

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

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

MEMORANDUM ORDER

At Wilmington this 15th day of May, 2017, having heard argument on, and having reviewed the papers submitted in connection with, the parties' proposed claim construction;

IT IS ORDERED that the disputed claim language of U.S. Patent Nos. 7,286,561¹ ("the '6,561 patent"), 6,633,561 ("the '3,561 patent"), 6,463,052 ("the '052 patent"), 6,452,932 ("the '932 patent"), 6,473,429² ("the '429 patent"), and 6,298,064 ("the '064 patent") shall be construed consistent with the tenets of claim construction set forth by the United States Court of Appeals for the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005), as follows:

¹ The '6,561 patent shares a common specification with the '3,561, '052, and '932 patents. These patents are continuations of application Ser. No. 08/568,551, filed on Dec. 7, 1995, ("the '551 application"). ('3,561 patent, 1:5-8)

² The '429 patent shares a common specification with the '064 patent. The '429 and '064 patents are continuations of a continuation-in-part of the '551 application, which is incorporated by reference. ('429 patent, 1:5-16) Therefore, terms in the '429 and '064 patents may find support in the specification common to the '6,561 patent.

1. **Background.** The parties are engaged in complex, multi-jurisdictional patent litigation. (D.I. 231 at ¶¶ 1-3) On February 27, 2015, Cox moved for partial summary judgment of invalidity, under § 112, ¶ 2, of various claims in the '6,561, '3,561, '052, '932, '429 and '064 patents. (D.I. 207) On May 15, 2015, the court granted partial summary judgment and held that the “processing system” term within the relevant claims is indefinite under § 112, ¶ 2. (D.I. 231 at ¶¶ 6-15) Sprint appealed to the Federal Circuit, which reversed “[b]ecause ‘processing system’ does not prevent the claims, read in light of the specification and the prosecution history, from informing those skilled in the art about the scope of the invention with reasonable certainty.” *Cox Commc’ns, Inc. v. Sprint Commc’n Co. LP*, 838 F.3d 1224, 1226 (Fed. Cir. 2016).

2. In *Cox*, the Federal Circuit declared that “the sole source of indefiniteness that Cox complains of, ‘processing system,’ plays no discernable role in defining the scope of the claims,” in that removing the term “processing system” would not change the meaning of the claim, nor would replacing the term with “computer.” *Id.* at 1229-1231. “If ‘processing system’ does not discernably alter the scope of the claims,” the Court reasoned, “it is difficult to see how this term would prevent the claims . . . from serving their notice function under § 112, ¶ 2.” *Id.* at 1231. The Court explained that while “the common practice [is] of training questions of indefiniteness on individual claim terms, . . . indefiniteness under § 112, ¶ 2 must ultimately turn on the question set forth by *Nautilus*: whether the ‘**claims** [and not claim terms], read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Id.* at 1232 (emphasis in original) (citing *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014)). The court read claim 1 of the '3,561 patent and claim 1 of the '064 patent in light of the associated disclosures in the specifications and concluded that a person

having ordinary skill in the art would understand the limitations encompassing the “processing system” terms with reasonable certainty. *Id.* at 1233.

3. Cox argues that Cox teaches that

a person of ordinary skill would understand the scope of these claims by reading them in light of what the specification teaches about the claimed method; namely, the disclosures which describe how the claimed invention “receives a signal from a traditional telephone network and processes information related to that voice call to select the path that the voice call should take through the data network.”

(D.I. 505 at 11-12, citing *Cox*, 838 F.3d at 1226 and 1232-33) Cox contends that the Federal Circuit’s opinion on indefiniteness stands in for claim construction, because the Court has identified “the basis on which a person of ordinary skill would understand the scope of the claim.” (D.I. 505 at 15) As a result, Cox argues “that the claims [must] be read the way the Federal Circuit has instructed.” (*Id.*) In the *Cox* opinion, the Federal Circuit found claim 1 of the ‘3,561 patent not indefinite, because “[t]he specification discloses, **as an embodiment** of a ‘processing system,’ the CCP and provides details about how it functions to ‘select[] the network elements and the connections that comprise the communications path.’” *Cox*, 838 F.3d at 1233 (emphasis added) (citing ‘3,561 patent, 6:23-25). Cox cites this (and other) language in the opinion as the reason for construing the “processing system” term as “a call processing system capable of receiving and transmitting signaling and processing signaling to select the path for routing a call.” (D.I. 490 at 8) According to Cox, “the Federal Circuit has effectively resolved this dispute” over claim construction. (D.I. 505 at 23) The court disagrees. Even in the Federal Circuit’s opinion, the cited example is identified “as an embodiment,” which reflects the specification’s reference to the example as “one embodiment.” (‘3,561 patent, 6:23) The court declines to read limitations into the claims based solely upon exemplary embodiments relied upon by the Federal Circuit in its opinion.

4. **“A network code that identifies a network element to provide egress from the packet communication system;”**³ **“a network code that identifies a network element to provide egress . . . from the packet communication system;”**⁴ and **“a network code representing a network element to egress the call from the packet system:”**⁵ “A code identifying a network element that provides an exit from the packet communication system.” Claim 1 of the ‘3,561 patent recites:

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

(‘3,561 patent, 22:12-32 (emphasis added)) The specification describes, with reference to figure 1, the role of the communication control processor (“CCP”) in establishing communications paths:

On a standard call that establishes a communications path from first point 170 to second point 172, first point 170 will signal Telecommunications System 110 that it requests the communications path. This signaling is directed to CCP 120 over first link 191. CCP 120 processes the signaling

³ Found in ‘3,561 patent, claim 1.

⁴ Found in ‘3,561 patent, claim 24; ‘052 patent, claim 1.

⁵ Found in ‘6,561 patent, claim 14.

and selects at least one network characteristic in response to the signaling. Network characteristics might be network elements, connections, network codes, applications, or control instructions to name a few examples.

(‘3,561 patent, 6:8-16) “One skilled in the art will recognize that the selection process can be distributed among the CCP and the elements.” (‘3,561 patent, 7:20-21) The specification identifies a number of possible architectures:

The CCP might select all the network elements, a portion of the network elements, or none of the network elements leaving the switches to select the remainder. The CCP might select all of the connections, a portion of the connections, or none of the connections, again leaving the elements to select the remainder. The CCP may select combinations of the above options, but the CCP will always select at least one network characteristic.

(‘3,561 patent, 7:22-29) The specification also explains that:

The CCP performs many functions. In one embodiment, it accepts signaling from a first point or LEC and provides appropriate signals in accord with the communication control selections it has made. These selections are network characteristics. The CCP may select network elements such as switches, servers, or network codes. The CCP may select connections, such as DS0 circuits and ports. The CCP may select particular telecommunications applications to be applied to the communications path. The CCP may select particular control instructions for particular devices. The CCP may also receive information from entities such as SCPs, operational control, or switches to aid in its selections.

(‘3,561 patent, 13:28-39) The CCP may select network elements, and “[n]etwork codes are the logical addresses of network elements. One such code is a destination code that facilitates egress from telecommunications system 310.” (‘3,561 patent, 12:49-51)

5. **“Packet routing information:”**⁶ “Information used to route user communication in a packet format.”⁷

⁶ Found in ‘6,561 patent, claim 11.

⁷ See *infra* note 37. Cox argued that this term “cannot be construed outside of the context provided by the full limitation in which it appears.” (D.I. 490 at 5) Cox’s proposed construction narrows “packet routing information” to “select[ing] the network elements and the connections that comprise the communications path for a call.” (D.I.

6. **“Route the user communication through the packet communication system to the network element:”**⁸ “Direct the user communication through the packet communication system to the network element.”⁹

7. **“Routes the user communication based on the packet routing information:”**¹⁰ “Directs the user communication through the packet system based on the packet routing information.”¹¹

8. **“Transferring the communications to the selected narrowband switch:”**¹² Consistent with Sprint’s proposal, the court does not construe this limitation.^{13,14} Claim 1 of the ‘932 patent recites:

490 at 13) Nothing in the specification or the claims suggests that applicant intended to limit this claim term as Cox had proposed.

⁸ Found in ‘3,561 patent, claims 1 and 24.

⁹ Cox proposed “direct the user communication through a packet communication system over the selected path.” (D.I. 490 at 5) Claim 1 of the ‘3,561 patent recites “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.” (‘3,561 patent, 22:26-29) There is no antecedent basis for Cox’s proposed “the selected path,” because no path has been selected. The “route the user communication” step develops a route to the network element. Moreover, the specification is not limited to methods that select the entire call path. (‘3,561 patent, 7:22-29) For these reasons, the court adopts Sprint’s construction.

¹⁰ Found in ‘6,561 patent, claim 11.

¹¹ Cox proposed “directs the user communication through a packet communication system over the selected path.” (D.I. 490 at 6) For the same reasons as above with the related term in claims 1 and 24 of the ‘3,561 patent, the court adopts Sprint’s construction. See *supra* note 9.

¹² Found in ‘932 patent, claim 1.

¹³ Cox proposed “transferring the user communication across the asynchronous communication system **over the selected path** to the narrowband switch.” (D.I. 490 at 6 (emphasis added)) There is no antecedent basis for Cox’s proposed “the selected path” in the claim. Cox’s proposal adds limitations not found in the claim or required by the specification. Therefore, the court adopts Sprint’s proposal.

¹⁴ The court does not usually apply a plain and ordinary meaning to disputed claim limitations. However, in the case at bar, the parties’ disagreements are not disputes as

A method for handling a call having a first message and communications, the method comprising:

receiving and processing the first message in a processing system external to narrowband switches to select one of the narrowband switches;

generating a second message in the processing system based on the selected narrowband switch and transmitting the second message from the processing system; and

receiving the second message and the communications in an asynchronous communication system and **transferring the communications to the selected narrowband switch** in response to the second message.

(‘932 patent, 22:12-24 (emphasis added)) A call has “a first message and communications.” (‘932 patent, 22:12-13) The “first message” is received “in a processing system external to narrowband switches” and is processed “to select one of the narrowband switches.” (‘932 patent, 22:14-16) This provides antecedent basis for “the selected narrowband switch” discussed elsewhere in the claim and in the relevant language. The “communications” are identified in the preamble, leaving “transferring” as the only term not defined within the claim. The parties propose language that relies on the plain and ordinary meaning of “transferring.” (D.I. 490 at 6) Given a lack of dispute over the meaning of claim language, the court does not construe this limitation.

9. **“Transferring a packet including the network code and the user communication from the device to the packet communication system;”¹⁵ and “transferring the user communication in the packet format to a packet system.”¹⁶** Consistent with Sprint’s proposal, the court does not construe these limitations.¹⁷

to the meaning of the claim language, as opposed to an apparent attempt by Cox to add narrowing language.

¹⁵ Found in ‘052 patent, claim 1.

¹⁶ Found in ‘6,561 patent, claim 11.

¹⁷ Cox proposed limiting this term to “transferring . . . from outside of the packet communication system to a network element within the packet communication system.”

10. **“Processing system:”**¹⁸ “A call processing system capable of receiving and transmitting signaling and processing signaling to select information for routing a call.” The parties agree to this language with the exception of “information.” Cox proposed “the path” instead of “information” and argued extensively that the processing system must select “the path” for the call.¹⁹ (D.I. 505 at 22-28) The ‘3,561 specification employs open-ended language that accommodates numerous architectures:

The CCP might select all the network elements, a portion of the network elements, or none of the network elements leaving the switches to select the remainder. The CCP might select all of the connections, a portion of the connections, or none of the connections, again leaving the elements to select the remainder. The CCP may select combinations of the above options, but the CCP will always select at least one network characteristic.

(D.I. 490 at 7) Cox argued that “[t]he transfer has to originate either inside of the system or outside of it. There are no other possibilities.” (D.I. 505 at 22) The claim limitation is that “the device” “transfer[s] a packet including the network code and the user communication” “to the packet communication system in response to the instruction.” (’052 patent, 22:22-24) Cox did not identify any support in the specification for the proposed narrowing limitations. Therefore, the court adopts Sprint’s proposal. See *supra* note 13.

¹⁸ Found in ‘932 patent, claim 1; ‘052 patent, claim 1; ‘3,561 patent, claims 1, 24; ‘6,561 patent claim 11; ‘429 patent, claim 1; ‘064 patent, claim 1.

¹⁹ Cox argued that the Federal Circuit’s decision on indefiniteness provides the construction of the “processing system” term. (D.I. 505 at 23-24, citing Cox, 838 F.3d at 1226) According to the Federal Circuit, “[b]oth sets of patents describe the use of a ‘processing system,’ which receives a signal from a traditional telephone network and processes information related to that voice call **to select the path** that the voice call should take through the data network.” Cox, 838 F.3d at 1226 (emphasis added). Cox contended that “the Federal Circuit held that it was this [selecting the path] functionality as recited in all of the patents’ specifications that defined their scope sufficiently to permit persons of ordinary skill to understand them.” (D.I. 505 at 24) The language cited by Cox is in the “background” section, and nothing in the opinion suggests that the Federal Circuit intended to limit the construction of “processing system” to the embodiments discussed in the background section.

(‘3,561 patent, 7:22-29) In the ‘429 patent, the signaling processing system²⁰ routes calls through an asynchronous transfer mode (“ATM”) network with great specificity, identifying multiplexer inputs and outputs as well as defining the call path through the ATM cross connect by identifying virtual circuits and virtual paths. (‘429 patent, 4:66-5:39) However, the scope of the ‘429 patent relates primarily to call routing through the ATM network but not beyond it. For example, the preferred embodiment, with reference to figure 12, explains that:

If the data handler is not required at 1210, the service is implemented and the route is selected at 1215. This may occur if a service can be directly implemented by the origination manager or through the local resource. For example, particular 800 [number] translations or dialed number service profiles (i.e. call forwarding) can be stored in the local resource. In this case, route selection would be performed by the local resource after the information is analyzed to identify the correct entry to a local resource database. When the local resource is used, the messages must be routed from the detection point processor through the feature manager and switching manager to the local resource.

(‘429 patent, 19:6-18) In these embodiments, a “local resource” would perform “route selection.” Neither of the two specifications nor the claims require the processing system to select “a path” or “the path” for the call. Therefore, the court adopts Sprint’s construction.

11. “Processing the signaling message to select²¹ a network code that identifies a network element to provide egress from the packet communication

²⁰ In a preferred embodiment, “the signaling processor” is also known as the call connection manager (“CCM”). (‘429 patent, 10:57-60)

²¹ The parties agreed that the court’s construction of “process[ing] . . . to select” to mean “process[ing] . . . to participate in the selecting” applies. (D.I. 490 at 2; D.I. 400, ¶ 19)

system for the user communication²²; [and] generating a control message²³ indicating the network code.”²⁴ Consistent with Sprint’s proposal, the court does not construe this limitation.²⁵

12. “Selecting a network code that identifies a network element to provide egress for the user communication from the packet communication system²⁶ to a narrowband communication system; [and] generating a control message²⁷ indicating the network code.”²⁸ Consistent with Sprint’s proposal, the court does not construe this limitation.²⁹

13. “Processing the first message in a processing system external to narrowband switches to select³⁰ one of the narrowband switches; [and]

²² The court has construed the “a network code” term above. *See supra* ¶ 1.

²³ The parties agreed that the court’s construction of “generating [e.g., a message]” to mean “assembling information to create [e.g., a message]” applies. (D.I. 490 at 2; D.I. 400, ¶ 21)

²⁴ Found in ‘3,561 patent, claim 1.

²⁵ Cox proposed the construction “processing signaling to select the network elements and the connections that comprise the communications path for a call, and generating a call set up message containing that path.” (D.I. 490 at 11) The court has already provided construction for limitations found within this term, and Cox’s proposed language would add limitations not found in the claim or the specification. Therefore, the court does not construe this term separately.

²⁶ *See supra* note 22.

²⁷ *See supra* note 23.

²⁸ Found in ‘3,561 patent, claim 24.

²⁹ Cox proposed the construction “processing signaling to select the network elements and the connections that comprise the communications path for a call, and generating a call set up message containing that path.” (D.I. 490 at 12) The court has already provided construction for limitations found within this term, and Cox’s proposed language would add limitations not found in the claim or the specification. Therefore, the court does not construe this term separately.

³⁰ *See supra* note 21.

generating a second message³¹ in the processing system based on the selected narrowband switch.”³² Consistent with Sprint’s proposal, the court does not construe this limitation.³³

14. “Processing one of a Signaling System #7 (SS7) signaling message and a Q.931 signaling message for a call to select³⁴ packet routing information³⁵ for the call.”³⁶ Consistent with Sprint’s proposal, the court does not construe this limitation.³⁷

15. “Processing the signaling to select a network code that identifies a network element to provide egress for the user communication from the packet communication system³⁸.”³⁹ Consistent with Sprint’s proposal, the court does not construe this limitation.⁴⁰

³¹ See *supra* note 23.

³² Found in ‘932 patent, claim 1.

³³ Cox proposed the construction “processing signaling to select the network elements and the connections that comprise the communications path for a call, and generating a call set up message containing that path.” (D.I. 490 at 13) The court has already provided construction for limitations found within this term, and Cox’s proposed language would add limitations not found in the claim or the specification. Therefore, the court does not construe this term separately.

³⁴ See *supra* note 21.

³⁵ The court has construed the “packet routing information” term above. See *supra* ¶ 1.

³⁶ Found in ‘6,561 patent, claim 11.

³⁷ Cox proposed the construction “processing SS7 or Q.931 signaling to select the network elements and the connections that comprise the communications path for a call.” (D.I. 490 at 13) The court has already provided construction for limitations found within this term, and Cox’s proposed language would add limitations not found in the claim or the specification. Therefore, the court does not construe this term separately.

³⁸ See *supra* note 22.

³⁹ Found in ‘052 patent, claim 1.

⁴⁰ Cox proposed the construction “processing signaling to select the network elements and the connections that comprise the communications path for a call, and generating a

16. **“Communication switches;”**⁴¹ **“narrowband switches;”**⁴² and **“telecommunication switches;”**⁴³ “Devices that set up calls and relay voice and/or data information from one connection to another.”⁴⁴ Claim 23 of the ‘3,561 patent recites “[t]he method of claim 1 wherein the processing system is external to any communication switches.” (‘3,561 patent, 23:18-19) The specification describes that “[t]he present invention also includes a telecommunications signaling system for use in conjunction with a plurality of telecommunication switches.” (‘3,561 patent, 4:13-15)

call set up message containing that path.” (D.I. 490 at 13) The court has already provided construction for limitations found within this term, and Cox’s proposed language would add limitations not found in the claim or the specification. Therefore, the court does not construe this term separately.

⁴¹ Found in ‘3,562 patent, claims 23 and 38.

⁴² Found in ‘932 patent, claim 1.

⁴³ Found in ‘429 patent, claim 5; ‘064 patent, claim 7.

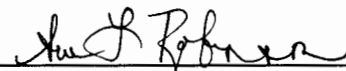
⁴⁴ Cox proposed construing “switch(es)” as “network element(s) that participate(s) in setting up calls and that relay(s) signaling and voice for a call to and from other network elements.” (D.I. 490 at 14) Within the ‘3,561 patent, “network element” is defined broadly:

A network element is a telecommunications device such as a switch, server, service control point, service data point, enhanced platform, intelligent peripheral, service node, adjunct processor, network element of a different network, enhanced system or other network related device, server, center or system.

(‘3,561 patent, 4:58-63) According to this definition, a “switch” is a “network element,” but a “network element” is not necessarily a “switch.” The relevant claims place the “processing system” external to the narrowband switches, therefore, defining a “switch” broadly as a “network element” (which is just about any device connected to the network) would significantly narrow the scope of the relevant claims. Cox has not identified any support in the specifications to justify such a narrowing. Moreover, many types of devices “participate” in setting up calls, but not all of those devices are “switches,” so such a definition of “switch” to include the broad range of devices that “participate in setting up calls” would be unnecessarily broad and would lead to further narrowing in the relevant claims. The language proposed by Sprint more closely reflects the specification and the “correspondence between communication control and a communications path [that] is well known in the art.” (‘3,561 patent, 1:56-57) Therefore, the court adopts Sprint’s proposal.

"Narrowband switches are advantageous for voice . . . [u]nfortunately, narrowband switches do not have the capacity, speed, and multimedia capabilities of broadband switches." ('3,561 patent, 2:63-3:6) The patents use "communication switches," "telecommunications switches," and "narrowband switches" interchangeably to refer to switches in the traditional telephone network.⁴⁵ The '3,561 specification also states that these "[s]witches select the connections that comprise the communications path . . . [and] the network elements which form an actual part of the communications path." ('3,561 patent, 1:49-52) In addition, a "first switch will . . . select other network elements such as a second switch. . . and establish[] a connection between the switches." ('3,561 patent, 1:62-65)

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



Senior United States District Judge

⁴⁵ By contrast, "broadband switches" (of which "ATM switches" are one type) are the other type of switch discussed in the patents. ('429 patent, 1:54; '3,561 patent, 3:5-6)