IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION

PARITY NETWORKS, LLC	§ §	
v.	§ §	**CASE NO. 6:17-cv-683-JDK-KNM**
HEWLETT PACKARD ENTERPRISE COMPANY	§ § § § § §	**CONSOLIDATED**

PARITY NETWORKS, LLC	§ §	**CASE NO. 6:17-cv-526-JDK-KNM**
v.	§ §	**CONSOLIDATED (Lead Case)**
ERICSSON, INC.	§ § § §	

MEMORANDUM OPINION AND ORDER

This Memorandum Opinion and Order construes the disputed claim terms in United States Patent Nos. 7,468,978 ("the '978 Patent"), 6,643,287 ("the '287 Patent), 6,763,394 ("the '394 Patent), 7,107,352 ("the '352 Patent"), and 6,870,844 ("the '844 Patent) asserted in this suit by Parity Networks, LLC ("Plaintiff") against Defendants.[1]

On December 6, 2018, the parties presented oral arguments on the disputed claim terms at a *Markman* hearing. For the reasons stated herein, the Court **ADOPTS** the constructions set forth below.

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[1] The only remaining Defendant in this suit is Hewlett Packard Enterprise Company ("Defendant" or "HPE").

BACKGROUND

Plaintiff alleges that Defendant infringes six asserted patents: the '978 Patent, the '287 Patent, the '394 Patent, the '352 Patent, the '844 Patent, and United States Patent No. 6,252,848 ("the '848 Patent) (collectively, "the asserted patents"). *See Parity Networks, LLC v. Hewlett Packard Enterprise Co.*, No. 6:17-cv-683, Dkt. No. 1 (E.D. Tex. Dec. 8, 2017).[2]

APPLICABLE LAW

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent's intrinsic evidence to define the patented invention's scope. *Id.* at 1313–1314; *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. Courts give claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent as a whole. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language provides substantial guidance in the Court's construction of claim terms. *Phillips*, 415 F.3d at 1314. "[T]he context in which a term is used in the asserted claim can be highly instructive." *Id.* Other claims, asserted and un-asserted, can provide additional instruction because "terms are normally used consistently throughout the patent." *Id.* The differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

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[2] Hereafter, references to docket numbers will refer to filings in the consolidated lead case *Parity Networks, LLC v. Ericsson, Inc.*, No. 6:17-cv-526 (E.D. Tex. Dec. 8, 2017).

"[C]laims 'must be read in view of the specification, of which they are a part.'" *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *see also Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term a different meaning than the ordinary meaning of the term, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. While the Court generally presumes terms possess their ordinary meaning, statements of clear disclaimer can overcome this presumption. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001). Further, this presumption does not arise when the patentee acts as his own lexicographer. *See Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. For example, "[a] claim interpretation that excludes a preferred embodiment from the scope of the claim 'is rarely, if ever, correct.'" *Globetrotter Software, Inc. v. Elan Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics Corp.*, 90 F.3d at 1583). But, "[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); *see also Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent"). The well-established doctrine of prosecution disclaimer "preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution." *Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). The prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002); *see also Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 994 (Fed. Cir. 2003) ("The disclaimer . . . must be effected with 'reasonable clarity and deliberateness.'") (citations omitted). "Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover." *Spectrum Int'l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988) (quotation omitted). "As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public's reliance on definitive statements made during prosecution." *Omega Eng'g, Inc.*, 334 F.3d at 1324.

Although "less significant than the intrinsic record in determining the legally operative meaning of claim language," the Court may rely on extrinsic evidence to "shed useful light on the relevant art." *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but "conclusory,

unsupported assertions by experts as to the definition of a claim term are not useful." *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

ANALYSIS

I.   Agreed Terms

Twenty terms were originally identified as disputed in the Joint Claim Construction and Prehearing Statement. *See* Doc. No. 35. In its Opening Claim Construction Brief, Plaintiff withdrew one term from dispute due to its preliminary claim election and addressed the other nineteen terms. *See* Doc. No. 66. In its Responsive Claim Construction Brief, HPE withdrew its dispute of fourteen terms. *See* Doc. No. 75 at 19-20. Subsequently, in its Reply Brief, Plaintiff asked the Court to adopt its constructions because HPE withdrew its disputes after Plaintiff filed its Opening Claim Construction Brief. *See* Doc. No. 76. The parties' chart of agreed terms submitted with its Joint Claim Construction Statement presented these fifteen withdrawn claim terms as "agreed" terms along with additional "agreed" terms. *See* Doc. No. 90-2. However, the parties' chart contained two different constructions for fourteen of the purportedly "agreed" terms. *See* Doc. No. 90-2. Accordingly, the Court declines to construe those fourteen terms as no agreed construction has been presented by the parties and constructions for these terms were not argued in the *Markman* hearing.

The parties have submitted the following "agreed" terms for which agreed constructions were also presented (Doc. No. 90-2):

a. The '287 Patent and the '978 Patent:

Term	Agreed Construction
"such that said value is also associated with the source and destination nodes on the first subnetwork" (The '287 Patent claims 1, 19)	Plain and ordinary meaning.

b. The '394 Patent and the '352 Patent:

Term	Agreed Construction
"content addressable memory (CAM)" (The '394 Patent claims 4, 5, 6, 10, 11, 12, 16, 17, 18, 22, 23, 24) (The '352 Patent claims 6, 7, 8, 14, 15, 16, 22, 23, 24, 30, 31, 32)	Memory for which a lookup is done by using the content one wishes to match rather than addresses.
"egress pass/drop determinations" (The '394 Patent claim 1) (The '352 Patent claim 1)	Plain and ordinary meaning
"an egress port identity" / "egress port number" (The '394 Patent claim 1) (The '352 Patent claim 1)	Plain and ordinary meaning
"lookup table" (The '394 Patent claims 1, 7, 13, 19) (The '352 Patent claims 2, 5, 11, 19, 27, 29)	Plain and ordinary meaning
"In a network packet router, an ingress port, comprising:" (The '394 Patent claim 7) (The '352 Patent claim 9)	In a network packet router, an ingress port comprising:
Preamble	Preambles are limiting

In light of the parties' agreements on the proper construction of these terms, the Court

ADOPTS AND APPROVES these constructions.

II.   Disputed Terms in the '287 Patent and the '978 Patent:

The '287 Patent, filed on November 24, 1999, is entitled "Apparatus and Method for Forwarding Packets on a Network having Multiple Links Between Nodes," and issued on November 4, 2003. The '978 Patent is a continuation application from the '287 Patent and is entitled "Apparatus and Method for Forwarding Encapsulated Data Packets on a Network Having Multiple Links Between Nodes." The '978 Patent, filed November 4, 2003, issued on December 23, 2008, and bears a priority date of November 24, 1999. The '287 Patent and the '978 Patent share a specification and are family members. *See* Doc. No. 66 at 7; Doc. No. 75 at 4. The Abstract states:

> An apparatus and method for encapsulating and forwarding packets on a network are disclosed. The network can include a first subnetwork such as a virtual private network connected to a larger public network such as the Internet. An encapsulating header is attached to a packet to be transferred across the public network from a source node on the private network to a destination node on the private network, such that the packet can be transferred across the public network. The encapsulating header includes a value which is derived from the private header on the packet used to transfer the packet along the private network. The value is therefore associated with a source/destination pair within the private network. The value can be derived from the private network header is attached to the packet, it can be forwarded across the public network. A logical operation such as a hash operation can be performed on the public network header to select one of a plurality of possible paths on the public network to forward the packet. As a result, each source/destination pair within the private network will be associated with a path within the public network. Traffic from the private network can therefore be distributed over multiple paths in the public network, thus reducing or eliminating traffic congestion and overload.

a. **"using the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet" / "uses the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet" (Claims 1, 19 of the '287 Patent; Claims 1, 12 of the '978 Patent)**

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning or "using the second header portion that includes the value derived from the first header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet"	"using / uses the derived value in the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet~~, such that different paths are selected for packets having different derived values~~"

The parties initially disputed the construction of the above-referenced terms, but at the *Markman* hearing the parties' agreed to a construction where "at least the derived value in the second header portion" is used to select a path. *See* Hearing Transcript (Doc. No. 96) at 28:8-29:2.

Therefore, the Court construes **"using the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet"** to mean **"using at least the derived value in the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet."** Likewise, the Court construes **"uses the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet"** to mean **"uses at least the derived value in the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet."**

III. Disputed Terms in the '394 Patent and the '352 Patent

The '394 Patent, filed on August 22, 2001, is entitled "Virtual Egress Packet Classification at Ingress," and issued on July 13, 2004. The '352 Patent is a continuation application from the

'394 Patent and is entitled "Virtual Egress Packet Classification at Egress." The '352 Patent, filed

July 12, 2004, issued on September 12, 2006, and bears a priority date of August 22, 2001. The

'394 Patent and the '352 Patent share a specification and are family members. *See* Doc. No. 66 at

7; Doc. No. 75 at 10. The Abstract states:

> In a network packet router having one or more ingress and egress ports, a method
> is implemented at an ingress port for egress pass/drop determination for packets,
> comprising the steps of (a) noting header combinations and values, and egress port
> destination for incoming packets; (b) comparing the header combinations and
> values with rule sets associated with the header combinations and values including
> egress port identities, and (c) returning a determination of pass or drop for the
> packet.

a. **"a system implemented at an ingress port for egress pass/drop determination
for packets" (Claim 1 of the '394 Patent; Claim 1 of the '352 patent)[3]**

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Preamble is limiting	Preamble is limiting.
Plain and ordinary meaning. Rejecting proposal regarding "all egress pass/drop determinations" and "all egress rules for packets."	"a system implemented at an ingress port for all egress pass/drop determinations for packets"

At issue is whether the claim terms should be construed to require "all" egress pass/drop

determinations for packets to be performed at the ingress port. Plaintiff first argues that the claim

language plainly shows that "pass/drop determinations" are implemented at an ingress port—not

"by" an ingress port. Doc. No. 66 at 17. Plaintiff points to the claim language that "specifies that

a system is implemented at an ingress port for egress pass/drop determinations." *Id.* Plaintiff argues

that "[t]here is nothing in the claim that prevents or limits another system or subsystem at another

location from performing other determinations." *Id.* at 18.

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[3] Plaintiff no longer asserts method claims for these patents. The only remaining disputed terms relate to the system claims. *See* Hearing Transcript (Doc. No. 96) at 30:17-24. Plaintiff also agrees that the preambles of claim 7 and 9 of the '394 and '352 Patents, respectively, are limiting. Doc. No. 75 at 11 n. 3.

Plaintiff next argues that HPE's construction requiring "*all* egress pass/drop determination for packets" to be made at an ingress port adds an exclusion to the claim language where "there is no such language of exclusion in the claim." *Id.* This interpretation, Plaintiff argues, violates the basic principle of patent law that "[m]odification by mere addition of elements of functions, whenever made, cannot negate infringement without disregard of the long established, hornbook law . . . ." *Id.* at 18 (quoting *Amstar Corp. v. Envirotech Corp.*, 730 F.2d 1476, 1482 (Fed. Cir. 1984)).

Plaintiff then notes that "[w]hile the specification does suggest that performing determinations for egress ports at egress ports may . . . be 'obviated,' . . . it does not teach that performing any determination at any port other than the specified ingress ports is never desirable." *Id.* (citing the '352 Patent at 2:56). Parity concludes that such a negative limitation may only be made by a "clear disavowal of claim scope." *Id.* (citing *Advanced Micro Devices, Inc. v. LG Elecs., Inc.,* 2017 WL 1383271, at *11 (N.D. Cal. Apr. 18, 2017)).

In response, HPE argues that the "clear disavowal" in the '394 Patent's intrinsic record confirms that "all egress pass/drop determinations" must be performed at the ingress port. Doc. No. 75 at 11. HPE contends the '394 Patent attempted to overcome issues in the prior art "by moving all of the egress pass/drop determinations to the ingress port." *Id.* (citing the '394 Patent at 2:28-49). To support its argument, HPE points to a number of passages within the '394 Patent that allegedly support its argument that "all pass/drop functionality" is only implemented at ingress. *See id.* at 12 (citing Doc. No. 66-5 at 5:8-10 ("A further advantage for doing all pass/drop functions at ingress is that no packets will then be processed in the router"); 5:11-12 ("implemented only at ingress ports"); 5:21-22 ("This allows all functionality to be implemented at ingress ports"); 5:33-34 ("the ingress and egress lookups, both performed at the ingress ports"); 5:47-50 ("With an

ACL according to the present invention, all pass/drop functionality occurs at ingress, and the mechanisms at egress are no longer necessary")).

Thus, HPE concludes, "the intrinsic record confirms that the patentee limited the performance of all pass/drop functionality to be performed exclusively at the ingress port." *Id.* (citing *Poly-America v. API Industries, Inc.*, 839 F.3d 1131, 1136-1137 (Fed. Cir. 2016); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002); *Hormone Research Found., Inc. v. Genentech, Inc.*, 904 F.2d 1558, 1563 (Fed. Cir. 1990)). HPE finally argues that Plaintiff is trying to recapture "through claim construction what it surrendered to the public." *Id.* at 13 (citing *MarcTec, LLC v. Johnson & Johnson*, 2010 WL 3075289, *2 (Fed. Cir. 2010); *Mass Inst. Of Tech v. Shire Pharm., Inc.*, 839 F.3d 1111, 1119 (Fed. Cir. 2016)).

In its reply, Plaintiff argues that HPE has not shown "a clear and unmistakable disavowal." Doc. No. 76 at 6 (citation omitted). Plaintiff further argues that the specification passages cited by HPE "simply state that it may be more advantageous to move egress determination to ingress, and 'the mechanisms at egress are no longer necessary." *Id.* (citing the '352 Patent at 5:56-60). Plaintiff further contends that "[n]othing is claimed relative to a system implemented at an egress port, or not implemented at an egress port, and the claims are not directed to what characteristics an egress-associated system may have." *Id.* Plaintiff concludes "[p]erforming at least some but not all egress determinations at ingress provides the benefit that at least some egress pass/ drop determinations can be made at an ingress port by the system without passing these packets to the egress port for pass/drop determinations . . . ." *Id.*

First, the plain language of Claims 1 of the '352 and '394 Patents does not include the limitation that "all" pass/drop determinations must be made at the ingress port. The plain language of the claims actually contemplates additional ports potentially with other functionality. Claim 1

of the '352 and '394 Patents provides that "[i]n a network packet router having *one or more ingress and egress ports*, a system implemented *at an ingress port* for egress pass/drop determination for packets . . . ." '352 Patent at 6:22-24; '394 Patent at 6:11-13 (emphasis added). The plain language of the claims supports Plaintiff's argument that the claims cover "what occurred at specific ingress ports, not what does not occur at all other ports, including egress ports." Doc. No. 66 at 18. Put differently, the claim preambles contemplate having "one or more ingress and egress ports" within the network packet router, and the claims are directed to "a system implemented *at an ingress port*." '352 Patent at 6:22-24; '394 Patent at 6:11-13.

Second, Plaintiff's argument that the addition of the term "all" would improperly limit the claims scope also finds support in the specification. For example, the specification states that the lookup of egress port information at the ingress port "*allows* all functionality to be implemented at the ingress ports, and there is no loss of functionality at egress ports." '352 Patent at 5:32-34 (emphasis added). In other words, the claimed invention "allows all functionality to be implemented at the ingress ports," but does not require it be implemented only at ingress ports. Additionally, after recognizing "some manufacturers may prefer to implement the ACL pass/drop function at only ingress ports," the specification provides, "[w]hat is clearly needed is a method and apparatus that enables a router or server to accomplish both ingress and egress pass/drop functionality at ingress ports, *obviating the need* for the mechanisms to accomplish the function at egress ports." '352 Patent at 2:48-58. This statement further supports Plaintiff's proposed construction because "obviating the need for the mechanisms to accomplish the function at egress ports[ ]" does not mean that function at egress ports is "excluded" by the invention. In sum, Plaintiff's proposed construction finds support in the plain language of the claims as well as the specification.

Third, the specification statements relied on by HPE do not show a "clear and unmistakable" disavowal of claim scope. HPE's strongest evidence that "all" pass/drop determinations must be made at ingress ports is a statement from the specification that provides: "With an ACL according to the present invention, all pass/drop functionality occurs at ingress, and the mechanisms at egress are no longer necessary, without any loss in functionality." '352 Patent at 5:56-59. However, as previously discussed, the specification also provides that the invention "allows" pass/drop determinations to be made at ingress ports but does not require these determinations to be made only at ingress ports. *See* '352 Patent at 5:32-34. The specification is, at best, ambiguous as to whether all egress determinations must be made at ingress and, therefore, does not provide a "clear and unmistakable" disavowal of claim scope. *See Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012) ("The standard for disavowal of claim scope is . . . exacting."); *Home Diagnostics, Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1358 (Fed. Cir. 2004) ("Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language."); *Alloc, Inc. v. ITC*, 342 F.3d 1361, 1377 (Fed. Cir. 2003) (Schall, J., dissenting) (citing *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002)) ("A specification may only be used to limit a claim if a patentee has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.").

Therefore, the Court construes **"a system implemented at an ingress port for egress pass/drop determination for packets"** to have its **plain and ordinary meaning.** The Court further finds the preamble limiting and expressly rejects HPE's proposal regarding "all egress pass/drop determinations for packets."

b. **"ingress port[s] comprising/comprise . . . a first mechanism for noting header [field] combinations and values, and egress ports for transmission . . . and a second mechanism . . . returning a rule [determination] for the packet" (Claims 7, 13 of the '394 Patent; Claims 9, 17 of the '352 Patent)**

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning. Rejecting proposal regarding "all egress rules for packets"	"ingress port[s] comprising/comprise . . . a first mechanism for noting header [field] combinations and values, and egress ports for transmission . . . and a second mechanism for determining all egress rules for packets"

The parties only dispute whether the ingress port's second mechanism must determine "all" egress rules or rule determinations for packets.

Plaintiff argues that the claims, as written, do not support the limitation urged by HPE. Doc. No. 66 at 24. Plaintiff argues that "[i]t is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Id.* (quoting *Phillips*, 425 F.3d at 1312). Plaintiff also argues that "the Federal Circuit has consistently held that even if there is a single embodiment disclosed in the specification, it is inappropriate to limit the claims to that embodiment." *Id.* at 24-25 (citing *Phillips*, 425 F.3d at 1323 ("In particular, we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.")).

In response, HPE again argues that the '394 Patent "mandates that all egress determinations occur at the ingress port." Doc. No. 75 at 13. Accordingly, HPE relies upon its arguments presented for the term above. *Id.* at 14.

In its reply, Plaintiff points out that the "claimed function is 'returning a [particular] rule [determination] for the packet'" and "[t]he claim term is directed to how a packet is treated." Doc. No. 76 at 7. Plaintiff then argues that HPE's construction modifies "the meaning of this function

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and extrapolate[s] the function across 'all rules[,]'" effectively "rewriting" the meaning of the claim term. *Id.* (citations omitted).

The plain language of Claim 7 of the '394 Patent and Claim 9 of the '352 Patent does not include a limitation that the second mechanism must return "all" rule determinations for the packet. Claim 7 of the '394 Patent and Claim 9 of the '352 Patent are directed to "*an ingress port*, comprising . . . a second mechanism . . . returning *a rule for the packet*." *See* '394 Patent at 6:39-48; '352 Patent at 6:53-61 (emphasis added). Likewise, the plain language of Claim 13 of the '394 Patent and Claim 17 of the '352 Patent does not include a limitation that the second mechanism must return "all" rule determinations for the packet. Claim 13 of the '394 Patent and Claim 17 of the '352 Patent are directed to "[a] network packet router comprising: one or more ingress ports; and one or more egress ports; characterized in that individual ones of the ingress ports comprise . . . a second mechanism . . . returning *a rule determination* for *the* packet." *See* '394 Patent at 7:1-14; '352 Patent at 7:15-24 (emphasis added). The language of the claims does not support the limitation that the second mechanism return "all" rules or rule determinations for the packet. *See Phillips*, 415 F.3d at 1312 ("It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'"); *see also Vitronics Corp. v. Conceptronic*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) ("[W]e look to the words of the claims themselves . . . to define the scope of the patented invention.").

Again, for the reasons discussed previously, the Court rejects HPE's argument that the '394 and the '352 Patents mandate that all egress determinations occur at ingress. The specification statements relied on by HPE do not show a "clear and unmistakable" disavowal of claim scope. The specification is, at best, ambiguous as to whether all egress determinations must be made at ingress and, therefore, does not provide a "clear and unmistakable" disavowal of claim scope. *See*

Thorner, 669 F.3d at 1366 ("The standard for disavowal of claim scope is . . . exacting."); *Home Diagnostics, Inc.*, 381 F.3d at 1358 ("Absent a clear disavowal or contrary definition in the specification or the prosecution history, the patentee is entitled to the full scope of its claim language."); *Alloc, Inc.*, 342 F.3d at 1377 ("A specification may only be used to limit a claim if a patentee has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.").

Therefore, the Court construes **"ingress port[s] comprising/ comprise . . . a first mechanism for noting header [field] combinations and values, and egress ports for transmission . . . and a second mechanism returning a rule [determination] for the packet"** to have its **plain and ordinary meaning**. The court expressly rejects the addition of "all" to the claim term and finds the preamble limiting.

IV.   Disputed Terms of the '844 Patent

The '844 Patent, filed on May 10, 2001, is entitled "Apparatus and Methods for Efficient Multicasting of Data Packets," and issued on March 22, 2005. The '844 Patent is a continuation-in-part to U.S. patent application Ser. No. 09/800,678, entitled "An Improved System for Fabric Packet Control," filed on March 6, 2001. The Abstract states:

> A multicast engine is provided in plurality within a router for replicating and/or modifying packets identified as multicast packets. In preferred embodiments the engine is integrated with one or more ports of a router, particularly with one or more ports of fabric cards. In one implementation the multicast engine is associated with a table having instructions for replicating or modifying multicast packets received, and forwarding the packets accordingly.

a. **"output to the ingress path into the [] port" (Claims 1, 10, 15, 20) / "output to the ingress path via one or more of the first ports to one or more of the second ports" (Claim 22)**

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning.	"output to the ingress path through the [] port"

As an initial matter, Plaintiff states in its reply that "[it] is not necessarily opposed to HPE's construction in the narrow context of 'output to the ingress path into the port' and 'output to the ingress path via one or more of the first ports to one or more of the second ports[.]'" Doc. No. 76 at 11. At the *Markman* hearing, Plaintiff further indicated that it may be amenable to a narrow construction of "output to the ingress path into the port" to mean "output to the ingress path through the port," but argued "into" should not be replaced with "through" in every instance. Hearing Transcript (Doc. No. 96) at 53:4-23. However, Plaintiff did not agree with HPE's proposed construction of "output to the ingress path via one or more of the first ports to one or more of the second ports." *See* Hearing Transcript (Doc. No. 96) at 60:12-21.

At issue is whether the claim terms should be construed to require the ingress path be "through" the port rather than simply "to" the port.

Initially, HPE frames the dispute as whether "a 'path' must go through the port." Doc. No. 75 at 15. However, the word "path" appears in the claim terms "ingress path" and "egress path." *Id.* Plaintiff responds that HPE is "improperly attempting to construe terms that it did not identify for construction[ ]" by arguing that "both the claimed 'egress path' and 'ingress path' must go *through* the port even though 'egress path' does not appear in the claim phrase HPE identified for construction." Doc. No. 76 at 10. However, at the *Markman* hearing HPE clarified that it only submitted ingress path for construction. Hearing Transcript (Doc. No. 96) at 50:16-24, 55:5-8.

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HPE argues that the intrinsic evidence "mandates that the 'path' go through the port." Doc.

No. 75 at 15. HPE points to statements made during prosecution of the '844 Patent where the

patentee distinguished the Takahashi prior art reference:

> The Examiner has further stated that port 110 a Takahashi has at least one ingress
> path 109 into the port for receiving the data packets, and at least one egress path
> 121 out of the port for outputting data packets. Applicant points out to the
> Examiner, however, that applicant's ingress path is a path <u>through</u> the port . . . , not
> simply <u>to</u> the port, as in Takahashi, and applicant's egress path is also a path through
> the port, not simply leading from the port, as in Takahashi.

Id. (quoting Doc. No. 75-5 at 13). HPE argues that "to overcome Takahashi, the applicant limited

its claimed invention to paths going *through* the port—not simply paths going *to* the port." *Id.*

(emphasis in brief). HPE also points to the following statement from the same Response to Office

Action to support its construction:

> To paraphrase for the Examiner, the multicast engine therefore receives (input)
> multicast data packets for replication/readdressing from the egress path from the
> crossbar switching facility, and *transmits (output) the replicated/readdressed*
> *multicast data packets to the ingress path through multicast port 325*, and
> ultimately to the crossbar switching facility along the ingress path.

Id. at 16 (citing Doc. No. 75-5 at 11) (emphasis in brief).

Accordingly, HPE argues "the patentee disclaimed any other possible construction" "[b]y

clearly and unmistakably limiting 'ingress path' and 'egress path' to paths going *through* the port

in order to overcome prior art rejections[.]" *Id.* at 16 (citing *Omega Eng'g Inc. v. Raytek Corp.*,

334 F.3d 1314, 1323-24 (Fed. Cir. 2003); *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570,

1576 (Fed. Cir. 1995)). HPE argues that Plaintiff "cannot now recapture the broader claim scope

that the patentee surrendered to the public." *Id.* (citing *Chimie v. PPG Indus.*, 402 F.3d 1371, 1384

(Fed. Cir. 2005); *Omega Eng'g*, 334 F.3d at 1323-24).

The patentee's statements during prosecution of the '844 Patent clearly limit "ingress path"

to ingress paths going through the port rather than simply to the port. During prosecution of the

'844 Patent, the examiner rejected claims 15-20 as being anticipated by the Takahashi prior-art

reference (U.S. Patent No. 6,240,075). Doc. No. 75-5 at 9, 12. In an attempt to overcome the

Takahashi reference, the patentee stated:

> The Examiner has further stated that port 110 a Takahashi has at least one ingress
> path 109 into the port for receiving the data packets, and at least one egress path
> 121 out of the port for outputting data packets. *Applicant points out to the
> Examiner, however, that applicant's ingress path is a path <u>through</u> the port (refer
> to applicant's Fig. 5), not simply <u>to</u> the port, as in Takahashi,* and applicant's egress
> path is also a path through the port, not simply leading from the port, as in
> Takahashi.

Doc. No. 75-5 at 13 (emphasis added). The patentee clearly limited its ingress path to "a path

through the port . . . , not simply to the port. . . ." in an attempt to overcome the Takahashi prior-

art reference. *Id.* In the same Response to Office Action, the patentee, in an attempt to overcome

another rejection, explained that "the multicast engine therefore receives (input) multicast data

packets from replication/readdressing from the egress path from the crossbar switching facility,

and *transmits (output) the replicated/readdressed multicast data packets to the ingress path

through multicast port 325 . . . ." Id.* at 11. Based on the arguments made by Plaintiff to distinguish

the Takahashi prior-art reference along with the explanation of the invention in the prosecution

history, Plaintiff has clearly limited "ingress path" to ingress paths going through the port. *See

Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) ("[W]here the patentee

has unequivocally disavowed a certain meaning to obtain his patent, the doctrine of prosecution

disclaimer attaches and narrows the ordinary meaning of the claim congruent with the scope of the

surrender.").

HPE correctly points out that the '844 Patent's specification also supports the argument

that the patentee limited the scope of the term "ingress path" to being "through the port" as opposed

to "simply to the port." The '844 Patent contains a diagram of a multi-cast port 325 in Figure 5,

reproduced below. Figure 5 shows a path from the Crossbar (C-Bar) through the port 325 to an Egress and a path from Ingress through the port 325 to the Crossbar (C-Bar). The '844 Patent describes that "data packets not designated for multicasting may have ingress/egress through this port." '844 Patent at 9:2-4. Further, the '844 Patent effectively labels these paths as ingress/egress paths, stating that the port "is illustrated with *an egress path (from C-Bar to egress) and an ingress path (from ingress to C-Bar).*" '844 Patent at 9:13-14 (emphasis added). Thus, the "ingress path" and the "egress path" are shown and described in the specification as paths "through the port" as shown in Figure 5 of the '844 Patent
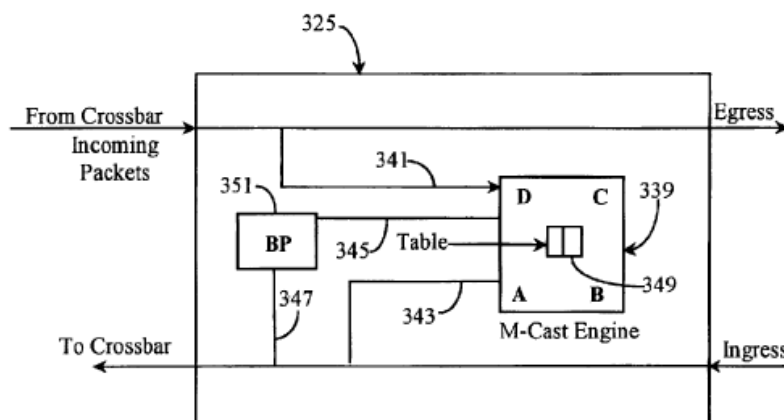
Therefore, in light of the prosecution history and the description in the specification, the patentee has limited "ingress path" to paths going "through the port" and "not simply to the port." Accordingly, the Court construes **"output to the ingress path into the [] port"** to mean **"output to the ingress path through the [] port."** The Court construes **"output to the ingress path via one or more of the first ports to one or more of the second ports"** to mean **"output to the ingress path through one or more of the first ports to one or more of the second ports."**

b. **"[packets] are diverted" / "[packets] are delivered" / "[packets] are diverted" / "[packets] are delivered" (Claims 1, 10, 15, 20)**

Plaintiff's Proposed Construction	Defendants' Proposed Construction
Plain and ordinary meaning.	"[packets] are identified and [delivered]" / "[diverted] from the egress path"

At issue is (1) whether the packets must be diverted/delivered "from the egress path," and (2) whether the packets must be "identified" in order to be diverted/delivered.

1. Diverted/delivered "from the egress path":

With respect to "where the data packets are diverted from," Plaintiff argues that HPE is improperly attempting "to add the limitation of 'redirected from the output path." Doc. No. 66 at 28. Plaintiff emphasizes that the claim language states where the packets arrive from—*i.e.*, "the data packets 'arrive at the port on an egress path' or 'arrive at the multicast-capable fabric card[.]'" *Id.* Plaintiff also points out that "the claims as written do not exclude the possibility that the packets could reach another point than that which they arrived at before they are redirected or delivered, yet HPE's proposal would mandate that the packets must only be 'redirected from the output path.'" *Id.*

HPE argues that the packets that are "diverted / delivered to the multicast-capable engine" "are on the egress path." Doc. No. 75 at 18. HPE points to the prosecution history where statements are made that packets "arrive at the port on the egress path" and that "packets assigned for multicasting *are diverted from the egress path* to the multicast engine 339." *Id.* (citing Doc. No. 75-5 at 11, ¶ 1) (emphasis in brief). HPE further points to the following prosecution history statement as support: "To paraphrase for the examiner, the multicast engine therefore receives

(input) multicast data packages for replication/readdressing from the egress path from the crossbar switching facility." *Id.* at 19 (citing Doc. No. 75-5 at 10, ¶2). Thus, HPE concludes, "[m]ulticast data packets are received (diverted or delivered) from the egress path." *Id.*

Plaintiff replies that "HPE's attempt to introduce a limitation on where the packets are diverted or delivered" improperly narrows the claim scope because packets can "potentially [be] diverted from another point than the point at which the packets arrived, i.e. (sic) the egress path." Doc. No. 76 at 9. Plaintiff appears to agree with HPE that the packets arrive from "the egress path," but contends that packets may be "diverted from another point than the point at which the packets arrived . . . ." *Id.* Plaintiff argues that the statements in the prosecution history do not amount to a "clear disavowal of claim scope." *Id.*

The varied statements in the specification and in the prosecution history do not amount to an unambiguous disavowal of claim scope. For example, the specification for the '844 Patent describes that multicast packets are received "from the Crossbar Switching Facility." *See* '844 Patent at 9:13-29 ("Basic functionality in the present embodiment of the invention involves incoming multicast packets destined for port 325 (identified herein as Incoming Packets) entering port 325 *from the Crossbar Switching Facility* (327, FIG. 4) and *delivered to engine 339* by an input line 341 for packet replication."). However, as HPE points out, statements in the prosecution history describe that multicast packets are "diverted from the egress path" and are received "from the egress path from the crossbar switching facility." *See* Doc. No. 75-5 at 10. The specification statements and the statements in the prosecution are varied and do not amount to a clear disavowal of claim scope. *See Omega Eng'g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324 (Fed. Cir. 2003) (stating the court has "declined to apply the doctrine of prosecution disclaimer where the alleged disavowal of claim scope is ambiguous.").

The plain language of the claims also specifies how the packets "arrive" and to where they are "diverted" or "delivered." Claim 1, for example, provides that "data packets assigned for multicasting *arrive at the port on the egress path* and are *diverted to the multicast-capable component . . . .*" '844 Patent at 11:41-43. Claim 10 provides that "data packets assigned for multicasting *arrive at the multicast-capable fabric card* and are *delivered to the multicast engine . . . .*" *Id.* at 12:11-13. Claim 15 provides that "data packets assigned for multicasting *arrive at the port on the egress path* and are *diverted to the multicast-capable component . . . .*" *Id.* at 12:37-39. Likewise, Claim 20 provides that "data packets assigned for multicasting *arrive at the fabric card* and are *delivered to the multicast engine . . . .*" *Id.* at 12:60-62. Accordingly, because the claims already specify how the packets arrive and to where they are diverted or delivered, an additional limitation of "from the egress path" would not clarify these claim terms and would improperly narrow the claim scope.

Accordingly, the Court rejects the added limitation that the packets are "delivered" or "diverted" "from the egress path."

2. **"Identified"**:

With respect to whether the packets must be "identified" as multicast packets to be delivered/diverted, Plaintiff argues that "'redirected' and 'delivered' do not necessarily involve identification." Doc. No. 66 at 27-28. Plaintiff argues that construing those terms to include identification would improperly add a claim limitation that is not supported by the intrinsic or extrinsic evidence." *Id.* at 27-28.

In response, HPE argues that "in order to be diverted or delivered, the multicast packets must first be identified as multicast packets." Doc. No. 75 at 19. HPE argues "the egress port can handle other types of packets *at the same time.*" *Id.* (citing the '844 Patent at 9:10-12). Therefore,

HPE contends, "it is inherent that there be some way to identify or distinguish packets designated as multicast as they travel from the crossbar through the port so that they can be diverted or delivered to the multicast-capable component." *Id.*

In reply, Plaintiff argues that the "identification" limitation improperly narrows the scope of the claim "by limiting the way the diversion or delivery of the packets is achieved." Doc. No. 76 at 8. HPE, by way of example, argues "HPE's construction forecloses the potential for the diversion or delivery to alternatively be achieved by identification of packets that are not to be diverted or delivered to the multicast-capable component or multicast engine." *Id.* at 8-9.

The language of Claims 1, 10, 15, and 20 provide that "data packets *assigned* for multicasting" arrive and are then diverted or delivered. *See* '844 Patent at 11:41-43, 12:11-13, 12:37-39, 12:60-62 (emphasis added). The language of the claims implies that it is already known which packets are multicasting packets because the claims specifically state the "data packets *assigned* for multicasting" arrive and are then delivered or diverted. Thus, the claim language already contemplates that some type of identification occurred because the data packets are already "assigned" for multicasting when they arrive and are diverted or delivered.

To show some type of identification must occur, HPE points to an embodiment of the invention where "both normal traffic and multicast traffic . . . utilize port 325 simultaneously." '844 Patent 9:10-12. HPE argues that "it is inherent that there be some way to identify . . . packets designated as multicast . . . ." Doc. No. 75 at 19. However, the specification of the '844 Patent also describes an embodiment of the invention where "normal traffic cannot use port 325 during active multicasting." '844 Patent at 9:6-9. For this embodiment of the invention, all packets flowing to the multicast port would be multicast packets while the port is actively multicasting. Thus, no identification would be needed in this embodiment because all packets going to the multicast port

would be multicast packets. Accordingly, the simultaneous use embodiment of the invention relied on by HPE does not mandate the addition of an "identification" limitation to the claims. Adopting such a limitation would ignore the embodiment of the invention where "normal traffic cannot use port 325 during active multicasting" and identification is clearly not needed. '844 Patent at 9:6-9. Even assuming there is an "identification" in all embodiments of the '844 Patent, this alone is not necessarily enough to read a limitation of "identification" into the claims from the specification. *See Arlington Indus. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1254 (Fed. Cir. 2011) ("[E]ven where a patent describes only a single embodiment, claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words of expressions of manifest exclusion or restriction."). Additionally, the '844 Patent also appears to provide an explanation for how packets are identified and routed to the multicast port, for example, by using the virtual output queues (VOQs) positioned outside of the multicast port. *See* '844 Patent at 7:49-8:13, FIG. 6. In sum, HPE's argument that a packet "identification" requirement must be added to the claim terms as an inherent requirement falls short.

Therefore, the Court construes **"[packets] are diverted" / "[packets] are delivered" / "[packets] are diverted" / "[packets] are delivered"** to have their **plain and ordinary meaning.**

<div align="center">

CONCLUSION

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For the foregoing reasons, the Court hereby **ADOPTS** the above claim constructions for the patents-in-suit. For ease of reference, the Court's claim interpretations are set forth in a table in Appendix A.

So ORDERED and SIGNED this 28th day of January, 2019.

K. NICOLE MITCHELL
UNITED STATES MAGISTRATE JUDGE

Terms, Phrases, or Clauses	Court's Construction
'287 and '978 Patent "using the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet" "uses the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet"	"using at least the derived value in the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet" "uses at least the derived value in the second header portion, selecting one of a plurality of paths on the second subnetwork for forwarding of the packet"
'394 and '352 Patent "a system implemented at an ingress port for egress pass/drop determination for packets"	Preamble is limiting Plain and ordinary meaning No further construction needed, and expressly rejecting the addition of "all" to the claim term.
'394 and 352 Patent "ingress port[s] comprising/comprise . . . a first mechanism for noting header [field] combinations and values, and egress ports for transmission . . . and a second mechanism . . . returning a rule [determination] for the packet"	Preamble is limiting Plain and ordinary meaning No further construction needed, and expressly rejecting the addition of "all" to the claim term.
'844 Patent "output to the ingress path into the [] port" "output to the ingress path via one or more of the first ports to one or more of the second ports"	"output to the ingress path through the [] port" "output to the ingress path through one or more of the first ports to one or more of the second ports"
'844 Patent "[packets] are diverted" "[packets] are delivered" "[packets] are diverted" "[packets] are delivered"	Plain and ordinary meaning No further construction needed.