

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

CORRIGENT CORPORATION,

Plaintiff,

v.

CISCO SYSTEMS, INC.,

Defendant.

Case No. 6:22-cv-396-ADA-DTG

**DEFENDANT CISCO SYSTEMS, INC.'S OPENING CLAIM CONSTRUCTION
BRIEF**

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TABLE OF ABBREVIATIONS

Abbreviation	Meaning
'369 patent	U.S. Patent No. 6,957,369
'485 patent	U.S. Patent No. 7,113,485
'431 patent	U.S. Patent No. 7,330,431
'400 patent	U.S. Patent No. 7,593,400
'602 patent	U.S. Patent No. 9,119,602
Asserted Patents	U.S. Patent Nos. 6,957,369; 7,113,485; 7,330,431; 7,593,400 and 9,119,602
Corrigent	Plaintiff Corrigent Corporation
Cisco	Defendant Cisco Systems, Inc.
Ex.	Exhibit
Ke	U.S. Patent No. 5,841,788

TABLE OF EXHIBITS

Exhibit No.	Exhibit
Ex. A	<i>Idle</i> and <i>Subsidiary</i> , Collins English Dictionary, Harper Collins (5th ed. 2000) (CISCO_CORRIGENT-00001526)
Ex. B	<i>Idle</i> and <i>Subsidiary</i> , Random House Webster's Unabridged Dictionary 2d (2001) (CISCO_CORRIGENT-00001533)
Ex. C	<i>Subsidiary</i> , Funk & Wagnalls New International Dictionary of the English Language, World Publishers Inc. (2000) (CISCO_CORRIGENT-00001528)
Ex. D	U.S. Patent No. 5,841,788 (CISCO_CORRIGENT-00001525)
Ex. E	<i>Backplane</i> , IEEE 100 The Authoritative Dictionary of IEEE Standards Terms, IEEE (7th ed. 2000) (CISCO_CORRIGENT-00001523)
Ex. F	<i>Backplane</i> , Novell's Complete Encyclopedia of Networking, Novell Press (1995) (CISCO_CORRIGENT-00001527)
Ex. G	<i>Backplane</i> , Newton's Telecom Dictionary, CMP Books (2002) (COR-CSC00002334–38)
Ex. H	IETF RFC 3209 (CISCO_CORRIGENT-00001530)

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Cisco’s proposed claim constructions are rooted squarely in the plain language of the claims, as informed by the specification. For four terms (“idle line/trace,” “backplane,” “subsidiary module,” and “RSVP-TE”) Cisco proposes constructions that capture precisely what the plain language of the claims require and do not import any limitations from the specification. For two terms, Cisco seeks to construe the preambles of certain claims as limiting, given that the body of the claims explicitly refer back to multiple elements defined in the preamble. For the claims of the ’369 patent, Cisco seeks to require that the claimed steps must be performed in order, given that later steps refer explicitly back to the results of previous steps. For two terms (“said FDB” and “virtual MAC bridge”), Cisco cannot propose a construction because the terms are hopelessly indefinite. Finally, Corrigent proposes an unduly narrow construction for a term that needs no construction (“latency measurement packet”) with the effect of reading in a preferred embodiment in an apparent attempt to preserve the validity of the broad claims. Cisco respectfully requests that the Court adopt Cisco’s constructions.

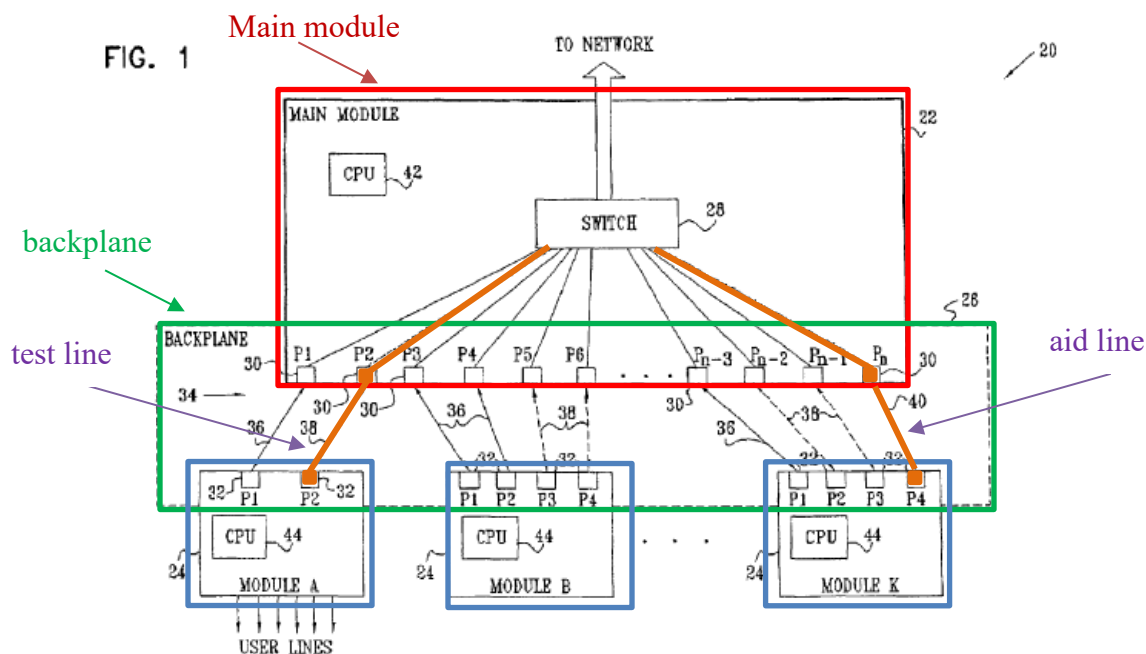
I. ’369 PATENT

The ’369 patent is directed to testing whether idle (*i.e.*, inactive) lines are functioning properly “without intruding on normal traffic carried by the system’s active lines.” ’369 patent at 2:26–29. The ’369 patent refers to failures of idle lines “as ‘hidden failures,’ because they do not affect service at the moment they occur and thus may go undetected.” *Id.* at 1:11–15. The concept of testing lines while they are idle (where failures would otherwise “go undetected”) is so integral to the patent, the patent is named “Hidden Failure Detection.” *Id.* at [54].

The principal embodiment of the ’369 patent is a backplane system¹ in which a “main module” and two or more “subsidiary modules” are plugged into the backplane and communicate

¹ A backplane is a printed circuit board to which modules are inserted. *See* Ex. E at 78–79.

over traces on the printed circuit board of the backplane. *Id.* at 1:11–36; 1:61–2:4; 2:40–47; 3:12–20; 3:51–4:37; 6:54–67. Figure 1 (annotated below) depicts this arrangement:



The patent explains that the disclosed backplane configuration was commonly known, stating the invention relies on “existing components in the system” and does not require “dedicated testing hardware.” *Id.* at 1:25–26; 2:29–32. As shown above, the main module 24 is connected to the network. *Id.* at 1:67–2:2; 5:13–14. It contains a system control processor 42 and a switch 28. *Id.* at 1:30–32; 5:1–31. The main module is then connected via the backplane 28 to two or more “subsidiary modules” 24. *Id.* at 1:25–30. In order to test the system without interrupting service, the idle lines 38 are tested instead of the active lines 36. *Id.* at 5:26–31.

The patent describes a six-step process to test an idle line for hidden failures. *Id.* at Fig. 2; at 5:55–6:39. First, the main module selects an idle line that connects a first subsidiary module to a port of the switch of the main module to serve as the “aid line” 40, an idle line in which traffic will be looped back through. *Id.* at 5:61–67. Second, the main module then instructs the first subsidiary module to loop back all traffic via the aid line. *Id.* at 5:63–6:9. Third, the main module

selects another idle line connected to a second subsidiary module to be the **test line 38**. *Id.* at 6:10–13. Fourth, the main module then configures its switch to connect the aid line and the test line, creating a loop or a “virtual connection” (depicted as **orange** in the figure above). *Id.* at 6:14–17. Fifth, the main module then instructs the second subsidiary module to send test traffic over the configured loop-back. *Id.* at 6:18–22. Finally, the main module determines a failure has occurred if the test traffic does not return properly. *Id.* at 6:23–39. This process, with a few variations, is claimed in all independent claims. *Id.*, cls. 1, 8, 15, 21.

A. “idle line” (claims 1, 3, 7) / “idle trace” (claims 15, 18, 20)

Cisco’s Proposal	Corrigent’s Proposal
“a [trace/line] that is known to be inactive”	Plain and ordinary

In its infringement contentions, Corrigent alleges infringement of claims 1, 3, 7, 15, 18 and 20 through testing *any* line, regardless of whether it is active or inactive. According to the ’369 patent, however, the whole point of testing **idle** lines is to ensure that the line is not active at the time it is tested. *Id.* at 2:26–29. Thus, those claims that recite the selection of “idle” lines or traces should be construed to require that the trace or line is known to be inactive when tested.

Independent claims 1 and 15 each require “select[ing]” lines or traces that are “idle,” so that they can be tested. *Id.* at 7:9–11; 7:14–16; 8:55–58; 8:60–62. That the lines are idle cannot be a mere coincidence; the context of these claims is clear that the system must *know* that the line is inactive so that it can be tested. Otherwise—if a line could be selected regardless of whether it is idle or active—the claim limitations that require selecting an idle line would be rendered meaningless.

Other claim language supports Cisco’s construction. For example, the preamble of claim 1 and the text of claim 18 each requires a system that has idle lines and/or traces, while claim 4 recites that the testing is repeated “until all the idle lines have been tested.” *Id.*, cl. 4. Those claims

clearly require an awareness of which lines are idle versus those that are in use, otherwise the method could not possibly know when all idle lines have been tested. Claim 7 further recites that testing of idle lines should occur “while continuing to use the lines that are not idle for carrying the data to the network communication trunk,” which again necessitates that the system know which lines are idle and which are not. Thus, the language makes clear that “idle lines/traces” are not just *coincidentally* idle, but are specifically selected *because* they are idle. Cisco’s construction correctly clarifies that the line not only happens to be inactive, but it is *known* to be inactive.

The specification strongly supports Cisco’s construction. Though the specification does not explicitly define “idle lines/traces” it does differentiate idle lines/traces from “active” lines/traces. *Id.* at 2:26–30. This dichotomy illustrates that idle lines/traces are the opposite of active lines, *i.e.*, idle lines are inactive. The specification also clearly states that the lines/traces are known to be idle at the time of selection. Specifically the patent states that the “[p]rocessor **42** maintains a database of management information regarding subsidiary modules **24**, including a list of which traces are active, and which are inactive. When a trace changes state . . . processor **42** updates the database accordingly and uses the updated database in carrying out the next cycle of testing.” *Id.* at 6:47–53. This knowledge of the status of lines to be either active or inactive is fundamental to the operation, and Cisco’s construction captures that fundamental concept.

Extrinsic evidence also supports Cisco’s proposed construction. The Collins English Dictionary defines “idle” as “unemployed or unoccupied; inactive.” Ex. A at 768. Random House Webster’s Unabridged Dictionary similarly defines “idle” as “not working or active.” Ex. B at 951. Cisco’s proposed construction is consistent with these definitions.

Corrigent’s proposed nonconstruction—designed to allow it to accuse a system that tests connections between devices regardless of whether the connecting lines are idle or not—turns the

patent and claim language on its head, and should be rejected. Under Corrigent’s construction, the jury might incorrectly conclude that an infringing system may test *all* lines so long as some of the lines turn out to have been idle. The Court should therefore adopt Cisco’s construction.

B. “subsidiary module” (claims 1–3, 5, 8–12, 15–17, 21–24)

Cisco’s Proposal	Corrigent’s Proposal
“a module under the control of the main module”	“electronic equipment that has a connection to a main module via one or more data lines or traces”

Both sides agree this term should be construed. Cisco’s proposed construction gives meaning to the plain language of “subsidiary module” in the context of the claims. Namely, it explains what subsidiary means (*i.e.*, under the control of) and it identifies the thing that controls the subsidiary module (*i.e.*, the main module). Corrigent’s proposed construction, on the other hand, reads out the requirement that the module be “subsidiary” to another, and instead redefines “subsidiary” to mean simply having a connection to something else—a redundant requirement already embodied in other claim language.

The plain language of the disputed claim term supports Cisco’s proposed construction. The term “subsidiary module” requires two things. First that it is a module, and second that it is subsidiary to (*i.e.*, under the control of) something else. This is akin to a “subsidiary company,” which plainly means a company under the control of another company. *See* Ex. B at 1869. The surrounding claim language also mandates that the thing that controls the subsidiary module (*i.e.*, the thing that makes it a “subsidiary” module rather than just a module), is the main module. Specifically, the claims of the ’369 patent recite that the subsidiary module is *instructed* by the main module to perform all of the required steps. For example, the main module selects the subsidiary module and idle line, and *instructs* the subsidiary module to send test traffic over the previously chosen line. *See id.*, cls. 1, 8; *see also id.* at 2:5–17; 5:41–45. Thus, the plain claim

language compels Cisco’s definition of a “subsidiary module” to be a module that is under the control of the main module.

The specification is entirely consistent with Cisco’s construction. The patent boasts that one of its main benefits is that the invention does not require the subsidiary module to do any processing, and instead operates under the control of the main module. *Id.* at 2:9–12. The ’369 patent exclusively describes the subsidiary module according to its relationship with the main module. *Id.* at 1:25–36. Specifically, the patent discusses how the subsidiary module is connected to the main module through the backplane. *Id.* The subsidiary module must go through the backplane and the main module to reach the core network. *Id.* at 1:26–30. This is demonstrated in Figure 1, which is reproduced above. In Figure 1, the subsidiary modules **24** are all attached to the switch of the main module, and must go through the backplane and the main module’s switch in order to reach the network, or each other. This configuration of the modules demonstrates how the subsidiary modules are reliant on the main module. *Id.* at 4:54–5:9.

Furthermore, the specification explicitly describes the relationship between the main module and the subsidiary modules. Specifically, the main module communicates with the subsidiary module to instruct it on the test procedure using “a separate control channel” on the backplane. *Id.* at 5:41–45.

The extrinsic evidence also supports Cisco’s proposed construction. Contemporary dictionaries all define subsidiary as “secondary” “assisting” or “auxiliary,” *see* Exs. A–C, which is consistent with Cisco’s proposed construction’s requirement that the subsidiary module bear a secondary relationship to the main module.

Corrigent’s proposed definition attempts to excise the words “subsidiary” and “module” from the claims. Specifically, Corrigent’s construction rewrites “subsidiary module” to instead

mean *any* electronic equipment that *connects* to a main module. This construction would include any device that has an input or output that connects to the main module, regardless of its relationship to the main module. This is a blatant attempt to read out the claim limitation. *See Bio-Rad Lab'ys, Inc. v. Int'l Trade Comm'n*, 998 F.3d 1320, 1331 (Fed. Cir. 2021) (rejecting plaintiff's construction because "it is premised on rewriting the claims in an oversimplified form and removing all limitations that differentiate the recited structures from each other"). Corrigent's motivation in doing so is transparent. For example, a backplane is connected to the main module, but is a separate device from a "subsidiary module." Corrigent accuses Cisco of infringing based on peer-to-peer communications in which neither device is subsidiary to the other. Thus, Corrigent improperly seeks to delete the word subsidiary from the claims.

It is easy to see why Corrigent is wrong. For example, just because two computers are connected to each other does not mean that the second computer is "subsidiary" to the other. On the other hand, a printer that is connected to a computer *is* subsidiary because it acts under the control of the computer. In other words, it is the nature of the relationship between the two modules that makes one a main module and the other a subsidiary. Corrigent's construction eliminates the concept of a subsidiary, and replaces it with any connection. As discussed above, the claimed "subsidiary module" acts under the direction of the main module. *Id.* at 2:5–17; *id.* at 5:41–45; *id.*, cls. 1, 8. The subsidiary module is also entirely reliant on the main module in order to access the wider network and other subsidiary modules. *See id.* at 4:54–5:9.

In sum, Cisco's construction of "subsidiary module" is consistent with its plain meaning and should be adopted; Corrigent's attempt to delete "subsidiary" from the term should be rejected.

C. "backplane" (claims 5, 10, 15, 21)

Cisco's Proposal	Corrigent's Proposal
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“a printed circuit board into which modules may be inserted”	“Plain and ordinary meaning, which is hardware or software used to establish interconnections between modules”
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Both sides agree that the term “backplane” should be construed. A backplane has a well-understood meaning in the art. In fact, the patent explains that “backplane-based configurations are commonly used on communication and computing equipment,” and cites two examples of such known configurations. *Id.* at 1:25–26. Cisco proposes that the term should be given the meaning that a person of skill in the art would understand a backplane to be, which is explicitly supported by the intrinsic record and is consistent with extrinsic evidence. Corrigent, on the other hand, seeks to remove all meaning from the word, replacing it with any hardware or *even just software* that connects modules. This construction reads out the word “backplane” in a transparent attempt to read the claims on two devices communicating with each other over the Internet (which Corrigent apparently intends to call a “backplane”). As with “subsidiary module,” Corrigent cannot excise words from the claims through claim construction.

At the outset, the claims mandate Cisco’s proposed construction. Claims 15 and 21 recite a “backplane, which comprises traces for carrying data between modules that are plugged into the backplane.” The use of the word “traces” in this language unambiguously requires a printed circuit board (onto which traces are printed). This claim language also explicitly requires that modules may be plugged (*i.e.*, inserted) into the backplane. Cisco’s proposal embodies those two key characteristics of a “backplane.”

The specification also supports Cisco’s construction. The specification describes a backplane as a device into which the main module and subsidiary modules are plugged. ’369 patent at 1:64–67. The patent also describes the backplane as a physical device the main and subsidiary modules “plug into” and contains “lines” which are “printed circuit traces on the backplane.” *Id.*; *see also id.* at 3:12–14. The ’369 patent also incorporates by reference U.S.

Patent No. 5,841,788 (“Ke”), which explicitly defines a backplane as having “slot connectors into which the edge connectors of circuit boards are inserted and have interconnects for providing communication pathways between boards.” Ex. D at 1:23–26. The ’369 patent itself also describes modules being “inserted in or removed from the backplane.” ’369 patent at 6:49–53.

Contemporaneous technical dictionaries are also consistent with Cisco’s construction. For example, The Authoritative Dictionary of IEEE Standard Terms, defined backplane as “a printed circuit board that contains the connector and interconnect traces” or “[a] printed circuit board (pcb) on which connectors are mounted, into which boards or plug-in units are inserted.” These definitions are entirely consistent with Cisco’s proposed construction. Ex. E at 78–79. In fact, the IEEE definition is almost identical to Cisco’s proposed construction. Other technical dictionaries are also consistent with Cisco’s constructions. Novell’s Complete Encyclopedia of Networking defines a backplane as “a circuit board with slots into which other boards can be plugged.” Ex. F at 80. Even the dictionary cited by Corrigent supports Cisco’s construction, reciting: “[t]he *physical area, usually at the rear of an electronics frame, where modules and cables plug into the system.* The high-speed communications line to which individual components, *especially slide-in cards*, are connected. For example, all the extensions of a PBX are connected to line cards (circuit boards) which slide into the PBX’s cage.” Ex. G at 84 (emphases added).

Not every claim recites a backplane. But those that do should be construed in a manner consistent with what a person of ordinary skill in the art would understand a “backplane” to mean. Corrigent’s proposed construction attempts to read out the backplane limitation entirely by instead requiring nebulous “hardware or software” that is used to establish “interconnections” between modules. That description literally encompasses any device or software that used to connect devices. But not every device is a backplane. A phone is not a backplane. A cable is not a

backplane. An internet protocol is not a backplane. A backplane is a specific, well-known, conventional piece of hardware that is a printed circuit board into which modules are inserted. The claims should be construed accordingly, and Corrigent's attempt to excise "backplane" should be rejected. *Bio-Rad Lab'y*, 998 F.3d at 1331.

The breadth of Corrigent's proposed construction is evident from a simple question. How could software that connects two modules possibly be a backplane? According to the plain language of the claims, the backplane must comprise traces, and modules must plug into it. Software, which is included in Corrigent's proposal, could not possibly meet these limitations. Moreover, to the extent Corrigent seeks to use expert testimony to broaden the claims, that attempt should fail. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1585 (Fed. Cir. 1996) ("Indeed, opinion testimony on claim construction, should be treated with utmost caution, for it is no better than opinion testimony on the meaning of statutory terms.").

Since Cisco's construction is mandated by the claims, specification and extrinsic sources, it should be adopted.

D. Order of Steps (claims 1, 8, 15, 21)

Cisco's Proposal	Corrigent's Proposal
The instruct[ing] step must be performed after completion of the first selection; the configur[ing/e] step must be performed after completion of both selections; and the transmit[ting] step must be performed after both selections	Plaintiff contends that Defendant's identification of the entirety of claims 1 and 8 for construction is improper. Plaintiff proposes that the words of claims 1 and 8 should be given the following meaning unless otherwise noted: plain and ordinary meaning.

Each independent claim of the '369 patent requires a) selecting a first idle line as an aid line; b) instructing the first subsidiary module to loop back traffic on the aid line; c) selecting a second idle line as the test line; d) configuring the switch to link the first and second idle lines; e) transmitting test traffic; and f) determining if a failure occurs. While claims are ordinarily

presumed to not require an order, the opposite presumption applies when the language of the claims mandates that these steps are performed in the order in which they are recited. *See, e.g., Wi-LAN, Inc. v. Apple, Inc.*, 811 F.3d 455, 462 (Fed. Cir. 2016) (claims have an “ordering requirement” when steps refer back to results of previous steps). Here, certain later steps in the claim rely upon the results of previous steps. For example, claim 1 of the ’369 patent recites:

- [1A] selecting a first idle line among idle lines connecting the first subsidiary module to a first port of the switch on the main module to serve as an aid line;
- [1B] instructing the first subsidiary module to loop back traffic reaching the first subsidiary module via the aid line;
- [1C] selecting for testing a second idle line among the idle lines connecting the second subsidiary module to a second port of the switch on the main module;
- [1D] configuring the switch to link the first and second ports;
- [1E] transmitting test traffic over the second idle line from the second subsidiary module to the main module, wherein the test traffic is conveyed via the switch to the aid line connecting to the first subsidiary module; and
- [1F] reporting that a failure has occurred if the test traffic does not return to the second subsidiary module within a predetermined period of time.

Three ordering requirements are apparent from this claim language, which are reflected in Cisco’s proposal. As set forth above, the selecting step [1A] selects a first idle line connecting the first subsidiary module to “a first port of the switch” to act as an “aid line.” The instructing step [1B] then instructs the first subsidiary module to loop back traffic on “the aid line,” which was selected in [1A]. Thus, the instructing step [1B] must take place only after the first selection [1A].

The second selecting step [1C] selects “a second idle line” connecting a second subsidiary module to “a second port of the switch.” The configuring step [1D] then uses the first and second ports selected in steps [1A] and [1C] and connects the ports on the switch. Thus, the configuring step [1C] must take place only after the first and second selections [1A] and [1C].

The transmitting step [1E] transmits traffic over “the second idle line” through the switch

and over “the aid line,” which were selected in steps [1C] and [1A] respectively. Thus, the transmitting step [1E] must take place only after the first and second selections [1A] and [1C].

This claim language is unequivocal and dispositive. When one claim limitation refers back to the results of a previous step, the claim must be construed to require the previous step to be performed first. *Wi-LAN*, 811 F.3d at 462. Cisco does not seek to require *all* of the steps to be performed in order. Instead, Cisco’s construction imposes an order merely on those limitations that explicitly refer back to the results of a previous step or steps.

Furthermore, the law is clear that apparatus and system claims can have an order of steps when they are similar to the method claim. *See Avago Techs. Gen. IP (Singapore) Pte Ltd. v. Asustek Computer, Inc.*, No. 15-CV-04525-EMC, 2016 WL 3029674, at *12 (N.D. Cal. May 27, 2016) (noting case law supporting, and absence of any case law refuting, that “order can be required by a system/apparatus claim”); *Maxim Integrated Prod., Inc. v. Silicon Mitus Tech., Inc.*, No. 17-CV-03507 NC, 2018 WL 4657384, at *9 (N.D. Cal. July 3, 2018) (collecting cases). Here, method claim 8, and apparatus claims 15 and 21 contain virtually identical limitations to [1A], [1B], [1C], [1D], [1E] and [1F], including the same referential language back to the prior steps. The only substantive difference is that in claims 8 and 21, rather than selecting “aid line” and a “second idle line,” those claims require selecting first and second subsidiary modules. But, similar to claim 1, the instructing step in claims 8 and 21 relies on the first selection, the configuring step relies on both selections and the transmitting step relies on both selections.

Claim 1	Claim 8	Claim 15	Claim 21
selecting a first idle line among idle lines connecting the first subsidiary module to a first port of the switch on the main	selecting first and second subsidiary modules of different types for testing among the multiple subsidiary modules, the first and second	to select a first idle trace among idle traces connecting the first subsidiary module to a first port of the switch on the	select first and second subsidiary modules of different types for testing among the multiple subsidiary modules,

module to serve as an aid line;	subsidiary modules being configured to transmit and receive the data in different, respective first and second formats;	main module to serve as an aid trace	
instructing the first subsidiary module to loop back traffic reaching the first subsidiary module via the aid line;	instructing the first subsidiary module to loop back traffic reaching the first subsidiary module from the main module;	to instruct the first subsidiary module to loop back traffic reaching the first subsidiary module via the aid trace,	which is further operative to test the modules by causing the first subsidiary module to loop back traffic reaching the first subsidiary module from the main module,
selecting for testing a second idle line among the idle lines connecting the second subsidiary module to a second port of the switch on the main module;		select for testing a second idle trace among the idle traces connecting the second subsidiary module to a second port of the switch on the main module	
configuring the switch to link the first and second ports;	configuring the main module to connect the first and second subsidiary modules, so that the traffic transmitted by the second subsidiary module is conveyed to the first subsidiary module via the main module and is then looped back via the main module to the second subsidiary module; and	configure the switch to link the first and second ports	configuring the main module to connect the first and second subsidiary modules
transmitting test traffic over the second idle line from the second subsidiary module to the main module, wherein the test traffic is conveyed via the	testing the system by causing the second subsidiary module to transmit test traffic in the second format to the main module,	cause test traffic to be transmitted over the second idle trace from the second subsidiary module to the main module, wherein the test traffic is conveyed via the	causing the second subsidiary module to transmit test traffic in the second format to the main module,

switch to the aid line connecting to the first subsidiary module; and		switch to the aid trace connecting to the first subsidiary module	
reporting that a failure has occurred if the test traffic does not return to the second subsidiary module within a predetermined period of time.	and assessing whether the test traffic is returned intact from the first module .	report that a failure has occurred if the test traffic does not return to the second subsidiary module within a predetermined period of time.	and assessing whether the test traffic is returned intact from the first module .

As with claim 1, in each of these additional claims, the instructing step takes place only after the first selection; the configuring step takes place only after both selections; and the transmitting step takes place only after both selections. The dependencies of these steps on the selection steps are identical to those of claim 1, so each claim should be construed to require the same order.

In addition to the unequivocal language of the claims, which is dispositive, every embodiment discussed in the specification requires the same order, which confirms the order required by the claims. *See Mformation Techs., Inc. v. Rsch. in Motion Ltd.*, 764 F.3d 1392, 1400 (Fed. Cir. 2014) (noting order of steps “is consistent with the sole embodiment in the specification”). For example, Figure 2—the only embodiment of this process—recites the six steps in exactly the order recited in the claims.

The nature of Corrigent’s dispute with Cisco’s proposed construction is unclear, as Corrigent did not provide any reason it disagreed with Cisco in the parties’ meet and confer. Presumably, Corrigent seeks to avoid imposing the order on the claims so that it can muddle the claims in its infringement theory. That should not be permitted.

For the reasons above, each of the claims should be constructed to require the instructing step to be performed after completion of the first selection; the configuring step to be performed after completion of both selections; and the transmitting step to be performed after both selections.

II. '485 PATENT

The '485 patent, which is entitled “Latency Evaluation in a Ring Network,” generally relates to measuring latency in a bi-directional ring network. *See* '485 patent, Abstract. The ring network in which latency is calculated is depicted in Figure 1.

Latency is the difference between the time of transmission and the time of receipt of a data packet. *See id.* at 7:17–9:65. According to the patent, latency is particularly important for real time services like voice and video. *Id.* at 1:63–64. The patent acknowledges that “[m]ethods of network latency measurement are known in the art.” *Id.* at 2:1–4 (citing U.S. Patent No. 5,235,593 (“Grow”)). The patent purports to improve upon “methods and devices for measuring network latency, particularly in ring topologies.” *Id.* at 2:59–61. The patent discussed two types of latency: round-trip and full circuit, both of which use a packet, called a latency measurement packet, which is sent between nodes in the network to measure latency. *Id.* at 6:41–53.

With respect to “round-trip” latency, the latency measurement packet is sent from one node to another, and then returned to the sending node back the same way. *Id.* at 6:42–47. According to the patent, prior art methods for calculating “round trip” latency may include the processing time of the packet at the destination node. *See id.* at 2:41–45. To solve this alleged deficiency, the patent simply “subtracts out the measured turnaround time.” *Id.* at 3:48–52. In one embodiment, this may be done by including fields within the latency measurement packet that record the time of transmission from the source, time of receipt by the destination, time of re-transmission from the destination and time of receipt by the source. *Id.* at 7:19–8:4.

“Full circuit” latency, on the other hand, is obtained by sending a latency measurement packet from a source node all the way around the ring network to arrive at the source node, and measuring the difference between the transmission and receipt at the source. *Id.* at 9:31–36.

A. Preambles (claims 1, 11)

Cisco's Proposal	Corrigent's Proposal
The preambles of claims 1 and 11 are limiting	Preamble is not limiting

The preambles of claims 1 and 11 are limiting because they “recite[] essential structure or steps” and are “‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). Some “guideposts” in determining whether a preamble is limiting are whether: (1) the preamble provides antecedent basis, (2) the preamble is essential to understand limitations in the claim body, and (3) the preamble recites “additional structure or steps underscored as important by the specification.” *Catalina*, 289 F.3d at 808. Cisco’s proposed construction is compelled by each of these guideposts.

The preamble of a claim is generally limiting where it provides the antecedent basis for terms in the body. See *Bio-Rad Labs., Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1371 (Fed. Cir. 2020). That is the case for claims 1 and 11. Claim 1 recites “[a] method for measuring latency in *a ring network* in which traffic flows in *first and second, mutually-opposite directions*.” ’485 patent, cl. 1. The body of claim 1 recites “transmitting a latency measurement packet . . . in *the first direction* in *the network*.” *Id.* Thus, the body of the claim draws antecedent support from the preamble. Claim 11 recites “[a]pparatus for measuring latency in *a ring network* in which traffic flows in *first and second, mutually-opposite directions*, the apparatus comprising *first and second nodes* in the network, the nodes comprising respective *first and second clocks*.” *Id.* at cl. 11. The body of the claim recites “wherein *the first node* transmits a latency measurement packet to *the second node* in *the first direction* in *the network*”; “wherein *the second node* notes a time of receipt of the packet at *the second node* using *the second clock*, and to transmit the packet back to *the first node* in *the second direction*”; “wherein *the first node* further notes a time of return of the packet

to *the first node*, using *the first clock*.” *Id.*

The only antecedent bases for these terms come from the preambles, strongly indicating that the preambles are limiting. Courts have repeatedly held that the preamble is limiting in similar situations where it provides the antecedent basis for terms in the body. *See, e.g., UNM Rainforest Innovations, fka STC.UNM v. Apple Inc.*, No. 1:20-cv-00351-ADA, Dkt. 69 at 1–3 (W.D. Tex. April 9, 2020); *see also Japan Display Inc. v. Tianama Micro Elecs. Co.*, No. 2:20-cv-283-JRG Dkt. 123 at 26–29 (E.D. Tex. Sep. 3, 2021); *Gen. Access Sols., Ltd. v. Sprint Spectrum L.P.*, No. 2:20-cv-00007-RWS, Dkt. 105 at 10–13 (E.D. Tex. Sep. 29, 2020).

Although “antecedent basis alone is not determinative of whether a preamble is limiting,” the “use of preamble terms to define positive limitations in the body of claims,” as here, “can evince an inventor’s intent that the preamble limit the scope of the claim,” particularly where they are “essential to understanding” limitations in the body of the claim. *Shoes by Firebug LLC v. Stride Rite Children’s Grp., LLC*, 962 F.3d 1362, 1368 (Fed. Cir. 2020). The body of claims 1 and 11 recite that the latency measurement packet is transmitted in “the first direction” in “the network.” Without context provided by the preamble, these terms would have no meaning. It is because of the preamble, that “the first direction” recited in the body of the claim is understood to be one of the two “mutually-opposite directions” and that “the network” is referring to the “ring network” in the preamble. *See Lemoine v. Mossberg Corp.*, No. 2020-2140, 2021 WL 4199934, at *2 (Fed. Cir. Sept. 15, 2021) (without the context provided by the preamble “it is difficult to make sense of the later disclosure of” the claim and “these disclosures would be rendered meaningless”); *Proveris Sci. Corp. v. Innovasystems, Inc.*, 739 F.3d 1367, 1372–73 (Fed. Cir. 2014). The importance of the preamble is further underscored by the fact that the preambles in claims 6, 9, and 19 recite only “measuring latency in a network.” The fact that the patentee

specifically limited claims 1 and 11 to “a ring network,” but not claims 6, 9, and 19, further evidences the patentee’s intent to limit claims 1 and 11 to ring networks.

In addition, because the preambles of each of the claims recite limitations that are fundamental to the alleged inventions, they should be held limiting. *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1358 (Fed. Cir. 2012). Evaluating latency in a ring network is fundamental to the ’485 patent. Indeed, the title of the ’485 patent is “Latency evaluation *in a ring network*.” *See Wastow Enters., LLC v. Trukmovers.com, Inc.*, 855 F. App’x 748, 751 (Fed. Cir. 2021) (holding that the title of the patent informs the claim construction analysis). Similarly, the specification of the ’485 patent recites that “[i]t is an object of the present invention to provide improved methods and devices for measuring network latency, *particularly in ring topologies*.” ’485 patent at 2:59–61. The preamble “recites essential structure that is important to the invention or necessary to give meaning to the claim.” *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006). For the above reasons, Cisco respectfully requests that the preambles be held limiting, and at a minimum, those portions of the preamble that provide antecedent basis for later limitations must be limiting.

B. “latency measurement packet” (all claims)

Cisco’s Proposal	Corrigent’s Proposal
No construction necessary	“a packet that includes bits allocated for the recording of at least a destination address, a source address, a generating node transmission time, and generating node receive time, a peer node transmission time, and a peer node receive time”

The term “latency measurement packet” needs no construction. The words of the claim literally speak for themselves—it is a packet used in measuring latency. Indeed, the ’485 patent itself is riddled with uses of packets. For example, in the Background of the Invention, a ring network is described in which a “packet sent over one of the rings carries a header indicating its

destination node.” ’485 patent at 1:50–55. Furthermore, the patent admits that it was “common” for “data communication networks” to determine the quality of service based on “network availability, percent of *packets* lost, [and] mean latency of *packet* delivery.” *Id.* at 1:56–67. And finally, in describing the prior art, the patent discusses that one drawback in the prior art was its measured latency included “the time taken by the destination node to process *the packet that it receives* from the source node and to generate the response packet to send back to the source node.” *Id.* at 2:41–45 (emphasis added). Thus, the use of packets as a generic unit of data, and more specifically, to measure latency, all existed in the prior art and is not unique to the ’485 patent. A “latency measurement packet” is therefore nothing more than a generic packet that is used to measure latency, as the ’485 patent itself explains, and no construction of the term is necessary.

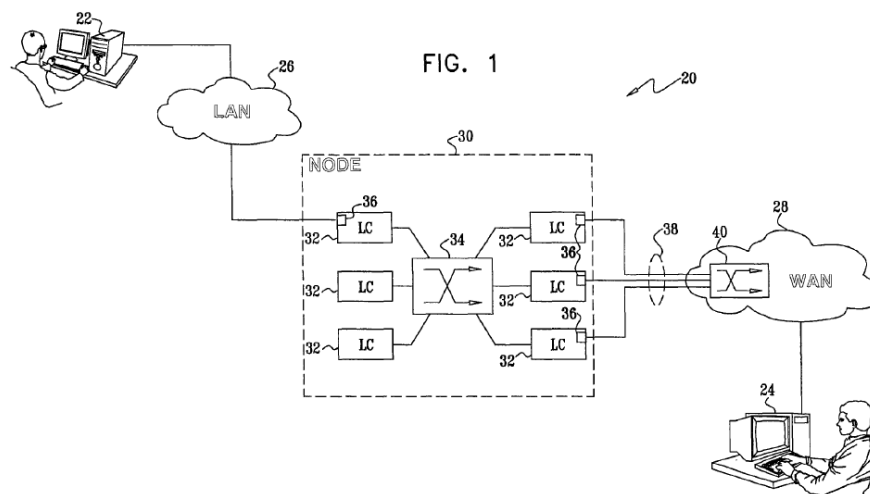
Corrigent’s construction is a naked attempt to limit the claims to a preferred embodiment. Specifically, the patent explains that “in accordance with *a preferred embodiment*,” the latency measurement packet may contain “fields as shown generally in Table I below.” *Id.* at 7:17–21. Included among those fields are the six fields Corrigent attempts to inject into the claims. *Id.* at 7:26–8:4. In addition to explicitly stating that the fields are only part of a preferred embodiment, the patent explicitly states that “[s]ome of the fields are optional.” *Id.* at 7:21–23. For example, the peer node transmission time and peer node receive time—which Corrigent argues should be included in the definition of the term—are explicitly described to be “relevant only for node-to-node round-trip latency measurement.” *Id.* at 7:64–8:4. In contrast, the term “latency measurement packet” is used in asserted independent claims 6, 9, 16, and 19, each of which measure latency merely by subtracting the receive time from the transmit time, and none of which measure round trip latency. Since Corrigent’s construction is contrary to the explicit teaching of the patent that not all of the fields of the preferred embodiment are required, its construction should

be rejected. Cisco contends that no construction is necessary for this term.

III. '400 PATENT

The '400 patent is generally directed to a “bridge” network device that learns Media Access Control (“MAC”) addresses from data packets and populates those MAC addresses into databases across the different components of the device. By way of background, it was well-known in the art that bridges use a destination MAC address to forward a packet to the next node in the network. '400 patent at 1:13–32. If the bridge recognizes the destination MAC address of an incoming packet, the bridge sends the message to that destination through the bridge port associated with that destination MAC address. If, on the other hand, the bridge does not recognize the MAC address, the bridge will “flood” the network—*i.e.*, send the packet through all of the bridge ports so the packet will eventually get to the right place. *Id.* at 1:33–46. To minimize the need for flooding, bridges build and maintain a table of MAC addresses it has seen before called a “forwarding database” or “FDB.” *Id.* According to the patent, however, in distributed bridges (*i.e.*, a bridge comprising more than one device), there may be other components that have not yet learned the same MAC address in their FDB, which could result in unnecessary flooding. *See id.*

Figure 1 depicts an example of a bridge with multiple components.



Id. at Fig. 1. To send a packet from source computer **22** to destination computer **24**, the packet is sent through different nodes in the network, including bridge **30**. As depicted, bridge **30** has multiple line cards **32**, each labeled with “LC.” Each line card **32** has at least one port **36** which links to another device outside of the bridge. *Id.* at 6:8–16. Each line card **32** has “its own FDB.” *Id.* at 3:20. The line cards are connected via a switching fabric **34** that can route packets within node **30** to other line cards.

According to the patent, the links connected to ports on different line cards may be logically joined together to create a link aggregate group or LAG **38**. The patent does not purport to invent a new network node, line cards, ports or LAGs. *See id.* at 1:13–2:56. Instead, the ’400 patent purports to describe a way for sending synchronization messages such that “the other line cards update their own MAC FDBs as appropriate.” *Id.* at 3:31–33.

A. “said FDB” (claims 1, 11)

Cisco’s Proposal	Corrigent’s Proposal
Indefinite	Plain and Ordinary Meaning

All of the asserted claims are indefinite because they recite multiple “FDBs” and later ambiguously refer to “said FDB,” without clarifying to which one of the previously recited FDBs it refers. For example, claim 1 recites:

configuring a network node having a plurality of ports, and *at least first and second line cards* with respective first and second ports, to operate as a distributed media access control (MAC) bridge in a Layer 2 data network;

configuring a link aggregation (LAG) group of parallel physical links between two endpoints in said Layer 2 data network joined together into a single logical link, said LAG group having a plurality of LAG ports and *a plurality of conjoined member line cards*;

providing for *each of said member line cards a respective forwarding database (FDB)* to hold records associating MAC addresses with ports of said plurality of ports of said network node;

receiving a data packet on an ingress port of said network node from a MAC source address, said data packet specifying a MAC destination address on said Layer 2 data network;

conveying, by transmitting said data packet to said MAC destination address via said first port, said received data packet in said network node to at least said first line card for transmission to said MAC destination address;

if said MAC destination address does not appear in *said FDB*, flooding said data packet via one and only one LAG port of said plurality of LAG ports;

checking said MAC source address of the data packet against records in *said FDB of said first line card*

In other words, the claim recites two sets of line cards: (1) “*first and second line cards*” and (2) “*a plurality of conjoined member line cards*.” The claim then requires that “each of said *member line cards*” (not the first and second line cards) has “a respective forwarding database (FDB).” Next, the claims recite checking “said FDB,” without specifying to which of the FDBs on the plurality of member line cards it refers.² A person of skill would not have understood to which of the multiple FDBs the claim refers.

Looking at the rest of the intrinsic record only compounds the ambiguity. For example, claim 1 also recites “said FDB *of said first line card*,” *but the claim never recited an FDB on the first line card*. ’400 patent, cl. 1. If the claimed first and second line cards also have FDBs even though they are not recited in the claims, there are even more possible FDBs to which the earlier-claimed “said FDB” could refer to in addition to the recited FDBs that reside on the plurality of member line cards. A person of skill would therefore have no idea to which of the claimed (or unclaimed) FDBs the “said FDB” refers.

Claim 11 is likewise indefinite. Unlike claim 1, claim 11 recites that the “first and second line cards” are a part of the plurality of member line cards. Claim 11, however, still ambiguously

² The reference “said MAC destination address” does not provide any clues because that refers to the MAC address of the sender of the data packet, not one of the line cards on the node.

recites “said FDB” without clarifying to whether it is referring to the FDB on the first line card or the FDB on the second line card. *See* ’400 patent, cl. 11 (“when said MAC destination address does not appear in ***said FDB***, to flood said data packet via one and only one of said LAG ports.”).

The Federal Circuit recently affirmed indefiniteness of a similar term in *Bushnell Hawthorne, LLC v. Cisco Systems, Inc.*, 813 F. App’x 522, 526 (Fed. Cir. May 14, 2020). There, the claim recited three sets of IP addresses. Later in the claim, the patent used the term “said different IP address,” which lacked an antecedent basis. The Federal Circuit explained that, “[w]ith three different IP addresses to choose from, a POSA faced with the ‘said different IP Address’ limitation is left to wonder which of the different IP addresses is ‘said’ different one.” *See id.* The exact same thing is true here. There are at least two—and possibly many more that are unrecited—different possible “FDBs” to which the term “said FDB” could refer. “A [POSA], faced with the claims and the specification, could not, with reasonable certainty, discern the meaning of the claim term.” *Id.* at 527. Indeed, during the parties meet and confer, Cisco asked Plaintiff to which FDB Plaintiff believed “said FDB” referred, but Plaintiff refused to provide a response.

This Court has recently construed similar terms as indefinite. *See, e.g., WSOU Investments, LLC v. Google*, No. 6:20-cv-00581-ADA, Dkt. No. 46 at 3 (W.D. Tex. June 2, 2021) (finding “the terminal” to be indefinite because it could have referred to “mobile communication terminal” or “another communication terminal”); *WSOU Investments, LLC v. Huawei Tech. Co.*, No. 6:20-CV-533-ADA, Dkt. No. 64 at 14 (W.D. Tex. June 1, 2021) (finding “the message” to be indefinite because it could have referred to “a message to the upstream device” or “a message reporting the depth of the queue”); *Qcue, Inc v. Digonex Tech. Inc.*, 2013 WL 4784120, at *12–13 (W.D. Tex. Sept. 5, 2013) (finding claims indefinite when it was not clear which “processor” was referred to

when there were multiple processors in the claim).

Cisco therefore respectfully requests “said FDB” be found indefinite consistent with Federal Circuit precedent and prior decisions of this Court.

B. “virtual media access control (MAC) bridge” (claims 8, 11, 18)

Cisco’s Proposal	Corrigent’s Proposal
Indefinite	Plain and ordinary meaning

The intrinsic record gives no guidance as to the proper scope of “virtual media access control (MAC) bridge.” Because the intrinsic record “fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of” this term, it is indefinite. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

As an initial matter, the term “virtual MAC bridge” does not have a well-understood or common meaning in computer networking. Instead, it appears to be a coined term specific to this patent so the meaning of the term must come from the intrinsic record. *See Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345, 1353 (Fed. Cir. 2019) (“[B]ecause the disputed term is a coined term, meaning it has no ordinary and customary meaning, the question is whether the intrinsic evidence provides objective boundaries to the scope of the term.”).

The claim language itself does not provide any objective boundaries to “virtual MAC bridge.” To the contrary, the claims separately claim a “***distributed*** [MAC] bridge” (claim 1) and “***virtual*** [MAC] bridge” (claim 11). These two terms are presumed to have different meanings and it is unclear what the difference between the terms is. *See Tandon Corp. v. United States Int’l Trade Comm’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) (“There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims.”). Indeed, claim 8—which depends from claim 1 that recites “distributed MAC bridge”—further limits the claim by reciting “the network node is configured to operate as ***multiple virtual MAC bridges*** in a Layer

2 virtual private network (VPN), wherein *each virtual MAC bridge* is configured to serve a respective VPN instance, and wherein the records associating the MAC addresses with the respective ports are maintained independently for each of the VPN instances.” ’400 patent, cl. 8. Although this states that there may be multiple “virtual MAC bridges” in a network node, it provides no clarity as to the boundaries of the term; a POSA would not understand what constitutes a “virtual MAC bridge.”

The specification likewise provides no guidance, only reciting the nodes may operate as a “virtual MAC bridge,” without explaining what it means. *See, e.g.*, ’400 patent at 3:3–7, 4:54–60, 5:11–18. And there is nothing in the file history that clarifies the scope of “virtual MAC bridge.”

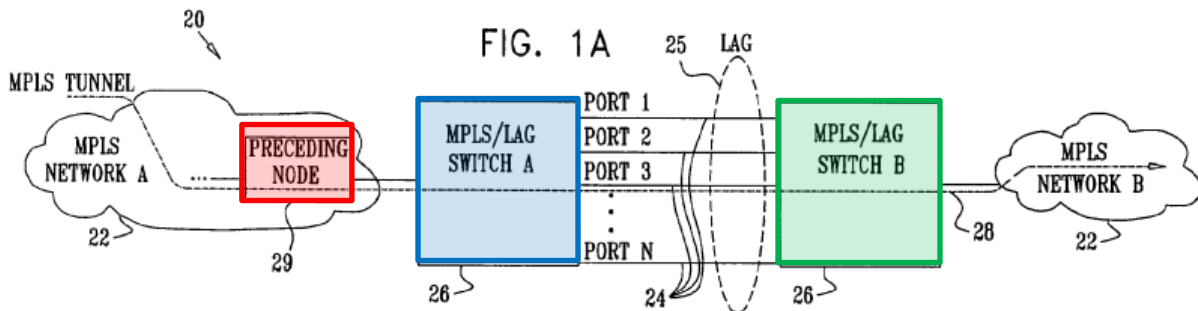
The Federal Circuit has affirmed indefiniteness in similar situations. For example, in *IQASR LLC v. Wendt Corp.*, 825 F. App’x 900 (Fed. Cir. 2020), the Court held that the term “magnetic fuzz” was indefinite. Although the *IQASR* patent provided open-ended, non-limiting examples of “magnetic fuzz,” the Court still found the term indefinite because the specification lacked “a meaningful description of what constitutes magnetic fuzz” such that a person of skill would not know “when it is present and how to address it.” *Id.* at 906. The Court explained that the “patentee cannot simultaneously use non-modal verbs to avoid limiting the scope of an invention while also arguing that those same examples define the limits of the invention.” *Id.* So too here. Like the *IQASR* patent, the asserted patent here includes open-ended, non-limiting examples of how a “virtual MAC bridge” could be set up that do not limit the invention and the claims likewise fail to provide any objective boundaries. As in *IQASR*, a person of skill would have no idea when a “*virtual* MAC bridge” is present or how that is different than a “distributed MAC bridge.” Furthermore, it does not matter that “virtual MAC bridge” is mentioned in the specification; “[a]dditional discussion of a concept may obfuscate the concept just as much as it

may clarify it.” *Id.*

Plaintiff’s proposal to not construe the term does not resolve the ambiguity inherent in this term. *See Pac. Coast Bldg. Prod., Inc. v. CertainTeed Gypsum, Inc.*, 816 F. App’x 454, 457–59 (Fed. Cir. 2020) (finding a term indefinite where “the plain language of the claim and specification did not” provide guidance as to its meaning among more than one potential meaning); *Insituform Techs., Inc. v. Cat Contracting, Inc.*, 99 F.3d 1098, 1106 (Fed. Cir. 1996) (“attorney argument cannot control in light of the language of the claim”). Thus, Cisco requests “virtual MAC bridge” be found indefinite.

IV. ’602 PATENT

The ’602 patent describes “methods and systems for performing link aggregation in tunneled networks.” ’602 patent at 1:19–21. Specifically, the ’602 patent discloses “a method for assigning and utilizing an Ethernet physical data port in an Ethernet Link Aggregation Group (LAG) in a Multi-Protocol Label Switching (MPLS) network.” *Id.* at 2:30–34. Figure 1A (annotated below) depicts an MPLS network arrangement:



As the ’602 patent explains, the method “includes the steps of selecting, by a [first MPLS/LAG switch](#), a single physical tunnel port which meets a bandwidth requirement of a network tunnel,” and wherein “the single physical tunnel port has a port serial number.” *Id.* at 2:34–39. The single physical tunnel port is then assigned by said [first MPLS/LAG switch](#) to the

network tunnel. *Id.* at 2:39–41. The first MPLS/LAG switch then prepares “a data packet label by which said signal physical tunnel port may be identified.” *Id.* at 2:41–43. Then, when the first MPLS/LAG switch receives a “data packet” including the “data packet label,” the first MPLS/LAG switch switches the “data packet to said single physical tunnel port” according to the serial port number, and the data packet is then sent to a “second MPLS/LAG switch” via the single physical tunnel port. *Id.* at 2:44–49.

The ’602 patent also discloses “a method of tagging a packet for transport through an Ethernet physical data port in a [LAG] located downstream from a preceding node in a[n] [MPLS] network tunnel employing Resource Reservation Protocol Traffic Engineering (RSVP-TE) tunnel provisioning.” *Id.* at 2:50–56. As the specification explains, RSVP-TE is defined by the Internet standard IETF RFC 3209. *Id.* at 1:46–56. In this method, the preceding node sends an “RSVP-TE PATH message” that includes a “LABEL_REQUEST object requesting a network tunnel, and a bandwidth requirement” to an MPLS/LAG switch. *Id.* at 2:56–60. The preceding node receives a packet label sent by the MPLS/LAG switch, the “packet label including a serial number of a single physical tunnel port in the MPLS/LAG switch” that meets the bandwidth requirement. *Id.* at 2:60–65. Subsequently, the preceding node attaches the data packet label to a data packet to be sent by the preceding node that “is intended to be forwarded via the single physical tunnel port,” and the preceding node sends the “data packet including said data packet label . . . downstream to the MPLS/LAG switch.” *Id.* at 2:65–3:3.

A. “RSVP-TE” (claims 2, 3, 15, 26)

Cisco’s Proposal	Corrigent’s Proposal
“RSVP-TE protocol set forth in IETF RFC 3209”	Plain and ordinary meaning

Cisco’s proposed construction defines the term “RSVP-TE” as the “RSVP-TE protocol set forth in IETF RFC 3209.” This construction is necessary because the term “RSVP-TE”—an

acronym for “Resource Reservation Protocol - Traffic Engineering”—has no plain and ordinary meaning outside the context of IETF RFC 3209, which established the Traffic Engineering extension to the existing RSVP protocol and coined the term RSVP-TE.

The specification states that RSVP-TE “is described by Awduche et al., in IETF RFC 3209 entitled ‘RSVP-TE: Extensions to RSVP for LSP Tunnels’ (December 2001),” and expressly incorporates IETF RFC 3209 by reference. ’602 patent at 1:46–56. The patent explains that “RSVP-TE extends the well-known Resource Reservation Protocol (RSVP), allowing the establishment of explicitly routed LSPs using RSVP as a signaling protocol,” and incorporates IETF RFC 2205, which describes RSVP, by reference. *Id.* at 1:50–56. And, in summarizing the invention, the specification spells out the full name of the protocol as found in IETF RFC 3209: “Resource Reservation Protocol Traffic Engineering (RSVP-TE).” *See id.* at 2:50–56, 3:4–11. These are the only definitional statements provided regarding the term—all other uses of the term refer only to the acronym itself. And, subsequent uses of “RSVP-TE” further refer to an “RSVP-TE PATH” message, which is expressly defined in IETF RFC 3209. *See, e.g., id.* at 6:8–11, 7:40–42; Ex. H at 15–16 (defining the “format of the Path message”).

Although the specification of the ’602 patent indicates that “the principles of the present invention may also be used in conjunction with other communications protocols,” there is no disclosure of the use of “RSVP-TE” outside of the “well-known Resource Reservation Protocol (RSVP).” *Id.* at 1:50–56; 9:4–11. Likewise, the fact that the patentee chose the specific acronym “RSVP-TE” in its claims rather than more broad, generic language indicates that the claims are limited to RSVP-TE protocol set forth in IETF RFC 3209. *See, e.g., id.* at 1:47–48. Accordingly, the only plausible construction of “RSVP-TE” that is supported by the intrinsic evidence is the “RSVP-TE protocol set forth in IETF RFC 3209,” as proposed by Cisco.

B. Preamble (claim 15)

Cisco's Proposal	Corrigent's Proposal
The preamble of claim 15 is limiting	Preamble is not limiting

The preamble of claim 15 is limiting because it “recites essential structure or steps” and is “‘necessary to give life, meaning, and vitality’ to the claim.” *Catalina*, 289 F.3d at 808. Some “guideposts” in determining whether a preamble is limiting include: (1) whether the preamble provides antecedent basis, (2) whether the preamble is essential to understand limitations or terms in the claim body, and (3) whether the preamble recites “additional structure or steps underscored as important by the specification.” *Id.* Cisco’s proposed construction satisfies each of these guideposts.

The preamble of a claim is generally limiting where it provides the antecedent basis for claim terms. *See Bio-Rad Lab’ys*, 967 F.3d at 1371. Claim 15 recites “[a]n apparatus for assigning and utilizing an Ethernet physical data port in an Ethernet Link Aggregation Group (LAG) located downstream from a preceding node in a Multi-Protocol Label Switching (MPLS) network tunnel employing Resource Reservation Protocol Traffic Engineering (RSVP-TE) tunnel provisioning, the LAG having a first MPLS/LAG switch and *a second MPLS/LAG switch*, the apparatus comprising.” ’602 patent, cl. 15. The body of the claim recites “if said data packet contains said data packet label, send said data packet to the second MPLS/LAG switch via said single physical tunnel port.” The only antecedent basis for this term comes from the preamble, strongly indicating that the preamble is limiting. Courts have repeatedly held that the preamble is limiting in similar situations where it provides the antecedent basis for terms in the body. *See, e.g., UNM Rainforest Innovations*, Dkt. 69 at 1–3; *see also Japan Display*, Dkt. 123 at 26–29; *Gen. Access Sols.*, Dkt. 105 at 10–13.

Although “antecedent basis alone is not determinative of whether a preamble is limiting,”

the “use of preamble terms to define positive limitations in the body of claims,” as here, “can evince an inventor’s intent that the preamble limit the scope of the claim,” particularly where they are “essential to understanding” limitations in the body of the claim. *Shoes by Firebug*, 962 F.3d at 1368. The body of claim 15 recites a LAG along with an MPLS/LAG switch. These terms (LAG, MPLS) are defined in the preamble. Without the preamble, these terms would have no meaning. *See Lemoine*, 2021 WL 4199934, at *2 (without the context provided by the preamble “it is difficult to make sense of the later disclosure of” the claim and “these disclosures would be rendered meaningless”); *Proveris*, 739 F.3d at 1372–73.

In addition, because the preambles of each of the claims recite limitations that are fundamental to the alleged inventions, they should be held limiting. *Deere & Co.*, 703 F.3d at 1358. MPLS and LAG are fundamental to the ’602 patent. Indeed, the background of the invention is entirely comprised of discussions of MPLS and LAG. *See* ’602 patent at 1:25–2:25. All the embodiments disclosed in the summary of invention include either assigning or tagging a physical data port in an Ethernet Link Aggregation Group (LAG) in a Multi-Protocol Label Switching (MPLS) network tunnel further underscoring the importance of MPLS and LAG to the invention. The preamble “recites essential structure that is important to the invention or necessary to give meaning to the claim.” *Bicon*, 441 F.3d at 952 (Fed. Cir. 2006). For the above reasons, Cisco respectfully requests that the preamble to claim 15 be held limiting.

V. CONCLUSION

Cisco respectfully requests that this Court adopt Cisco’s constructions.

Respectfully submitted,

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