## IN THE UNITED STATES DISTRICT COURT
## FOR THE DISTRICT OF KANSAS

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| SPRINT COMMUNICATIONS COMPANY L.P., | ) ) | CONSOLIDATED CASES |
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| Plaintiff, | ) | |
| | ) | |
| v. | ) | Case No. 11-2684-JWL |
| | ) | |
| COMCAST CABLE COMMUNICATIONS LLC, et al., | ) ) | |
| | ) | |
| Defendants. | ) | |
| _____ | ) | |
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| SPRINT COMMUNICATIONS COMPANY L.P., | ) ) | |
| | ) | |
| Plaintiff, | ) | |
| | ) | |
| v. | ) | Case No. 11-2685-JWL |
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| CABLE ONE, INC., | ) | |
| | ) | |
| Defendant. | ) | |
| _____ | ) | |
| | ) | |
| SPRINT COMMUNICATIONS COMPANY L.P., | ) ) | |
| | ) | |
| Plaintiff, | ) | |
| | ) | |
| v. | ) | Case No. 11-2686-JWL |
| | ) | |
| TIME WARNER CABLE, INC., et al., | ) | |
| | ) | |
| Defendants. | ) | |
| _____ | ) | |

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**MEMORANDUM AND ORDER**

In these consolidated cases, plaintiff Sprint Communications Company, L.P. ("Sprint") has brought patent infringement claims against various defendants. The parties have submitted their written arguments concerning the construction of various terms found in the relevant patents' claims, and the Court construes those terms as set forth herein.[1]

## I. Background

Sprint, a telecommunications company, holds various patents relating to technology employing packet networks to carry telephone calls that initiate or terminate on the Public Switched Telephone Network (PSTN). Defendants provide Voice over Internet Protocol (VoIP) services to local cable companies. Sprint alleges that defendants' VoIP technology infringes 12 of its patents, which the parties have addressed as divided into four groups. Group 1 includes United States Patent Nos. 6,452,932 ("the '932 Patent"), 6,463,052 ("the '052 Patent"), 6,633,561 ("the '3,561 Patent"), and 7,286,561 ("the '6,561 Patent"). Group 2 includes United States Patent Nos. 6,473,429 ("the '429 Patent"), 6,343,084 ("the '084 Patent"), and 6,298,064 ("the '064 Patent"). Group 3 includes United States Patent Nos. 6,330,224 ("the '224 Patent")

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[1]Because the Court has determined that the issues may be resolved on the basis of the parties' written submissions, the Court denies defendants' request for oral argument.

and 6,697,340 ("the '340 Patent"). Group 4 includes United States Patent Nos. 6,262,992 ("the '992 Patent"), 6,563,918 ("the '918 Patent"), and 6,639,912 ("the '912 Patent").

Many of these same patents were at issue in previous cases brought in this Court by Sprint against Vonage Holdings Corporation and Vonage America, Inc. (collectively "Vonage") and against Big River Telephone Company ("Big River"). The Court construed various terms from the claims of the patents at issue in those cases (hereafter referred to as the *Vonage* case and the *Big River* case) in three written opinions. *See Sprint Comm. Co. L.P. v. Vonage Holdings Corp.*, 500 F. Supp. 2d 1290 (D. Kan. 2007); *Sprint Comm. Co. L.P. v. Vonage Holdings Corp.*, 518 F. Supp. 2d 1306 (D. Kan. 2007); *Sprint Comm. Co. L.P. v. Big River Tel. Co., LLC*, 2009 WL 1992537 (D. Kan. July 8, 2009). Those opinions contain additional information concerning the patents and technology at issue and their history. Moreover, in the *Vonage* and *Big River* opinions, the Court construed many patent terms that are also in dispute in the present case.

## II.    Claim Construction Standards

Claim construction is governed by the methodology set forth by the Federal Circuit Court of Appeals in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). It is a bedrock principle of patent law that the claims of the patent define the patentee's invention. *Id.* at 1312. Thus, claim construction begins with the words of the claim itself. *Id.* The words of a claim should be given their ordinary and customary

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meaning as understood by a person of ordinary skill in the art in question at the time of the invention. *Id.* at 1312-13. "[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms." *Id.* at 1314. Both "the context in which a term is used in the asserted claim" and the "[o]ther claims of the patent in question" are useful for understanding the ordinary meaning. *Id.*

The claims do not stand alone, but are part of "a fully integrated written instrument." *Id.* at 1315. Therefore, they "must be read in view of the specification, of which they are a part." *Id.* (quotation omitted). In fact, the specification is "the single best guide to the meaning of a disputed term" and is often dispositive. *Id.* The specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess, in which case the inventor's lexicography governs. *Id.* at 1316. In other cases, it may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor; in that case, "the inventor has dictated the correct claim scope, and the inventor's invention, as expressed in the specification, is regarded as dispositive." *Id.* The fact that the specification includes limited and specific embodiments is insufficient to define a term implicitly, and it is improper to confine the scope of the claims to the embodiments of the specification. *Id.* at 1323. "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316 (quotation omitted).

Moreover, the court must be careful not to import limitations from the

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specification into the claim. *Id.* at 1323. In walking the "fine line" between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim, the court must "focus . . . on understanding how a person of ordinary skill in the art would understand the claim terms." *Id.* The purposes of the specification are to teach and enable those of skill in the art to make and use the invention and to provide a best mode for doing so. *Id.* Reading the specification in context should reveal whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the claims and the embodiments in the specification to be strictly coextensive. *Id.* Thus, the court's task is to determine "whether a person of skill in the art would understand the embodiments to define the outer limits of the claim term or merely to be exemplary in nature." *Id.*

The court should also consult the patent's prosecution history, if in evidence. *Id.* at 1317. Like the specification, the prosecution history "provides evidence of how the PTO [Patent and Trademark Office] and the inventor understood the patent." *Id.* "Yet because the prosecution represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.*

Finally, the court may consult extrinsic evidence such as expert and inventor testimony, dictionaries, and learned treatises. *Id.* These have all been recognized as tools that can assist the court in determining the meaning of particular terminology. *Id.*

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at 1318. Extrinsic evidence may be helpful to the court in understanding the technology or educating itself about the invention. *Id.* In particular, because technical dictionaries collect accepted meanings for terms in various scientific and technical fields, they can be useful in claim construction by providing the court with a better understanding of the underlying technology and the way in which one skilled in the art might use the claim terms. *Id.* at 1318. "However, conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court." *Id.* Extrinsic evidence is less reliable than intrinsic evidence in determining the construction of claim terms, and therefore the court should discount any expert evidence that is at odds with the intrinsic evidence. *Id.*

With respect to a number of patent terms at issue here, defendants do not rely on any particular language from the patent claims to support their construction, but instead argue that the relevant specification "repeatedly and consistently" describes (and limits) the claimed invention in a particular way consistent with their urged construction. Defendants rely specifically on the Federal Circuit's opinion in *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340 (Fed. Cir. 2004), in which the court relied for its construction on the fact that the specification "repeatedly and consistently" described the overall invention—and not merely a preferred embodiment—in a particular way. *See id.* at 1347-48; *see also Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1398 (Fed. Cir. 2008) ("repeated" use of the phrase "the present invention" described the invention as a whole; specification "consistently" described the invention in a particular way);

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*Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1324 (Fed. Cir. 2008) (reading claim in light of specification's consistent emphasis on a fundamental feature of the invention); *Honeywell Int'l v. ITT Indus.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) (description did not refer merely to a preferred embodiment, but shows that the scope of the relevant claim is limited); *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004) ("Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term.").

### III.    Construction of Disputed Terms

#### A.    *"Processing System"*

The parties dispute the construction of the term "processing system," which may be found in claims 1 and 24 of the '3,561 Patent, claim 1 of the '052 Patent, claim 1 of the '932 Patent, and claim 11 of the '6,561 Patent (Group 1); claim 1 of the '429 Patent and claim 1 of the '064 Patent (Group 2); and claim 1 of the '224 Patent (Group 3). Sprint contends that this term does not require further construction. Defendants contend that this term as used in the Group 1 patents is impermissibly indefinite. In the alternative, defendants propose a construction that would limit the claimed "processing system" to the communication control processor ("CCP") disclosed in the patents' specification. With respect to the Group 2 and Group 3 patents, defendants propose constructions that would limit the claimed "processing system" to the call connection

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manager ("CCM") disclosed in those patents' specifications. In the *Vonage* and *Big River* cases, the Court rejected the defendants' proposed limitations and declined to construe the term as used in the Group 1 and Group 2 patents at issue in those cases. *See Vonage*, 518 F. Supp. 2d at 1315-17; *Big River*, 2009 WL 1992537, at *16-17.

### 1.      APPLICATION OF SECTION 112(f)

With respect to this term and a number of other disputed terms, defendants argue that the relevant patent claims should be construed to include "means-plus-function" limitations in accordance with 35 U.S.C. § 112(f). Section 112(f) provides as follows:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

*Id.* Defendants concede that there is a presumption against applying Section 112(f) in this case because the claims do not use the phrase "means for," but they argue that the presumption should be overcome here because the claims speak only in terms of function and do not include a definite structure. *See Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1213-14 (Fed. Cir. 1998). Defendants further argue that the corresponding structures from the patent specifications are the CCP and the CCM, and that those structures are impermissibly indefinite because they are described only as the equivalent of general purpose computers without disclosure of the necessary programming or algorithms. *See Aristocrat Tech. Australia Pty Ltd. v. International Game Tech.*, 521 F.3d 1328, 1337-38 (Fed. Cir. 2008). In the alternative, if the CCP and the CCM are

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deemed to be sufficiently definite structures, defendants argue that "processing system" should be defined as the disclosed CCP or CCM pursuant to Section 112(f).

The Court rejects defendants' arguments based on Section 112(f). Sprint notes, and defendants do not dispute, that the relevant patent claims at issue here are method claims, not apparatus claims. The Federal Circuit has made clear that Section 112(f) may also apply to method claims; but the court has distinguished the provision's application to apparatus claims ("means" without recital of "structure" or "material") from its application to method claims ("step[s]" without recital of "acts"). *See O.I. Corp. v. Tekmar Co., Inc.*, 115 F.3d 1576, 1582-83 (Fed. Cir. 1997) (citing 35 U.S.C. § 112, ¶ 6, which was later renamed as Section 112(f)). Thus, in the case of a method claim, Section 112(f) "is implicated only when steps *plus function* without acts are present." *See id.* at 1583 (emphasis in original). Defendants have not offered any analysis under that standard or otherwise shown how the method claims here fail to recite any acts in support of the claimed steps.[2] Accordingly, defendants have not shown that the presumption against the application of Section 112(f) in this case should be deemed overcome, and the Court declines to apply that provision here with respect to any of the claims or terms at issue.

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[2]Sprint raised this distinction is its rebuttal brief in response to the arguments based on Section 112(f) in defendants' initial claim construction brief. In their subsequent supplemental briefs, however, defendants continued to make arguments under Section 112(f) without addressing this distinction between method claims and apparatus claims.

## 2.     INDEFINITENESS

Pursuant to 35 U.S.C. § 112(b), patent claims must "distinctly" claim the subject

matter of the invention. *See id.* Defendants argue that the term "processing system" and

other disputed terms are impermissibly indefinite in violation of Section 112(b). Patents

are "presumed valid," and "[t]he burden of establishing invalidity of a patent or any

claim thereof shall rest on the party asserting such invalidity." 35 U.S.C. § 282. An

invalidity defense must be proved by clear and convincing evidence. *See Mircosoft*

*Corp. v. i4i Ltd. Partnership*, 131 S. Ct. 2238 (2011); *see also Nautilus, Inc. v. Biosig*

*Instruments, Inc.*, 134 S. Ct. 2120, 2130 n.10 (2014) (noting presumption of validity and

citing the Court's clear-and-convincing standard from *Microsoft* in the context of

indefiniteness). Indefiniteness is to be evaluated from the perspective of one skilled in

the relevant art at the time the patent was filed, and claims are to be read in light of the

patent's specification and prosecution history. *See Nautilus*, 134 S. Ct. at 2128.

In *Nautilus*, the Supreme Court recently rejected the Federal Circuit's "insolubly

ambiguous" standard for indefiniteness under Section 112(b). The Court discussed the

competing concerns in setting the proper standard as follows:

> Section 112, we have said, entails a delicate balance. On the one
> hand, the definiteness requirement must take into account the inherent
> limitations of language. Some modicum of uncertainty, the Court has
> recognized, is the price of ensuring the appropriate incentives for
> innovation. One must bear in mind, moreover, that patents are not
> addressed to lawyers, or even to the public generally, but rather to those
> skilled in the relevant art.
>
> At the same time, a patent must be precise enough to afford clear

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notice of what is claimed, thereby apprising the public of what is still open to them. Otherwise there would be a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims. And absent a meaningful definiteness check, we are told, patent applicants face powerful incentives to inject ambiguity into their claims. Eliminating that temptation is in order, and the patent drafter is in the best position to resolve the ambiguity in patent claims.

*See id.* at 2128-29 (footnotes and internal citations and quotations omitted). The Court

announced the following standard to reconcile those concerns:

Cognizant of the competing concerns, we read [Section 112(b)] to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is unattainable.

*See id.* at 2129.

Defendants argue that the term "processing system" is indefinite under the

*Nautilus* standard of reasonable certainty. The parties agree that claim 1 from the '3,561

Patent is representative of the use of this term in the patents; that claim reads as follows:

1. A method of operating a processing system to control a packet communication system for a user communication, the method comprising:
   receiving a signaling message for the user communication from a narrowband communication system into the processing system;
   processing the signaling message to select a network code that identifies a network element to provide egress from the packet communication system for the user communication;
   generating a control message indicating the network code;
   transferring the control message from the processing system to the packet communication system;
   receiving the user communication in the packet communication system and using the network code to route the user communication through the packet communication system to the network element; and

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> transferring the user communication from the network element to
> provide egress from the packet communication system.

Essentially, defendants argue that "processing system" is indefinite because it merely

defines that structure by reference to its functions—that is, by reference to what it *does*

and not to what it *is*. Defendants note that the patent does not disclose the programming

or algorithm for the processing system. Defendants have not cited to any authority (other

than cases involving Section 112(f), which does not apply here), however, that would

support the argument that such definition by functional limitation renders a claim

indefinite.[3]

Defendants have also failed to show that any particular patent *claim* (as opposed

to a term) is invalid as indefinite. In construing this same term in *Big River*, this Court

concluded that "the context of the claims makes clear the different features and functions

of the processing system that are actually claimed in the patents." *See Big River*, 2009

WL 1992537, at \*17. Similarly here, the claim is limited by the functions that must be

performed by the processing system, and, again, defendants have not cited any authority

to suggest that such a claim is inherently indefinite. Indeed, method claims are clearly

permissible.

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[3]Defendants cite the case of *Microprocessor Enhancement Corp. v. Texas Instruments Inc.*, 520 F.3d 1367 (Fed. Cir. 2008), but that case does not support defendants' argument. In *Microprocessor*, the court distinguished a case involving an ambiguity about whether an apparatus or a method was claimed in the patent, and it found that a claim that was clearly a method claim was not indefinite. *See id.* at 1374-75. Similarly, in the present case defendants do not dispute that the claims at issue are method claims.

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Nor have defendants shown that the term "processing system" would not have been understood by one skilled in the relevant art. Sprint's expert has opined that the term would have been understood in the telecommunications context to mean a system that processes signaling to assist in call control, and he has cited various other patents that have used the term in this field. Defendants' expert complains that he has not been told how to program the processing system, but he concedes that the phrase must refer to some kind of computer to perform the tasks described in the patent. He also notes that the system in the patents cited by Sprint's expert had different limitations, but those differences do not undermine the basic idea that the term "processing system," by itself, would refer to a system of processing signals in specified ways. Moreover, defendants' expert has not explained how the particular patent *claims* containing this term are indefinite such that the scope of the claim could not be reasonably determined.

Finally, defendants also complain that the patents do not explain how one could have a device that performs all of the functions listed in the claims but that is *not* a processing system and thus does not infringe. Defendants have not cited any authority, however, requiring that the patent teach the public how *not* to infringe.[4] *Nautilus* only requires that "a patent be precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them." *See Nautilus*, 134 S. Ct. at 2129 (citation and internal quotation omitted). "Processing system" has an ordinary

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[4]Defendants have not raised an enablement objection in this context of claim construction.

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meaning that may easily be understood, and the claims provide notice that such a system

may infringe if it performs certain functions as set forth in those claims. Thus, the public

has been given reasonable notice of what has been claimed—and therefore, of what has

not been claimed.

For these reasons, the Court concludes that defendants have not met their burden

to show, by clear and convincing evidence, that claims containing the term "processing

system" are invalid as indefinite.

### 3. CONSTRUCTION UNDER *Microsoft*

With respect to the Group 1 patents, defendants propose construing "processing

system" to mean a CCP, with an additional limiting definition of a CCP. Defendants do

not contend that "processing system" is defined in the specification or elsewhere as a

CCP; rather, defendants argue, pursuant to *Microsoft Corp. v. Multi-Tech Sys., Inc.*, that

the specification repeatedly and consistently describes the invention as including a CCP.

The Court rejects this attempt by defendants to import such a limitation into the

patent claims. In support of this argument, defendants cite a number of large excerpts

from the specification that refer to and discuss the operation of a CCP. The specification

is consistent, however, in discussing the CCP as an element of particular embodiments

of the invention. Defendants have not pointed to any specific language in the

specification indicating that the overall invention (and not merely an embodiment)

involves the use of a CCP. Moreover, as Sprint notes, the specification does contain the

following language:

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The CCP is *a* processing system, and as such, those skilled in the art are aware that *such systems* can be housed in a single device or distributed among several devices. Additionally, multiple devices with overlapping capabilities might be desired for purposes of redundancy. *The present invention encompasses these variations.*

('3,561 Patent, at 13:40-45 (emphasis added).) This language undermines any argument that the specification consistently refers to the entire invention as including a CCP and not other types of processing systems. Finally, neither the claims nor the specification defines "processing system" to be a CCP or contains similarly limiting language, and there is no express disavowal of claim scope. Accordingly, the Court rejects defendants' proposed construction under *Microsoft*.[5]

Similarly, with respect to the Group 2 and Group 3 patents, defendants propose construing "processing system" pursuant to *Microsoft* to mean a CCM, with additional limiting definitions or descriptions of a CCM. For the same reasons, the Court rejects such a construction. The specifications for those patents consistently refer to the CCM in discussing particular embodiments. Defendants cite only a few excerpts from the specifications in support of their argument, and none of those excerpts contains language suggesting that the entire invention involves a CCM. Accordingly, the Court concludes that the specifications do not repeatedly and consistently refer to the inventions as

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[5]Defendants also take issue with some of the reasoning by the Court in construing this term and addressing other proposed limitations in *Big River*. Defendants have not explained, however, how those particular objections support their position under *Microsoft* that the specification repeatedly and consistently describes the invention as including a CCP, and the Court therefore sees no need to defend its prior reasoning.

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involving a CCM.

### 4. CONCLUSION

With respect to the term "processing system," defendants have not shown that Section 112(f) applies or that the claims containing that term are impermissibly indefinite. Nor does the Court agree that limitations of that term are warranted under *Microsoft*. Defendants have not otherwise explained why the term "processing system" cannot be understood by jurors in accordance with its plain meaning. Therefore, as it did in *Vonage* and *Big River*, the Court declines to construe the term "processing system" as used in these patents.

### B. *"Communication Path"*

The parties dispute the construction of the term "communication path" found in claim 4 of the '052 Patent (Group 1). Sprint argues that no construction is necessary. Defendants argue that the term should be defined to mean *the combination of connections and network elements over which all user communication for a call is transferred*.

In support of their construction, defendants first quote the Group 1 specification's statement that "[a] communications path is the combination of connections and network elements that physically transfers the information between points." ('3,561 Patent at 5:16-18.) Defendants would then alter that statement essentially by changing "information" to "user communication" and by requiring *all* communications for a call

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to be transferred along the particular path. The Court rejects both of those proposed limitations.

In support of the first change, defendants point to language in the specification indicating that user information travels over connections while signaling (another type of information) travels over links. Defendants have not cited any language, however, limiting the information that travels over a communications path to user communications. Nor have they demonstrated that the specification repeatedly and consistently describes the invention or "communication paths" in that manner. The Court concludes that there is no basis to impose this proposed limitation.

In support of the second change, defendants point to their general argument that, in these patents, communication paths are pre-established (prior to the transmission of data) on a call-by-call basis (such that a single path is used for any call). In *Big River*, the Court rejected this same argument and proposed limitation in construing a number of different terms. *See Big River*, 2009 WL 1992537, at *4-5, 8, 9, 16, 19. In arguing for this construction of "communication path," defendants have not addressed that holding and rationale from *Big River*. Accordingly, the Court rejects this argument again for the same reasons expressed in *Big River*.

Finally, defendants have not explained why this term may not stand on its plain meaning. Both "communication" and "path" are readily understood by their plain meaning, and defendants have not shown that this term should have a different meaning when used in this patent claim. Accordingly, the Court declines to construe the term

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"communication path."


### C.      *"Route" and "Routing"*

The parties dispute the construction of the terms "route" and "routing", which may be found in claims 1 and 24 of the '3,561 Patent and claim 11 of the '6,561 Patent (Group 1); claim 1 of the '084 Patent and claim 2 of the '429 Patent (Group 2); claim 11 of the '340 Patent (Group 3); and claim 1 of the '992 Patent and claim 1 of the '912 Patent (Group 4). In both *Vonage* and *Big River*, the Court construed these terms to mean *direct/directing through a communication system by a selected route or in a specified direction*. *See Vonage*, 518 F. Supp. 2d at 1312; *Big River*, 2009 WL 1992537, at \*19. Sprint would construe these terms in the same way in this case. Defendants would construe these terms to mean *direct/directing through a communication system along a communications path pre-selected on a call-by-call basis*.

Defendants again rely on their general argument that the inventions here require a pre-selected path on a call-by-call basis. That argument is based on their expert's opinion that the inventions require the use of a CCP, CCM, or ATM system. The Court has rejected defendants' attempt, however, to limit the inventions to the use of a CCP or a CCM. *See supra* Part III.A. Moreover, as noted above, *see supra* Part III.B, the Court has previously rejected this argument in construing various terms in *Big River*, and defendants have not attempted to show how the Court erred in its reasoning in that case. Accordingly, the Court again rejects defendants' proposed limitation.

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With respect to these specific terms, defendants argue that in *Vonage* and *Big River*, the Court relied solely on dictionary definitions, while its own proposed construction is rooted in the specification. The Court's rejection of this general argument in *Big River* concerning pre-selection and a call-by-call basis, however, was rooted in an analysis of the intrinsic evidence. *See Big River*, 2009 WL 1992537, at *4-5. Moreover, in construing these terms specifically in *Vonage*, the Court noted that the specification did not support a similar argument by Vonage that the term required actual delivery to the final destination. *See Vonage*, 518 F. Supp. 2d at 1312. The Court also noted in *Big River* that its construction was consistent with the intrinsic record. *See Big River*, 2009 WL 1992537, at *19. Finally, the Court rejects defendants' argument that the concept of "direction" is inapt in this context. The Court's construction includes the alternatives of a selected route or a specified direction, and such alternatives adequately convey that the "routing" must be directed and not done aimlessly. *See id.* at *18.

Accordingly, as it did in *Vonage* and *Big River*, the Court construes "route" and "routing" to mean *direct/directing through a communication system by a selected route or in a specified direction*.

### D. *"Network Element"*

The parties dispute the construction of the term "network element," found in claims 1 and 24 of the '3,561 Patent, claim 1 of the '052 Patent, and claim 14 of the '6,561 Patent (Group 1). Sprint contends that no further construction is necessary.

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Defendants propose to construe the term to mean *a telecommunications device which, in operation, forms a part of a communications path*.

In support of their construction, defendants point to the specification's statement that a communications path is typically comprised of a series of connections between network elements. ('3,561 Patent, at 1:32-34.) As defendants concede, however, there may be network elements that are not part of a communications path. Thus, defining "network element" as something found in a communications path would not be accurate in the context of this specification. Defendants nonetheless argue for such a definition because, in the context of these particular patent claims, the "network element" referenced in the claims provides egress for the communication from the system. As Sprint, points out, however, the claims themselves provide that limitation. Thus, there is no need to construe this term to include such a limitation, especially at the cost of a technically-inaccurate definition.

Defendants have not provided an alternative construction, and the Court agrees with Sprint that this term is easily understood by its plain meaning of an element within a network. Accordingly, the Court declines to construe the term "network element."


### E.       *"[Telecommunication] Signaling Message"*

The parties dispute the construction of the terms "signaling message," found in claims 1 and 24 of the '3,561 Patent and claim 11 of the '6,561 Patent (Group 1); and "telecommunication signaling message," found in claim 2 of the '224 Patent (Group 3).

In *Vonage* and *Big River*, the Court construed "signaling message" in various patent claims to mean *a message used to set up or tear down a call*. *See Vonage*, 518 F. Supp. 2d at 1318; *Big River*, 2009 WL 1992537, at \*8 (construing term as used in the '3,561 Patent). Sprint proposes that the Court adopt the same construction for these terms in this case. Defendants propose to construe the terms to mean *a message that is used to establish a communications path on a call by call basis*.

For the same reasons set forth above, the Court again rejects defendants' attempt to limit the invention and the claims to a single path set up on a call-by-call basis. *See supra* Part III.B. Defendants point to the specification's statement that "[s]ignaling is the transfer of information among points and network elements and is used to establish communication paths." ('3,561 Patent, at 5:23-25.) As noted in *Big River*, however, that definition does not limit signaling to a single path for each call. *See Big River*, 2009 WL 1992537, at \*4-5. As noted in the Court's previous opinions, its prior construction is supported by the patents' specifications, and defendants have not explained why that definition is inaccurate for purposes of these claims. The Court also rejects defendants' suggestion that "signaling message" is indefinite under the Court's prior construction, as that construction adequately allows for the scope of the claims to be determined.[6]

Defendants have submitted the same proposed construction for "telecommunication signaling message" as used in the '224 Patent, and for the same

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[6]In their supplemental briefs addressed specifically to the issue of indefiniteness, defendants did not discuss the term "signaling message" as used in the Group 1 patents.

reasons, the Court rejects that construction and instead adopts the same construction as for "signaling message" in the Group 1 patents. In the alternative, defendants argue that this term is indefinite, based primarily on the fact that this term is not used in the '224 Patent's specification. Again, however, defendants have failed to explain how the Court's prior definition of "signaling message" is deficient or how the addition of the word "telecommunication" (the field at issue) alters the meaning of the term. The Court's construction gives sufficient definition to the term to allow the claim's scope to be determined. This patent's specification is consistent with the idea that signaling messages would be those messages used in setting up or tearing down calls, and defendants have not proffered any other construction supported by the intrinsic evidence. Finally, for the reasons set forth in the next section, *see infra* Part III.F, the Court rejects defendants' argument that "telecommunication signaling message" is indefinite because it cannot be distinguished from "control message" in this patent.

Accordingly, the Court construes these terms to mean *a message used to set up or tear down a call*.

### *F.* *"Control Message / Messaging"*

The parties dispute the construction of the terms "control message" and "control messaging" found in claims 1 and 24 of the '3,561 Patent and claim 11 of the '6,561 Patent (Group 1); claim 11 of the '340 Patent (Group 3); and claim 11 of the '918 Patent, claim 1 of the '992 Patent, and claim 1 of the '912 Patent (Group 4). Sprint contends

that no further construction is necessary, while defendants argue that the term is indefinite or propose various constructions, depending on the patents.

### 1.    GROUP 1 PATENTS

Defendants argue that the term "control message" as used in the Group 1 patents is impermissibly indefinite. In the alternative, defendants propose to construe the term to mean *a message that is used to establish a communications path on a call-by-call basis*. As a preliminary matter, the Court rejects the alternative construction for the same reasons stated above for the rejection of such a limitation. *See supra* Part III.B.

In arguing that this term is indefinite, defendants note that the term "control message" is not used in the specification for these patents, and they argue, based on their expert's declaration, that the term has no standard meaning in this field. The term certainly has an easily understood plain meaning, however—a message involved in the control of a call. Moreover, defendants' expert stated that the term's meaning depends on its context, and the Court agrees with Sprint that the requirements of the claims themselves provide sufficient context to inform those skilled in the art about the scope of the claims with reasonable certainty. For instance, the method in claim 1 of the '3,561 Patent includes the steps of generating a control message that indicates a selected network code that identifies a network element to provide egress from the packet communications system; and transferring the control message from one particular system to another. Claim 24 of that patent includes similar steps of generating and transferring a control message. Claim 11 of the '6,561 Patent refers to the transfer and receipt of a

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control message.  The Court concludes that these claims are not indefinite, and that the term "control message" as used in the Group 1 patents need not be construed further.

### 2.    '918 AND '340 PATENTS

Defendants argue that the term "control message" in claim 11 of the '918 Patent and the term "control messaging" in claim 11 of the '340 Patent are indefinite. Defendants rely on the following statement contained in these patents' specifications: "The term 'control message' as used herein means a control or signaling message, a control or signaling instruction, or a control or signaling signal, whether proprietary or standardized, that conveys information from one point to another." ('340 Patent, at 6:63-67; '918 Patent, at 3:67-4:5.)  Defendants argue that, based on that apparent definition, "control message" and "signaling message" appear to be synonymous, but that because both "control" messaging and the concept of signaling are found in the patent claims, they must mean different things—which different meanings are unclear.  *See, e.g.*, *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of any evidence to the contrary, we must presume that the use of . . . different terms in the claims connotes different meanings.").

The Court rejects this argument by defendants.  The claims may refer to particular types of "signaling" or "signaling information," but they do not use the term "signaling message," and thus the Court's construction of that term is not applicable to these patent claims.  Moreover, the most reasonable reading of the statement in the specifications is that "control message" is a broader term than signaling message.  Defendants have not

explained why the plain meaning of "control message" and "control messaging"—a message involved in control of the call—is not sufficiently definite to make the scope of the claims reasonably certain. Nor have defendants provided an alternative construction. As in the case of the Group 1 patents, the language of the particular claims, with their explicit limitations, provides the necessary context.

Accordingly, the Court declines to construe these terms as used in these two patents.

### 3.    '992 PATENT

With respect to claim 1 of the '992 Patent, defendants propose to construe the term "control message" to mean the following: *A message sent by the signaling processor which includes an identifier of a connection to be used for the call. A "connection" is the "transmission media to be used for the call."* Defendants argue that, in order to avoid indefiniteness, the term as used in this patent must be construed to mean the "processor control message" disclosed in the specification, and they purport to provide limitations based on language in the specification.

For the reasons already stated, the Court does not agree that this claim is indefinite if the term "control message" is given its ordinary meaning, as elucidated by the particular requirements of the claim. Defendants cite to language in the specification referring to control messages that designate connections. As Sprint points out, however, the specification also contains language indicating that the signaling processor may *receive* a control message ('992 Patent, at 2:17-20), which undermines defendants'

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definition requiring that the control message be *sent by* the processor. Defendants'

citations generally refer to particular embodiments of the invention, and the Court cannot

conclude that the specification repeatedly and consistently defines "control message" or

the invention generally in a manner consistent with defendants' proposed construction.

Finally, the language of the claim indicates that the control message must indicate the

selected identifier for routing the call; thus, defining "control message" to require an

identifier is unnecessary.

Accordingly, the Court declines to construe this term as used in this patent.

### 4. '912 PATENT

Defendants propose to construe "control message" in claim 1 of the '912 Patent

to mean *a message which identifies an assignment between a DS0 and an ATM VPI/VCI*.

Defendants cite to two places in the specification to support their proposed limitation,

but those descriptions are clearly referring to particular embodiments of the invention.

*See, e.g.*, '912 Patent, at 5:22-25 ("These control messages are *typically* provided . . . .)

(emphasis added). Defendants have not explained why this term as used in this patent

claim should be limited to an application using ATM technology, and the Court cannot

conclude that the specification repeatedly and consistently defines "control message" in

this way. Again, the Court concludes that this term may be understood by its ordinary

meaning within the context and requirements of the particular patent claim, and it

therefore declines to construe the term.

### G. *"Signaling Formatted for a Narrowband System"*

The parties dispute the construction of the term "signaling formatted for a narrowband system," which is found in claim 1 of the '052 Patent (Group 1). Sprint argues that the term should not be construed further. Defendants propose that the term be construed to mean *signaling message in a format that can be processed by a narrowband system*.

Defendants essentially seek to make two changes to this phrase. First, defendants would change "signaling" to "signaling message." Defendants argue that this change is intended to avoid jury confusion because "signaling message" appears in other claims. Defendants have not provided any support for equating "signaling" with "signaling message" in this context, however. Therefore, the Court rejects this proposed addition.

Second, defendants would define "formatted for a narrowband system" to mean "in a format that can be processed by a narrowband system." As Sprint points out, however, the claim makes clear that the signaling is processed by a processing system, not by a narrowband system. Therefore, the Court rejects this construction by defendants as inconsistent with the language of the claim. Defendants have not cited any intrinsic or other evidence in support of their construction.

Defendants suggest that this phrase would be indefinite if their construction is not used, but they have not explained how the claim scope would not be understood. Neither side has addressed what it means for something to be "formatted for" a narrowband system. Indeed, defendants' own construction uses the term "format". In the absence

of any argument addressing that question, the Court declines to construe this phrase at this time.

### H.     *"User Communication"*

The parties dispute the construction of the term "user communication," which may be found in almost all of the patents at issue in this suit.  Sprint contends that no further construction is necessary.  Defendants would construe the term to mean the following: *The voice or data information sent between the caller and the person that was called.  "User communication" does not include signaling or control information*.

First, the Court agrees with Sprint that the reference to a "caller" and a "person . . . called" in defendants' construction is unnecessarily confusing, as such terms might suggest to a jury that user communications include only voice calls and not data transmissions.  Defendants have not explained why the term "user" is unclear or in need of further construction.  Therefore, the Court rejects that part of defendants' proposed construction.

Second, the Court rejects defendants' proposed limitation that "user communication" cannot include signaling or control information.  Although defendants cite various statements in the patents' specifications in which signaling or control information is distinguished from user communications or information, defendants have not cited any support for the argument that those concepts are mutually exclusive, that is, that user communications can never include signaling information.  In fact, as Sprint

points out and as defendants do not dispute, user communications may include, for example, trigger messages that involve signaling and control. Defendants argue that although such messages may be "embedded" in user communications, they are still separate from the communications themselves. Such a distinction would only add confusion for the jury, however. Defendants also argue that most claims in these patents refer both to user communications and to signaling, which must therefore have different meanings. The fact that their meanings differ, however, does not necessarily mean that the scope of the terms cannot intersect. Accordingly, the Court rejects this limitation proposed by defendants.

Sprint does not appear to take issue specifically with defendants' reference to "voice or data information." Defendants have not explained, however, why "communication" in this context requires further construction. The Court concludes that "user communication" is easily understood by its plain and ordinary meaning, in the context of the language and limitations of the particular patent claims. Accordingly, the Court declines to construe this term.

### I. *"Processing . . . to Select"*

The parties dispute the construction of the term "processing . . . to select," found in claim 1 of the '3,561 Patent, claim 1 of the '052 Patent, claim 1 of the '932 Patent, and claim 11 of the '6,561 Patent (Group 1); claim 1 of the '429 Patent and claim 1 of the '064 Patent (Group 2); and claim 1 of the '992 Patent and claim 1 of the '912 Patent

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(Group 4). Sprint proposes construing this term to mean *processing to participate in the selecting*. Defendants propose the following construction for the term: *Processing . . . and making the selection. The selection can be made using information from other sources*.

The Court first considered this term in *Vonage*. At the summary judgment stage, the Court rejected Vonage's argument that the processing system must not only process but must also select a network code; the Court held that the claim did not require that the system actually select the code, and it further held that a question of fact remained because a jury could conclude that the system processed signaling to select the code if it was involved in the selection. *See Vonage*, 500 F. Supp. 2d at 1322-23. Then, at the claim construction stage, Vonage proposed a construction requiring the processing element also to make the selection, while Sprint proposed construing the term to mean "processing to participate in the selection." *See Vonage*, 518 F. Supp. 2d at 1320. Because neither party supported its argument with citation to intrinsic evidence, the Court rejected both parties' arguments and declined to construe the term. *See id.* at 1321. The Court addressed this term again in *Big River*, in which the parties proposed the same constructions rejected in *Vonage*. *See Big River*, 2009 WL 1992537, at \*17-18. The Court rejected the construction offered by Big River, as that party had again failed to support its construction sufficiently. *See id.* at \*18. The Court then noted that the particular specification at issue did make clear that information from other elements may be used in selection, and it reaffirmed its conclusion from *Vonage* that the claim

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language did not require that the processing system actually select the element. *See id.*

The Court further concluded that "the scope of the claims might be ambiguous on this issue, to the extent that someone might believe that the selection must be made without help from any other network element." *See id.* For that reason, the Court adopted Sprint's construction and construed the term "process[ing] . . . to select" to mean *process[ing] . . . to participate in the selecting. See id.*

Like Vonage and Big River before them, defendants argue that the element that does the processing (such as the processing system) must also do the selecting. Defendants argue that, although information from other sources may be considered, the processing element actually makes the decision about the selection. Defendants cite to a couple of examples from one specification in support of their argument, but those examples relate to particular embodiments, and defendants have not shown that the inventions are repeatedly and consistently described as having the processing element actually make the selection. Defendants also analogize the situation to one in which the President makes decisions with input from advisors, but that analogy is not necessarily apt—these inventions might act more like a committee than a President with advisors, and the specifications do definitively choose one model over the other. Moreover, a human scenario seems to be a questionable model for understanding how decisions are made mechanically or electronically, and neither party has pointed to evidence concerning how decisions are physically made within this technology. At any rate, the claims themselves do not require that the processing element also make the selection, but

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instead require only "processing . . . to select," and in the absence of sufficient evidence

from the specifications, the Court will honor that distinction.

Accordingly, the Court will follow its construction from *Vonage* and *Big River*,

and it construes "processing . . . to select" in these patents to mean *processing . . . to*

*participate in the selecting*.


### J.      *"Interworking Unit"*

The parties dispute the construction of the term "interworking unit," which is

found in claim 1 of the '084 Patent, claim 1 of the '429 Patent, and claim 1 of the '064

Patent (Group 2); claim 1 of the '224 Patent (Group 3); and claim 1 of the '992 Patent

and claim 11 of the '918 Patent (Group 4).  Defendants argue that the Court should

reaffirm its construction from *Vonage* and *Big River*, in which the Court interpreted this

term as used in the family of Group 2 patents to mean *ATM interworking multiplexer*.

*See Vonage*, 500 F. Supp. 2d at 1314-18; *Big River*, 2009 WL 1992537, at *11-13.

Sprint proposes to construe the term to mean *a device that translates between*

*narrowband and packet formats*.

This dispute boils down to whether the claimed interworking unit should be

limited to ATM (Asynchronous Transfer Mode) technology.  In *Vonage* and *Big River*,

the Court agreed with those defendants that "interworking device" and "interworking

unit" should be so limited because the Group 2 specification repeatedly and consistently

describes the invention (and not merely particular embodiments) as involving an ATM

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interworking multiplexer. *See Vonage*, 500 F. Supp. 2d at 1314-18; *Big River*, 2009 WL 1992537, at \*11-13. Sprint argues that the Court should reconsider that decision.

First, Sprint argues that a different result is warranted by consideration of the Federal Circuit's opinion in *Thorner v. Sony Computer Entertainment America LLC*, 669 F.3d 1362 (Fed. Cir. 2012). In particular, Sprint relies on the following standard set forth by the court in *Thorner*:

> The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution. *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996).

*Thorner*, 669 F.3d at 1365. Sprint argues that in the Group 2 specification the patentee neither defined this term as limited to an ATM multiplexer nor disavowed a broader claim scope. In essence, Sprint argues that application of the "repeatedly and consistently" standard from *Microsoft* is no longer proper after *Thorner*.

The Court does not agree that *Thorner* impliedly abrogated or otherwise cast doubt upon the *Microsoft* standard. The case on which *Thorner* relied in setting forth its two exceptions, *Vitronics*, preceded *Microsoft*. Moreover, in *Thorner*, the Federal Circuit did not state or suggest that it was altering or abandoning any of its previously-stated claim construction principles or standards; nor has Sprint pointed to any case after *Microsoft* casting doubt on the validity of the standard applied therein. In fact, in

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discussing the first exception, the court in *Thorner* cited its opinion in *C.R. Bard*, which

this Court cited in *Big River* as supporting the *Microsoft* standard. *See Thorner*, 669

F.3d at 1365-66 (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed.

Cir. 2004)); *see also C.R. Bard*, 388 F.3d at 864 ("Statements that describe the invention

as a whole, rather than statements that describe only preferred embodiments, are more

likely to support a limiting definition of a claim term."); *Big River*, 2009 WL 1992537,

at *3 (citing *C.R. Bard*). In discussing the second exception, the *Thorner* court cited as

an example of a disavowal of claim scope a case in which the specification "repeatedly

described" the invention in a certain way. *See Thorner*, 669 F.3d at 1366 (citing *SciMed*

*Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1342 (Fed. Cir.

2001)). Finally, only last year, the Federal Circuit, while applying standards from

*Thorner*, concluded that a patentee had, "without express redefinition, disclaimed a

potential embodiment from the ordinary scope of a claim term through clear, repeated,

and consistent statements in the specification." *See SkinMedica, Inc. v. Histogen Inc.*,

727 F.3d 1187, 1203 (Fed. Cir. 2013). There is little doubt, then, that Federal Circuit

law still allows for the scope of a claim to be limited by the specification's clear,

repeated, and consistent description of the invention in a certain way.

As set forth in *Vonage* and as reaffirmed in *Big River* after another review, the

Group 2 specification, and in particular its summary of the invention, describes the

invention as limited to the use of an ATM interworking multiplexer. Sprint repeats its

prior arguments based on claim differentiation and the use of the term "mux" in the

specification, but the Court rejects those argument for the same reasons set forth in *Big River*. *See Big River*, 2009 WL 1992537, at \*12-13. Sprint also argues that the Group 2 specification incorporates the Group 1 patent specification, in which the interworking unit is described more broadly. The Group 2 patents involve a different invention than that described in the Group 1 patents, however, and that incorporation by reference does not alter the fact that the Group 2 specification makes clear that the invention includes the use of an ATM multiplexer. Finally, Sprint argues that words from the specification such as "includes" and "comprises", which the Court cited in its previous opinions, are permissive and thus do not connote that the interworking unit can *only* be an ATM multiplexer. As defendants point out, however, those words do indicate that an ATM multiplexer must be involved, whatever other elements are also used. The specification did *not* state that the invention *could* or *may* include an ATM interplexer. Thus, the Court is not persuaded that its prior analysis was faulty. For these reasons, the Court again construes this term in the Group 2 patents to mean *ATM interworking multiplexer*.

The Court then turns to the Group 3 and Group 4 patents in which this term is found. The Court concludes that the specifications for the '224 Patent, the '992 Patent, and the '918 Patent do clearly, repeatedly, and consistently describe their inventions as involving the use of the ATM format, particularly in the specifications' abstracts and summaries. For instance, in the '224 Patent specification, the abstract begins as follows: "A system and method provide enhanced services for a call that is transported from a communication device through an asynchronous transfer mode system." ('224 Patent,

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at Abstract.)  The same specification's summary describes the invention as involving

ATM technology in multiple places, and begins as follows: "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, at 1:26-28.)  The summary in

the '992 Patent's specification begins as follows:  "The present invention is directed to

a telecommunication system for transporting a call through an asynchronous transfer

mode system."  ('992 Patent, at 1:58-60.)  In the specification for the '918 Patent, the

statement of the Field of Invention refers to the field of "telecommunications call

switching and transport in a system that provides asynchronous transfer mode

connections."  ('918 Patent, at 1:18-21.)  Sprint cites to a couple of instances in the

descriptions of embodiments in the '224 Patent and the '992 Patent that contain

references to other types of formats; the Court agrees with defendants, however, that it

is not clear in those references whether the patentee intended that the invention could

include entirely non-ATM elements.   Those references do not alter the Court's

conclusion that one skilled in the relevant art would read these patents' specifications to

mean that the inventions themselves (and not merely embodiments thereof) include the

use of ATM technology.   Accordingly, the Court also the construes the term

"interworking unit" as used in these three patents to mean *ATM interworking

multiplexer*.


    K.  *"Identifier"*

The parties dispute the construction of the term "identifier" in claim 1 of the '084 Patent and claim 1 of the '429 Patent (Group 2). In *Vonage* and *Big River*, the Court construed this term in a Group 2 patent to mean *data for routing information in a packet network*. *See Vonage*, 500 F. Supp. 2d at 1312-14; *Big River*, 2009 WL 1992537, at *13-14. Sprint proposes the same construction here, with the addition of the word "user" before "information". Defendants propose to construe the term to mean *identifier of an ATM virtual connection*.

In *Vonage*, the Court rejected the defendant's proposed limitation of this term to a VPI/VCI combination on the basis that the specification's references to such combinations were exemplary only. *See Vonage*, 500 F. Supp. 2d at 1312-14. In *Big River*, the Court rejected the defendant's attempt to limit this term to pre-provisioned virtual connections. *See Big River*, 2009 WL 1992537, at *13-14. The Court also rejected the defendant's attempt to limit the term to the use of virtual connections generally, reasoning as follows:

> With respect to [this] concept, Sprint does not dispute that virtual connections are used, a point confirmed by the summary of the specification. Big River has not explained, however, why the use of virtual connections in general should be included in this construction of "identifier". The use of virtual connections as a feature of ATM technology can be easily explained to the jury at trial. Therefore, the Court declines to incorporate that feature into the construction of this term.

*See id.* at *14.

The Court does not see a reason to alter its conclusion in *Big River* concerning the need for the construction of "identifier" to include a reference to virtual connections.

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Based on the Court's construction of "interworking unit," these claims are limited to the use of ATM technology, and there is no basis to repeat that limitation by grafting it onto this particular term—as defendants point out, the term "identifier" is generally absent from the specification. Accordingly, the Court rejects defendants' proposed construction.

Defendants argue that the Court's prior construction is without basis, but as the Court explained in *Vonage*, its construction was based on the claim language itself and represents a fair and accurate construction. *See Vonage*, 500 F. Supp. 2d at 1314. Defendants have not explained why that construction is inaccurate. Moreover, Sprint has not explained why its proposed addition to the Court's prior construction is appropriate or necessary. Accordingly, the Court again construes this term to mean *data for routing information in a packet network.*

### L. *"Communication System"*

The parties dispute the construction of the term "communication system," which is found in claim 11 of the '6,561 Patent (Group 1); claim 1 of the '224 Patent and claim 11 of the '340 Patent (Group 3); and claim 1 of the '992 Patent, claim 11 of the '918 Patent, and claim 1 of the '912 Patent (Group 4). Sprint proposes to construe the term in each case to mean *a plurality of network elements and connections forming a network to transfer information.* Defendants argue that the term is indefinite as used in the '6,561 Patent, and they offer various constructions for the other patents that would limit the

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term to ATM technology. In *Vonage* and *Big River*, the Court adopted the construction

urged by Sprint here, but in those cases, the defendants agreed to that portion of the

construction, and thus the Court did not offer any analysis to support that construction

(other than in rejecting defendants' additional limitations). *See Vonage*, 518 F. Supp.

2d at 1315; *Big River*, 2009 WL 1992537, at *4-6.

With respect to the '6,561 Patent, defendants argue that this term is indefinite

under Section 112(f) because there is no corresponding structure to perform the functions

set forth in the claim. For the same reasons set forth above, *see supra* Part III.A.1,

defendants have not shown that that section applies to these method claims, and the

Court therefore rejects defendants' arguments under that section.

Defendants also suggest that this term is otherwise indefinite under Section

112(b). The Court rejects that argument as well, for the reasons stated above with

respect to the term "processing system." *See supra* Part III.A.2. Defendants concede

that this term has an ordinary meaning, and they have failed to explain why this *claim*

does not have a reasonably certain scope in light of that ordinary meaning as limited by

the requirements of the claim. Nor have defendants cited any authority outside the

context of Section 112(f) that indicates that a term (as opposed to a claim) is indefinite

if there is not sufficient structure described in the specification.

With respect to the Group 3 and Group 4 patents, defendants appear to argue,

based on Section 112(f), that this term must be further defined, by reference to the

specification, in order to connote structure. Again, the Court has concluded that Section

112(f) does not apply here. In proposing constructions for this term as used in these patents, defendants have offered various limitations involving ATM technology, but defendants have not offered any argument under *Microsoft* that repeated and consistent descriptions of the inventions in these patents support these limitations. Nor have defendants pointed to any language in the specifications specifically defining "communication system" in accordance with their proposed constructions. Accordingly, the Court rejects defendants' proposed constructions.

Sprint argues that the Court should simply adopt its prior construction, but as noted above, that construction was essentially unopposed in the prior cases. Sprint supports its construction by pointing to the various functions contained in the claims. Sprint also cites a couple of places in the specifications, but those excerpts did not define "communication system." Most importantly, Sprint has not explained why the term requires further construction, or why the term cannot be understood consistent with its ordinary meaning. For these reasons, the Court declines to construe this term in any of these patents.

### *M.     "Narrowband [Communication] System"*

The parties dispute the construction of the term "narrowband communication system" found in claims 1 and 24 of the '3,561 Patent (Group 1), and the term "narrowband system" found in claim 1 of the '052 Patent (Group 1). Sprint argues that the terms need no further construction. Defendants propose construing the terms to

mean *a local exchange carrier (LEC) switch*.

For the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects defendants' arguments that Section 112(f) requires that this term be construed as they propose, and that a particular structure is required even absent application of Section 112(f) in order to avoid indefiniteness. Accordingly, the Court rejects defendants' proposed constructions.

Defendants also appear to take issue with the term "narrowband". Defendants' expert states that "narrowband communication system" and "narrowband system" are imprecise and have relative meanings that change "as technology changes resulting in faster connection speeds." The relevant inquiry, however, is a term's meaning as understood by a person skilled in the art *at the time of the invention*. *See Phillips*, 415 F.3d at 1312-13. Sprint's expert states that these terms were understood by those skilled in the art at that time, and defendants' expert has not disputed that particular fact. Neither side has proposed a definition of the term "narrowband". Accordingly, the Court declines to construe these terms.

## N. *"Packet [Communication] System"*

The parties dispute the construction of the term "packet communication system" found in claims 1 and 24 of the '3,561 Patent and claim 1 of the '052 Patent (Group 1), and the term "packet system" found in claim 11 of the '6,561 Patent (Group 1). Sprint argues that the terms need no further construction. Defendants argue that the terms are

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indefinite.

For the same reasons set forth above, *see supra* Part III.A.1, the Court rejects defendants' arguments that these terms are indefinite under Section 112(f). Defendants' expert also states that the term "packet communication system" has a variety of meanings depending on the context, but he does not take issue with the statement by Sprint's expert that one skilled in the art would understand this term in this context, except to challenge its application to a particular embodiment. At any rate, defendants have not shown by clear and convincing evidence that these claims are invalid as indefinite.

In *Big River*, the Court declined to construe further the term "packet communication system" as used in patents in the Group 1 family because Big River had not explained why the modifier "packet" required further definition. Similarly here, defendants have not explained why "packet" should be not be interpreted according to its usual meaning in the art in the context of these claims; nor have defendants offered their own construction of that term. Accordingly, the Court declines to construe these terms.

### *O.* *"Asynchronous Communication System"*

The parties dispute the construction of the term "asynchronous communication system" found in claim 1 of the '932 Patent (Group 1). Sprint argues that the term needs no further construction. Defendants propose construing the term to mean *an ATM*

*network.*

In support of their construction, defendants again appear to argue that a corresponding structure must be identified from the specification. For the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects such an argument, whether based on Section 112(f) or Section 112(b).

In *Vonage*, the Court declined to construe "asynchronous communication" as used in a patent in the Group 1 family to mean "ATM communication," based on the fact that one skilled in the art would understand such a communication to be one in which the transmitting and receiving devices do not share a common clock. *See Vonage*, 500 F. Supp. 2d at 1318-19. In *Big River*, the Court referenced that construction from *Vonage* and the acceptance of "asynchronous" as a term of art understood in this field in declining to construe further the term "asynchronous communication system." *See Big River*, 2009 WL 1992537, at \*7. Defendants cite to their expert's statement that the term "asynchronous communications system" was not well known in the art, although they concede that "asynchronous" has a plain and ordinary meaning. Defendants have not explained how the Court erred in *Big River*, however, or attempted to explain why "asynchronous" should not be given its plain meaning in modifying "communication system," or why the entire term should be construed differently in this context from the ordinary meaning. Accordingly, as in *Big River*, the Court declines to construe this term.

> P. *"Device"*

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The parties dispute the construction of the term "device" found in claim 1 of the '052 Patent (Group 1). Sprint argues that the term needs no further construction. Defendants argue that the term is indefinite for lack of a corresponding structure in the specification, but for the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects that argument.

Defendants concede that "device" has a plain and ordinary meaning, and defendants have not proposed a different construction or explained why the term should be interpreted other that in accord with that plain meaning. Thus, the Court declines to construe this term.

### Q. *"Routing System"*

The parties dispute the construction of the term "routing system" found in claim 2 of the '429 Patent (Group 2). Sprint argues that the term needs no further construction. Defendants argue that the term is indefinite for lack of a corresponding structure in the specification, but for the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects that argument. In light of the Court's construction in the same patent claim of the term "routing", *see supra* Part III.C, the Court declines to construe further the term "routing system."

### R. *"Service Node"*

The parties dispute the construction of the term "service node" found in claim 1

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of the '224 Patent (Group 3). Sprint argues that the term needs no further construction. Defendants argue that the term is indefinite for lack of a corresponding structure in the specification, but for the same reasons set forth above, *see supra* Part III.A.1-2, the Court rejects that argument. Again, the fact that this term is described in this method claim in terms of what it *does* instead of what it *is* does not render the claim indefinite. *See supra* Part III.A.2.

Defendants complain that the specification does not adequately distinguish "service node" from "service platform," but the relevance of that argument is unclear, as "service platform" is not a term found in this claim. Moreover, as defendants concede, the specification refers to "a service node in a service platform" ('224 Patent, at 5:67), and the Court does not agree that other excerpts from the specification suggest that the two terms may be synonymous. Defendants' expert states that this term does not have an accepted meaning in the field, but Sprint's expert disagrees and cites a number of other contemporary patents in this field using the term.

The method of the claim includes selecting a service node to provide a service and transmitting a message and a user communication to the service node. Thus, as noted by Sprint's expert, the service node is used for further call processing to provide a particular service for a call (with examples of such services found in various dependent claims). The Court concludes that defendants have not shown by clear and convincing evidence that the use of the term "service node" renders this claim invalid as indefinite. The Court declines to construe this term.

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### S.        *"Service Platform System"*

The parties dispute the construction of the term "service platform system" found in claim 11 of the '340 Patent (Group 3).  Sprint argues that the term needs no further construction.  Defendants argue that the term is indefinite for lack of a corresponding structure in the specification.  For the same reasons set forth above with respect to "service node," the Court rejects defendants' indefiniteness arguments.  *See supra* Part III.R.  Moreover, as Sprint notes, the specification for this patent contains a long discussion of "service platform systems."  Nor have defendants shown how the claims could be construed in various ways because of the use of this term.  Defendants suggest that this term could refer to an interworking unit, but this claim does not include that term, and defendants have not cited any portion of the specification that supports that argument.

In the event that the Court fails to find this claim indefinite, defendants offer an alternative construction containing various limitations. Defendants have not adequately provided a basis to define this term with those limitations, however, as they have not cited any places in which the specification defines the term in that manner, disavows claim scope, or repeatedly and consistently describes the invention or this term in that manner.  Accordingly, the Court rejects defendants' proposed construction, and it declines to construe this term.

### T.        *"Control System"*

The parties dispute the construction of the term "control system" found in claim 11 of the '918 Patent (Group 4). Sprint contends that no further construction is needed, while defendants argue that the term is indefinite, although both sides offer alternative constructions.

The Court first rejects defendants' argument pursuant to Section 112(f), which has not been shown to apply here. *See supra* Part III.A.1. The Court also rejects defendants' argument under Section 112(b), as defendants have failed to show that this term renders the scope of this claim uncertain.

Sprint argues that no further construction is necessary. Defendants' alternative construction is to construe this term to mean *the disclosed Call Process Control System (CPSC)*, with a lengthy description of the CPSC. The Court agrees with defendants that "control system" as used in this patent claim is synonymous with "call process control system" as used in the specification. "Control system" is not mentioned in the specification other than as a part of the term "call process control system." Moreover, it is clear from the claims and the specification that the invention includes a "call process control system." In independent claims 1 and 11 of this patent, the claimed method include steps in three elements: a control system including control system data tables; a call processor; and an interworking unit. The specification's abstract begins by describing "[a]n architecture for connecting a call [that] comprises a call processor, a signaling interface, a call process control system (CPCS), and an interworking unit." ('918 Patent, Abstract.) The specification's summary of the invention begins by

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describing the invention as comprising a call processor, a signaling interface, a call

process control system, and an interworking unit. ('918 Patent, at 1:50-65.) In the next

paragraph, the summary describes the invention as comprising a system involving a call

processor and a call process control system. Thus, the specification repeatedly and

consistently describes the invention as including a "call process control system," which

is called a "control system" in the claim at issue.

Defendants' construction includes a number of functional limitations, but the

Court rejects that description of the call process control system because it is taken only

from a particular embodiment. Defendants have not shown that the invention is

repeatedly and consistently described with those limitations. The summary does twice

describe the call process control system as a system "adapted to manage the call-

associated data and to exchange the call-associated data with the call processor." ('918

Patent, at 1:59-61, 2:8-10.) Thus, the Court concludes that a proper construction of the

"control system" from the claim should track that repeated description.

The Court concludes that, because the claimed "control system" is given the

different term "call process control system" in the specification, there is at least some

potential for jury confusion, and the term should be construed by the Court.

Accordingly, the Court construes this term to mean *call process control system, which

is a system adapted to manage the call-associated data and to exchange the call-

associated data with the call processor.*

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### U.    *"Narrowband Switch"*

The parties dispute the construction of the term "narrowband switch" in claim 1 of the '932 Patent (Group 1).  Defendants propose to construe the term to mean *circuit switch*.  The Court rejects defendants' proposed construction, as defendants have not pointed to any language in the specification defining this term as or limiting its scope to a particular type of switch.  Indeed, defendants have not cited any place in which the specification mentions circuit switches. Defendants argue that one particularly-identified narrowband switch is a circuit switch (according to their expert), but there is no basis to limit this term to a single embodiment.

In its proposed construction, Sprint incorporates its construction of "switch" and essentially construes the modifier "narrowband" to mean *in a narrowband format*.  In another place in its briefs, however, Sprint argues that this term need not be construed. The Court does not believe that defining the modifer "narrowband" to mean "in a narrowband format" is helpful, and, as noted above, *see supra* Part III.M, the parties have not offered meaningful constructions of the word "narrowband".  Accordingly, the Court declines to construe this term.

### V.    *"Signaling Processor"*

The parties dispute the construction of the term "signaling processor" found in claim 11 of the '340 Patent (Group 3); and claim 1 of the '992 Patent and claim 1 of the '912 Patent (Group 4).  Sprint argues that no construction is necessary.  Defendants

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argue that the term is indefinite under Section 112(f), but for the reasons stated above, *see supra* Part III.A.1, that section does not apply. The Court also rejects defendants' alternative construction that would limit the scope of this term to the disclosed CCM. *See supra* Part III.A.1, 3.

In their alternate construction, defendants would also limit this term as used in the '340 Patent to require that the signaling processor be "separate from, and not included in, the claimed service platform system." Defendants have not supported that limitation other than by citation to the claim itself. Defendants argue that because the claim indicates that the signaling processor transfers certain messaging to a service platform system, those two elements must be separate and distinct. Sprint has not specifically addressed this proposed limitation in its briefs. Nevertheless, the Court concludes that, in the absence of support from the specification, the language of the claim may stand on its own, as the proposed limitations is already contained in the claim itself. Accordingly, the Court declines to construe this term.

### W.     *"[A Processing System] External to Narrowband Switches"*

Defendants argue that certain language renders claim 1 of the '932 Patent indefinite under Section 112(b). The claimed method includes the step of "receiving and processing the first message in a processing system external to narrowband switches to select one of the narrowband switches." In its supplemental briefs addressing indefiniteness, defendants rely on (a) their previous argument that the claimed

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"processing system" should be limited to the disclosed CCP, *see supra* Part III.A, and

(b) the specification's statement that "[i]t is possible to house the CCP within other

telecommunications devices, even switches." ('932 Patent, at 13:65-67.)  Defendants

argue that it is therefore not clear whether the processing system must be external to *all*

narrowband switches, or whether the processing system may be contained in one

narrowband switch and select from other switches to which it is external.

The Court rejects this argument.  First, as explained above, the Court has rejected

defendants' attempt to limit the scope of the term "processing system" to the disclosed

CCP.  *See supra* Part III.A.  Thus, the CCP is used only in embodiments of the

inventions, and descriptions of the embodiments do not provide a proper basis for

limiting the scope of the claim.

Moreover, the Court concludes that the scope of the claim is reasonably certain

in light of the claim language and the specification.  The specification's abstract and

summary make clear that the invention involves a method for processing signals in a

location external to the switches in a network that make the connections for the call.

('932 Patent, at Abstract, 3:34-37.)  Thus, the claim is clearly limited to a processing

system (wherever located) that is in a location external to the switches (those forming

the network) from which the processor chooses.  The Court concludes that the scope of

the claim is reasonably certain, and defendants have not provided clear and convincing

evidence of indefiniteness to overcome the presumption of patent claim validity.

## X.     *"Communication Switches" / "Telecommunication Switches"*

The parties dispute the construction of the term "communication switches" found

in claims 23 and 38 of the '3,561 Patent (Group 1); and the term "telecommunication

switches" found in claim 5 of the '429 Patent and claim 7 of the '064 Patent (Group 2).

In *Vonage* and *Big River*, the Court construed these terms to mean *devices that set up*

*calls and relay voice and/or data information from one connection to another*.  *See*

*Vonage*, 518 F. Supp. 2d at 1317; *Big River*, 2009 WL 1992537, at \*22.  Sprint urges the

Court to construe these terms in the same way in this case.  Defendants propose to

construe these terms to mean *switching fabric for connecting an input to an output and*

*the control logic for controlling the switching fabric*.

Defendants have not sufficiently supported their construction.  They cite to one

portion of the Group 1 specification, but that excerpt discusses a switch *processor*.

Defendants cite to portions of the Group 2 specification, including excerpts that mention

an "ATM fabric."   Defendants have not identified any part of the specifications,

however, that defines or describes "switches" or "communication switches" or

"telecommunication switches" in accordance with defendants' construction. Defendants

cite to their expert's declaration, but nowhere therein does the expert espouse such a

definition or otherwise suggest that these terms were known to those skilled in the art as

having these meanings. Moreover, defendants' construction is not especially helpful, as

the plain meaning of the undefined term "switching fabric" is not clear.  Finally, as

Sprint points out, defendants' construction would eliminate switches' call-setup

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functions, which functions are supported by the patents' specifications.

Although defendants state that their construction is "more precise," they have not explained how the Court's previous construction is inaccurate. Accordingly, the Court again construes these terms to mean *devices that set up calls and relay voice and/or data information from one connection to another.*

### Y. *"In Response to"*

The parties dispute the construction of the term "in response to," which is used in claims in many of the patents at issue in this case. Sprint contends that no construction of this phrase is necessary. Defendants do not dispute that this term has a plain and ordinary meaning, but they would add a limitation requiring the action taken "in response to" something to be taken "immediately". The Court rejects this construction, which defendants have not supported by any citation to the patents' specifications. Defendants only argument is that immediacy is implied by the claims because otherwise the claims could have stated merely that one action precedes another, and that the use of the phrase "in response to" suggests that something more is required. Under the plain and ordinary meaning of this phrase, however, that "something more" is the concept of causation. There is no basis to add any temporal limitation to these claims. Accordingly, the Court declines to construe this term.

### Z. *"Network Code . . . to Provide Egress"*

The parties dispute the construction of certain similar phrases in three Group 1 patents. Claim 1 of the '3,561 Patent includes the step of processing the signaling message to select "a network code that identifies a network element to provide egress from the packet communication system for the user communication." Claim 24 of the '3,561 Patent and claim 1 of the '052 Patent include the step of selecting "a network code that identifies a network element to provide egress for the user communication from the packet communication system." Dependent claim 14 of the '6,561 Patent refers to "a network code representing a network element to egress the call from the packet system." Sprint would construe these terms to mean *a code identifying a network element which network element provides an exit from a packet communication system*. Defendants would construe these terms to mean *a logical address of a switch to which the user communication will egress from the packet communication system and which is in a network outside the packet communication system*. The parties' competing constructions thus raise three issues, which the Court will address in turn.

First, defendants seek to construe "network code" to mean *logical address*, based on the following excerpt from the specification:

> In one embodiment, the selection of a network characteristic will include the selection of a network code. Network codes are the logical addresses of the network elements.

('3,561 Patent, at 12:47-49.) In *Vonage*, the Court cited this excerpt in agreeing with Vonage that this term should be construed to mean *a logical address identifying a network element that provides an exit from a packet communication system. See*

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*Vonage*, 518 F. Supp. 2d at 1318-19. The Court reconsidered that construction in *Big River*, however, and agreed with Sprint that the term should be construed to mean *a code identifying a network element which network element provides an exit from a packet communication system. See Big River*, 2009 WL 1992537, at *7. With respect to the "logical address" construction, the Court noted that a dependent claim in the '3,561 Patent limits the "network code" to a "logical address of the network element," and it agreed with Sprint that such a dependent claim suggests that "network code" as used in the independent claim was not intended to be limited to mean "logical address." *See id.* The Court further concluded that "the specification's description of 'network codes' as 'logical addresses' in the second sentence of one embodiment of the invention could be read to be limited to that embodiment." *See id.*

In this case, defendants argue that the Court got it right in the first instance in *Vonage*. As the Court concluded in *Big River*, however, the presence of the dependent claim does provide evidence of an intent that "network code" be broader in scope than "logical address," and in light of the ambiguity concerning whether the specification's apparent definition of "network codes" was intended to be limited to one embodiment, the Court cannot conclude that the presumption of a broader construction in the independent claim should be overcome here. Accordingly, the Court rejects this limitation urged by defendants.

Second, defendants would alter the Court's construction to limit the "network element" to a "switch". The Court rejects such a limitation. Defendants cite an excerpt

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in which the specification refers to a "destination code" that facilitates egress from the system, and defendants argue that such a code is a LEC switch or another type of switch. The excerpt actually states, however, that the destination code "*typically* represents a network element that is *connected to* a LEC switch." ('3,651 Patent, at 12:51-53 (emphasis added).) Thus, the specification does *not* state that the destination code *is* a switch, and defendants have relied only on particular embodiments at any rate. Moreover, as Sprint points out, dependent claim 18 of the '3,561 Patent claims the method wherein the network element comprises a switch, which suggests an intent that "network element" *not* be limited to a switch otherwise. Accordingly, there is no basis to change "network element" to "switch" in the Court's construction.

Third, defendants propose a construction requiring a network element *to which the user communication will egress from the packet communication system and which is in a network outside the packet communication system.* Defendants argue that their construction is supported by the language of the claims themselves, as the egress must be to an element outside the system. In *Vonage* and *Big River*, however, the Court construed "egress" to mean *an exit* (defendants do not take issue with that particular definition of "egress"), and the ordinary meaning of "egress" and "exit" do not require that they be outside the place being departed, as an exit is usually understood to be on the periphery or the border of that place. The claims do not indicate or suggest that the selected network element is the place outside the system to which the communication is sent; rather, the network element "provide[s] egress" or "egress[es] the call."

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Accordingly, there is no basis to construe these terms with this limitation urged by defendants.

Accordingly, the Court again construes these terms to mean *a code identifying a network element which network element provides an exit from a packet communication system*.

### *AA.* *"Transmitting" / "Receiving" / "Transferring"*

Defendants argue that the terms "transmitting", "receiving", and "transferring" in various patent claims in Groups 1 and 2 should be construed with the following limitation: *the thing a message or instruction is transmitted (or transferred) from is not part of the thing which receives the transmitted (or transferred) message or instruction [and vice-versa], and the message or instruction received is identical to the message or instruction transmitted (or transferred)*. Sprint argues that no such construction is warranted.

Essentially, defendants argue that the use of "transmitting" or "transferring" with "receiving" in the claim language means that the transmitting or transferring element cannot be "part of" the receiving element. Defendants rely on their argument that a CCP, located outside of the communications path, is a fundamental feature of these inventions, but the Court has already rejected defendants' argument concerning the CCP, which is described only in embodiments of the inventions. *See supra* Part III.A.3. Otherwise, defendants do not cite any evidence to support this construction, and instead rely solely

on the plain meaning of these terms as used in the claims.

Sprint argues that there is no reason, for instance, that the processing system, which controls a packet communication system and from which a control message is transferred (in claim 1 of the '3,561 Patent), cannot be part of the packet communication system to which the control message is transferred. Sprint cites the specification's statement that a CCP (an example of a processing system) could be integrated into a packet-based network. ('3,561 Patent, at 8:35-43.) Defendants argue that such language does not overcome the plain meaning of the claims, and thus refers only to an unclaimed embodiment. The Court agrees with Sprint, however, that such language suggests an intent not consistent with defendants' "not part of" limitation.

In light of that suggestion from the specification and in the absence of any intrinsic or extrinsic evidence supporting defendants' position, the Court is unwilling to impose such a limitation. Nor does the Court agree with defendants that, under the plain meaning of these terms, one device could not transfer or transmit or send something to an element contained in the device or to an element of which that device is a part. (As one simple example, one's smartphone might send itself an e-mail or text.) Without a more specific argument, based not on the general meaning of these terms but based instead on the specific transferring and receiving elements—an analysis not undertaken by defendants here—the Court cannot conclude that the plain meaning of these terms in these patent claims requires the limitation urged by defendants. Moreover, it is not clear what it means if one system or element "is not part of" another in the context of this

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technology, and thus defendants' construction could cause confusion for the jury. Accordingly, the Court rejects this proposed construction by defendants.

In the briefs, neither side addressed defendants' proposed limitation that the received message or instruction be identical to the one transferred or transmitted. Accordingly, the Court declines to impose such a limitation, and thus it will not construe these terms.

### BB.    *"A Call Having a First Message and Communications"*

The parties dispute the construction of the term "a call having a first message and communications," found in claim 1 of the '932 Patent (Group 1). In *Vonage*, the Court construed "first message" used in this patent to mean *a signaling message that is distinct from the second message*. *See Vonage*, 518 F. Supp. 2d at 1322-23. In *Big River*, the Court reaffirmed that construction, and it construed the term "call having a first message" to mean *a call having a signaling message that is distinct from the second message*. *See Big River*, 2009 WL 1992537, at *9. Sprint argues that the Court should apply the same constructions here.

Defendants have not addressed the Court's previous constructions. Instead, defendants propose that the term "a call having a first message and communications" be construed to include the limitation that *the first message is sent on the same communication path as that used for user communications*. In their initial brief, defendants argue that the specification does not explain how a call could have both a first

message and communications, and as the only possible answer, they point to the specification's reference in one embodiment to in-band signaling, in which the signaling "must be placed on the actual communications path." That one embodiment, however, does not provide a proper basis for imposing such a limitation. Moreover, the excerpt cited by defendants—which does not refer to a "first message"—goes on to state that such signaling is usually *removed* from the communications path and transferred to an out-of-band signaling system. ('932 Patent, at 7:50-63.)

In their rebuttal brief, defendants argue that because the claim refers to a "call having a first message," the first message must be part of the call. That truism, however, does not bear on whether the first message must be part of the communications path, as defendants have not cited any basis to equate "call" with "communications path" in the context of this claim.

For these reasons, the Court rejects defendants' proposed construction, and it again construes the term "a call having a first message" to mean *a call having a signaling message that is distinct from the second message.*

### CC. *"Converting the Asynchronous Communication into a User Commnication"*

Claim 1 of the '064 Patent includes the step of "converting the asynchronous communication into a user communication." Defendants propose to construe this term to add the limitation that *the asynchronous communication is not a user communication*,

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while Sprint argues that no construction is necessary.

Both sides rely solely on the language of the patent claims. Defendants argue that the plain meaning of the word "converting" means that the two objects cannot have been the same. Sprint argues that this patent claim addresses the conversion of a communication between asynchronous and synchronous formats, but that is certainly not clear from a plain reading of the claim. Sprint also argues that defendants, by their construction, wish to limit the claim to require a conversion both of the asynchronous/synchronous format and the content of the communication, but that too is not clear from defendants' argument.

The Court does not believe that any further construction of this phrase is necessary, as the claim is already limited by the plain meaning of its terms. Defendants will certainly be free to argue that the "asynchronous communication" and "user communication" referenced by this claim must be different by virtue of the conversion. This Court has already declined to construe the term "user communication," however, *see supra* Part III.H, and neither side has addressed the particular meaning of "user communication" in the context of this claim. Accordingly, the Court declines to construe this term.

### DD. *"Generating a . . . Message"*

The parties dispute the construction of the term "generating a . . . message," found in claims 1 and 24 of the '3,561 Patent and claim 1 of the '932 Patent (Group 1); claim

1 of the '429 Patent and claim 1 of the '064 Patent (Group 2); and claim 1 of the '224 Patent and claim 11 of the '340 Patent (Group 3). In *Vonage* and *Big River*, the Court construed "generate/generating a message" as used in these Group 1 and Group 2 patents to mean *assemble/assembling information to create a message*. *See Vonage*, 518 F. Supp. 2d at 1312-13; *Big River*, 2009 WL 1992537, at *19-21. Sprint proposes that the Court use the same construction here. Defendants generally accept the Court's previous construction, but would specify for each claim a particular type of information (network code, identifier) that must be assembled.

In *Vonage*, the Court noted that "the language of the various claims demonstrates that the messages are generated by assembling information because each of the claims requires the generation of a message that includes some particular content." *See Vonage*, 518 F. Supp. 2d at 1312. Defendants argue that they merely seek to specify that particular content for each of the patent claims. The Court concludes that such an addition is unnecessary, however. If a particular claim explicitly requires that the generated message contains certain content, then that claim limitation is sufficient, and the limitation need not be repeated in the definition of "generating". Moreover, the Court emphasized in *Vonage* and *Big River* that although the signaling is new, the content contained in the generated message need not be new, as pre-existing content may be included. *See, e.g.*, *Big River*, 2009 WL 1992537, at *20-21. The Court concludes that defendants' requirement that the assembled information include certain content could cause the jury to believe improperly that the content must be new. Therefore, the

Court declines to include the addition proposed by defendants, and it construes the term "generating a . . . message" in these patent claims to mean *assembling information to create a message*.

### EE. *"DS0 Connection"*

The parties dispute the construction of the term "DS0 connection," which is found in claim 3 of the '052 Patent (Group 1); and claim 1 of the '429 Patent, claim 1 of the '064 Patent, and claim 7 of the '084 Patent (Group 2). In *Vonage*, the Court instructed the jury that "DS0 connection" meant *a channel over which DS0 communication signals (a term of art meaning Digital Signal Level 0) are transmitted or received*. In *Big River*, the Court followed that construction from *Vonage* for each of these patent claims. *See Big River*, 2009 WL 1992537, at *21. Sprint urges the same construction in this case. Defendants argue that no construction is necessary.

Defendants note that this construction refers back to "DS0" and the full name for that acronym, and they argue that this construction is therefore no more helpful to a jury than the term by itself. The term at issue, however, is "DS0 connection," not just "DS0", and defendants have not explained why this particular connection should not be construed as it was in the prior cases. Defendants have not argued that the prior construction is inaccurate in any way, and the Court believes that the construction could be helpful to the jury. Accordingly, the Court again construes this term to mean *a channel over which DS0 communication signals (a term of art meaning Digital Signal*

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*Level 0) are transmitted or received.*

FF.    *"In the Processing System, Selecting a Service and a Service Node"*

The parties dispute the construction of the phrase "in the processing system, selecting a service and a service node," found in claim 1 of the '224 Patent (Group 3). Sprint argues that no construction of this phrase is needed. Defendants would construe the phrase to mean the following: *The processing system chooses one service from among several available services, and then chooses one service node from among several available service nodes that are capable of providing that service.*

This patent claim includes the following step: "in the processing system, selecting a service and a service node to provide the service based on the information." Defendants would limit the choice or selection only to one service and one service node. The claim itself refers only to "a service" and "a service node," and as Sprint points out, under Federal Circuit law, one rule of patent parlance is that "a" means "one or more." *See Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008) (citing *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000)). Defendants note that an exception to that rule exists for the situation in which the patentee evinces a clear intent to limit "a" to "one". *See id.* The prosecution history and specification excerpts cited by defendants, however, do not directly address whether there may be only one service or one service node in the context of this claim, and thus

defendants have not shown a clear intent for such a limitation.

Defendants' construction would also require that there be several available services. While it might be true in a general sense that there are various services that could be used by a caller, defendants' construction could be confusing in the sense that it would require that there be multiple services appropriate for a particular call—a limitation for which defendants have offered no support. Similarly, defendants have not supported its proposed limitation that there be several available service nodes for a particular service. Thus, the Court rejects defendants' proposed limitations relating to the number of services or service nodes.

Defendants would also construe this phrase to impose a sequential limitation, such that the service is chosen first, and then the service node is chosen. Again, however, the prosecution history and specification excerpts cited by defendants do not directly address these questions of whether the two selections must be separate and whether the service must be chosen first. For instance, as Sprint points out, defendants have not pointed to evidence that forecloses the possibility that, because only one service node is available to provide a certain service, the selection of the service compels the selection of the service node, which selections might therefore be understood to occur simultaneously. Thus, because defendants' construction could be understood by a jury to limit the claim improperly, the Court rejects defendants' proposed limitation.

The Court concludes that this phrase may be understood by its plain meaning. Accordingly, the Court declines to construe this phrase.

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GG. *"Generating . . . a Second Message . . . Wherein the Second Message Indicates the Selected Service and a User"*

The parties dispute the construction of the phrase "generating . . . a second message . . . wherein the second message indicates the selected service and a user," found in claim 1 of the '224 Patent (Group 3). Sprint would construe this phrase, in accordance with the Court's prior construction of "generating . . . a message," *see supra* Part III.DD, to mean *assembling information to create a second message . . . that indicates the selected service and a user*. Defendants would construe this phrase to mean *assembling information, including an identifier of the selected service and an identifier of a user, to create a second message containing that information*. For the same reasons set forth above, *see supra* Part III.DD, the Court rejects defendants' limitation requiring "identifiers", as defendants have not shown that the specification defines this term or repeatedly and consistently describes the overall invention in such a way. Nor have defendants adequately supported a limitation of the claim's plain language requiring only that the message "indicate" the selected service and user. Accordingly, the Court construes this phrase to mean *assembling information to create a second message . . . that indicates the selected service and a user*.

HH. *"Identifiers That Are Used for Routing"*

Claim 11 of the '340 Patent (Group 3) refers to the steps of generating and transferring control messaging indicating "identifiers that are used for routing," and

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exchanging communications that include "the identifiers." Consistent with the Court's

previous construction of "identifier" in the Group 2 patents, *see supra* Part III.K, Sprint

would construe these terms again to mean *data for routing information in a packet*

*network.* Defendants argue that the Court's prior construction is not supported by the

Group 3 specification, and they therefore contend that these terms should not be

construed.

Sprint concedes that the limitation "in a packet network" from the Group 2

construction is not supported by the claim itself, but it suggests that "identifier" should

be construed consistent with its construction in the Group 2 patents for the jury's sake.

The Court concludes, however, that this limitation should not be applied in the context

of this patent if such application is inappropriate. On the other hand, the claim does

indicate that the identifier is used for routing information, and defendants have not

explained why the first part of the Court's Group 2 construction is not accurate as

applied to this patent. Accordingly, the Court construes these terms as used in claim 11

of the '340 Patent to mean *data for routing information.*

## II. *"Identifier for Routing"*

The parties dispute the construction of the terms "identifier for routing" and

"identifier" from claim 1 of the '992 Patent (Group 4). Sprint again espouses the Court's

prior construction of "identifier". *See supra* Part III.K. Defendants again seek to add

the limitation that the identifier identify a connection, based on their argument that this

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invention is limited to ATM technology. The Court has so limited the invention in this patent in its construction of "interworking unit." *See id.* For the same reasons set forth above, however, the Court declines to graft that limitation onto a definition of "identifier", as defendants can explain to the jury the features of ATM technology in the context of the claim. *See id.* The Court therefore adopts the more general construction for this term of *data for routing information in a packet network.*

### *JJ.* *"Another Control Message"*

The parties dispute the construction of the term "another control message," found in claim 1 of the '992 Patent (Group 4). That claim recites the following method "for operating a communications system to handle a call":

receiving signaling for the call into a signaling processor;
in the signaling processor, processing the signaling to select an identifier for routing the call;
transferring a control message indicating the identifier from the signaling processor;
receiving user communications for the call and the control message into an interworking unit;
in the interworking unit, converting the user communications into asynchronous communications including the identifier in response to the control message;
transferring the asynchronous communications from the interworking unit;
in the interworking unit, monitoring the user communications during the call to detect a call trigger; and
transferring a trigger message from the interworking unit if the call trigger is detected;
receiving and processing the trigger message in the signaling processor; and
transferring another control message from the signaling processor in response to processing the trigger message.

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(Emphasis added.) Defendants would add the following limitation concerning the term "another control message": *the another control message will not in any way cause the interworking unit to change the processing, translation or routing of the call*.

Defendants do not support this argument by any citation to the specification; rather, defendants argue only that this limitation is required by a logical reading of the claim. Although their argument is not entirely clear, defendants appear to argue that because the interworking unit processes and routes calls in response to the "control message" mentioned earlier in the claim, the interworking unit could not also perform such functions in response to "another control message" that is transferred in response to a trigger message. The Court rejects this argument. Under a plain reading, the claim does not prohibit any actions after the creation of "another control message," and there is no reason logically (according to the terms of the claim) why the interworking unit could not perform some function in response to the creation of the additional control message. Accordingly, the Court declines to impose this limitation urged by defendants.

### KK. *"Transferring the Asynchronous Communications . . . Monitoring the User Communications"*

The parties dispute the construction of the phrase "transferring the asynchronous communications . . . monitoring the user communications," found in claim 1 of the '992 Patent (Group 4). By this argument, defendants do not actually seek to construe particular terms contained in this claim; rather defendants seek to add three particular

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limitations to this claim, which the Court will address in turn.

First, defendants would add the limitation that *the occurrence of a call trigger will not in any way affect the processing, translation or routing of the user communications.*[7] Defendants appear to concede (for instance, in their argument relating to the construction of "call trigger") that additional processing, translation, or routing does occur after the detection of a call trigger, but they argue that such processing is not caused directly by the call trigger, in the sense that additional steps must first occur. The fact that additional steps may be necessary, however, does not mean that the call trigger has not "in any way affect[ed]" the processing, as the ordinary meaning of causation does not preclude a chain of events to achieve the final result. It will be clear to the jury from the claim itself that various steps are required, and defendants' proposed limitation could confuse the jury by suggesting that no further processing may occur. Accordingly, the Court rejects this proposed limitation.

Second, defendants would add the limitation that *the asynchronous communications are separate and distinct from the trigger message.* Defendants argue that, according to the language of the claim (set forth in the preceding section), user

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[7]The joint claim construction submission and defendants' brief use the word "effect" instead of "affect" in defendants' proposed construction. Defendants argue, however, that processing, translation, and routing are not "affected" by the detection of a call trigger, and that such processing, translation, and routing may not be "changed" directly by a call trigger. Thus, the Court has assumed that defendants intended to use the word "affect" in their proposed construction. Even if "effect" were intended, however, the Court would not impose such a limitation for this claim.

communications are converted into asynchronous communications prior to the detection of a call trigger, and the trigger message is generated after the detection of the call trigger, and that distinction means that the "asynchronous communications" and the "trigger message" referenced in the claim must be separate and distinct. Sprint does not dispute that sequence. Sprint argues, however, that the patent contemplates calls between synchronous and asynchronous networks, and that a trigger may be sent from either side, which would mean that a trigger message could be in asynchronous format. By that argument, Sprint has not disputed that the trigger message would be distinct from the *particular* asynchronous communications referenced in the claim; rather, Sprint appears to argue that the trigger message is not necessarily distinct from *all* asynchronous communications.

The Court appreciates this concern by Sprint and agrees that defendants' proposed limitation could cause some confusion. The Court also concludes that the claim language adequately conveys that the particularly-referenced asynchronous communications are different from the trigger message. Thus, the Court declines to add any such explicit limitation.

Third, defendants would add the limitation that *the call trigger is converted into asynchronous communications in the same manner as the user communications*. The Court does not agree, however, that the language of the claim in any way suggests that the trigger message must not only be converted, but also be converted in a particular manner. Accordingly, the Court declines to impose this proposed limitation.

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## LL.    "Call Trigger"

The parties dispute the construction of the term "call trigger" from claim 1 of the '992 Patent (Group 4).  Sprint would construe the term to mean *an event or signal that causes some call processing, call translation, or call routing to occur when trigger criteria is satisfied* [sic].  Defendants would construe the term to mean *an event or signal intended to cause some change in the processing, translation or routing of the call*.

Sprint's proposed definition is taken verbatim from the specification.  ('992 Patent, at 7:3-6.)  Defendants do not address the fact that Sprint's proposed construction follows an express definition of the term in the specification.  Instead, defendants argue that Sprint's construction improperly implies that the processing, translating, and routing are caused directly by the trigger message, when in fact additional steps are required.  As set forth above, however, *see supra* Part III.KK, the Court does not believe that the word "causes" prohibits the need for multiple steps in the chain of causation.  In addition, defendants' construction ignores the specification's definitional requirement that criteria be satisfied.  Accordingly, the Court construes this term in accordance with the specification's definition.

The Court does have some concern about using the phrase "when trigger criteria is satisfied," since "criteria" is a plural noun.  Use of this phrase unaltered could cause some confusion concerning whether there must be multiple criteria.  The Court believes that use of the phrase "all criteria are satisfied" adequately encompasses situations with either one criterium or multiple criteria, as no doubt intended by the patentee.

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Accordingly, the Court construes "call trigger" in this claim to mean *an event or signal that causes some call processing, call translation, or call routing to occur when all trigger criteria are satisfied.*

### MM. *"Trigger Message"*

Defendants argue that the term "trigger message," found in claim 1 of the '992 Patent (Group 4), is indefinite. That claim includes the steps of monitoring user communications to detect a call trigger; if a call trigger is detected, transferring a trigger message from the interworking unit; receiving and processing the trigger message in the signaling processor; and transferring another control message from the signaling processor in response to that processing of the trigger message.

Defendants argue that "trigger message" has no ordinary meaning to one skilled in the art. The Court concludes, however, that the meaning of that term is easily understood in the context of the claim, as the language of the claim itself makes its scope clear as it relates to the trigger message. As defendants concede in their brief, "trigger message" as used in the claim "refers to some kind of message that is generated by the interworking unit in response to its detection of a call trigger [and] that is transferred to the signaling processor." Defendants complain that the specification describes other types of messages performing those functions, but those references relate only to particular embodiments of the invention. Defendants have not shown by clear and convincing evidence that the scope of this claim is not reasonably certain and is therefore

invalid as indefinite.  Accordingly, the Court rejects this argument, and it declines to construe this term.

### *NN.  "Processing . . . to Transmit"*

The parties dispute the construction of the term "processing . . . to transmit," found in claim 1 of the '912 Patent (Group 4).  Defendants propose to construe this term to mean *processing and transmitting*.  Sprint would construe the term to mean *processing . . . to participate in the transmitting*, in accordance with the Court's previous construction of the term "processing . . . to select."  *See supra* Part III.I.

Just as they argued with respect to the term "processing . . . to select," *see id.*, defendants contend that the same element (the signaling processor) that does the processing must also make the decision and do the transmitting.  The Court disagrees with defendants, however, that their construction is compelled by the language of the claim itself, as the claim does not require processing and transmitting (by the signaling processor), but instead requires only "processing . . . to transmit."  Defendants cite to the Abstract and specification for the patent, but those excerpts use the same wording that the claim does.  Accordingly, for the same reasons set forth above with respect to the term "processing . . . to select," *see id.*, the Court construes the term "processing . . . to transmit" in this patent claim to mean *processing . . . to participate in the transmitting*.

### *OO.  "Identifier for Routing"*

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The parties dispute the construction of the terms "identifier for routing" and "identifier" found in claim 1 of the '912 Patent (Group 4). Sprint again proposes the Court's prior construction of "identifier". *See supra* Part III.K, Part III.II. Defendants again seek to add the limitation that the identifier identify a connection, based on their argument that this invention is limited to ATM technology. The Court has so limited the invention in this patent in its construction of "interworking system," which is also required in this patent claim. *See infra* Part III.PP. For the same reasons set forth above, however, the Court declines to graft that limitation onto a definition of "identifier", as defendants can explain to the jury the features of ATM technology in the context of the claim. *See supra* Part III.K. The Court therefore adopts the more general construction for this term of *data for routing information in a packet network.*

### PP.     *"Interworking System"*

The parties dispute the construction of the term "interworking system" from claim 1 of the '912 Patent (Group 4). Sprint would define this term to mean *a system that translates communications between narrowband and packet formats.* Defendants propose the construe the term to mean *a plurality of ATM interworking multiplexers each connected to the same ATM cross-connect.*

Sprint opposes defendants' first proposed limitation—limiting the interworking system to *a plurality of ATM interworking multiplexers*—by referring to its opposition to defendants' construction of "interworking unit" in other patent claims. *See supra* Part

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III.J.  The Court agrees with defendants, however, that this invention, like the other

inventions involving an "interworking unit," is repeatedly and consistently described as

including ATM technology.  For instance, in its background section, the specification

states that "[t]he invention relates to tandem systems for circuit-based traffic, and in

particular, to tandem systems that use Asynchronous Transfer Mode (ATM) systems to

interconnect various circuit-based networks or network elements." ('912 Patent, at 1:16-

10.)  Similarly, the specification begins its summary of the invention as follows:

> The invention includes a telecommunications tandem system and
> method for providing a tandem connection for a call.  The tandem system
> comprises a first ATM interworking multiplexer, an ATM cross-connect,
> a second ATM interworking multiplexer, and a signaling processor.

('912 Patent, at 1:66-2:3.)  The summary continues by describing the functions of the

ATM components of the system.  ('912 Patent, at 2:3-30.)  Accordingly, for the same

reasons set forth above with respect to the term "interworking unit," the Court concludes

that this term is appropriately limited to ATM interworking multiplexers.  Moreover,

Sprint has not challenged defendants' proposed language requiring a "plurality" of such

multiplexers, and the Court will therefore use that term as well in its construction.

Sprint does oppose specifically the second part of defendants' construction, which

would require each ATM multiplexer to be connected to the same ATM cross-connect.

Sprint argues that defendants have supported that limitation only by reference to

particular embodiments.  As noted above, however, the specification's summary

describes the invention as including an ATM cross-connect, and it further describes that

cross-connect as being connected to both ATM multiplexers. ('912 Patent, at 2:1-13.)

Thus, the invention as a whole is described in a manner consistent with defendants'

proposed limitation, and the embodiments in the specification follow that description.

Sprint cites language from the specification noting that variations from one embodiment

are contemplated by the invention, but there is nothing to indicate that those variations

could include not having the multiplexers connect to the same cross-connect. Sprint also

purports to cite to versions of the invention that do not include any discussion requiring

an ATM cross-connect, but the cited excerpts relate only to the signaling processor, an

element separate from the cross-connect. ('912 Patent, at 10:62-11:39.)  The Court

therefore agrees with defendants that the specification repeatedly and consistently

describes the invention in accord with this proposed limitation.

Accordingly, the Court construes this term to mean *a plurality of ATM interworking multiplexers each connected to the same ATM cross-connect*.

### QQ. *"Receiving a Response Message"*

The parties dispute the construction of the term "receiving a response message,"

found in claim 1 of the '912 Patent (Group 4).  Sprint argues that no construction is

necessary.  Defendants would construe this term to add the following limitation: *the response message is received by the signaling processor of the communications system*.

Claim 1 of the '912 Patent recites a method for operating a communications

system comprising the following steps:

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receiving a call setup message including a called number into a signaling
     processor;
processing the called number in the signaling processor to transmit a query;
receiving a response message responsive to that query that includes number
     portability information for the called number;
processing the number portability information to select an identifier for routing;
transmitting a control message that indicates the identifier;
receiving a Time Division Multiplex (TDM) user communication and the control
     message into an interworking system;
converting the TDM user communication into packet communications that
     include the identifier for routing; and
transferring the packet communications that include the identifier for routing.

(Emphasis added.)

Defendants argue that the signaling processor that sent the query would also be

the element receiving the response message in return. The Court, however, has already

refused to construe this claim to require that the signaling processor actually transmit the

query (it need only participate in the transmitting). *See supra* Part III.NN. Moreover,

while some steps specifically require the signaling processor to perform some function,

such assignation is absent from the step of "receiving a response message."

Defendants rely on the Abstract of the patent, which states that the signaling

processor does perform the functions listed in the first five steps of the claim, including

receiving the response message. The specification's summary, however, while noting

that the signaling processor performs certain functions, does not mention the signaling

processor's receipt of the response message. Otherwise, defendants cite only

embodiments of the invention.

The Court cannot conclude that the single statement in the abstract is sufficient

in this case to support the imposition of a limitation not contained in the claim language. It is true than a patent's abstract may be considered by a court in considering the scope of the invention, *see Hill-Rom Co. v. Kinetic Concepts, Inc.*, 209 F.3d 1337, 1341 n.* (Fed. Cir. 2000)[8], as this Court has done in finding that other limitations are supported by repeated descriptions of the invention in the specification. *See, e.g.*, *supra* Part III.J. Nevertheless, the abstract, by itself, has limited usefulness in interpreting the scope of the claims, as (at the time of this patent application) the abstract was limited to 150 words and was intended to reveal only the nature and gist of the technical disclosure upon a cursory inspection. *See* 65 Fed. Reg. 54604, 54667-68 (Sept. 8, 2000) (amending 37 C.F.R. § 1.72(b)). Defendants have not identified any authority suggesting that a single statement in the Abstract is enough to satisfy the Federal Circuit's standard for imposing a limitation not contained in the claim language if the specification repeatedly and consistently describes the invention with that limitation. In fact, courts have refused to import limitations into patent claims based solely on statements in the abstract. *See, e.g.*, *Verco Decking, Inc. v. Consolidated Sys., Inc.*, 2014 WL 3894144, at *6 (D. Ariz. Aug. 8, 2014) (because of its limitations, the abstract "as a practical matter cannot describe the full scope of all of the claims of the patent"); *Takeda Pharm. Co. v. Mylan,*

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[8]The Federal Circuit so held despite the statement in the applicable regulation, 37 C.F.R. § 1.72(b), that the abstract "shall not be used for interpreting the scope of the claims." *See Hill-Rom*, 209 F.3d at 1341 n.*. In 2003, in light of that holding in *Hill-Rom*, the regulation was amended to remove that statement prohibiting the use of the abstract for claim interpretation. *See* 68 Fed. Reg. 38611, 38614 (June 30, 2003) (amending 37 C.F.R. § 1.72(b)).

*Inc.*, 2012 WL 4832813, at \*8-10 (S.D.N.Y. Oct. 11, 2012) (patents did not contain repeated descriptions of the invention with the proposed limitation, and single description in the abstract was not a sufficient basis by itself; distinguishing Federal Circuit cases that relied on multiple descriptions of the invention).

Accordingly, the Court cannot conclude that the specification repeatedly and consistently defines the invention as having the signaling processor receive the response message, and the Court therefore rejects defendants' proposed construction and declines to construe this term.

### RR. *"Call Setup Message"*

The parties dispute the construction of the term "call setup message" from claim 1 of the '912 Patent (Group 4). Sprint argues that the term should not be construed. Defendants would construe the term to mean *a message used by the signaling processor to establish connections between the calling and called parties*.

Claim 1 begins with the step of "receiving a call setup message including a called number into a signaling processor." The claim does not contain the limitation urged by defendants; the only limitation contained in the claim is that the call setup message must include a called number. Defendants cite only two pieces of evidence to support their limitation. First, defendants cite to a statement in the specification, but that statement mentions "a call set-up message," in "various embodiments," as only one of many possible bases for the signaling processor's selection of connections for the call. The

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specification does not define this term as defendants propose, and it cannot be said that

the specification repeatedly and consistently describes the invention with this limitation.

Second, defendants cite to the patent's prosecution history, in which the patentee

distinguished prior art on the basis that that prior art did not "dynamically control the

interworking point by dynamically specifying the routing identifier." Defendants argue

that such evidence supports its construction because "[d]ynamic control in this context

is the establishment of connections for the call between the calling and called parties

based [on] the call set-up message." Defendants offer no support for that statement,

however. Thus, there is no basis to conclude from the prosecution history that this claim

requires that the call setup message must be used to establish connections.

Because defendants have not adequately supported their proposed limitation, the

Court rejects that construction, and it declines to construe this term.


### SS.    *"Processing . . . to Transfer"*

The parties dispute the construction of the term "processing . . . to transfer" from

claim 11 of the '918 Patent (Group 4). In accordance with the Court's prior construction

of the term "processing . . . to select," *see supra* Part III.I, Sprint would construe this

term to mean *processing . . . to participate in the transferring*. Defendants would

construe this term to mean *the call processor transfers the control message to the

interworking unit*. Thus, as with the terms "processing . . . to select" and "processing .

. . to transmit," *see supra* Part III.I, Part III.NN, the issue is whether the processing

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element (in this case, a call processor) must actually transmit the control message or must only participate in the transmitting.

The Court again disagrees with defendants that the language of the claim itself supports their construction. To the contrary, the claim does not require "processing . . . and transferring" by the call processor, but only requires "processing . . . to transfer." In this case, however, defendants are able to support their construction with citations to descriptions in the specification of the invention itself. For instance, the specification's summary states that, in the present invention, "[t]he call processor transports a control message identifying the selected connection," and [a]n interworking unit is adapted to receive the control message from the call processor." ('918 Patent, at 1:54-55, 1:61-62.) The summary later repeats that, in the present invention, "[t]he call processor transports a control message identifying the selected connection." ('918 Patent, at 2:3-4.) These statements distinguish this dispute from those involving the construction of "processing . . . to select" and "processing . . . to transmit," because in this case defendants have been able to demonstrate that the patent's specification repeatedly and consistently describes the invention in a manner consistent with the proposed limitation.

Accordingly, the Court construes "processing . . . to transmit" in this patent claim to require that *the call processor transfers the control message to the interworking unit.*

### TT. *"Connection"*

The parties dispute the construction of the term "connection" from claim 11 of the

'918 Patent (Group 4). Sprint proposes to construe the term to mean *transmission media that may be used to carry user communications between elements of a communication system and/or other devices*. Defendants propose to construe the term to mean *the transmission media to be used for the call*.

Claim 11 of the '918 Patent includes the following step: "in an interworking unit, receiving the control message, and in response to the control message, receiving user communications in a first format from a first connection, converting the user communications to a second format, and transferring the user communications in the second format over the second connection." The specification contains the following statement concerning the meaning of the term "connection":

> Connections are used to transport user communications and other device information between communication devices and between elements and devices of architecture system **102**. The term "connection" as used herein means transmission media that may be used to carry user communications between elements of architecture system **102** and to other devices.

('918 Patent, at 4:6-12.) Each side bases its construction on the express definition of "connection" in the second sentence of that excerpt.

Although both proposed constructions start with the concept of "transmission media," the constructions diverge from there. First, Sprint opposes defendants' use of the phrase "for the call." Defendants argue that the previous step in the patent claim shows that the user communications that are carried are for a call. The references to "a call" in the preceding step, however, are related to signaling information and a control

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message for the call. Sprint notes that connections carry user communications, while links transport signaling and control messages. ('918 Patent, at 3:56-4:15.) The Court agrees with Sprint that a reference to "a call" in defining "connection" is inappropriate and unnecessary and potentially confusing, and the Court rejects that proposed language by defendants.

Second, under Sprint's construction, the transmission media "may be used," while defendants' construction requires that the media actually be used to carry user communications. Although the definition referenced by both sides includes the "may be used" language, the Court agrees that in the context of this claim, the connections are actually used for the transfer of user communications. Sprint has not addressed this issue in its briefs, and thus it has not disputed that the connections are actually used. Moreover, the sentence preceding the express definition uses the words "[c]onnections are used." Accordingly, the Court declines to use the "may be used" language of Sprint's construction.

Third, defendants argue that Sprint's modification of the specification's definition is not accurate concerning the elements between which user communications are carried. The specification's definition is a bit unwieldy and potentially confusing with respect to the phrase "between elements of architecture system **102** and to other devices." The preceding sentence in the specification makes clear that the messages may travel either between communication devices or between elements and devices of architecture system **102**, and the Court sees no reason why that sentence's clearer explanation should not be

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used in this construction.

Finally, there remains the construction of "architecture system **102**." Sprint would change that term referencing an embodiment to "a communications system," while defendants offer no alternative for that term. The present invention is described as an "architecture" or a "system for connecting a call" comprising a call processor, a signaling interface, a call process control system, and an interworking unit. ('918 Patent, at Abstract, 1:50-65). "Architecture system **102**" comprises those same elements. ('918 Patent, at 3:32-35, Fig. 1.) Thus, the Court agrees with Sprint that "architecture system **102**" is most accurately referred to as a "communication system." Because "connection" is used in a claim that describes "a method for operating a communication system," however, it is more appropriate to refer in the construction of "connection" to "*the* communication system."

Accordingly, the Court construes "connection" in this claim to mean *transmission media used to carry user communications between communication devices or between elements and devices of the communication system.*

*UU.    "Control System Data Tables" / "Call Processor Data Tables"*

The parties dispute the construction of the terms "control system data tables" and "call processor data tables," found in claim 11 of the '918 Patent (Group 4). Sprint contends that no construction is needed for these terms. Defendants do not offer any construction by which these terms are defined. Accordingly, the Court declines to

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construe these terms.

Defendants do propose that the Court add the limitation that *the "control system data tables" are identical in format to the "call processor data tables."* The Court rejects that limitation. First, defendants note that the patent claim refers to the transfer of data between the two kinds of data tables without the additional step of reformatting the data. The Court agrees with Sprint, however, that although such an omission may *permit* the data tables to be in the same format, it does not require that.

Second, defendants cite to one statement in the specification indicating that control system data tables are identical to call processing tables. ('918 Patent, at 5:22-24.) That statement refers only to an embodiment of the invention, however. As Sprint notes, in another embodiment, the two kinds of data tables are described merely as "similar". ('918 Patent, at 7:44-45.) Defendants also cite the specification's statement that the control system in one embodiment "may process the data to make sure it is in the correct format prior to filling the tables in call processor **308**." ('918 Patent, at 7:47-49.) That statement does not suggest that the two kinds of data tables have the same format, however, and it relates to an embodiment at any rate. Defendants have not shown that the specification repeatedly and consistently describes the invention as including the proposed limitation.

Finally, the Court rejects defendants' argument based on the patent's prosecution history. Defendants note that the patentee distinguished prior art on the basis that the other patent did not teach a system involving the transfer of data between these two types

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of data tables. That statement, however—like the patent claim at issue here—does not suggest anything about whether the formats for these types of data tables must be identical.

For these reasons, the Court rejects defendants' proposed limitation for these terms, which it declines to construe.

### *VV.* *"Call Processor"*

The parties dispute the construction of the term "call processor" from claim 11 of the '918 Patent (Group 4). Sprint contends that no construction is necessary. Defendants propose a lengthy construction for this term that would identify five different features and functions for the "call processor." Defendants base that construction on a description of one embodiment of a call processor from the specification. ('918 Patent, at 4:16-28.) The Court rejects that construction for that very reason—it is taken from a description of one embodiment. Defendants have not shown that the specification describes the invention as having a call processor with each of those features.

Defendants argue that the claim itself requires certain of those features and functions, but that fact actually supports Sprint's position, as the claim itself may be easily understood as imposing certain limitations. Defendants also suggest that the structure of the "call processor" is not sufficiently defined if their construction is not adopted, but they support that argument only with a citation to a case involving the application of Section 112(f), which does not apply here. *See supra* Part III.A.1.

Accordingly, the Court declines to construe this term.

### WW.    *"Call Routing Data"*

The parties dispute the construction of the term "call routing data" from claim 11 of the '918 Patent (Group 4).  Sprint contends that this term should not be construed. Defendants propose to construe the term to mean *data which is used to select a mapping between a circuit based connection and an ATM virtual connection*.

Defendants seek by this construction to limit the claim to the use of ATM technology.  The Court has already construed the term "interworking unit" as used in this patent claim to mean an ATM interworking multiplexer, based on its conclusion that the invention of this patent is repeatedly and consistently described as using ATM technology.  *See supra* Part III.J.  The Court is not persuaded, however, that such limitation should again be inserted into the claim through the construction of this term. Defendants argue that the "call routing data" is used to select mapping between two connections, one of which must be an ATM connection, that are "interworked" by the interworking unit in the final step of the claim.  That interworking unit has already been defined to mean an ATM multiplexer, however, and defendants will be free to explain at trial that such a multiplexer would use an ATM connection.  Accordingly, the Court declines to construe this term.

### XX.    *"Format"*

The parties dispute the construction of the term "format" from claim 11 of the '918 Patent (Group 4). Sprint contends that this term should not be construed. Defendants propose to construe the term to mean *data which is used to select a mapping between a circuit based connection and an ATM virtual connection*. The Court rejects defendants' construction, and thus declines to construe this term, for the same reasons set forth in the preceding section. *See supra* Part III.WW.

IT IS THEREFORE ORDERED BY THE COURT THAT certain terms in the patents at issue in this action are construed as set forth herein.

IT IS SO ORDERED.

Dated this 9th day of October, 2014, in Kansas City, Kansas.

<div style="text-align:right">

s/ John W. Lungstrum
John W. Lungstrum
United States District Judge

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