NOT FOR PUBLICATION

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

IN RE: TR LABS PATENT LITIGATION	MDL No. 2396 Lead Case: Civil Action No. 09-3883 (PGS) (DEA) (ALL CASES) MEMORANDUM & ORDER

SHERIDAN, U.S.D.J.

On August 10, 2012, this Court issued an order resolving three separate claim construction proceedings in three related cases: *Alberta Telecommunications Research Centre v. AT&T Corp.*, No. 3:09-cv-03883 (D.N.J.); *Alberta Telecommunications Research Centre v. Verizon Services Corp.*, No. 3:10-cv-01132 (D.N.J.); and *Verizon Services Corp. v. Alberta Telecommunications Research Centre*, No. 3:11-cv-01378 (D.N.J.) (collectively, the "Original Cases"). Since issuing that order, the U.S. Judicial Panel on Multidistrict Litigation consolidated the Original Cases with a number of additional cases into a single multidistrict litigation. *In re TR Labs Patent Litig.*, MDL No. 2396. Subsequently, those additional cases have been dismissed and only the Original Cases remain.

The instant matter, another claim construction proceeding, involves three patents: U.S. Patent No. 5,850,505, titled "Method for Preconfiguring a Network to Withstand Anticipated Failures," filed November 1, 1995 ("the '505 Patent"); U.S. Patent No. 6,421,349, titled "Distributed Preconfiguration of Spare Capacity in Closed Paths for

Network Restoration," filed July 11, 1997 ("the '349 Patent"); and U.S. Patent No. 6,404,734, titled "Scalable Network Restoration Device," filed October 6, 1998 ("the '734 Patent"), which the Court has since held to be exhausted, but the disputed claim term "upon occurrence of a failure . . . communications may be routed" is construed below. ECF No. 296. In addition, U.S. Patent No. 7,260,059, titled "Evolution of a Telecommunications Network from Ring to Mesh Structure," filed June 28, 2002 ("the '059 Patent") also involved a disputed claim term, but the Court has since held that this Patent is invalid because of indefiniteness. ECF No. 295. Thus, there is no reason for the Court to construe the disputed term, "increases and optimizes demand served".

Plaintiff, TR Labs, and Defendants, AT&T Corp. and Verizon Services Corp. (collectively "Defendants"), have filed the appropriate claim construction briefs, and a consolidated *Markman* hearing was conducted on Wednesday, October 2, 2013[1]. The Court makes the following claim construction determinations for the four terms that remain in dispute.

I. STANDARDS FOR CLAIM CONSTRUCTION

There is a two-step analysis for determining patent infringement: "first, the court determines the meaning of the disputed claim terms, then the accused device is compared to the claims as construed to determine infringement." *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 804 (Fed. Cir. 2007) (citation omitted). When the court engages in claim construction to determine the meaning of disputed claim terms, it is decided as a matter of law. *Markman v. Westview Instruments*, 517 U.S. 370, 372, (1996). It is well

[1] A draft of a proposed form of the Markman Order was forwarded to the parties on December 23, 2013 (ECF No. 279). The parties commented on the draft Markman Order during a telephonic hearing on January 15, 2014 (ECF No. 281). During that hearing, the Court agreed to review the motion outlined above before finalizing this Markman Order.

established that "the construction of a patent, including terms of art within its claim, is exclusively within the province of the court." *Id*. When construing claims, the court must focus on the claim language. As explained by the Federal Circuit:

> 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. Attending this principle, a claim construction analysis must begin and remain centered on the claim language itself, for that is the language the patentee has chosen to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.

Innova/Pure Water, Inc. v. Safari Water Filtration Sys., 381 F.3d 1111, 1115-16 (Fed. Cir. 2004) (citations omitted). When looking at the words of a claim, the words "are generally given their ordinary and customary meaning," which has been defined as "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005). The Federal Circuit has counseled:

> It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning usage in the field. The inventor's words that are used to describe the invention—the inventor's lexicography—must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decision making process by reviewing the same resources as would that person, viz., the patent specification and prosecution history.

Id. at 1313 (quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998)). Those resources, called intrinsic evidence, include the claim language, the specification, and the prosecution history. *See id*. at 1314.

However, when intrinsic evidence alone does not resolve the ambiguities in a disputed claim term, extrinsic evidence—evidence that is outside the patent and prosecution history—may also be used to construe a claim. *See id*. at 1317; *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582-83 (Fed. Cir. 1996). "[E]xtrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art" may be consulted; for example, expert testimony, dictionaries, and treatises. *Phillips*, 415 F.3d at 1314. However, when a court relies on extrinsic evidence to construe a claim, it is guided by the principle that extrinsic evidence may never conflict with intrinsic evidence. *Id.* at 1319. Courts "have viewed extrinsic evidence in general as less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.* Thus, a court should take care to "attach the appropriate weight to be assigned to those sources." *Id*. at 1322-24.

II. THE DISPUTED CLAIM TERMS– '505 PATENT

A. "forming connections at each digital cross-connect switch"

The '505 Patent describes a method for optimally preconfiguring the network by establishing restoration routes in anticipation for all possible span failures before a span failure occurs. '505 Patent, col. 1, ll. 17-22; col. 1, ll. 66- col. 2, ll. 8. The disputed term is initially found in Claim 1 step three of the method claim, which provides "*forming connections at each digital crossconnect switch* in the network along each restoration route before occurrence of one of the possible span failures . . . ." '505 Patent, Claim 1,

col. 9, ll. 15-19 (emphasis added). The disputed term is found within each claim of the Patent as Claims 2 through 11 are each dependent on Claim 1, and the method described in Claim 12 also includes the disputed term.

TR Labs' proposed construction for the disputed claim term is: "forming cross-connections (as defined) at each digital cross-connect switch." Pf. Opening Br. at 5. Defendants' proposed construction is "forming cross-connections (as defined) ***between spare links*** at each digital cross-connect switch." (emphasis added). Def. Opening Br. at 5. The parties disagree on whether the cross-connections are exclusively between spare links, as Defendants propose, or whether the cross-connections occur between a working and spare links, as TR Labs proposes.

TR Labs' argument is based principally on the fact that during normal network operations, traffic is carried on working links, but when there is a failure, traffic from the failed working link must be directed onto a spare link by forming a cross-connection between the working and spare links. Pf. Opening Br. at 5. Because of that cross-connection, TR Labs contends that the disputed term should not be limited to forming cross-connections exclusively between spare links. *Id.* In support of its construction, TR Labs relies[2] on the introductory language in Claim 1, which describes a "method for restoring traffic." '505 Patent, Claim 1, col. 8, ll. 66. TR Labs asserts that to "restore" traffic, there must be a cross connection to reroute traffic from a working link to a spare link. Pf. Responsive Br. at 1. Additionally, TR Labs refers to Figures 4 through 6 of the '505 Patent, which illustrates a span failure of eight working links between nodes 17 and

[2] TR Labs also references language from the '734 Patent in support of its argument. The Court finds that the concept of working ports and spare ports in the '734 Patent's alleged invention of a specialized nodal switching device is unrelated to the '505 Patent. Therefore, that argument will not be considered to define the disputed term.

19. *Id.* at 1-2. Because of the span failure, as depicted in those figures, TR Labs notes that traffic must be re-routed onto the spare links to the preconfigured restoration path. *Id.* TR Labs concludes that it would be impossible for traffic to be re-routed from a failed working link onto a spare link without forming a cross-connection, and that is an essential step for traffic restoration. *Id.*

Defendants argue that the disputed term refers to the cross-connections that are made exclusively between spare links to form restoration routes before a failure occurs. Def. Responsive Br. at 3. Defendants argue, by illustration, that the purported invention of the '505 Patent is a method for network restoration by creating preconfigured restoration routes before any span failure occurs. *Id.* at 4. Once these restoration routes are created, Defendants note that they remain idle and are unconnected to any other links or routes until after a failure occurs. *Id.* Defendants concede to TR Labs' point that cross-connections must occur between working and spare links after a failure occurs, but argues that those connections is not what the disputed claim term describes. *Id.* Defendants assert that any cross-connections made after a failure occurs is outside the scope of the disputed term. *Id.* The Defendants rely on several sections within the background and preferred embodiment of the Patent to show that the claim language focuses on the cross-connections made between spare links to create restoration path before a failure occurs. *Id.* at 6 (citing '505 Patent, col. 1, ll. 20-29; col. 4, ll. 60-65; col. 6, ll. 1-7, ll. 15-45; col. 7, ll. 5-31, ll. 63-67; col. 8, ll. 6-29) (emphasis added).

Claim Construction

The Court adopts the Defendants' construction for the disputed term "forming connections at each digital cross-connect switch" to be construed as "forming cross-

connections (as defined) between spare links at each digital cross-connect switch." The '505 Patent discloses a method for network restoration by creating preconfigured restoration routes in anticipation for all possible span failures before a failure occurs. '505 Patent, col. 1, ll. 17-22; col. 1, ll. 66- col. 2, ll. 8. Claim 1 describes the method of how these restoration routes are created in anticipation of all possible span failures, and therefore the focus is on the cross-connections that are made between spare links to form the restoration routes before a failure occurs. *Id.* at col. 9, ll. 16-18. The Patent further discloses that these restoration routes are created by cross-connections between spare links. *Id.* at col. 8, ll. 6-18. Any cross-connection made between a failed working link to a spare link after a failure occurs is not directed at the claimed invention of establishing restoration routes from spare links before a failure.

III. THE DISPUTED CLAIM TERMS– '349 PATENT

A. "set of successive nodes capable of forming a closed path"

Claim 1 of the '349 Patent describes "[a] method of operating a telecommunications network." '349 Patent, col. 45, ll. 3–23. The first step of operating such a network requires the "[provision of] a set of successive nodes capable of forming a closed path in the network, with at least one spare link between each pair of adjacent nodes in the closed path." *Id.* at ll. 10-12.

The parties disagree about the meaning of "set of successive nodes capable of forming a closed path." TR Labs proposes that the disputed language be reconstructed as "a set of nodes each of which is connected by spans to at least two other nodes in the set." Defendants propose that the disputed language be reconstructed as "a set of

interconnected nodes where the DCSs in the nodes are configured to find closed paths (as defined) and to connect spare links (as defined) into closed paths (as defined)."

The disagreement between the parties involves three disputes. The first dispute is whether the nodes contain digital cross-connect switches ("DCS's") or *specially-modified* DCS's. Defendants admit that the Patent requires "specially modified DCSs." *See* Def. Opening Br. at 12. However, and confusingly, the Defendants' proposed construction refers only to DCS's. *See id.* TR Labs never addresses this conflict directly, but appears to agree that the Patent requires specially-modified DCS's. *See, e.g.*, *Markman* Hearing, October 2, 2013 at Tr. 87:10–12.

The second dispute, and this dispute is somewhat intertwined with the first, is whether the disputed language requires the nodes to find closed paths. *Compare* Def. Opening Br. at 12-13, 15, *and* Tr. 78: 24–79:13, *with* Pf. Opening Br. at 9. According to Defendants, the '349 Patent describes "a particular method of preparing for network restoration" in which specially-modified DCS's "find closed paths." Def. Opening Br. at 12 (emphasis added) (citing '349 Patent, col. 7, ll. 50-59 and col. 23, ll. 46-49); Tr. 78:25–79:7. Defendants then argue that the invention taught by the '349 Patent cannot operate without this capability, and that this capability must therefore be read into the disputed language. *See* Tr. 83:5–12. In its brief, TR Labs concedes that the '349 Patent contemplates an embodiment in which specially-modified DCS's "search[] for and identify[]" closed paths. at 9. TR Labs argues, however, that such embodiment was "merely . . . preferred" and that it would be an error to read this limitation into Claim 1. *Id.* (evoking the doctrine of claim limitation). During the hearing, TR Labs adopted a much broader view—that the Patent requires an external, central system to identify the

closed paths and that the nodes are incapable of performing this function—although a careful reading of its testimony suggests that it was referring only to the capabilities of the DCS's, not to nodes in general. *See, e.g.*, Tr. 87:10–12; *but see* Tr. 89:18–21.

The third dispute is whether restoration routes require cross-connections between spare links. *See* Def. Opening Br. at 15; Pf. Opening Br. at 9-10. Defendants' argument here is similar to the argument they advanced in connection with the '505 Patent. *See supra* Section II.A. However, Defendants further assert that their proposed construction, in this instance, is buttressed by the language in Step "b" of Claim 1, which comprises "forming a cross-connection at each node in the closed path to connect spare links in each of the adjacent spans." *See* Tr. 84:18–85:9; *see also* '505 Patent, col. 45, ll. 13-15. TR Labs acknowledges that Step "b" of Claim 1 requires the cross-connection of spare links, but argues that reading such limitation into the disputed language would violate the doctrine of claim differentiation. Pf. Opening Br. at 9-10.

Claim Construction

The Court adopts the following construction: "a set of successive nodes where the specially-modified DCS's in the nodes are configured to find closed paths (as defined) and to connect spare links (as defined) into closed paths (as defined)." This construction is essentially the construction proposed by the Defendants, but with two changes: (1) a reference to "specially-modified DCS's" instead of "DCS's"; and (2) a reference to "successive nodes" instead of "interconnected nodes."

As stated above, the parties agree that the invention can only operate with the specially-modified DCS's identified in the Patent. Any reference to DCS's in general could potentially confuse a fact-finder. Additionally, the Court sees no benefit in

changing the word "successive" to "interconnected." The '349 Patent employs the term "interconnected" to refer to the general relationship between spans and nodes as part of the telecommunication network as a whole, not the relationship between nodes in a closed path. *See* '349 Patent, abstract ("The network includes plural distinct nodes *interconnected* by plural distinct spans, each span having working l inks and spare links.") (emphasis added); col. 45, ll. 3-5 ("A method of operating a telecommunications network in which the telecommunications network includes plural distinct nodes *interconnected* by plural distinct spans") (emphasis added); *see also* Tr. 84:4–10. There is no confusion associated with using the word "successive." *See Markman* Order at 75 (construing the term "successive" in the '543 and '349 Patents in the context of "spare links").

As Defendants stated during the hearing, this Patent operates through "[a] *distributed* pre-configured closed path design, or DCPC, algorithm which can be run in a network's nodes." '349 Patent, col. 10, ll. 66-67 (emphasis added). In fact, the '349 Patent is titled "*Distributed* Preconfiguration of Spare Capacity in Closed Paths for Network Restoration." *Id.* at 1 (emphasis added). Within its specification, the '349 Patent states that "[t]he algorithm is distributed in the sense that its execution is spread amongst the significant processing power present in the DCS machines which form a mesh network's nodes." '349 Patent, col. 11, ll 1-4; *see also id.*, col. 7, ll. 50-55 ("According to the present invention, a network is preconfigured with nodes connected in closed paths without intervention of the networks operations center. The method of pre-configuration operates independently at each node to achieve an overall network configuration of spare links"). By explaining the sense in which the algorithm is

"distributed," the specification essentially defines the term. *See, e.g.*, *SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1194 (Fed. Cir. 2013).

This definition of this claim term is identical to the ordinary meaning of the term "distributed": as an adjective, "distributed" means either "characterized by a statistical distribution of a particular kind" or "of, relating to, or being a computer network in which at least some of the processing is done by the individual workstations and information is shared by and often stored at the workstations." Merriam Webster's Collegiate Dictionary 338 (10th ed. 1993). Both of these definitions—and specifically the second one—identify the process outlined throughout the '349 Patent. *See, e.g.*, '349 Patent, col. 7, ll. 50-52.

The Court therefore agrees that the specially-modified DCS's have the *capability* to find closed paths and that this aspect of the invention should be included in the claim language. The Court also agrees with Defendants that the '349 Patent—like the '505 Patent—configures closed paths through spare links. *See* '349 Patent, col. 45, ll. 13-14*; see also supra* Section II.A.

B. "a span path through each node in the closed path"

The patented invention in the '349 Patent is a method for network restoration by preconfiguring spare capacity into closed restoration paths surrounding any given span before the occurrence of a span failure. *See* '349 Patent, Title and Abstract. The parties acknowledge that Claim 1 of the '349 Patent is a method claim that describes the invention's "closed path preconfiguration method" in three steps. Tr. 78:6–12; *see also* '349 Patent, col. 4, ll. 63. The first step under Claim 1 is to identify a set of successive nodes that are capable of finding spare links to create closed paths around any given span.

Id. at col. 45, ll. 10-12. The second step towards forming a closed path is for the successive set of nodes to "form a cross-connection at each node in the closed path to connect spare links in each of the adjacent spans lying in the closed path and thus form a span path through each node in the closed path before occurrence of a span failure . . . ." *Id.* at col. 45, ll. 13-20. The final step is re-routing traffic from the target span (or failed span) to the span's closed path after a span failure occurs. *Id.* at col. 45, ll. 21-23.

The parties are in dispute over how to define the second step of Claim 1 where "a span path through each node in the closed path." TR Labs argues that the term does not need construction because this Court construed "span path" and the parties agreed to a construction for "closed path." Pf. Opening Br.at 11. Previously, this Court found that "span path" in the '349 Patent is defined as "one and only one path through a node formed by connecting links in adjacent spans meeting at the node." *Markman* Order at 68. Additionally, the parties agreed that "closed path" is "a span path, which begins and ends at the same node." Parties' Agreed Terms at 34. By incorporating the agreed terms into the disputed phrase, TR Labs' proposed construction reads: "one and only one path through each node in the closed path, which begins and ends at the same node, formed by connecting links in adjacent spans meeting at each node." *Id.*

Defendants' contend that the term should have a construction to avoid inconsistent results and jury confusion. Df. Opening Br. at 16. The Defendants' propose that the term should be construed as "a span path through each node in the closed path" is defined as "a closed circuit of spare links connected through all of the nodes in the closed path." *Id.* Defendants argue that its construction is consistent with the '349 Patent's claim language, disclosures, and alleged invention; that is, preconfigured restoration

paths are created out of spare links before a failure occurs at a target span. *Id.* at 9, 16. Defendants argue that the disputed term describes the result that occurs when spare links in adjacent spans are cross-connected through each of the nodes to form a closed path. *Id.* at 16. Defendants further argue that TR Labs' attempt to combine individually construed terms does not define the term within the context of Claim 1 of the '349 Patent. *See id.*; *see also* Tr. 96:8–15. Defendants argue that the plain language of Claim 1 is expressly clear about the cross-connections being made at each node in the closed path for the purpose of "connect[ing] spare links in each of the adjacent spans lying in the closed path and thus form a span path." Def. Opening Br. at 17 (citing col 45, ll. 21-23); Tr. 95:16–96:2. Furthermore, Defendants assert that its construction of a "closed circuit of spare links" is consistent with the parties' agreement that cross-connections are circuit connections, and this Court's previous construction that cross-connected closed paths are closed circuits in the '059 and '734 Patents. *Markman* Order at 25, 27-38; Parties' Agreed Terms at 47.

TR Labs counters that Defendants' proposed construction involving a closed path of spare links is too limiting and maintains that no construction is necessary. Pf. Responsive Br. at 5. In support, TR Labs' refers to Claim 1(c) of the '349 Patent and asserts that it would be impossible to route traffic along the closed path if the connections were entirely between spare links. *Id.* In response, Defendants' argue that TR Labs' construction raises two unresolved issues and therefore creates ambiguity: (1) the scope of the claim term; and (2) the "topology" of the closed path. Df. Responsive Br. at 13. Defendants reiterate that the claim language and the specification discloses that closed circuits are formed only from spare links and it is a single, closed circuit connected

through all the nodes in the closed path. *Id.* at 13-14. The primary issue for the Court to decide is whether the closed path is a closed circuit only comprised of spare links as Defendants' claim or if that construction is an improper limitation of the claim language.

Claim Construction

This Court will adopt the Defendants' proposed construction for "a span path through each node in the closed path" to mean: "a closed circuit of spare links connected through all of the nodes in the closed path." The Defendants' construction is consistent with the claim language and specification, which discloses a method for preconfiguring: (1) a closed circuit; of (2) spare links; that are (3) "connected through all of the nodes in the closed path" to form a closed path for network restoration.

The Patent's title, "Distributed Preconfiguration of Spare Capacity in Closed Paths for Network Restoration" describes the Patent's alleged invention of creating closed paths out of spare capacity before a span failure for faster network restoration. '349 Patent, Title, Abstract. The title's reference to "spare capacity" suggests that closed paths are only comprised of spare links. The plain language of Claim 1 then confirms that "a span path through each node in the closed path" is created by cross-connections through each of the nodes of spare links in adjacent spans in a closed path. *Id.* at Claim 1, col. 45, ll. 3-25.

The Patent's specification for how to create a closed path indicates that closed paths are comprised of only spare links. The Patent provides that tandem nodes (or a "set of successive nodes" or adjacent nodes) receive statelets to "locate[] the first unoccupied spare link on the span joining it to the node which preceded it on the broadcast route." '349 Patent, col. 20, ll. 28-30. The tandem nodes continue to identify unoccupied spare

links (through statelets) until the construction of the closed path is complete. *Id.* at col. 20, ll. 28-42. The Patent explains that the tandem nodes are forming cross-connections between the spare links as the closed path is formed. *Id.* at col. 20, ll. 36-42.

The specification also explains how traffic is re-routed from working links onto the closed path comprised of spare links when there is a span failure. Specifically, "[t]he closed path preconfiguration method greatly simplifies the restoration protocol as only the end nodes of a failed span need to act to substitute traffic; no signaling is required." *Id.* at col. 4, ll. 63-66. Thus, TR Labs' argument that it would be impossible to route traffic along the closed path if the connections were entirely between spare links is without any merit.

The Patent language supports the conclusion that the cross-connections formed between the spare links creates a closed circuit. The Patent illustrates in Figure 1B that the spare links are cross-connected into a closed path form a closed circuit. '349 Patent, Figure 1B. The parties have agreed that cross-connections are circuit connections and consistent with that agreed construction, this Court found that in the '059 and '734 Patents, the closed paths formed by cross-connections were closed circuits. *Markman* Memorandum and Order at 25, 37-38 (The p-cycle concept under the '059 Patent was defined as "cross-connections between spare links through the nodal switching device to form a closed circuit of spare capacity."). The Patent also describes the closed paths as being specifically designated per span path, which further supports that they are closed circuits rather than multiple restoration paths. '349 Patent, col. 7, ll. 50, 59-65 ("At each node in a closed path there is one and only one span path through the node that is connected within the closed path . . . . A node may have more than one closed path

passing through the node, but the closed paths are not connected to allow communications traffic between them."). For these reasons, the Court finds that the term requires construction to aid a potential fact finder, and the Defendants' construction accurately includes "spare links" as the claim language expressly requires.

IV. THE DISPUTED CLAIM TERMS– '734 PATENT

A. "upon occurrence of a failure . . . communications may be routed"

Claim 5 of the '734 Patent describes "a method of operating a telecommunications network, in which the telecommunications network is formed from plural nodes, each node incorporating [a modified] add-drop multiplexer." '734 Patent, col. 7, ll. 5-11. Specifically, the add-drop multiplexer ("ADM") is modified by adding a spare port to both the first and second network interferences. '734 Patent, col. 7, ll. 7-11. The second step of claim 5 requires

> At plural nodes in the network, connecting the first spare port of each node to the second spare port of each node to form preconfigured cycles of spare capacity, such that upon occurrence of a failure of a span in the straddling path, communications may be routed from the straddling span along nodes in one of the preconfigured cycles of spare capacity.

'734 Patent, col. 7, ll. 18-24 (emphasis added).

The parties disagree about the meaning of "upon occurrence of a failure . . . communications may be routed." *See* Pf. Opening Br. at 7; Def. Opening Br. at 23. TR Labs proposes that the disputed claim term be reconstructed as "when a failure occurs . . . the add-drop multiplexers respond by redirecting traffic." Defendants propose that the disputed claim term be reconstructed as "after a failure in the network has occurred, communications traffic on the network can be rerouted."

The disagreement between the parties involves two disputes. The first dispute is over what—or who—actually "routes" the communications. Defendants contend that the routing is performed by a specialized add-drop multiplexer. Def. Opening Br. at 23; Tr. 16:12–17:10. In support of their contention, Defendants note that "[c]laim 5 expressly requires a network with a straddling path, and this Court held that straddling paths are paths that connect two of the special add-drop multiplexers that are located on a preconfigured cycle." *Id.* (citing '734 Patent, col. 7, ll. 12-14; *Markman* Order at 29). Defendants further support their contention with citations to the '734 Patent, noting that the '734 Patent "only describes one type of behavior after a straddling span failure: the special add-drop multiplexer automatically redirecting traffic onto the preconfigured cycle." *Id.* at 24-25 (citing '734 Patent, col. 3, ll. 15-32, 51-63; col. 4, 21-28, 42-49; col. 7, 18-20). In response, TR Labs notes that the disputed claim language does not state that "communications may be routed *by add-drop multiplexers*," but merely that communications "may be routed." Pf. Responsive Br. at 7-8. According to TR Labs, because the claim does not refer to "add-drop multiplexers," adding such a reference would "read a limitation into the claim." *Id.* at 7. Furthermore, TR Labs notes that the specification in the '734 Patent states that "intermediate nodes that are not alarmed pass the restoration signals of the alarmed nodes on the ends of a span failure." *Id.* at 7-8 (citing '734 Patent, col. 5, ll. 3-5). According to TR Labs, (1) "these intermediate nodes . . . do not themselves re-route traffic in the event of a network failure," *id.* at 8, and (2) this externally-generated alarm is proof that "there is something external to the ADMs that respond to the failure." Tr. 12:17–18. In rebuttal, Defendants deny that such alarms are external. Tr. 18:10–25.

The second dispute is whether the word "*may*" in the phrase "communications *may* be routed" means "must." Plaintiff cites an online dictionary for the proposition that "the plain meaning of the term 'may' . . . connotes potentiality only." Pf. Opening Br. at 7 (citing www.merriam-webster.com/dictionary/may). Defendants argue that "the patent [does not] disclose any situation where the mere capability without actual restoration is contemplated as being within the scope of the invention." Def. Opening Br. at 25. After reviewing the Patent, Defendants conclude that "the very purpose of the special devices is to respond when there is failure." *Id.* at 25 (citing '734 Patent, col. 1, ll. 49-52); *see also* Tr. 19:6–24.

Claim Construction

The Court adopts the following construction: "when a failure occurs . . . the modified add-drop multiplexers respond by redirecting traffic." This construction is essentially the construction proposed by the Defendants, but with a reference to "modified add-drop multiplexers" instead of "add-drop multiplexers." Claim 5 explicitly states that "each node incorporat[es] an add-drop multiplexer with a first network interface having a first spare port and a second network interface having a second spare port." '734 Patent, col. 7, ll. 6-11. This language refers to the modified add-drop multiplexer discussed throughout the '734 Patent. *See* '734 Patent, col. 3, ll. 15-32, 51-63; col. 4, 21-28, 42-49; col. 7, 18-20; *see also ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) ("[T]he context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms."). Furthermore, TR Labs admitted during its introduction that "[t]he patents that we're talking about today, . . . all have to do with circuit switching." Tr. 7, 10–12. The

implication that claim 5 deals with something other than circuit switching, be it packet switching or some sort of external agent, is unfounded. Finally, the Court finds that there is no evidence to suggest that the "alarm" identified by TR Labs is external to the telecommunications network, which is comprised of plural nodes; rather, the alarm appears to be an internal element of the network. *See* '734 Patent, col. 3, ll. 53-67; col. 4, ll. 1-9; *see Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005).

Regarding separately the parties' dispute as to the meaning of "may," Plaintiff's argument is belied by the very source it cites. *See* www.merriam-webster.com/dictionary/may (last visited October 21, 2013). According to Merriam-Webster.com, "may" can be "used nearly interchangeable with *can*." *Id.* def. 1(b). Furthermore, a separate definition of "may" means "shall [or] must." *Id*. def. (4).[3] As Defendants correctly noted in their brief, "the patent [does not] disclose any situation where the mere capability without actual restoration is contemplated as being within the scope of the invention." Def. Opening Br. at 25; *see also Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("[C]laims are interpreted with an eye toward giving effect to all terms in the claim."). The Court therefore agrees with Defendants' reasoning as to the definition of this term.

IT IS on this 7th day of August, 2014:

ORDERED that this Memorandum sets forth the construction of the disputed terms within the ’505 Patent and ’349 Patent.

s/Peter G. Sheridan
PETER G. SHERIDAN, U.S.D.J.