

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

SCIENTIFIC TELECOMMUNICATIONS, LLC,)
)
 Plaintiff,)
)
 v.) Civ. No. 15-647-SLR
)
 ADTRAN, INC.,)
)
 Defendant.)

MEMORANDUM ORDER

At Wilmington this *10th* day of November, 2016, having heard argument on, and having reviewed the papers submitted in connection with, the parties' proposed claim construction;

IT IS ORDERED that the disputed claim language of U.S. Patent Nos. 6,058,429 ("the '429 patent") and 7,222,188 ("the '188 patent")¹ 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 '188 patent is a continuation of the '429 patent.

Terms Common To The '429 and '188 Patents

1. **[A] switch:**² “Circuitry and/or software that transfers data between one or more connected components or virtual components (such as a VLAN).” Defendant argued that applicant made various limiting statements during prosecution of the '188 patent, which is a continuation of the '429 patent. (D.I. 58 at 1-4; *see also* D.I. 59, ex. D-2 at 31) Defendant asked the court for the following construction:

“Switch” is a device that does not use or participate in any routing protocols, **even on occasion**, to calculate where data needs to be transferred, and is without routing capability **including the capability to issue its own ARP requests**.

(D.I. 55 at 1) (emphasis added) This is a series of negative limitations, and defendant’s argument was based upon a characterization of the prosecution history as including a series of limiting statements; however, defendant never demonstrated that these statements contain limitations not already discussed in the specification. For example, in distinguishing the Bryant reference, applicant stated that “the claimed invention [is] a **switch** that comprises a mechanism to send information contained within a packet without use of a routing function (or protocol).” (D.I. 59, ex. D-2 at 80) (emphasis added) The examiner rejected the claims under § 112, ¶ 1 for lack of enablement (D.I. 59, ex. D-2 at 48) In response, applicant discussed the known art:

As the Examiner is aware, typical switches operate based on “layer two” (L2 of the OSI model) addresses. Routers, however, not only identify the protocol of an incoming packet and the destination of the packet predetermined based on L3 information, but also perform operations in accordance with a routing protocol on each incoming packet in order to determine the most cost-effective path for data of the incoming packet. For instance, a router operating in accordance with Open Shortest Path First (OSPF) routing protocol generates link state routing data and obtains link state routing data from other nodes in the network in order to calculate the best path from a source device to a destination device. Thus, prior to

² Found in claim 1 of the '429 patent and claims 6 and 26 of the '188 patent.

the claimed invention, it is Applicants' contention that switches did not rely on L3 information to determine where to transfer information.

(D.I. 59, ex. D-2 at 31) Applicant then discussed the Bryant reference:

In contrast [to Bryant], the claimed **switch** does not use or participate in any routing protocols to calculate where data needs to be transferred. Instead, as set forth in the specification of the subject application, the switch monitors router control messages, such as ARP messages for example, to populate tables with the switch.

(*Id.*) (emphasis in original) The switch “monitors [L3] router control messages . . . to populate tables,” but does not route data at Layer 3. This statement is consistent with the specification, which includes statements such as “[b]y inspecting certain packets that flow between the devices and the routers, the learning internetwork switch learns the location of the devices **without having to use a routing protocol.**” (‘429 patent, abstract) (emphasis added) The specification also discusses, beyond Layer 3, that the switch employs Layer 2 routing, and it is not clear that applicant intended to disclaim all forms of routing outside of Layer 3. (‘429 patent, 10:62, 11:5, figure 5, items 506 and 510) While the intrinsic evidence shows that applicant distinguished a switch from a router, as was known in the art, there is nothing in the specification or the prosecution history that suggests that applicant intended to use the term “switch” differently from the plain and ordinary meaning.³ In light of numerous similar statements in the specification and claims, defendant has not demonstrated that any of applicant’s statements are—in fact—limiting. Since applicant’s statements are consistent with the specification, defendant has provided no basis to explain why the court should import these limitations from the specification into the claims. Moreover, defendant has not explained why the court should add additional limitations (e.g., “even on occasion” and “including the

³ Plaintiff provided extrinsic evidence to support the plain and ordinary meaning of “switch.” (See, e.g., D.I. 57, ex. C at 6)

capability to issue its own ARP requests”) to its construction. For these reasons, the court adopts plaintiff’s proposal.

2. **[A] router:**⁴ “Circuitry and/or software that may use routing protocols to calculate where data needs to be transferred.”⁵

3. **Port:**⁶ “Circuitry and/or software that forms a point to point interface between two components or networks.”⁷

The ‘429 Patent

4. **Preamble, claim 1:** Not limiting.⁸

⁴ Found in claim 1 of the ‘429 patent and claims 6 and 26 of the ‘188 patent.

⁵ The parties agreed that “a router may use routing protocols to calculate where data needs to be transferred.” (D.I. 58 at 5) Defendant argued that a “router must be a separate device external to the claimed switch.” (*Id.*) This construction is not supported by the specification; therefore, the court adopts plaintiff’s construction.

⁶ Found in claim 1 of the ‘429 patent and claim 6 of the ‘188 patent.

⁷ Defendant proposed that a port is “[a] physical interface for connecting to an external device or network.” (D.I. 55 at 1) Defendant’s extrinsic evidence, requiring that a port include a “physical interface,” was not persuasive. Meanwhile, plaintiff provided extrinsic evidence that supports a construction not tied to a physical interface. (D.I. 56 at 6-7) For these reasons, the court adopts plaintiff’s construction.

⁸ Defendant argued that the preamble to claim 1 of the ‘429 patent is limiting, because allegedly limiting statements made by applicant during prosecution must be imputed to the preamble. (D.I. 58 at 2-4) As discussed above, the court disagrees. “In general, a preamble is limiting if it is necessary to give life, meaning, and vitality to the claim.” *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1357 (Fed. Cir. 2012) (internal citations and quotation marks omitted). The preamble recites, “[a] learning internetwork switch for use in a network that includes a plurality of virtual local area networks.” (‘429 patent, claim 1) Here, the preamble does not provide antecedent basis for the terms in the claim, and there is nothing in the preamble that is necessary to “give life, meaning, and vitality” to the claim. Moreover, defendant’s prosecution history argument and proposed construction is not persuasive. For these reasons, the preamble is not limiting.

5. **A first set of ports connecting the learning internetwork switch to a set of virtual local area networks:**⁹ “A first set of ports, each of which forms a point to point interface between the learning internetwork switch and at least one virtual local area network in a set of virtual local area networks.”¹⁰

6. **Each virtual local area network . . . is locally attached to the learning internetwork switch:**¹¹ “Each virtual local area network is attached via a port to the learning internetwork switch.”¹²

7. **A second set of ports connecting the learning internetwork switch to a router, wherein devices that belong to the virtual local area networks in the set of virtual local area networks communicate with the router by transmitting packets**

⁹ Found in claim 1 of the ‘429 patent

¹⁰ Defendant proposed “Each VLAN of the set of VLANs is connected to its own port of the first set of ports on the learning internetwork switch.” (D.I. 58 at 16-17) While the embodiment shown in the figures and discussed in the specification demonstrates a one-to-one correspondence between VLANs and ports, nothing in the specification limits the invention as such. Defendant argued that the

specification is clear that for **each port** of the switch attached to a VLAN, a **corresponding port** of the switch is attached to the router.

(D.I. 58 at 17) (emphasis added) The relevant text of the specification states that the

learning internetwork switch contains a **connection** to each virtual local area network and a **corresponding connection** to the router.

(‘429 patent, 3:19-21) (emphasis added) Defendant did not explain how “connection” must be interpreted as “port.” Plaintiff’s construction matches the language of the claim, which does not require a one-to-one relationship between ports and VLANs. (‘429 patent, claim 1) Moreover, plaintiff’s extrinsic evidence of VLAN trunking is a plausible example of an architecture that does not require a one-to-one correspondence and that meshes with the above language in the specification. (D.I. 57, ex. F at 2) For this reason, the court adopts plaintiff’s construction.

¹¹ Found in claim 1 of the ‘429 patent

¹² The court adopts plaintiff’s construction, because defendant’s proposal followed “from the one-to-one correspondence between a VLAN and a port of the first set of ports of the switch.” (D.I. 58 at 18) The court did not adopt defendant’s construction requiring a one-to-one correspondence between ports and VLANs. *See supra* note 10.

through the learning internetwork switch:¹³ “A second set of ports, each of which forms a point-to-point interface between the learning internetwork switch and a router, and is configured to transmit packets from devices in the virtual local area networks to the router.”¹⁴

8. A learning mechanism that inspects control packets sent between the router and the devices:¹⁵ Support is found in the specification in the form of an algorithm described with reference to figures 3 and 4. (‘429 patent, figs. 3a, 3b, steps 304, 306, 314, and 316; 5:40-7:46; figs. 4a, 4b, steps 404, 414; 8:32-39; 9:12-15) Section 112, ¶ 6 does not apply.¹⁶ Not indefinite.¹⁷

¹³ Found in claim 1 of the ‘429 patent

¹⁴ See *supra* note 12.

¹⁵ Found in claim 1 of the ‘429 patent

¹⁶ The structure described in the ‘429 patent is a computer-implemented algorithm. “To one of skill in the art, the ‘structure’ of computer software is understood through, for example, an outline of an algorithm, a flowchart, or a specific set of instructions or rules.” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014), overruled by *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015). *Williamson* overruled the strength of the presumption applied in *Apple*, but *Apple* remains on point for computer-implemented inventions that do not employ means-plus-function language. Plaintiff identified support in the specification for the algorithm. (D.I. 56 at 17) Defendant failed to demonstrate that a person of ordinary skill in the art would not recognize the algorithm as sufficiently definite structure. (D.I. 58 at 7) For this reason, the disclosed algorithm is sufficiently definite structure, and § 112, ¶ 6 does not apply. See *Williamson*, 792 F.3d at 1349.

¹⁷ Plaintiff argued that “learning mechanism” is indefinite because the specification does not disclose corresponding structure. (D.I. 58 at 11) As discussed above, § 112, ¶ 6 does not apply, and “corresponding structure” is only used in the test for indefiniteness under that section. The Patent Act, § 112, ¶ 2, requires “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.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, ___ U.S. ___, 134 S.Ct. 2120, 2129 (2014). Here, defendant did not address the *Nautilus* factors; therefore, the claim is not indefinite.

9. **Control packets:**¹⁸ “Parts of a network packet containing information used for configuring or routing network communications.”¹⁹

10. **The learning mechanism storing association data that indicates a correspondence between data link layer addresses, network layer addresses, and the first set of ports based on information contained in the control packets:**²⁰

Support is found in the specification in the form of an algorithm described with reference to figures 3, 4, and 6. (‘429 patent, figs. 3a, 3b, steps 308, 318; 6:50-55; 7:40-42; fig. 4c, step 422; 9:43-46; fig 6, steps 608, 614; 11:31-46) Section 112, ¶ 6 does not apply.²¹ Not indefinite.²²

11. **Traffic:**²³ “Digital information that travels within and between points in a network.”²⁴

¹⁸ Found in claim 1 of the ‘429 patent

¹⁹ Claim 1 recites “control packets sent between the router and the devices.” The specification discusses “control information contained in the ARP query.” (‘429 patent, 9:13-14) Defendant’s expert stated that, while the embodiments discussed in the specification only “disclose the use of ARP packets,” there are “numerous other protocol candidates which could be considered as ‘control packets’, with different packet formats, and with L2 and L3 addresses and additional information contained within those packets.” (D.I. 58, ex. A at ¶ 123) Defendant argued that “a control packet is **clearly** not a data packet and is at least a packet containing an ARP request or response.” (D.I. 58 at 19) (emphasis added) The court disagrees. The term “data packet” does not appear anywhere in the specification, and it is not apparent from defendant’s argument that the court should import this negative limitation to the “control packet” term. Moreover, defendant’s proposed construction is inconsistent with the specification; therefore, the court adopts plaintiff’s construction.

²⁰ Found in claim 1 of the ‘429 patent

²¹ See *supra* note 16.

²² See *supra* note 17.

²³ Found in claim 1 of the ‘429 patent

²⁴ Defendant argued that “claim 1 and the specification dictate that traffic are data packets carrying messages between devices, not control packets.” (D.I. 58 at 20) The specification does not make this distinction, for example, “[a]ll traffic between the device in the VLANs and the router must pass through the learning internetwork switch.” (‘429

12. **A third set of ports on the router connect the router to the second set of ports:**²⁵ “A third set of ports on the router, each of which forms a point-to-point interface between the router and one of the second set of ports on the learning internetwork switch.”²⁶ Not indefinite.²⁷

13. **The learning mechanism is further configured to store data indicating a correspondence between data link layer addresses of the third set of ports and network layer addresses of the third set of ports based on information contained in the control packets:**²⁸ Support is found in the specification in the form of an algorithm described with reference to figures 3, 4, and 6. (‘429 patent, figs. 3a, 3b,

patent, 3:21-23) There is nothing in the specification or prosecution history to suggest that applicant intended to limit “traffic” to data packets and not control packets.

²⁵ Found in claim 2 of the ‘429 patent

²⁶ See *supra* note 12.

²⁷ Defendant argued that claim 2 is indefinite under *IPXL*, “because it defines the claimed invention with reference [to] the structure of another device and how that device is connected to the claimed invention, such that infringement depends on whether a user makes a single connection of the switch to one port of a router or makes multiple connections to a ‘set of ports’ (plural) on this router.” (D.I. 58 at 21) A claim is indefinite under § 112, ¶ 2 if it “recites a system and the method for using that system.” *IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005); see also *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir. 2011). In *IPXL*, the claim recited both “[t]he system” and “the user uses the input means.” *IPXL*, 430 F.3d at 1384. In *Rembrandt*, the claim claimed “a data transmitting device . . . comprising: first buffer means . . . fractional encoding means . . . second buffer means . . . and **transmitting** the trellis encoded frames.” *Rembrandt*, 641 F.3d at 1339 (emphasis added). Here, claim 2 of the ‘429 patent recites a “learning internetwork switch comprising: a first set of ports . . . a second set of ports . . . a learning mechanism, and said . . . switch using said association data to forward traffic . . . **wherein** a third set of ports on the router connect the router to the second set of ports; and the learning mechanism is further configured” (‘429 patent, claim 2) (emphasis added) The “wherein” clause places additional limitations on the second set of ports and the learning mechanism, but claim 2 does not recite a system and a method for using that system. For these reasons, *IPXL* does not apply, and claim 2 is not indefinite.

²⁸ Found in claim 2 of the ‘429 patent

steps 308, 318; 6:50-55; 7:40-42; fig. 4c, step 422; 9:43-46; fig 6, steps 608, 614; 11:31-46) Section 112, ¶ 6 does not apply.²⁹ Not indefinite.³⁰

The '188 Patent

14. **Preamble, claim 6:** Not limiting.³¹

15. **A plurality of ports adapted for coupling together a plurality of virtual local area networks being at least three virtual local area networks:**³² “A plurality of ports, each of which carries data between a set of virtual local area networks that includes at least three virtual local area networks.”³³

16. **At least one of the plurality of ports is directly coupled to a router so that there are no interceding devices or local area networks between the switch and the router:**³⁴ “At least one of the plurality of ports is connected to a router with no external devices or local area networks in between the switch and the router.”³⁵ Not indefinite.³⁶

17. **A mechanism to (a) analyze information transferred from a source device of a first virtual local area network to a destination device of a second**

²⁹ See *supra* note 16.

³⁰ See *supra* note 17.

³¹ The preamble of claim 6 recites “[a] switch comprising.” (‘188 patent, claim 6) There is nothing in this language to suggest that the preamble is limiting. See *supra* note 8.

³² Found in claim 6 of the ‘188 patent.

³³ See *supra* note 12.

³⁴ Found in claim 6 of the ‘188 patent.

³⁵ Defendant proposed language that required “an external router.” As above, the specification does not require that the router be “external” to the switch. The court adopts plaintiff’s construction.

³⁶ Defendant argued that this term is indefinite under *IPXL*. (D.I. 58 at 22) For the reasons discussed above, *IPXL* does not apply. See *supra* note 27.

virtual local area network:³⁷ Support is found in the specification in the form of an algorithm described with reference to figures 3, 4, and 6. ('429 patent, figs. 3a, 3b, steps 304, 306, 314, and 316; 5:40-7:46; figs. 4a, 4b, steps 404, 414; 9:12-15) Section 112, ¶ 6 does not apply.³⁸ Not indefinite.³⁹

18. A mechanism to . . . (b) store information identifying a port coupled to the second virtual local area network, a layer two (L2) address of the destination device and a layer three (L3) address of the destination device corresponding to

³⁷ Found in claim 6 of the '188 patent.

³⁸ When a claim uses the word “means,” the presumption is that § 112, ¶ 6 applies. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015). Generic terms may be used “in a manner that is tantamount to using the word ‘means’ because they ‘typically do not connote sufficiently definite structure.’” *Id.* at 1350 (citations omitted). Defendant argued that “mechanism” follows means-plus-function format and does not connote any structure. (D.I. 58 at 10) Simply using the term “mechanism,” however, does not automatically trigger § 112, ¶ 6. *Massachusetts Inst. of Tech. & Elecs. For Imaging, Inc. v. Abacus Software*, 462 F.3d 1344, 1354 (Fed. Cir. 2006). When a limitation lacks the term “means,” a challenger may overcome the presumption against means-plus-function treatment by showing that “the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Id.* at 1353 (citations omitted). For example, *Williamson* articulated a two-part test, applying § 112, ¶ 6 to the term “distributed learning control module,” because the court determined that: “module” was a “well-known nonce word that can operate as a substitute for ‘means,’” **and** the “distributed learning control” prefix did not “provide any indication of structure.” *Williamson*, 792 F.3d at 1350-51. An outcome of this two-part test is that the alleged “nonce word” is interpreted to be equivalent to the term “means,” which “creates a presumption that § 112, ¶ 6 applies,” thereby shifting the burden to the patentee. *Id.* at 1349. Here, defendant argued that “mechanism does not connote any structure, because it does not have a “generally accepted structural meaning.” (D.I. 58 at 10) Defendant did not address the second part of the *Williamson* test such as by discussing the language used in conjunction with “mechanism” in the claim; therefore the burden has not shifted, and the presumption is that § 112, ¶ 6 does not apply. (See D.I. 58 at 10; D.I. 61 at 5).

³⁹ Defendant argued that this term is indefinite, because § 112, ¶ 6 applies and the specification **does not recite any structure corresponding to the claimed functions.**” (D.I. 58 at 11) As discussed above, § 112, ¶ 6 does not apply, and “corresponding structure” is only used in the test for indefiniteness under that section. Here, defendant did not address the *Nautilus* factors; therefore, the claim is not indefinite.

the L2 address:⁴⁰ Support is found in the specification in the form of an algorithm described with reference to figures 3, 4, and 6. ('429 patent, figs. 3a, 3b, steps 308, 318; 6:50-55, 7:40-42; fig. 4c, step 422; 9:43-46; fig. 6a, steps 608, 614; 11:31-46) Section 112, ¶ 6 does not apply.⁴¹ Not indefinite.⁴²

19. A mechanism to . . . (c) using the information to forward data between the plurality of virtual local area networks:⁴³ Support is found in the specification in the form of an algorithm described with reference to figures 4, 5, and 6. ('429 patent, figs. 4a-c, 5, 6a-b; 7:50-12:18) Section 112, ¶ 6 does not apply.⁴⁴ Not indefinite.⁴⁵

20. The stored information forming a table that is populated based on prior communications with the router:⁴⁶ "The stored information forms a table containing information included in prior traffic directed to the router." This construction is supported by the specification:

Learning internetwork switch 200 generates a table that reflects the correlation between L2 and L3 addresses based on information learned from inspecting certain packets (e.g. ARP queries and ARP responses) sent between router 126 and the members of the various VLANs 102, 110, and 118.

('429 patent, 4:58-62)⁴⁷

⁴⁰ Found in claim 6 of the '188 patent.

⁴¹ See *supra* note 38.

⁴² See *supra* note 39

⁴³ Found in claim 6 of the '188 patent.

⁴⁴ See *supra* note 38.

⁴⁵ See *supra* note 39

⁴⁶ Found in claim 6 of the '188 patent.

⁴⁷ Defendant proposed that this term be construed as "[t]he external router populates a table in the switch such that the switch does not control its own table population through issuing ARP messages." (D.I. 55 at 7) This argument was based upon statements

21. **Information/the information/the stored information:**⁴⁸ “Digitally encoded data.” Not indefinite.⁴⁹

22. **The information is obtained from packets configured in accordance with an Address Resolution Protocol:**⁵⁰ “Digitally encoded data.” Not indefinite.⁵¹

applicant made during prosecution. (D.I. 58 at 23) During prosecution, in response to an obviousness rejection, applicant stated:

For instance, as an example, neither of these references, alone or in combination, suggest a switch featuring L2/L3 tables populated by the router, with the switch directly coupled to the router as set forth in certain claims, and uses the populated information to perform subsequent packet transfers.

(D.I. 59, ex. D-1 at 133) The specification provides that the switch controls the table and populates the table based upon information contained in packets sent between the router and the VLANs. (‘429 patent, 4:58-62) There is nothing in the specification to suggest that “populated by the router” means that “the external router populates a table in the switch.” Applicant’s use of the passive voice in prosecution does not suggest that defendant may now rewrite the statement in the active voice and select the router as the actor. For a better indication of applicant’s intent, applicant amended claim 6 (which was claim 24 during prosecution) to include the language in question at the same time that applicant sent the reply to the USPTO. (See D.I. 59., ex. D-1 at 133; *compare id.* at 164 *with id.* at 124) Applicant’s statement to the USPTO may not have been especially articulate or clear, but applicant’s contemporaneous claim amendment to overcome an obviousness rejection clarified that the table “is populated based upon prior communications with the router.” (*Id.* at 124) For this reason, the court rejects defendant’s construction.

⁴⁸ Found in claim 6 of the ‘188 patent.

⁴⁹ Defendant argued that the limitations make it impossible to send a message to a third VLAN, even though claim 6 requires at least three VLANs. (D.I. 58 at 25) The court disagrees with defendant’s reading of the claim. Defendant also did not address the key question under *Nautilus* of claim scope as would be understood, with reasonable certainty, by a person of ordinary skill in the art. For these reasons, the claim is not indefinite.

⁵⁰ Found in claim 7 of the ‘188 patent.

⁵¹ Defendant argued that claim 7 is indefinite, “because the antecedent relationship between ‘the information’ in claim 7 and the various references to ‘information’ in claim 6 is not reasonably certain.” (D.I. 58 at 26) Defendant’s argument appears to be based upon defendant’s reading of claim 6 and the specification to mean that an ARP packet cannot be the “information” transferred at step (a); however, defendant did not adequately explain this position. (*Id.*)

23. Packets configured in accordance with an Address Resolution Protocol:⁵² “Packets containing at least some information that was determined according to an Address Resolution Protocol.”⁵³

24. The mechanism uses the information by (i) determining both the L2 address of the destination device and the port coupled to the second network based on the L3 address of the destination device supplied by the source device:⁵⁴ Support is found in the specification in the form of an algorithm described with reference to figures 3, 4, and 6. (See D.I. 56 at 23) Section 112, ¶ 6 does not apply.⁵⁵ Not indefinite.⁵⁶

25. The mechanism uses the information by . . . (ii) setting a destination of packets of the data to the L2 address of the destination device:⁵⁷ Support is found in the specification in the form of an algorithm described with reference to figures 5 and 6. (See D.I. 56 at 23) Section 112, ¶ 6 does not apply.⁵⁸ Not indefinite.⁵⁹

⁵² Found in claim 7 of the ‘188 patent.

⁵³ Defendant proposed “Packets that originate and are received by a device or a router connected to the same VLAN that request or provide a layer two (L2) address of a device or router port (gateway) on that VLAN.” (D.I. 55 at 7) The specification suggests provisions for accommodating ARP packets. (See, e.g., ‘429 patent, 11:18-24) Defendant, citing embodiments discussed in the specification, argued that ARP packets “are not sent from a device on one VLAN to a device on another VLAN.” (D.I. 58 at 24) Other than this citation to the specification, defendant presented no evidence to support this conclusion. Defendant’s proposal requires the court to read these (and other) limitations from the specification into the claim; therefore, the court adopts plaintiff’s construction.

⁵⁴ Found in claim 26 of the ‘188 patent.

⁵⁵ See *supra* note 38.

⁵⁶ See *supra* note 39

⁵⁷ Found in claim 26 of the ‘188 patent.

⁵⁸ See *supra* note 38.

⁵⁹ See *supra* note 39

26. **Storing a layer three (L3) address and a layer two (L2) address corresponding to the L3 address in a table accessible by a switch:**⁶⁰ “Storing a layer three (L3) address and a layer two (L2) address corresponding to the L3 address in a table from which data can be read by a switch.”⁶¹

27. **A router directly coupled to the switch with no interceding devices or local area networks between the switch and the router:**⁶² “A router that is connected to a switch with no external devices or local area networks in between the switch and the router.” Not indefinite.⁶³

28. **Destination device:**⁶⁴ “The device to which the packet is directed.”⁶⁵

29. **The data structure:**⁶⁶ “A table.” Not indefinite.⁶⁷

⁶⁰ Found in claim 26 of the ‘188 patent.

⁶¹ Defendant proposed “an external router populates a table accessible by a switch with layer three (L3) address and a layer two (L2) address corresponding to the L3 address.” (D.I. 55 at 8) The court adopts plaintiff’s construction, because the court already determined that the router must not be external to the switch and that the router does not populate the table. See *supra* notes 5, 35, and 47.

⁶² Found in claim 26 of the ‘188 patent.

⁶³ Defendant argued that this term is indefinite under *IPXL*. (D.I. 58 at 29) For the reasons discussed above, *IPXL* does not apply. See *supra* note 27.

⁶⁴ Found in claims 6 and 26 of the ‘188 patent.

⁶⁵ The parties appear to agree as to this term. (D.I. 55 at 8-9)

⁶⁶ Found in claim 26 of the ‘188 patent.

⁶⁷ Applicant used the terms “data structure” and “table” interchangeably during prosecution, amending the claim language between the two. For example, the independent claims “feature a limitation of **a data structure (or table)** being populated based on prior communications with the router.” (D.I. 59, ex. D-1 at 132) (emphasis added) A person having ordinary skill in the art would read the specification and claims as “table” providing antecedent basis for “data structure” in claim 26.

30. **The packet directed to the router:**⁶⁸ “The packet ‘communicat[ed] . . . to a router’ in step (c).” Not indefinite.⁶⁹

31. **The string of the L3 address and the corresponding L2 address is in a table contained in the switch:**⁷⁰ Not indefinite.⁷¹

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


United States District Judge

⁶⁸ Found in claim 26 of the ‘188 patent.

⁶⁹ The parties agreed to the meaning of this term, and defendant agreed that this term is not indefinite. (D.I. 58 at 29)

⁷⁰ Found in claim 27 of the ‘188 patent.

⁷¹ A person having ordinary skill in the art would understand “string” to refer to the table of L3 and L2 addresses in claim 26 part (a).