, claims 11 and 12 of the 918 patent, and claim 1 of the ‘992 patent. (D.I. 329 at 21)

⁸ The restriction of the asserted claims to ATM technology renders Cox’s motion for invalidity for lack of written description moot.

infringement under the doctrine of equivalents.” (D.I. 329 at 22) Sprint’s expert, Dr. Wicker, has opined that although ATM and IP technology are different, if limited to ATM technology, the claims would be infringed under the doctrine of equivalents.⁹ (D.I. 273, ex. 1 at 81:2-15; D.I. 330, ex. 29 at ¶¶ 70-81) The court grants Cox’s motion as to literal infringement. On the record at bar, however, Cox has not fully addressed the issue of non-infringement under the doctrine of equivalents/vitiation in the context of the court’s construction. *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349 at 1356 (Fed. Cir. 2012) (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 38-39 (1997)) (Vitiation is “a legal determination that ‘the evidence is such that no reasonable jury could determine two elements to be equivalent.’”).

8. **Conclusion.** For the foregoing reasons, Cox’s motion for partial summary judgment is granted in part and denied in part without prejudice to renew.


United States District Judge

⁹ Sprint’s counsel stated at a case management conference that “if the claims are construed as Cox has suggested, while it may be the case that literal infringement won’t be met, we certainly are able to resort to the doctrine of equivalents for those issues.” (D.I. 273, ex. 2)

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	)	
SPRINT COMMUNICATIONS	)	
COMPANY L.P., et al.,	)	
	)	
Defendants.	)	

MEMORANDUM ORDER

At Wilmington this ~~10th~~^{11th} day of March, 2016, having heard argument on, and having reviewed the papers submitted in connection with, the parties' proposed claim construction;

IT IS ORDERED that the disputed claim language of U.S. Patent Nos. 6,343,084 ("the '084 patent"); 6,330,224 ("the '224 patent"); 6,697,340 ("the '340 patent"); 6,563,918 ("the '918 patent"); and, 6,262,992 ("the '992 patent") shall be construed consistent with the tenets of claim construction set forth by the United States Court of Appeals for the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), as follows:

1. **"Processing system:"**¹ "A call processing system capable of receiving and transmitting signaling and processing signaling to select information for routing a call." Not subject to 35 U.S.C. § 112, ¶ 6. Not indefinite under 35 U.S.C. § 112, ¶ 2. Claim 1 of the '224 patent² is directed to a "method for operating a communication system" and

¹ Found in claim 1 of the '224 patent.

² The prosecution history reflects that the limitation "processing system" was added by the patentee after the examiner rejected claims reciting a "processor," in part because

recites in relevant part “receiving [user communication] information into a processing system,” “selecting a service and a service node,” and “generating and transmitting” messages. The ‘224 patent specification states that

the present invention is a method for connecting a call from a first communication device through an asynchronous transfer mode system. The call has user communications and call signaling. The method comprises receiving the call signaling in a signaling processor. The call signaling is processed to select a selected first one of a plurality of connections to a service platform for the user communications. A processor control message is transported from the signaling processor designating the selected first connection. The method further comprises receiving the user communications and the processor control message in an interworking unit. The user communications are converted in the interworking unit from the asynchronous transfer mode format to a format that is compatible with the service platform in response to the processor control message and transported from the interworking unit over the selected first connection to the service platform. The user communications are received in the service platform and processing the user communications.

(‘224 patent, 2:1-19; see *also* 2:56-3:20) The specification provides details of the limitation’s operation including details of the “service platforms” and “interworking unit.”

(‘224 patent, 6:33-42; 8:64-9:29) The specification also describes “a signaling processor[, which] is referred to as a call/connection manager (CCM).” The “CCM performs many other functions in the context of call processing.” (‘224 patent, 21:22-40)

2. Extrinsic evidence. Sprint’s expert, Dr. Wicker, describes the ‘224 patent as “providing enhanced services beyond basic call routing, including calls being made over a broadband network such as ATM.” He opines that the specification “generally provide[s] for service call processing based on a call request or service determination

“any device which processes computer code relating to a layer of an OSI model can be referred to as a ‘processor.’” (D.I. 388, ex. 1)

using information about user communications.” (D.I. 216, ex. A at ¶¶ 48-49) Dr. Wicker further opines that “processing system” “has an understood meaning in the telecommunications industry by a person of ordinary skill in the art” and “refers to a system that processes signaling to assist in call control.” (*Id.* at ¶ 69); *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348-49 (Fed. Cir. 2015) (citing *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (“The standard is whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.”); *Media Rights Techs., Inc. v. Capital One Fin. Corp.*, 800 F.3d 1366, 1372 (Fed. Cir. 2015) (Plaintiff “does not dispute that ‘compliance mechanism’ has no commonly understood meaning and is not generally viewed by one skilled in the art to connote a particular structure.”).

3. The claim specifies the functions performed by the processing system. In the absence of any “means for” language, these functions, together with the disclosures of the specification, are sufficient to avoid application of 35 U.S.C. § 112, ¶ 6. *Williamson*, 792 F.3d at 1349 (citing *Watts v. XL Sys., Inc.*, 232 F.3d 877, 880 (Fed. Cir. 2000)) (“When a claim term lacks the word “means,” the presumption can be overcome . . . if the challenger demonstrates that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’”). Moreover, the description provided by the claim and specification is also sufficient to “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, ___ U.S. ___, 134 S. Ct. 2120, 2129 (2014).

4. **“Signaling processor:”**³ “A call signaling device that receives and/or processes signaling associated with a call.” Not subject to 35 U.S.C. § 112, ¶ 6. Not indefinite under 35 U.S.C. § 112, ¶ 2. Claim 11 of the ‘340 patent recites the functions of the signaling processor, namely “receiving and processing Signaling System Seven (SS7) signaling for a call” and then “generating and transferring” messaging. The ‘340 patent specification states that the system “comprises a signaling processor adapted to receive the call signaling from the first communication device and to process the call signaling to select a first connection to the service platform.” (‘340 patent, 1:38-41) Claim 1 of the ‘992 patent requires that the signaling processor “receive signaling,” “process the signaling to select an identifier for routing the call,” and “transfer a control message indicating the identifier.” The ‘992 patent specification explains that a “signaling processor is included to receive the call signaling from the first communication device, to process the call signaling to select a connection to the second communication device, and to transport a first processor control message designating the selected connection.” (‘992 patent, 1:65-2:3) The specifications explain that SS7 is “standardized signaling” and describe transporting call signaling and messages. (‘340 patent, 4:30-31, 4:63-65; 6:55-63; 10:64-11:6; ‘992 patent, 5:19-20, 5:53-59, 7:60-64) “The signaling processor is referred to as a call/connection manager (CCM), and it receives and processes telecommunications call signaling and control messages to select connections that establish communication paths for calls. In the preferred embodiment, the CCM processes SS7 signaling to select connections for a call.” (‘340 patent, 21:28-33; ‘992 patent, 17:55-65) The specifications also explain that the CCM

³ Found in claim 11 of the ‘340 patent and claim 1 of the ‘992 patent.

“controls an ATM interworking multiplexer (mux)” and “may control other communications devices and connections in other embodiments.” The CCM “comprises a signaling platform 1104, a control platform 1106, and an application platform 1108.” (‘340 patent, 21:49-65; ‘992 patent, 18:9-17)

5. **Extrinsic evidence.** Sprint points to the use and description of “signaling processor” in U.S. Patent No. 5,422,882 and U.S. Patent No. 6,002,689. (D.I. 388, ex. 37 at 25:7-14, 57:15-18; ex. 38 at abstract) Cox points to the testimony of an engineer (from switch manufacturer Genband, the successor to Nortel) stating that “the generic term signaling processor . . . [brings] to . . . mind . . . an analog signaling processor.” In response to whether a digital signaling processor is a signaling processor, he stated that a “signaling processor” is “a very generic term. Anything that takes signals and processes those signals, you could call a signal processor.” (D.I. 388, ex. 49 at 212:10-213:25, 224:7-20)

6. The claims specify the functions performed by the signaling processor. In the absence of any “means for” language, these functions, together with the disclosures of the specification are sufficient to avoid application of 35 U.S.C. § 112, ¶ 6. *Williamson*, 792 F.3d at 1349. Moreover, the description provided by the claims and specifications are sufficient to “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus*, 134 S. Ct. at 2129.

7. **“Call processor:”**⁴ “A call processing device that processes signaling information to set up or route the call.” Not subject to 35 U.S.C. § 112, ¶ 6. Not indefinite under 35 U.S.C. § 112, ¶ 2. Claim 11 recites in part: “[I]n a call processor

⁴ Found in claim 11 of the ‘918 patent.

including the call processor data tables, processing signaling information for a call based on the call routing data in the call processor data tables to transfer a control message for the call indicating a first connection and a second connection.” The specification explains that the “[c]all processor 308 receives and processes telecommunications call signaling, control messages, and customer data to select connections that establish communication paths for calls. In the preferred embodiment, the call processor processes SS7 signaling to select connections for a call.” (‘918 patent, 8:1-5) The specification describes the “call processor” as including “a signaling platform that can receive and process call signaling” and having “data tables which have call connection data and which are used to process the call signaling.” (‘918 patent, 4:17-20) The court concludes that the recitations of functions performed by the “call processor,” along with the description of its components and interactions, are sufficient to avoid application of 35 U.S.C. § 112, ¶ 6 and to “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Williamson*, 792 F.3d at 1349; *Nautilus*, 134 S. Ct. at 2129.

8. **“Control system:”**⁵ “A network management and administration system configured to store call routing data for transfer to a call processor.” Not subject to 35 U.S.C. § 112, ¶ 6. Not indefinite under 35 U.S.C. § 112, ¶ 2. Claim 11 recites in part: “[I]n a control system including control system data tables, receiving and processing call routing data to fill the control system data tables with the call routing data, and transferring the call routing data from the control system data tables to call processor data tables.” The ‘918 patent specification explains that the control system “is a

⁵ Found in claim 11 of the ‘918 patent.

management and administration system” and “includes a user interface and an external systems 40 interface into [the] call processor.” (‘918 patent, 4:38-40) The control system further “serves as a collection point for call-associated data” and “accepts data” from the “operations systems” and “updates the data in the tables in call processor.” (‘918 patent, 4:40-46) The court concludes that the claim language and supporting description in the specification suffice to avoid application of 35 U.S.C. § 112, ¶ 6 and to “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Williamson*, 792 F.3d at 1349; *Nautilus*, 134 S. Ct. at 2129.

9. **“Interworking unit:”**⁶ “ATM interworking multiplexer.” The ‘084 patent specification describes a system that “comprises an ATM interworking multiplexer and a signaling processor linked to the ATM interworking multiplexer.” (‘084 patent, 2:11-14, 29, 46) The ‘224 and ‘340 patent specifications state that the “present invention comprises a system for providing services for a call from a first communication device in an asynchronous transfer mode format.” (‘224 patent, 1:26-28; ‘340 patent, 1:31-33) The ‘918 patent specification states that “[t]he present invention relates to the field of telecommunications call switching and transport in a system that provides asynchronous transfer mode connections.” (‘918 patent, 1:19-21) The “present invention further comprises a method for connecting a call through an asynchronous transfer mode system” (‘918 patent, 2:11-13) The ‘992 patent specification similarly states that “[t]he present invention is directed to a system for transporting a call through an asynchronous transfer mode system.” (‘992 patent, 1:58-60) Each of the

⁶ Found in claim 1 of the ‘084 patent, claim 1 of the ‘224 patent, claim 11 of the ‘918 patent, claim 1 of the ‘992 patent.

specifications repeatedly and consistently references and provides examples of ATM technology. ('084 patent, 1:20-27, 1:45-2:3, 2:5-67, 22:65-23:13; '224 patent, 1:25-28, 2:1-3, 2:39-41, 2:56-58, 3:7-9, 6:25-27; '918 patent at 1:17-21, 2:11-15, 4:52-67, 5:64-6:6, 7:62-67, 15:36-16:21; '992 patent, 1:58-60, 2:4-12, 2:27-30, 2:48-50, 3:5-7, 3:27-29, 3:41-42, 3:51-52, 3:65-67) The court concludes that this limitation should be limited to ATM technology. *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1372 (Fed. Cir. 2014) (explaining that “we have held that disclaimer applies when the patentee makes statements such as ‘the present invention requires . . .’ or ‘the present invention is . . .’ or ‘all embodiments of the present invention are . . .’”); see also *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1203 (Fed. Cir. 2013) (finding that patentee “disclaimed a potential embodiment from the ordinary scope of a claim term through clear, repeated, and consistent statements in the specification . . .”).

10. **“First communication format / second communication format”⁷ and “first format / second format.”⁸ “Two formats, one of which is ATM.” “[Second communication format is a] connectionless communication format:”⁹ “Wherein the second communication format is a connectionless communication format, and the first communication format is ATM.” Claim 1 of the '224 patent recites converting the format “in the interworking unit.” Claim 12 of the '224 patent depends from claim 1. Claim 11 of the '918 patent also recites converting the format “in the interworking unit.” As each of the “format” limitations relates to a function performed in the “interworking**

⁷ Found in claim 1 of the '224 patent.

⁸ Found in claim 11 of the '918 patent.

⁹ Found in claim 12 of the '224 patent.

unit” that the court has limited to ATM technology, the court adopts Cox’s claim construction of these limitations reflecting such technology.

11. **“Converting the communications between a time division multiplex format and another format:”**¹⁰ “Converting voice between a time division multiplexed format and ATM.” The ‘340 patent specification explains that the “interworking unit interworks the user communications from the time division multiplex format to asynchronous transfer mode formatted cells that identify the selected first connection to the service platform.” (‘340 patent, 2:1-5) The court adopts Cox’s claim construction reflecting the “ATM” technology.

12. **“First connection / second connection”**¹¹ and **“connection:”**¹² “A first and second connection at least one of which is an ATM connection, wherein connection is transmission media that may be used to carry user communications between elements of a communication system and/or other devices.” The ‘918 patent specification defines “connection” as “transmission media that may be used to carry user communications between elements of architecture system 102 and to other devices. For example, a connection could carry a user’s voice, computer data, or other communication device data.” (‘918 patent, 4:6-12) As claim 11 of the ‘918 patent requires that the functions of “receiving . . . from a first connection” and “transferring . . . over the second connection” occur in the interworking unit, the court adopts Cox’s construction requiring one of the connections to be an “ATM connection.”

¹⁰ Found in claim 14 of the ‘340 patent.

¹¹ Found in claim 11 of the ‘918 patent.

¹² Found in claim 11 of the ‘918 patent.

13. **“Asynchronous communication:”**¹³ “ATM communication.” This language is not used in the specifications. Claim 1 of the ‘084 patent and claim 1 of the ‘992 patent use the limitation in the context of the interworking unit, therefore, the court adopts Cox’s construction reflecting the ATM technology of the claim.

14. **“Communication system:”**¹⁴ “ATM network.” This language is found only in the preamble of the claims and is not used in the specification.¹⁵ Consistent with the “ATM” centric nature of the claims, the court adopts Cox’s construction.

15. **“Routing:”**¹⁶ “Directing through a communication system by a selected path or connection.” **“Identifier(s):”**¹⁷ Data identifying the selected path or connection.” Claim 1 of the ‘084 patent recites in part, “transferring the asynchronous communications from the interworking unit for subsequent routing based on the identifiers.” Claim 1 of the ‘992 patent recites in part, “in the signaling processor, processing the signaling to select an identifier for routing the call.” Claim 11 of the ‘340 patent recites in part, “in a signaling processor, receiving and processing . . . signaling for a call, and in response, generating and transferring control messaging indicating identifiers that are used for routing.”

16. The ‘084 patent specification describes the method as comprising “generating new signaling to identify the particular connection and the selected virtual

¹³ Found in claim 1 of the ‘084 patent and claim 1 of the ‘992 patent.

¹⁴ Found in claim 1 of the ‘224, claim 11 of the ‘340 patent, claim 11 of the ‘918 patent, and claim 1 of the ‘992 patent.

¹⁵ There are examples of “European communication systems.” (‘340 patent, 4:52; ‘224 patent, 4:44; ‘992 patent, 5:42)

¹⁶ Found in claim 1 of the ‘084 patent, claim 11 of the ‘340 patent, and claim 1 of the ‘992 patent.

¹⁷ Found in claim 1 of the ‘084 patent, claim 11 of the ‘340 patent, claim 1 of the ‘992 patent.

connection.” (‘084 patent, 2:16-18) The specification explains that a connection “could be any virtual connection . . . and [a]s virtual connections are logical paths, many physical paths can be used based on the pre-provisioning of [the] ATM cross-connect system.” (‘084 patent, 4:8-16) The specification further explains:

It can be seen that a communications path through connections 280-283 could be established to carry user information. Although the communications path has been described from connection 280 to connection 283, the invention contemplates components that are also operational to perform reciprocal processing in the reverse direction. If the communications path is bidirectional, user information in ATM cells arriving on connection 283 would be processed for output on connection 280 in the appropriate format. Those skilled in the art will appreciate that separate connections could also be set up in each direction, or that only a connection in one direction may be required.

(‘084 patent, 6:6-17) The specification only use of “identifier” describes that the ATM adaption layer (“AAL”) “obtains the virtual path identifier (VPI) and virtual channel identifier (VCI) for each call from assignment 240.” The AAL “also obtains the identity of the DSO for each call . . . [and] then converts user information between the identified DSO and the identified ATM virtual connection.” (‘084 patent, 5:47, 6:60-65)

17. The ‘340 and ‘992 patent specifications describe these limitations in a similar fashion. For example, the ‘340 patent specification states that “[t]he converted user communications are transported in real time from the interworking unit over the selected connection to the service platform.” (‘340 patent, 3:22-25; *see also* 5:31-35, 19:13-19, 20:51-56 (referencing the virtual path identifier and virtual channel identifier) The ‘992 patent specification states that the “system comprises a first communication device adapted to transport the call over a first connection [and] a second communication device adapted to receive the user communications from the first communication device

over a second connection.” (‘992 patent, 3:7-11; see *also* 6:20-24, 15:47-53
(referencing the virtual path identifier and virtual channel identifier)

18. **“In the processing system;”**¹⁸ **“in the signaling processor;”**¹⁹ **“in the call processor;”**²⁰ and **“in the control system.”**²¹ Consistent with Sprint’s proposal, the court does not construe these limitations.²² Specifically, the court declines to narrow the limitations as proposed by Cox, e.g., “the function is performed entirely within the processing system.” Such a proposal invites confusion as to the meaning of “performed entirely.” For example, the ‘224 patent specification explains that the signaling processor “sends a processor control message to the selected host computer 342 designating the application that is to process the user communications” and “based on the processed call signaling . . . selects a connection from the interworking mux 340 to the media processor 344 . . . to process the user communications.” (‘224 patent, 13:20-26) Such explanation is at odds with Cox’s proposed construction.

19. **“Processing . . . to select;”**²³ “Processing . . . to participate in the selecting.” **“Processing . . . to transfer;”**²⁴ “Processing . . . to participate in the transferring.” For the reasons discussed above regarding the limitations “in the signaling processor” and “in the call processor,” the court declines to require the

¹⁸ Found in claim 1 of the ‘224 patent.

¹⁹ Found in claim 11 of the ‘340 patent and claim 1 of the ‘992 patent.

²⁰ Found in claim 11 of the ‘918 patent.

²¹ Found in claim 11 of the ‘918 patent.

²² The court does not usually apply a plain and ordinary meaning to disputed claim limitations. However, in the case at bar, the parties’ disagreements are not disputes as to the meaning of the claim language, rather an apparent attempt by Cox to add narrowing language.

²³ Found in claim 1 of the ‘992 patent.

²⁴ Found in claim 11 of the ‘918 patent.

functions to be performed “entirely within” the signaling processor or call processor as proposed by Cox.

20. **“Selecting a service and a service node:”**²⁵ Consistent with Sprint’s proposal, the court does not construe this limitation. Claim 1 of the ‘224 patent recites in part, “selecting a service and a service node to provide the service based on the information.” The ‘224 patent specification describes that “the service database 338 has service subscription data and processing options which denote the services to which a particular call or communication device has access.” (‘224 patent, 11:26-37) In light of the claim language and specification, the court declines to limit “selecting” to “choosing among several available options.”²⁶

21. **“Generating [a message] / [messaging]:”**²⁷ “Assembling information to create [a message] / [messaging].” Claim 1 of the ‘224 patent recites in part: “[I]n the processing system, generating and transmitting a first message from the processing system” and “generating and transmitting a second message from the processing system to the service node wherein the second message indicates the selected service and a user.” Sprint’s construction reflects the claim language requiring that the message include certain information. Cox’s proposed construction adds the concept of “choosing” information and is not supported by the claim language.

²⁵ Found in claim 1 of the ‘224 patent.

²⁶ Cox’s proposal is “choosing one service from among several available services, and also chooses one service node from among several available services nodes that are capable of providing that service.” (D.I. 358 at 24)

²⁷ Found in claim 1 of the ‘224 patent and claim 11 of the ‘340 patent.

22. **“Transmitting ... [a first message] / [a second message]”²⁸ and “transferring ... [a message] / [messaging]:”²⁹ “Sending ... [the claimed] message across a broadband network.” **“Receiving messages.”**³⁰ “Accepting messages from a broadband network.” **“Message(s)”**³¹ and **“control [message] / [messaging]:”**³² “Information formatted for transmission on a broadband network.” The court adopts Cox’s proposed construction, which is consistent with the claims, specifications, and the construction of “interworking unit” provided above as limited to ATM technology. (‘224 patent, 4:64-67 (“ATM is one technology that is being used in conjunction with SONET and SDH to provide broadband call switching and call transport for telecommunication services.”))**

23. **“Service.”**³³ Consistent with Sprint’s proposal, the court does not construe this limitation. The ‘224 patent specification states that “[t]hese enhanced services often provide interactive calling features that require a caller to interact with telecommunication network equipment in order to achieve an enhanced service.” (‘224 patent, 6:5-8; ‘340 patent, 6:13-16) Cox’s construction, “a feature provided to the calling or called party,” would confuse “service” with “feature” in light of the specifications’ disclosures.

²⁸ Found in claim 1 of the ‘224 patent.

²⁹ Found in claim 11 of the ‘340 patent, claim 11 of the ‘918 patent, and claim 1 of the ‘992 patent.

³⁰ Found in claim 1 of the ‘084 patent.

³¹ Found in claim 1 of the ‘084 patent and claim 1 of the ‘224 patent.

³² Found in claim 11 of the ‘340 patent, claim 11 of the ‘918 patent; and claim 1 of the ‘992 patent.

³³ Found in claim 1 of the ‘224 patent and claim 11 of the ‘340 patent.

24. **“Service node”³⁴ and “service platform system.”³⁵** Consistent with Sprint's proposal, the court does not construe these limitations. Cox's proposal seeks to constrain these limitations to specific equipment. Such a proposal is not supported by the claim language or the specifications.

25. **“Receiving and processing call routing data to fill . . . data tables with the call routing data”³⁶ and “control system data tables” / “call processor data tables.”³⁷** Consistent with Sprint's proposal, the court does not construe these limitations. Cox's proposal seeks to limit the location of the data tables. This is duplicative of the claim language which recites in pertinent part, “in a control system including control system data tables” and “in a call processor including the call processor data tables.” (‘918 patent, claim 11) The ‘918 patent specification also specifies the location of the tables as needed, for example, “CPCS 108 accepts data, such as the translations, from operations systems 116 and updates the data in the tables in call processor 104.” (‘918 patent, 4:44-46)

26. **“Transferring the call routing data from the control system data tables to call processor routing tables”³⁸ and “formatting the call routing data for the call processor data tables.”³⁹** Consistent with Sprint's proposal, the court does not construe these limitations. The specification describes using a “human-machine interface” “to manage data tables or to review data tables.” (‘918 patent, 7:57-60) In

³⁴ Found in claim 1 of the ‘224 patent.

³⁵ Found in claim 11 of the ‘340 patent.

³⁶ Found in claim 11 of the ‘918 patent.

³⁷ Found in claim 11 of the ‘918 patent.

³⁸ Found in claim 11 of the ‘918 patent.

³⁹ Found in claim 12 of the ‘918 patent.

contrast, Cox's proposal more narrowly requires that this limitation be performed "automatically."

27. **"User communications."**⁴⁰ Consistent with Sprint's proposal, the court does not construe these limitations. The parties agree that these are voice communications or data communications. A user communication may include a call trigger ('992 patent, 2:12-13), which the parties have agreed is "an event or signal that causes some call processing, call translation, or call routing to occur when trigger criteria is satisfied." The court does not find support for Cox's additional limitation that user communications be "distinct from signaling."

28. **"Compression instruction."**⁴¹ Consistent with Sprint's proposal, the court does not construe this limitation. The '084 patent specification states that "[c]ompression algorithms can be applied." ('084 patent, 8:39) Cox's construction "instructions regarding the amount of compressions to apply" is confusing and not supported by either the claim language⁴² or the specification.⁴³

29. **"Compressing:"**⁴⁴ "Reducing the bandwidth or number of bits needed to encode information or encode a signal." Sprint's proposed construction, "applying the

⁴⁰ Found in claim 1 of the '084 patent, claim 1 of the '224 patent, claim 11 of the '918 patent, and claim 1 of the '992 patent.

⁴¹ Found in claim 4 of the '084 patent.

⁴² Claim 4 recites: "The method of claim 1 further comprising receiving compression instructions into the interworking unit on a call-by-call basis and compressing the user communications in response to the compression instructions."

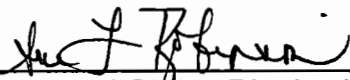
⁴³ **Extrinsic evidence.** "Compression algorithm" is defined as "[t]he arithmetic formulae which convert a signal into smaller bandwidth or fewer bits." (D.I. 388, ex. 23, Newton, Harry, *Newton's Telecom Dictionary* (11th ed. 1996)) Such evidence does not support Cox's construction.

⁴⁴ Found in claim 4 of the '084 patent.

compression algorithm to the user communications,” is not helpful to a jury. The court adopts Cox’s proposal.⁴⁵

30. **“DSO connection:”**⁴⁶ “A channel over which DS0 Communication Signals (a term of art meaning Digital Signal Level 0) are transmitted or received.” Claim 7 recites in part “receiving the user communications from DSO connections indicated in the messages.” The parties agree that DSO is a term of art meaning “Digital Signal Level 0.” The court concludes that Sprint’s construction would be helpful to a jury.

31. The court has provided a construction in quotes for the claim limitations at issue. The parties are expected to present the claim construction consistently with any explanation or clarification herein provided by the court, even if such language is not included within the quotes.


United States District Judge

⁴⁵ **Extrinsic evidence.** “Compression” is defined as “[r]educing the representation of the information, but not the information itself. Reducing the bandwidth or number of bits needed to encode information or encode a signal” (D.I. 388, ex. 23, *Newton’s Telecom Dictionary*)

⁴⁶ Found in claim 7 of the ‘084 patent.