EXHIBIT 1017

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TALARI NETWORKS, INC.,
Petitioner,

v.

FATPIPE NETWORKS INDIA LIMITED,
Patent Owner.

Case IPR2016-00976
Patent 6,775,235 B2

Before STACEY G. WHITE, MICHELLE N. WORMMEESTER, and CHRISTA P. ZADO, *Administrative Patent Judges*.

WHITE, *Administrative Patent Judge.*

DECISION
Institution of *Inter Partes* Review
35 U.S.C. § 314(a) and 37 C.F.R. § 42.108

I. INTRODUCTION

A. Background

Talari Networks, Inc. ("Petitioner") filed a Petition (Paper 1, "Pet.") seeking to institute an *inter partes* review of claims 4, 5, 7–15, and 19 of U.S. Patent No. 6,775,235 B2 (Ex. 1001, "the '235 patent") pursuant to 35 U.S.C. §§ 311–319. FatPipe Networks India Limited. ("Patent Owner") filed a Preliminary Response. (Paper 6, "Prelim. Resp."). We have jurisdiction under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition."

Petitioner contends the challenged claims are unpatentable under 35 U.S.C. §§ 102 and 103 on the following specific grounds (Pet. 10–60):

Reference(s)	Basis	Claims Challenged
Karol[1]	§ 102	4, 5, 7–11, 14, and 19
Karol and Stallings[2]	§ 103	5, 11–15, and 19
Karol	§ 103	4, 5, 7–15, and 19

Our factual findings and conclusions at this stage of the proceeding are based on the evidentiary record developed thus far (prior to Patent Owner's Response). This is not a final decision as to patentability of claims for which *inter partes* review is instituted. Our final decision will be based on the record as fully developed during trial. For reasons discussed below, we institute *inter partes* review of claims 4, 5, 7–15, and 19 of the '235 patent.

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[1] U.S. Patent No. 6,628,617 B1 ("Karol," Ex. 1006).

[2] William Stallings, *Data and Computer Communications*, Prentice-Hall, 5th Ed, 1997, ISBN-81-203-1240-6 ("Stallings," Ex. 1011).

B. Related Proceedings

The parties inform us *FatPipe, Inc. v. Talari Networks, Inc.,* No. 5:16-CV-54-BO (E.D.N.C.), may be impacted by this proceeding. Pet. 1, Paper 5, 1–2. In addition, Petitioner seeks *inter partes* review of a related patent, U.S. Patent No. 7,406,048 B2 (IPR2016-00977). *Id.*

C. The '235 Patent

The '235 patent describes a system and method for communicating using two or more disparate networks in parallel. Ex. 1001, Abstract. For example, an embodiment of this system could be composed of a virtual private network ("VPN") in parallel with a frame relay network. *Id.* at 1:19–24. These parallel networks back each other up in case of failure and when both networks are operational their loads are balanced between the parallel networks. *Id.* at Abstract. An embodiment of this system is depicted in Figure 10, which is shown below.

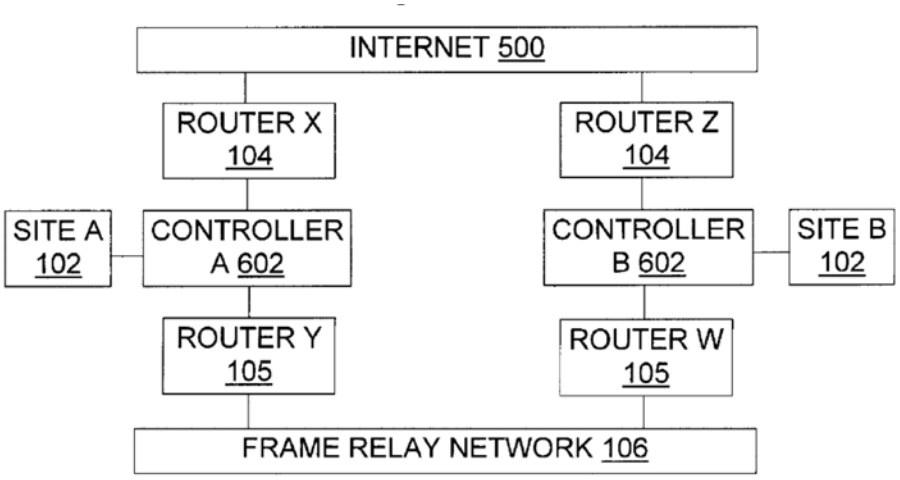

Fig. 10

Figure 10 depicts an example of the network topology described in the '235 patent. *Id.* at 8:29–30. Two sites 102 transmit and/or receive data from one another. *Id.* at 2:38–40. These sites are connected by two disparate

networks, Internet 500 and frame relay network 106. *Id.* at 8:30–32. Each location has frame relay router 105 and Internet router 104. *Id.* at 8:32–33. "Access to the disparate networks at site A and site B is through an inventive controller 602 at each site." *Id.* at 6:34–36. Controller 602 "allows load-balancing, redundancy, or other criteria to be used dynamically, on a granularity as fine as packet-by-packet, to direct packets to an Internet router and/or frame relay/point-to-point router according to the criteria." *Id.* at 9:12–17.

Figure 7 of the '235 patent is reproduced below.

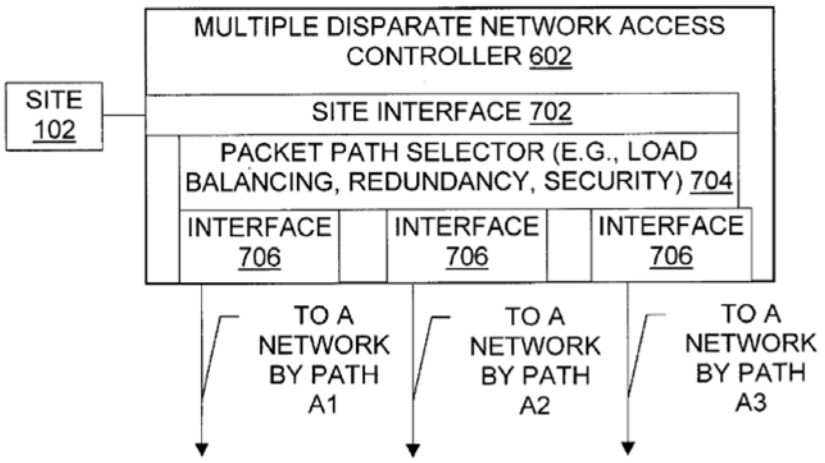

Fig. 7

Figure 7 depicts controller 602. *Id.* at 10:59–60. Controller 602 is connected to site 102 via site interface 702. *Id.* at 10:60–63. Packet path selector 704 is hardware or software that determines which path a given packet is to travel. *Id.* at 11:2–6. The criteria used to determine which path a packet travels may be based on concerns such as redundancy, load-balancing, or security. *Id.* at 11:9–63. Controller 602 also has two or more network interfaces 706 (at least one per each network for which controller 602 controls access). *Id.* at 11:64–67.

D. Illustrative Claim

As noted above, Petitioner challenges claims 4, 5, 7–15, and 19 of the '235 patent, of which claims 4, 5, and 19 are independent. Claim 5 is illustrative of the challenged claims and is reproduced below:

> 5. A method for combining connections for access to multiple parallel disparate networks, the method comprising the steps of:
> obtaining at least two known location address ranges which have associated networks;
> obtaining topology information which specifies associated networks that provide, when working, connectivity between a current location and at least one destination location;
> receiving at the current location a packet which identifies a particular destination location by specifying a destination address for the destination location;
> determining whether the destination address lies within a known location address range;
> selecting a network path from among paths to disparate associated networks, said networks being in parallel at the current location, each of said networks specified in the topology information as capable of providing connectivity between the current location and the destination location;
> forwarding the packet on the selected network path.

II. CLAIM CONSTRUCTION

In an *inter partes* review, "[a] claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears." 37 C.F.R. § 42.100(b). Under this standard, we construe claim terms using "the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the

applicant's specification." *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

Petitioner and Patent Owner both decline to seek construction of any terms at this time. Pet. 8; Prelim. Resp. 8. We reviewed the asserted grounds, and, for the purposes of this Decision, we have determined that no terms require express construction. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc*., 200 F.3d 795, 803 (Fed. Cir. 1999).

III. ANALYSIS

We turn to Petitioner's asserted grounds of unpatentability to determine whether Petitioner has met the threshold of 35 U.S.C. § 314(a).

A. Asserted Ground of Anticipation over Karol

Petitioner asserts that claims 4, 5, 7–11, 14, and 19 are anticipated by the disclosures of Karol. Pet. 10–30. Petitioner supports its arguments with a declaration from Dr. Kevin Negus. Ex. 1005. For the reasons described below we are persuaded that Petitioner has made a showing sufficient to satisfy the threshold of § 314(a) as to its asserted anticipation of claims 4, 5, 7–11, 14 and 19.

1. Overview of Karol

Karol is directed to "the internetworking of connectionless (e.g., Internet Protocol or 'IP') and connection oriented (e.g., ATM, MPLS, RSVP) networks." Ex. 1006, 1:7–10. Connectionless ("CL") networks require no explicit connection setup prior to transmitting datagrams. *Id.* at 1:19–24. In contrast, connection oriented ("CO") networks determine a route for the connection and allocate bandwidth resources along the route. *Id.* at 1:31–39. Figure 1 of Karol is reproduced below.

FIG. 1

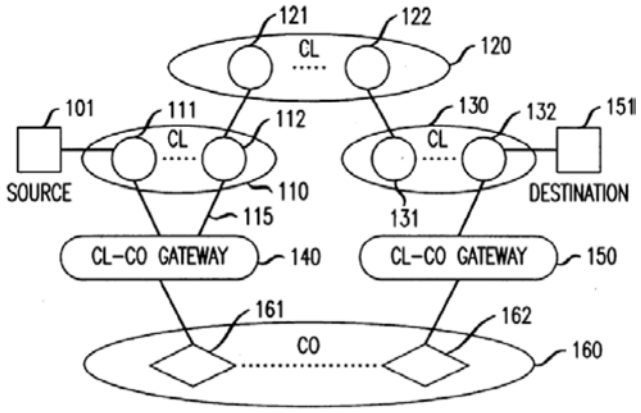

Figure 1 depicts CO and CL networks in a parallel configuration. *Id.* at 4:12–14. Datagrams ultimately destined for endpoint 151 may be sent from source 101 to node 111 in CL network 110. *Id.* at 4:39–40. The datagrams may be routed over either the CO or CL network in order to arrive at endpoint 151. *Id.* at 4:40–43. CL-CO gateways 140 and 150 interconnect the CL and CO networks and "allow[] datagrams (sometimes hereinafter called messages) originated on the CL network to be transported . . . on the CO network." *Id.* at 3:30–37. "When a datagram arrives at CL-CO gateway 140 of FIG. 1, a determination is made if that packet should be carried by CO network 160." *Id.* at 5:23–25. CL-CO gateway 140 is described in more detail in Figure 4, which is reproduced below.

FIG. 4

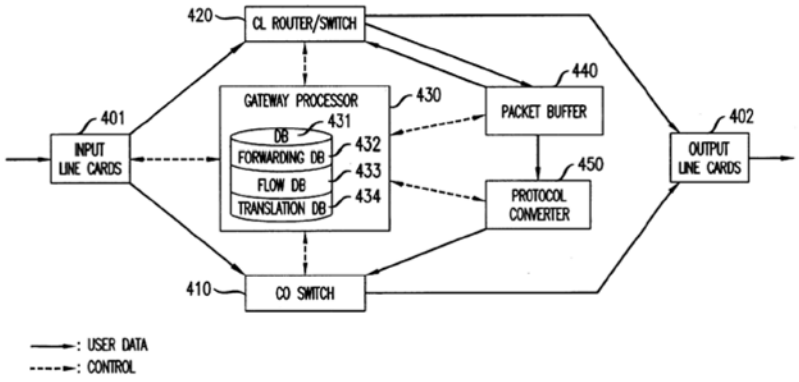

Figure 4 illustrates the internal arrangements of CL-CO gateway 140. *Id.* at 6:31–32.

> Generally speaking, each CL-CO gateway arranged in accordance with the present invention includes hardware and software modules that typically comprise (a) a switch fabric for CO networking, shown in FIG. 4 as CO switch 410, (b) a CL packet forwarding engine, shown in FIG. 4 as CL router/switch 420, (c) a protocol converter 450, (d) a moderately sized packet buffer 440 for temporarily storing packets waiting for CO network setup or turnaround; and (e) a processor 430 and associated database 431 for controlling the gateway packet handling operations and for storing forwarding, flow control, header translation and other information. Input line cards 401 and output line cards 402 connect the gateway of FIG. 4 to external networks, such that datagrams received in input line cards 401 can be directed either to CO switch 410 or CL router/switch 420, and such that output line cards 402 can receive datagrams from either of the last mentioned elements and direct them to external networks.

Id. at 6:32–50. The elements depicted in Figure 4 are controlled by processor 430 and such control is implemented via programs stored in the processor. *Id.* at 6:55–59. The routing procedures used by gateway 140 may adjust routing dynamically "to divert connections away from overloaded call processors." *Id.* at 17:64–67. In other words, routing "can be adjusted to reflect bandwidth availability." *Id.* at 18:1–2.

2. Independent Claim 4

Claim 4 recites a controller which controls access to multiple networks. Petitioner's arguments as to independent claim 4 may be summarized as follows: Petitioner argues in the alternative that the claimed controller that provides access to multiple networks may be either Karol's CL-CO gateway alone or the gateway in combination with one or more

routers or switches. Pet. 10–12. If the controller is the gateway alone, then Petitioner asserts that the site interface is disclosed by one or more of Karol's input line cards 401 or the network connection depicted in Figure 1 between source 101 and node 111. *Id.* at 12. If the controller is the gateway in combination with routers and/or switches, then Petitioner asserts the site interface is a network connection. *Id.* According to Petitioner, Karol discloses at least two output line cards 402 that receive datagrams from the CO switch or CL router/switch and directs the datagrams to external networks. *Id.* at 12–13. As to the packet path selector, Petitioner points to Karol's gateway processor, CL router/switch, CO switch, packet buffer, protocol converter and input line cards to disclose this element of the claim. *Id.* at 14. Petitioner asserts that these items work together in Karol to determine if a packet ("datagram") from a source should be forwarded to either the CL or CO network. *Id.* Petitioner relies on Karol's disclosure of routing datagrams based on "'bandwidth availability' that can be 'dynamically allocated to flows on an as-needed basis' and can 'divert[] connections away from congested links." *Id.* at 15 (citing Ex. 1006, 17:18–26, 17:63–18:2; Ex. 1005 ¶ 182). On the record before us, we find Petitioner's arguments and evidence to be persuasive.

Patent Owner argues that Karol does not disclose the recited path selection factors (Prelim. Resp. 51), nor does it disclose the selection of paths on a per packet basis (*id.* at 45). Patent Owner supports its contentions with a declaration from Joel Williams. Ex. 2001. We address each of Patent Owner's arguments in turn.

Claim 4 recites, in relevant part,

> a packet path selector which selects between network interfaces on a per-packet basis according to at least:
> [1] a destination of the packet,
> [2] an optional presence of alternate paths to that destination, and
> [3] at least one specified criterion for selecting between alternate paths when such alternate paths are present;

Ex. 1001, 17:46–51. Patent Owner asserts that Petitioner failed to establish that Karol discloses these three factors for path selection. Prelim. Resp. 51. Petitioner asserts that Karol's gateway processor, CL router/switch, CO switch, packet buffer, protocol converter and input line cards disclose the packet path selector. Pet. 14. According to Petitioner, these elements "compare[] information in each packet received at the CL-CO gateway to determine if the packet will be routed to the CL or CO network interface output line card." *Id.* at 15–16. As to the three factors, Petitioner asserts that [1] Karol's gateway processor compares the destination address of each received packet to fields in both the routing databases; [2] the gateway processor only forwards a packet to the CO network when a valid connection exists; and [3] forwarding occurs based upon the needs of a particular flow or to avoid congested links. *Id.* at 16 (citing Ex. 1005 ¶¶ 187–189).

Patent Owner disputes Petitioner's analysis of Karol and argues that the path selection is based on flows that have been predefined by service contracts and not the recited factors. Prelim. Resp. 51. It is Patent Owner's contention that a node's use of CL-CO gateway 140 to access the CO network is dependent upon pre-defined, user-specified service requirements. *Id.* at 14 (citing Ex. 1006, 5:34–57, 15:20–31, 16:3–8). We note, however,

that Karol states that "not all nodes of the CL network need to have the ability to make redirect decisions." Ex. 1006, 2:33–34. Petitioner's arguments are directed to the nodes that have been configured to redirect traffic to a CO network. These nodes connect to CL-CO gateways wherein "decisions [are] made whether to continue carrying the information in CL mode, or to redirect the traffic to a CO network." *Id.* at 2:16–19. These gateways have "a processor containing logic for controlling the gateway packet handling operations." *Id.* at 2:26–28.

Patent Owner argues that the pre-set criteria used by Karol's processors does not provide claimed dynamic routing. Prelim. Resp. 52. Karol describes, however, applying pre-set criteria in a dynamic fashion. One of Karol's purported advantages is that "bandwidth can be dynamically allocated to flows on an as-needed basis." Ex. 1006, 17:25–26. Thus, on this record, we are persuaded that Petitioner has made a sufficient showing that Karol discloses the claimed packet path selection based on the recited factors.

Patent Owner also argues that Karol does not "select[] between network interfaces on a per-packet basis" as recited by claim 4. Prelim. Resp. 45. According to Patent Owner, "Karol relies on routing decisions that were made for a flow of datagrams" and not individual packets. *Id.* at 47; *see* Ex. 1006, 15:29–30 ("user-specific routing then determines which user's flows are sent to the CO network"). This argument, however, does not take into account Karol's determinations that are made at the packet level. In Karol, "[w]hen a datagram arrives at a CO-CL gateway 140 . . . a determination is made if *that packet* should be carried by CO network 160." Ex. 1006, 5:23–25 (emphasis added). Some, but not all, traffic flows are

configured to access the CO network. *Id.* at 5:25–27. Thus, one of the user-specified criteria to be evaluated is whether a particular packet is part of a traffic flow that may be redirected. *Id.* at 5:24–37; *see also id.* at 7:42–46 (discussing the flow database's storage of "information used to determine how to handle *packets from flows* requiring connection oriented service" (emphasis added)). Patent Owner cites Figure 5 of Karol in support of its argument. Prelim. Resp. 47. Step 503 of this Figure, however, examines whether "this is a packet from a flow that needs CO Service." Ex. 1006, Fig. 5. Thus, on this record, we are persuaded that Karol discloses examining packets to in order to select the network interface.

On the current record, we are persuaded by Petitioner's contention that independent claim 4 is anticipated by Karol. Thus, Petitioner has demonstrated a reasonable likelihood of prevailing on its assertion that independent claim 4 is unpatentable over Karol.

3. Independent Claim 5

Claim 5 recites a method for combining connections for access to multiple parallel disparate networks. Petitioner's allegations regarding independent claim 5 may be summarized as follows: Karol discloses multiple parallel disparate networks through its discussion of CL and CO networks. Pet. 17. Karol discloses obtaining at least two known location address ranges through its discussion of routing tables. *Id.* at 17–18. Petitioner further asserts that Karol's routing tables contain information about route topology and connectivity. *Id.* at 19–21. Karol's datagrams are relied upon to disclose a packet which identifies a particular destination location. *Id.* at 21. Karol "compar[es] the destination IP address in each packet received at the CL-CO gateway to entries in the databases to

determine if the destination address lies within the routing tables that include a known location address range for the destination location." *Id.* Petitioner argues in the alternative that Karol's discussion of the CL-CO gateway alone or the gateway in combination with its associated routers and/or switches discloses the step of selecting a network path from among the disparate parallel CO and CL networks. *Id.* at 22. In addition, Karol's routing tables provide information as to the connectivity between the current location and the destination. *Id.* On the record before us, we find Petitioner's arguments and evidence to be persuasive.

Patent Owner argues that Karol does not disclose "obtaining at least two known location address ranges which have associated networks" and "determining whether the destination address lies within a known location address range." Prelim. Resp. 38–39. Patent Owner argues that when Karol's gateways redirect traffic to the CL network, the routing table is overridden and source routing is used in place of the routing table. *Id.* at 39 (citing Ex. 2001 ¶¶ 80–82). In support of its argument, Patent Owner cites a portion of Karol discussing the processing performed if the connection to the CO network has not yet been set up. *See id*. (citing Ex. 1006, 11:27–31, 8:51–55). In this situation, a datagram may be placed in a packet buffer and then forwarded to the CL network using source routing. Ex. 1006, 11:21–26. This, however, is not the only routing discussed in Karol, which also discloses "creating routing tables that enable data flow from the CL network to the CO network." *Id.* at 8:1–2. The routing tables used by the gateways may be either generic or user-specific. *Id.* at 16:3–9. These routing tables are maintained at the gateways. *Id.* at 14:50–51. The gateways use the information in these tables to "determine[] the shortest paths to IP

destinations by comparing its path on the two networks for each destination." *Id.* at 14:57–59. The gateway maintains a list of the shortest paths in its routing table. *Id.* at 14:60–65. Thus, on this record, we are persuaded that Karol discloses the recited address ranges.

On the current record, we are persuaded by Petitioner's contention that independent claim 5 is anticipated by Karol. Thus, Petitioner has demonstrated a reasonable likelihood of prevailing on its assertion that independent claim 5 is unpatentable over Karol.

4. Independent Claim 19

Similar to claim 5, independent claim 19 also is directed to combining connections for access to parallel networks. Many of Petitioner's contentions are similar to the contentions discussed above in regards to claims 4 and 5. *Compare* Pet. 59–60 (contentions regarding claim 19) *with id.* at 42–52 (contentions regarding claims 4 and 5). For the purpose of brevity, we focus our discussion here on a few limitations that we believe merit additional discussion.

Claim 19 recites, in relevant part, "a packet path selector which selects between the network interfaces on a per-session basis to promote load-balancing." Petitioner points out that one of Karol's purported "advantage[s] to a service provider is that *bandwidth utilization* in a packet-switched CO network is better than in a CL network with precomputed routes since bandwidth can be *dynamically allocated to flows on an as-needed basis*." Pet. 27–28 (citing Ex. 1006, 17:18–26, 17:63–18:2; Ex. 1005 ¶ 449). Patent Owner asserts that load balancing is not taught by Karol because the CO is the preferred network. Prelim. Resp. 25. According to Patent Owner, Karol describes the CO network as the faster,

preferred network and that the gateway should use the CO network if it is available. *Id.* at 27 (citing Ex. 2001 ¶ 60). Mr. Williams testifies that CO connections are shown as faster and thus, the system does not balance between the networks because it favors the CO network. Ex. 2001 ¶ 60.

On this record, we disagree with Patent Owner's analysis of Karol. The decision whether to setup a connection to a CO network is "based on user-specified service requirements and the *traffic situation* in the CL and CO networks." Ex. 1006, 5:35–38 (emphasis added). Thus, Karol describes the network load as being part of the decision whether to redirect packets. On the record before us, we are persuaded that Karol teaches or at least suggests the recited load balancing. We find persuasive Petitioner's assertion that Karol teaches load balancing through its discussion of diverting connections away from overloaded call processors and diverting connections away from congested links. Ex. 1006, 17:65–18:2. Thus, we are persuaded that Petitioner made a sufficient showing in regards to this limitation.

Claim 19 also recites that "the controller sends different packets of a given message to different parallel networks." Petitioner asserts that this is disclosed by Karol's description of sending datagrams over both the CO and CL networks. Pet. 29. Patent Owner contends that this is a feature that improves the security of transmissions by individually routing packets on at least two different networks. Prelim. Resp. 34–35. As discussed above, Petitioner has shown sufficiently that routing decisions are made on a per packet basis. *See* § II.A.2. Karol states that "data can be allowed to flow simultaneously through the CL and CO networks if both networks meet the user's needs." Ex. 1006, 5:54–57. In addition, Karol states that datagrams

are routed through the CL network using "source routing until the [CO] connection is set up" and then datagrams from that flow may be transmitted via the newly established connection to the CO network. *Id.* at 4:11–29. On this record, we are persuaded that Petitioner has made a sufficient preliminary showing that Karol anticipates claim 19.

5. Analysis of Dependent Claims

Petitioner contends claims 7–11 and 14, which depend from claim 5, are anticipated by Karol. Pet. 22–27. Based on our review of Petitioner's explanations and supporting evidence, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its assertions that claims 7–11 and 14 are anticipated. Patent Owner makes certain arguments directed to claim 9 (Prelim. Resp. 45–51 (no per packet analysis)) and claim 11 (*id.* at 25–33 (no load balancing)). Patent Owner's assertions regarding claim 9 need no further discussion in light of our discussion of the same arguments as applied to claims 4 and 19. *See* §§ II.A.2, II.A.4.

On the current record, we are persuaded by Petitioner's contention that dependent claims 7–11 and 14 are anticipated by Karol. Thus, Petitioner has demonstrated a reasonable likelihood of prevailing on its assertion that dependent claims 7–11 and 14 are unpatentable.

For all of the foregoing reasons, we institute *inter partes* review of claims 4, 5, 7–11, 14, and 19 on the asserted ground of anticipation over the disclosures of Karol.

B. Asserted Obviousness over Karol

Petitioner asserts that claims 4, 5, 7–15, and 19 would have been obvious over the teachings of Karol. Pet. 42–60. Petitioner supports its arguments with a declaration from Dr. Negus. Ex. 1005. For the reasons

described below, we are persuaded that Petitioner has made a showing sufficient to satisfy the threshold of § 314(a) as to its asserted obviousness of claims 4, 5, 7–15, and 19.

Petitioner relies upon similar disclosures from Karol in support of both its asserted anticipation and obviousness grounds for claims 4, 5, 7–11, 14, and 19. *Compare* Pet. 10–30 (asserted anticipation) *with id.* at 42–60 (asserted obviousness). Petitioner provides additional argument to support its contention that the challenged claim limitations would have been obvious over the disclosures of Karol. For example, Petitioner explains how Karol, when viewed in conjunction with knowledge of one of ordinary skill in the art, would have taught the limitations of claim 4 even if this Board construed the term "private network" to mean "a frame relay or point-to-point network." *Id.* at 42. We decline to construe this term because it is at least as broad as the possible construction discussed in regards to this ground, and, for the purposes of this decision, we do not need an explicit construction of the scope and meaning of this term.

Claims 12, 13, and 15 were not asserted to be anticipated by Karol, but they are asserted to be obvious over this reference. Pet. 56, 58–59. Claims 12 and 13 respectively depend from claims 5 and 11. Claims 12 and 13 are directed to load balancing. Claim 12 recites selecting between networks at least in part on the basis of load balancing "which tends to balance line load by distributing packets between lines." Claim 13 is similar to claim 12, but it recites load balancing "which tends to balance network load by distributing packets between disparate networks." Dr. Negus asserts that these claims were obvious over Karol and the knowledge of one of

ordinary skill in the art because the routing procedures used at the time tend to balance line loads and network loads. Ex. 1005 ¶¶ 365, 382.

Claim 15 depends from claim 5 and further recites that the "selecting step selects the network path at least in part on the basis of a security criterion." Petitioner asserts that "implementing a security criterion in Karol would have amounted to nothing more than the use of a known technique to improve similar methods in the same way or the combination of prior art elements according to known methods to yield predictable results." Pet. 58 (citing Ex. 1005 ¶¶ 410, 417). Dr. Negus testifies that routing based on security criterion was known in the art and it would have been obvious to try the use of security based criterion in order to avoid links with inadequate security. Ex. 1005 ¶¶ 417, 420.

We are persuaded that Petitioner has made a sufficient showing as to the asserted obviousness of claims 4, 5, 7–15, and 19. Patent Owner puts forth the same arguments regarding the alleged insufficiency of Petitioner's arguments and evidence as it did with respect to ---, with a few additional points. The points that we believe merit additional discussion are addressed below.

First, Patent Owner argues that this asserted ground is defective because it relies on alternative constructions. Prelim. Resp. 56–59. Alternative legal arguments, however, are permissible under Federal Rule of Civil Procedure § 8(d). *See* FRCP § 8(d)(2) (allowing "2 or more statements of a claim of defense alternatively or hypothetically"); *see also id.* at § 8(d)(2) ("A party may state as many separate claims or defenses as it has, regardless of consistency"). Such arguments applying different potential constructions to the asserted challenges are proper and could be helpful if

they provide us with the benefit of Petitioner's arguments as to why its challenges should succeed under different possible claim constructions.

Second, Patent Owner argues that Petitioner has not provided a proper obviousness analysis. Prelim. Resp. 54–55. According to Patent Owner, Petitioner merely provides conclusory statements that "it would have been obvious to combine the knowledge of a POSITA" with the teachings of Karol. *Id.* We disagree. On the current record, we are persuaded that Petitioner articulates a reasonable rationale as to how and why one of ordinary skill in the art would have modified Karol in a manner that would have rendered the challenged claims obvious. *See* Pet. 45–46.

Third, Patent Owner argues that Karol teaches away from the two address ranges recited in claim 5. Prelim. Resp. 41–44. This argument is based on Patent Owner's analysis of Karol's disclosures related to the routing of packets during the setup of the connection to the CO network. *See id.* at 41–42. As noted above in Section II.A.3, this is not the portion of Karol that is relied upon to teach this limitation. We disagree with Patent Owner's arguments regarding claim 5 and find persuasive Petitioner's evidence and arguments as to this claim.

For all of the foregoing reasons, we institute *inter partes* review of claims 4, 5, 7–15, and 19 on the asserted ground of obviousness over the disclosures of Karol.

C. Asserted Obviousness over Karol and Stallings

1. Overview of Stallings

Stallings is a book titled *Data and Computer Communications.* Ex. 1011. Stallings is cited in the specification of Karol. Ex. 1006, 12:63–64. Internet protocol ("IP") is discussed in Stallings as a tool to provide

connectionless service between two networks. Ex. 1011, 534. Stallings describes an example in which system A is transmitting a datagram to system B and these systems are on different networks. *Id.* at 535. As part of the routing of that datagram, the router may construct a new packet by appending a header that includes the address of another router on a different network. *Id.* at 535–37. Routing in Stallings "is generally accomplished by maintaining a routing table in each end system and router that gives, for each possible destination network, the next router to which the internet datagram should be sent." *Id.* at 539.

Routing tables may be static or dynamic. *Id.* Dynamic tables, however, are "more flexible in responding to both error and congestion conditions." *Id.* "Each router makes routing decisions based on knowledge of the topology and on the conditions of the internet." *Id.* at 549. In complex networks, dynamic cooperation is necessary among the routers to avoid portions of the network that have failed or are congested. *Id.* Stallings also teaches that the computation of routes may be based on "user-configurable metric[s]" that may be based on factors such as "delay, data, data rate, dollar cost, or other factors." *Id.* at 557. Such route computation may be configured to "equalize loads over multiple-equal cost paths." *Id.*

2. Analysis of Asserted Obviousness of Claims 5, 11–15, and 19

Petitioner asserts that claims 5, 11–15, and 19 would have been obvious over the teachings of Karol. Pet. 42–60. Petitioner supports its arguments with a declaration from Dr. Negus. Ex. 1005. For the reasons described below, we are persuaded that Petitioner has made a showing sufficient to satisfy the threshold of § 314(a) as to its asserted obviousness of claims 5, 11–15, and 19.

Petitioner relies upon similar disclosures from Karol in support of its asserted anticipation and obviousness grounds. *Compare* Pet. 10–30 (asserted anticipation of claims 4, 5, 7–11, 14, and 19) *and id.* at 42–60 (asserted obviousness over Karol of claims 4, 5, 7–15, and 19) *with id.* at 30–42 (asserted obviousness of claims 5, 11–15, and 19 over Karol and Stallings). Stallings is relied upon by Petitioner to provide additional teachings regarding routing tables. *See id.* at 30–42. Dr. Negus testifies that a person of ordinary skill in the art would have been motivated to combine the teachings of Karol and Stallings "because Karol explicitly references Stallings to describe attributes of the CL-CO gateway and both Karol and Stallings describe the characteristics of network addresses in routers that can route packets over multiple parallel routes to a destination address as well as methods to obtain such network addresses." Ex. 1005 ¶ 240 (citing Ex. 1006, 12:59–64). Patent Owner puts forth many of the same arguments regarding this ground that have been addressed in the previous sections of this Decision. In light of our above discussions, we do not find Patent Owner's arguments regarding this ground to merit additional discussion. For all of the foregoing reasons, we find Petitioner's arguments and evidence to be sufficient to meet the threshold of § 314(a) and therefore, we institute *inter partes* review of claims 5, 11–15, and 19 on the asserted ground of obviousness over the disclosures of Karol and Stallings.

IV. CONCLUSION

For the foregoing reasons, we conclude that the information presented in the Petition establishes that there is a reasonable likelihood that Petitioner would prevail in challenging claims 4, 5, 7–15, and 19 of the '235 patent. At

this time, however, we have not made a final determination with respect to the patentability of the challenged claims.

V. ORDER

Accordingly, it is:

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted as to claims 4, 5, 7–15, and 19 of the '235 patent on the following grounds:

A. Claims 4, 5, 7–11, 14, and 19 as anticipated under 35 U.S.C. § 102 by Karol;

B. Claims 4, 5, 7–15, and 19 as unpatentable under 35 U.S.C. § 103(a) over the teachings of Karol; and

C. Claims 5, 11–15, and 19 as unpatentable under 35 U.S.C. § 103(a) over the teachings of Karol and Stallings.

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, *inter partes* review of the '235 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial; and

FURTHER ORDERED that no ground other than that specifically provided above is authorized.

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