

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner

v.

PORTSMOUTH NETWORK CORP.,
Patent Owner

IPR2024-01450
U.S. Patent No. 7,596,088

**PETITIONER'S REPLY
TO PATENT OWNER'S RESPONSE**

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PETITIONER'S EXHIBIT LIST

Ex.1001	U.S. 7,596,088
Ex.1002	Prosecution History of U.S. 7,596,088
Ex.1003	Declaration of Nader F. Mir under 37 C.F.R. § 1.68
Ex.1004	<i>Curriculum Vitae</i> of Nader F. Mir, Ph.D.
Ex.1005	U.S. Patent App. Publication 2005/0220026 to Dziong et al. ("Dziong")
Ex.1006	U.S. Patent App. Publication 2004/0190445 to Dziong and Sathyanath ("Sathyanath")
Ex.1007	U.S. Patent App. Publication 2003/0198213 to Jensen et al. ("Jensen")
Ex.1008	Original Complaint, <i>Portsmouth Network Corp. v. Cisco Systems, Inc.</i> , No. 2:23-cv-441, Dkt. 1 (E.D. Tex. Sept. 26, 2023).
Ex.1009	Second Amended Complaint, <i>Portsmouth Network Corp. v. Cisco Systems, Inc.</i> , No. 2:23-cv-441, Dkt. 57 (E.D. Tex. Mar. 11, 2024).
Ex.1010	U.S. Patent App. Publication No. 2003/0172180 to Reynders et al. ("Reynders")
Ex.1011	U.S. Patent No. 6,256,309 to Daley et al. ("Daley")
Ex.1012	U.S. Patent App. Publication 2005/0232263 to Sagara. ("Sagara")
Ex.1013	U.S. Patent App. Publication 2005/0141567 to Jaber et al. ("Jaber")
Ex.1014	U.S. Patent App. Publication 2003/0053485 to Chuah et al. ("Chuah")
Ex.1015	U.S. Patent App. Publication 2004/0141463 to Acharya et al. ("Acharya")
Ex.1016	U.S. Patent App. Publication 2004/0037279 to Zelig et al. ("Zelig")

Ex.1017	U.S. Patent No. 6,765,927 to Martin et al. ("Martin")
Ex.1018	U.S. Patent No. 6,721,272 to Parnafes et al. ("Parnafes")
Ex.1019	U.S. Patent App. Publication 2004/0068558 to De Miguel. ("De Miguel")
Ex.1020	U.S. Patent App. Publication 2002/0194362 to Rawlins et al. ("Rawlins")
Ex.1021	U.S. Patent App. Publication 2003/0227919 to Zelig et al. ("Zelig II")
Ex.1022	U.S. Patent App. Publication 2005/0265365 to Wan. ("Wan")
Ex.1023	U.S. Patent App. Publication 2005/0094554 to Nakash. ("Nakash")
Ex.1024	U.S. Patent No. 6,594,279 to Nguyen et al. ("Nguyen")
Ex.1025	U.S. Patent No. 6,058,104 to Snelling et al. ("Snelling")
Ex.1026	U.S. Patent No. 5,867,666 to Harvey. ("Harvey")
Ex.1027	U.S. Patent No. 6,731,395 to Shiohara. ("Shiohara")
Ex.1028	U.S. Patent App. Publication 2004/0071013 to Yoon et al. ("Yoon")
Ex.1029	U.S. Patent App. Publication 2003/0221061 to El-Batal et al. ("El-Batal")
Ex.1030	U.S. Patent App. Publication 2004/0193729 to Saraph. ("Saraph")
Ex.1031	U.S. Patent App. Publication 2004/0008687 to Matsubara. ("Matsubara")
Ex.1032	U.S. Patent No. 6,839,346 to Kametani. ("Kametani")
Ex.1033	U.S. Patent No. 6,850,976 to Xia ("Xia")
Ex.1034	U.S. Patent App. Publication 2005/0220123 to Wybenga et al. ("Wybenga")

Ex.1035	U.S. Patent App. Publication 2005/0232285 to Terrell et al. ("Terrell")
Ex.1036	U.S. Patent App. Publication 2005/0262238 to Reeves et al. ("Reeves")
Ex.1037	U.S. Patent App. Publication 2005/0259591 to Moore et al. ("Moore")
Ex.1038	U.S. Patent App. Publication 2005/0220096 to Friskney et al. ("Friskney")
Ex.1039	Internet Engineering Task Force Request for Comments 3031 (Jan. 2001) ("RFC3031")
Ex.1040	RSVP-TE: Extensions to RSVP for LSP Tunnels Request for Comments 3209 (December 2001) ("RFC3209")
Ex.1041	U.S. Patent App. Publication 2009/0052457 to Salama et al. ("Salama")
Ex.1042	Internet Engineering Task Force Request for Comments 2026 (Oct. 1996) ("RFC2026")
Ex.1043 (New)	Deposition Transcript of James Olivier

I. Introduction

Patent Owner's Response ("Response," Paper 16) fails to refute the Petition's showing that Dziong and Sathyanath render obvious the challenged claims. The '088 patent claims are directed to selecting a candidate route for a "*new connection*" that is permitted to share bandwidth with "*one or more other connections*." Ex.1001, claim 1. Patent Owner's primary argument is that the claimed connections are limited to "active" connections or "primary" connections rather than connections for failure protection. Resp., 9, 13.

Patent Owner's position is inconsistent with both the claim language and the '088 patent specification. The claims explicitly contemplate that the "*new connection*" and the "*other connections*" may be "*established to protect ... against a failure*." Ex.1001, claim 5. And the specification confirms that "the new connection may be set up to protect the existing connection against failure of a node or segment along its route." Ex.1001, 5:5–8. For the reasons explained in the Petition, the prior art teaches establishing a protection route that is permitted to share bandwidth with other protection routes.

For the reasons explained below, Patent Owner's arguments fail to refute the Petition's obviousness analysis and should be rejected. Petitioner respectfully requests that the Board find all challenged claims unpatentable.

II. Claim Construction

Petitioner believes that the claim terms should be given their ordinary and customary meaning, and that no formal construction is necessary. Pet., 12–13. While Patent Owner purports to apply the ordinary and customary meaning (Resp., 3), many of Patent Owner's arguments implicitly interpret the claim language contrary to the plain and ordinary meaning and the specification of the '088 patent. See Resp. 3–13. Patent Owner's implicit claim constructions should be rejected. While Petitioner maintains that no term requires specific construction, Petitioner offers appropriate constructions if the Board determines that construction is required.

A. “*new connection*” and “*one or more other connections*”

Claim 1 recites in part “*identifying two or more candidate routes for a **new connection***” and “*providing a sharing definition specifying **one or more other connections***.” Independent claims 8, 15, and 17 recite similar language. The term “*connection*” should be interpreted to include a connection that provides failure protection.

Patent Owner seeks to limit the claimed connections to “active, existing” connections or “working” connections that exclude failure protection. Resp. 9 (“[T]he primary concern of '088 Patent is the efficient distribution and sharing of resources between **active, existing** connections ... **rather than failure protection**

that draws on reserved bandwidth when an active link fails.”) (emphasis added).

Patent Owner's interpretation attempts to distinguish the Dziong reference: “[T]he bandwidth sharing discussed by Dziong relates only to the ‘recovery paths’ in Dziong and not the ‘working paths’ or ‘primary paths’ as required by the ’088 Patent.” Resp. 13. But Patent Owner's implicit claim construction ignores both the claim language itself and the specification.

The claim language itself explicitly allows for the “*new connection*” and the “*one or more other connections*” to be those that provide failure protection for another path. Claim 5, for example, recites “wherein the new connection and the at least one of the other connections **are established to protect one another against a failure in at least one of a network segment** and a network node.” Ex.1001, claim 5. And nowhere does the claim language limit the “*connections*” to “active,” “working,” or “primary” connections.

Moreover, the specification of the ’088 patent explicitly states that the new connection may be for failure protection: “In some cases, the new connection may be allowed to share its bandwidth allocation with existing connection 36. For example, **the new connection may be set up to protect the existing connection against failure of a node or segment along its route.**” Ex.1001, 5:4–8. Patent Owner's own expert does not dispute that the claimed “connections” are recited broadly enough to include failure protection (i.e., a backup path).

Q. So when it's talking about a new connection or an existing connection, is that referring to a primary path or a backup path?

A. It's referring to a new connection and an existing connection.

Q. So it's not limited to either a primary path or a backup path, correct?

A. It's talking about new connections and existing connections.

It's not telling us the type of new connection or existing connections.

Ex.1043, 22–23.

Accordingly, to the extent any formal claim construction is applied beyond the plain and ordinary meaning, the term “*connection*” should be interpreted to include connections intended for failure protection.

B. “*bandwidth allocation*” and “*total bandwidth allocated*”

Claim 1 recites that the “*one or more connections*” are permitted to share “*a bandwidth **allocation***” with the new connection; the bandwidth sharing results in “*a total bandwidth **allocated** jointly to the new connection and to the other connections in any given segment.*” Independent claims 8, 15, and 17 recite similar language. The terms “allocation” and “allocated” should be interpreted to include bandwidth that is reserved for failure protection because such bandwidth cannot be allocated to another use—it is unavailable.

Similar to its interpretation of the claimed “*connections*,” Patent Owner seeks to limit the term “*bandwidth allocation*” to bandwidth allotted to “active” or “working” connections, excluding bandwidth allocated to failure protection. Again,

Patent Owner seeks to distinguish the “bandwidth reservation” described by the prior art: “[T]he primary concern for both Dziong and Sathyanath is failure protection that relies on bandwidth reservation, not allocation, across links.” Resp.

9. But Patent Owner's interpretation ignores the claim language itself and applies a hyper-specific meaning that is not supported by the specification.

The claims do not use the term “allocation” to refer only to active, working paths as Patent Owner argues. *See* Resp. 9, 14. Indeed, as noted above in section II.A, the claims explicitly allow for the bandwidth allocated to the new connection to include bandwidth allocated for failure protection: “The method according to claim 4, wherein the new connection and the at least one of the other connections **are established to protect one another against a failure** in at least one of a network segment and a network node.” Moreover, the claim language couples the terms “allocation” and “reservation.” Claim 1 explicitly defines the “*total bandwidth allocated*” as “*equal to a maximum of the requested bandwidth and of the bandwidths of the other connections in the given segment.*” Claim 1 later recites “*calculating a cumulative **additional bandwidth reservation** to be **allocated** to the new connection in the segments along the candidate route.*” Nowhere do the claims use the term “allocation” to mean only an active, working path.

Rather than rely on the '088 patent specification for support, Patent Owner attempts to rely on Sathyanath's disclosure to support its interpretation of the '088

patent claims. *See* Resp., 11. But Sathyanath is not a lexicographer for the '088 patent. Thus, the distinctions that Sathyanath defines between bandwidth “reservation” and bandwidth “allocation” do not limit the scope of the '088 patent.

Contrary to Patent Owner's characterization of Sathyanath's disclosure, the '088 patent explicitly uses the term “allocation” when referring to failure protection: “In some cases, the new connection may be allowed to share its **bandwidth allocation** with existing connection 36. For example, **the new connection may be set up to protect the existing connection against failure of a node or segment along its route.**” Ex.1001, 5:4–8.

Patent Owner's general argument that “allocation” and “reservation” have precise and distinct meanings is also contrary to the general use of those terms in the art. Extrinsic evidence shows that “allocation” and “reservation” are intimately connected. For example, RFC3209 describes allocating bandwidth using reservations—and hence, a successful bandwidth reservation is a bandwidth allocation:

An advantage of using RSVP [Resource Reservation Protocol] to establish LSP tunnels is that it enables the allocation of resources along the path. For example, **bandwidth can be allocated to an LSP tunnel using standard RSVP reservations** and Integrated Services service classes [4].

Ex.1040, 6.

And mirroring the concept of “additional bandwidth” in the ’088 patent, RFC3209 also explains how a request to increase an existing allocation would be achieved with a “new reservation” identifying the total amount of bandwidth, even though only a portion of that bandwidth requires “actual allocation”:

A similar situation [double-counting of bandwidth] can arise when one wants to increase the bandwidth of a TE tunnel. The **new reservation** will be for the full amount needed, but **the actual allocation** needed is only the delta between the new and old bandwidth.

Ex.1040, 12.

In neither instance does RFC3209 suggest that the purpose of a bandwidth reservation—whether to establish an “active” path or a “backup” path—matters at all. Thus, consideration of extrinsic evidence also supports rejecting Patent Owner's argued distinction between “reservation” and “allocation.”

Accordingly, to the extent any formal claim construction is applied beyond the plain and ordinary meaning, the terms “*bandwidth allocation*” and “*total bandwidth allocated*” should be interpreted to include bandwidth amounts reserved for failure protection.

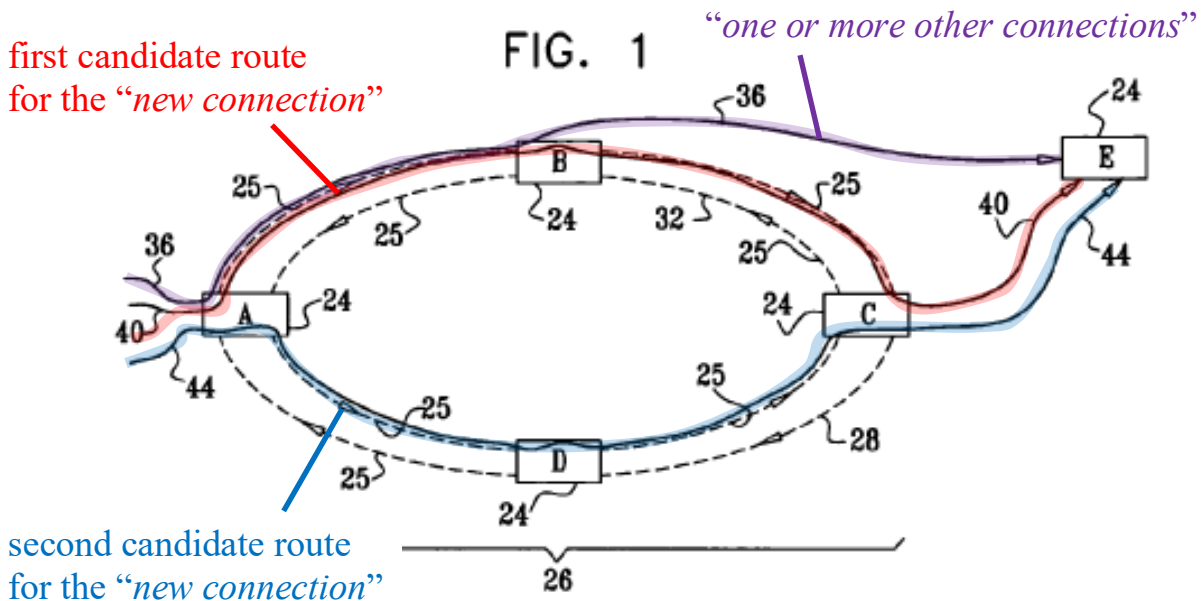
III. The ’088 patent relates to route selection for new connections while taking into account bandwidth sharing.

The claimed sharing of protection bandwidth between the claimed “*new*

connection” and “*other connections*” for failure protection routes is best understood in the overall context of the '088 patent. The patent frames the invention as selecting routes while “taking into account the ability to share bandwidth between the new connection and existing connections.” Ex.1001, 2:15–18. The '088 patent specifically describes establishing a new connection as a backup path to be used only in the event of a failure on another path: “In some cases, the new connection may be allowed to share its bandwidth allocation with existing connection 36. For example, the new connection may be set up to protect the existing connection against failure of a node or segment along its route.” Ex.1001, 5:3–9. But the '088 patent is not limited to failover or protection scenarios. The connections may share bandwidth for any reason: “Alternatively or additionally, connections may be defined as being allowed to share their bandwidth allocations for any other reason or purpose.” Ex.1001, 5:13–15.

The first example illustrated in the '088 patent shows selecting a candidate route for a new protection connection. *See* Ex.1001, 2:13–26, 5:4–8. Figure 1, below, shows an existing connection from node A to node E. Two backup paths are considered as candidates: a “first candidate route 40 [shown in red] enters ring 26 at node A and follows clockwise ringlet 28, traversing nodes B and C.” Ex.1001, 4:56–58. “A second candidate route 44 [shown in blue] enters ring 26 at node A and follows counterclockwise ringlet 32, traversing nodes D and C.”

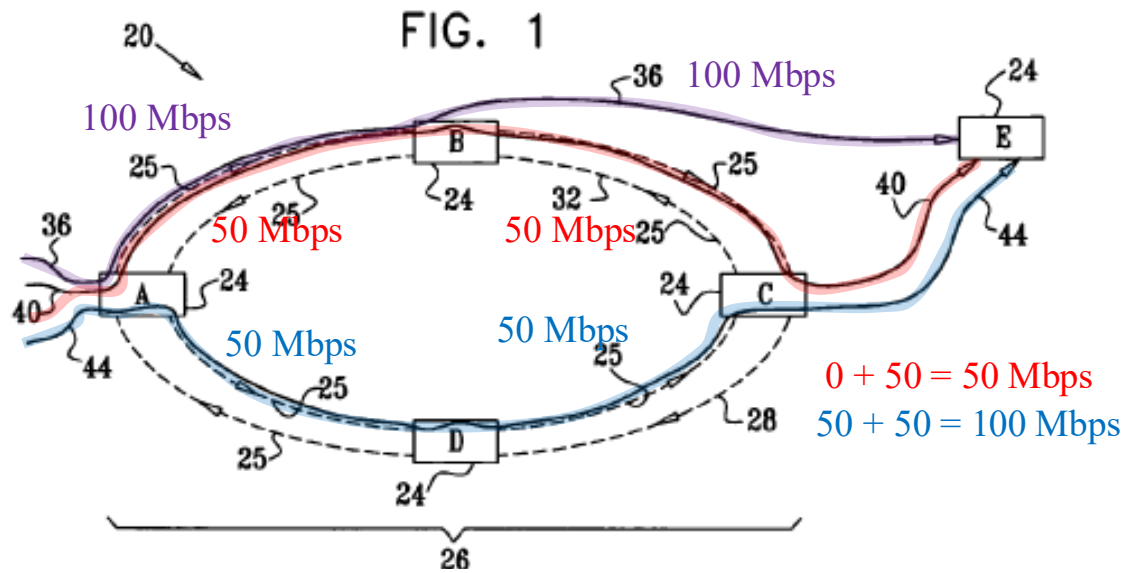
Ex.1001, 4:60–62. The existing 100 Mbps connection 36 (e.g., “one or more other connections”) is shown in purple.



Ex.1001, Fig. 1 (annotated).

The preferred candidate route is the one requiring the least amount of additional bandwidth reservation, while considering the ability to share bandwidth.

Ex.1001, 2:13–62. Since the new connection is “set up to protect the existing connection against failure,” “it is assumed that the new connection may share its 50 Mbps bandwidth allocation in the segments along its route with the 100 Mbps bandwidth allocation of existing connection 36.” Ex.1001, 5:6–18. The goal is to select the candidate route that requires the least amount of additional bandwidth reservation. See Ex.1001, 2:58–61.



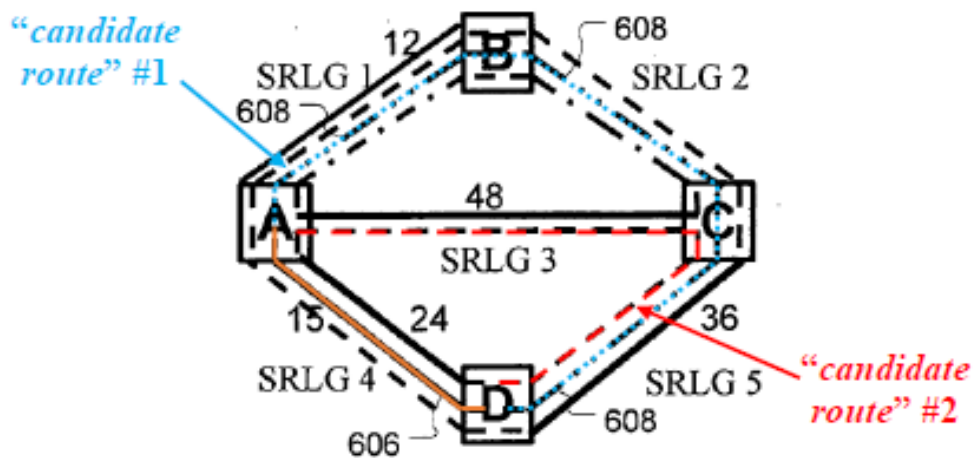
Ex.1001, Fig. 1 (annotated).

In the example above, the clockwise route requires only 50 Mbps of additional bandwidth. This is because the segment AB can share the 50 Mbps with the 100 Mbps of the existing connection 36 and thus does not require any additional bandwidth reservation. The counterclockwise route (shown in blue) requires a total of 100 Mbps of additional bandwidth (50 Mbps for segment AD and 50 Mbps for segment DC). Using the techniques described in the '088 patent, the preferred route would be the first route (in red), which requires only 50 Mbps of cumulative additional bandwidth.

IV. Dziong and Sathyanath teach selecting candidate routes for failure protection while considering the ability to share bandwidth.

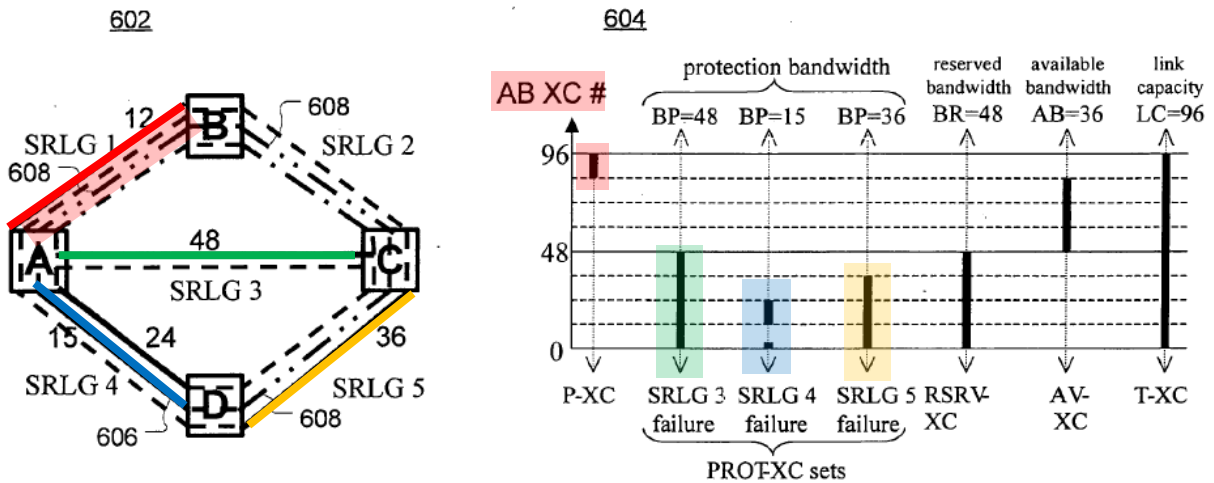
The petition explains how the prior art teaches the same selection of candidate routes for failure protection. As an example, Dziong “contemplates

identifying and evaluating 'two or more candidate LD [link-detour] paths' ("*two or more candidate routes*"). Pet., 27; Ex.1005, claim 3. In the context of Dziong's Fig. 4, there may be two candidate protection routes to protect a 15 Mbps connection between nodes A and D. Pet., 29.



Ex.1003, ¶55; Ex.1005, Fig. 6a (annotated).

Like the candidate failure protection routes of the '088 patent, Dziong's candidate link detour paths are reserved for failure protection. Pet., 30–33. Dziong illustrates how different segments in a network share bandwidth for protection paths. Ex.1005, [0088]–[0094]; Pet., 33–40. As illustrated in Figs. 6a and 6b below, the link AB (SRLG 1) provides protection bandwidth for several other connections (e.g., connections on links AC, AD, and DC).

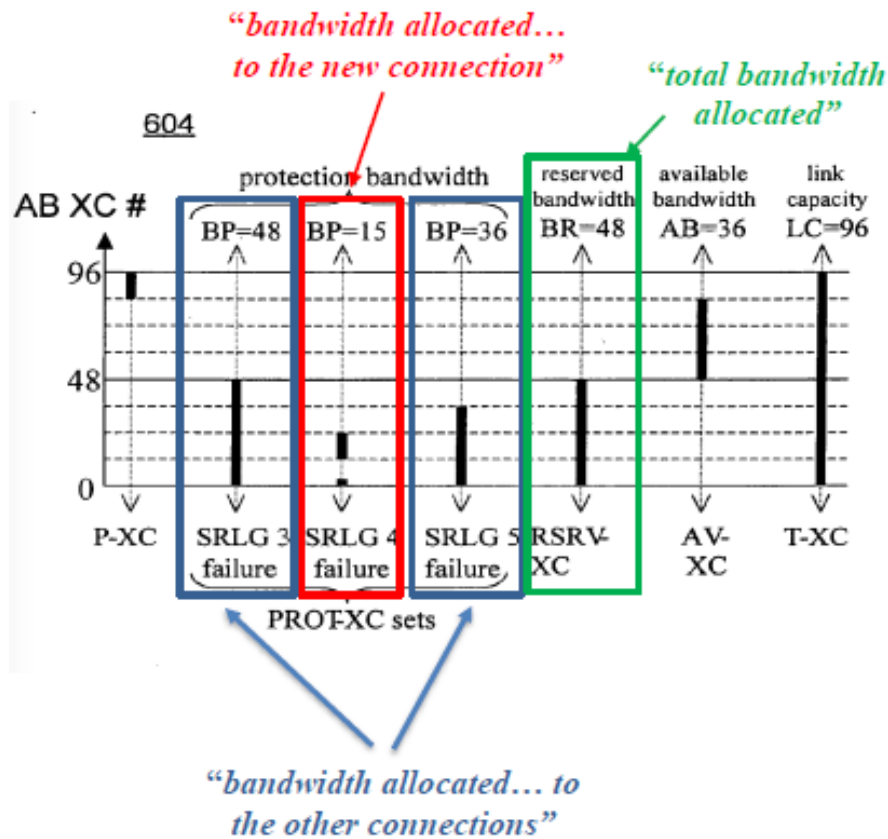


Ex.1005, Figs. 6a/6b (annotated).

As shown in the figure above, the **link AB (SRLG 1)** has a total capacity of 96 units of bandwidth. This link supports a primary connection of 12 units, as shown by the solid line noted 12. Ex.1005, [0090]. The **link AB (SRLG 1)** also provides protection bandwidth (illustrated as broken lines) for connections on other links. Ex.1005, [0089]. The protection connections on **link AB** for the other links (**AC**, **AD**, **DC**) utilize bandwidths of 48, 15, and 36 units respectively. Ex.1005, [0090]. Because the protection bandwidth is shared, the **link AB (SRLG 1)** reserves the maximum of these values, which is 48 units. Ex.1005, [0088], [0091].

Dziong describes the bandwidth sharing concept in Figures 6a and 6b after all primary and backup connections have been established. With supporting testimony from Dr. Mir, the petition explains how a POSITA would have understood Dziong's technique to be employed when establishing the 15 unit

protection connection on link AD (SRLG 4). Pet., 27–33. With respect to the portion of the route over link AB (SRLG 1), the “*other connections*” include protection routes for a 48-unit connection on link AC (SRLG 3) and a 36-unit connection on link DC (SRLG 5). The selection of a candidate protection route considers the “*total bandwidth allocated*” jointly to the potential “*new connection*” and the “*other connections*.” Ex.1005, [0088]–[0094]; Pet., 40–44. The “*total bandwidth allocated*” is defined in the claim as the maximum bandwidth of the requested bandwidth (15 units) and the bandwidth of the other connections (36 and 48 units). Pet., 40–44. The maximum bandwidth—and thus the “*total bandwidth allocated*”—is 48 units. Pet., 41.



Ex.1003, ¶83; Ex.1005, Fig. 6b (annotated).

Patent Owner's criticisms of Figures. 6a and 6b are based entirely on an unsupported distinction between “reserved” and “allocated” bandwidth. Resp., 9–10. Patent Owner argues that “the primary concern for both Dziong and Sathyanath is failure protection that **relies on bandwidth reservation, not allocation**, across links.” Resp., 9 (emphasis added). But for the reasons described above in Section II.B, this distinction is not supported by the claims.

Patent Owner mischaracterizes the '088 patent by ignoring the specification's embrace of protection paths. The claimed “*new connection*” is, in

context, a connection whose bandwidth “*allocation*” is shared with other connections and whose route is chosen to minimize additional reservations in view of that sharing. Ex.1001, 9:15–21. The “new connection may be set up to protect” other connections. Ex.1001, 5:5–8. Read in context, the “*other connections*” in the sharing definition likewise may include connections set up to protect for other failures. Ex.1001, 5:4–15. The rationale for sharing bandwidth among protection connections is that it is unlikely that multiple protection connections will need to be used simultaneously:

In other words, shared bandwidth may be allocated simultaneously to two or more [protection] connections, assuming that not all of these connections will actually use all of the allocated bandwidth simultaneously.

Ex.1001, 5:10–13.

Dziong describes the identical rationale for bandwidth sharing:

To achieve bandwidth efficiency better than that of rings, recovery bandwidth sharing is considered between different single-event failures. In other words, the **bandwidth reserved for recovery of a particular SRLG can be shared** with bandwidth reserved for recovery of other disjoint SRLGS, **since it is assumed that only one failure at a time will occur.**

Ex.1005, [0088].

V. Dziong and Sathyanath teach a “*sharing definition*” as claimed.

The Petition explains how Dziong advertises and tracks “how much bandwidth can be shared at each link” and uses that value in computing shared-protection reservations across sharing groups. Ex.1005, [0060]; Pet., 33. And:

Like Dziong, Sathyanath explains that “sharing information ... is advertised, using a data network, to other nodes in the network.” Ex.1006, [0084]. Thus, it would have been obvious to consider also Sathyanath's examples regarding the sharing of bandwidth information. Ex.1003, ¶¶38, 72.

Pet., 36.

Patent Owner does not dispute that Dziong and Sathyanath describe relying on such “sharing information.” Rather, Patent Owner argues that the “sharing information” does not pertain to “bandwidth allocation” because it pertains to backup paths. Resp., 9–10. Patent Owner argues that the claims distinguish “paths that would be activated when a protected link fails,” and that “Dziong requires there to be a failure before the path would actually be activated.” Resp., 10. In short, Patent Owner relies on its improper interpretation of “allocation” to dispute that Dziong and Sathyanath teach the “*sharing definition*.”

But the claims do not require that the “*new connections*” and “*other connections*” be “active” connections as Patent Owner contends. For the reasons explained above at Section II.A, the '088 patent expressly contemplates sharing

bandwidth among connections allocated for failure protection. That is precisely what Dziong's "protection bandwidth" on RSRV-XC represents. Dziong's protection bandwidth (RSRV-XC) represents reserved bandwidth for link-detour paths. These protection paths are "connections" in that they reserve bandwidth along the link AB (SRLG 1) that cannot be used for primary or working paths. Given that Dziong's link detour paths are for protection rather than primary paths, they are able to share their reserved bandwidth. Ex.1005, [0088]. This is consistent with the '088 patent's explanation that "the new connection may be set up to protect the existing connection against failure of a node or segment along its route," or that "connections may be defined as being allowed to share their bandwidth allocations for any other reason or purpose." Ex.1001, 5:5–15.

Dziong's "reserved bandwidth" as shown in the annotated Fig. 6b above teaches a "*total bandwidth allocated*" as claimed. Dziong's reserved bandwidth is allocated for protection in that it is no longer available for other uses. Patent Owner's expert acknowledged this fact.

Q. And these 48 units of bandwidth that are reserved in this pool as you describe it, they cannot be used by other connections on SRLG 1, correct?

A. I mean, they could be. There's nothing to say you don't do that, but the intention is to have a pool that in the worst case allows you to establish a connection.

Q. So it's reserved in the sense it's taken off the table for use by other connections; is that right?

A. Right ...

Ex.1043, 42–43.

Accordingly, Patent Owner has not refuted that Dziong's bandwidth reservation teaches a "*total bandwidth allocated*" as claimed. Nor has Patent Owner refuted that the prior art teaches the claimed "*sharing definition*."

VI. Dziong and Sathyanath teach the dependent claim limitations.

Patent Owner's challenge to dependent claims 4, 11, and 20 also relies on its contention that Dziong's protection bandwidth is for "potential connections" rather than "active connections." Resp. 14. But for the reasons explained above at Section, II.A, Patent Owner's distinction is not supported. And for the reasons explained in the Petition:

Dziong's example in Fig. 6b shows that the new protection path for SRLG 4 ("*the new connection*") and the existing protection paths for SRLG 3 and SRLG 5 ("*and at least one of the other connections specified in the sharing definition*") are routed along link A-B ("*traverse at least one common segment along the preferred route*").

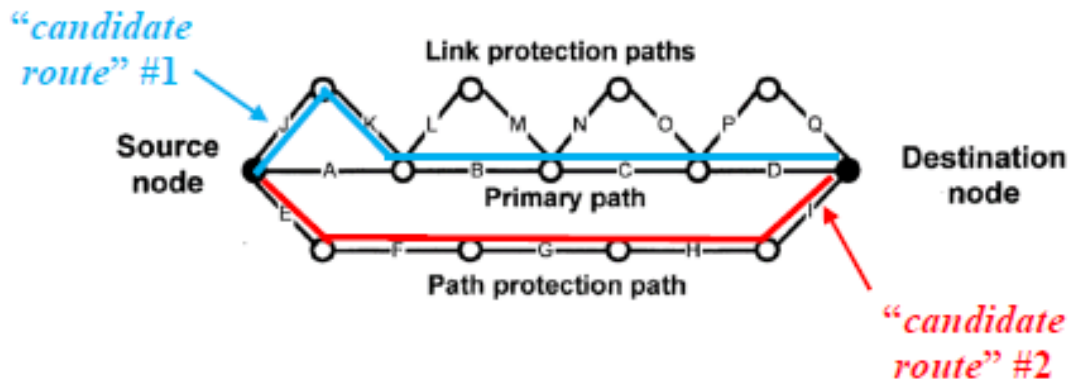
Pet., 56.

Patent Owner implies—incorrectly—that the claimed "*sharing*" concept refers to sharing bandwidth between protection paths and working paths. Patent

Owner argues that Dziong's "unestablished protection paths do not share reserved bandwidth with the working path on link AB as taught by the '088 Patent." Resp., 15. But Patent Owner identifies no claim language that limits the claimed "*other connections*" to "working connections."

Patent Owner argues that "Dziong does not teach the establishment of a 'new connection,' the treatment of SRLG 4 as a 'new connection' is entirely fabricated by Petitioner's expert." Resp., 14. In so arguing, Patent Owner overlooks that the Petition presents an obviousness analysis based on multiple embodiments in Dziong—not an anticipation analysis—to show the unpatentability of claims 4, 11, and 20.

The Petition's analysis of the claimed "*new connection*" is fully supported by Dziong's teachings regarding both Figure 5 and Figure 6a. The Petition explains that Dziong's text accompanying Figure 5 teaches "*identifying two or more candidate routes for a new connection.*" Pet., 27–28; Ex.1005, [0070].



Ex.1003, ¶ 53; Ex.1005, Fig. 5 (annotated).

The Petition explains that “Dziong further illustrates ‘identifying two or more candidate routes for a new connection... to be established’ in Figure 6a (below).” Pet., 28. While Dziong’s Figure 6a illustrates the protection connections after they are established, the Petition explained the obviousness of applying Dziong’s Figure 5 approach to identifying potential protection paths to Dziong’s Figure 6a network, so as to arrive at the bandwidth allocations shown in Figure 6(b). Pet., 28–31. Accordingly, Patent Owner’s accusations of fabrications do not address the actual obviousness analysis presented in the Petition.

VII. The remaining limitations are taught by the prior art for the reasons explained in the Petition.

Patent Owner’s Response challenges limitations “[1.2]-[1.3], [8.4]-[8.5], [15.6]-[15.7], [17.3]-[17.4]” and dependent claims 4, 11, and 20. Resp. 3, 14–15. For the reasons presented above, Patent Owner fails to refute the Petition’s showing that Dziong and Sathyanath render these claim limitations obvious. And

for the reasons explained in the Petition, the prior art renders obvious the remaining limitations not specifically challenged by Patent Owner in its Response.

VIII. Conclusion

For the foregoing reasons, Patent Owner's arguments in its Response should be rejected, and the Challenged Claims should be found unpatentable.

Respectfully submitted,

Dated: October 17, 2025
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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner hereby certifies, in accordance with and reliance on the word count provided by the word-processing system used to prepare this Reply, that the number of words in this paper is 3,725.

/Theodore M. Foster/
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CERTIFICATE OF SERVICE

The undersigned certifies that, in accordance with 37 C.F.R. § 42.6(e),
service was made on Patent Owner as detailed below.

Date of service October 17, 2025

Manner of service Electronic Email: rbaker@newenglandip.com;
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Documents served **PETITIONER'S REPLY TO PATENT OWNER'S
RESPONSE AND EX.1043**

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