

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CISCO SYSTEMS, INC.,

Petitioner,

v.

NETSOCKET, INC.,

Patent Owner.

Patent No. 7,190,698

Filing Date: April 6, 2001

Issue Date: March 13, 2007

Inventors: Emil Svanberg, Joachim Johansson, Anders Torger,  
Joakim Norrgard, and Anders Larsson

Title: NETWORK OPTIMISATION METHOD

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**PATENT OWNER'S SUR-REPLY**

Case No. IPR2023-00607

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**EXHIBIT LIST**

| <b>Exhibit No.</b> | <b>Description of Document</b>                                                                                                                                                                     |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2001               | Amended Docket Control Order, Dkt. 47, in <i>NetSocket Inc. v. Cisco Systems, Inc.</i> , Case No. 2:22-cv-00172-JRG, dated February 2, 2023                                                        |
| 2002               | Cisco Systems, Inc.’s P.R. 3-3 Invalidity Contentions and Ineligibility Contentions in <i>NetSocket Inc. v. Cisco Systems, Inc.</i> , Case No. 2:22-cv-00172-JRG, dated March 22, 2023             |
| 2003               | Deposition of Henry H. Houh, taken in <i>Cisco Systems, Inc., v. NetSocket Inc.</i> , IPR2023-00607 on January 3, 2024 (“Houh Depo.”)                                                              |
| 2004               | Declaration of Paul Congdon (“Congdon Decl.”), dated January 10, 2024 and Exhibit A, Curriculum Vitae of Paul Congdon                                                                              |
| 2005               | Defendant’s Patent Rule 4-2 Disclosure of Preliminary Claim Constructions and Extrinsic Evidence, <i>NetSocket Inc. v. Cisco Systems, Inc.</i> , Case No. 2:22-cv-00172-JRG, dated January 9, 2024 |
| 2006               | Claim Construction Order, <i>NetSocket Inc. v. Cisco Systems, Inc.</i> , Case No. 2:22-cv-00172-JRG, Dkt. 163, dated May 29, 2024                                                                  |

## I. INTRODUCTION

Petitioner's Reply (Paper 21, "Reply") confirms patentability for several reasons.

First, Petitioner's Reply emphasizes how Petitioner intentionally tries to divorce the claimed "Multiprotocol Label Switching MPLS domain" from its purpose of "establish[ing] a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST)."

Second, Petitioner's use of disparate sections of Xiao dealing with DiffServ and MPLS respectively do not render obvious "wherein at least one domain is a Multiprotocol Label Switching MPLS domain," and "wherein the bandwidth broker (BB) is associated to each network domain," including the at least one MPLS domain, as required by the claim language.

Third, Petitioner admits that Schelen-1 only discloses each bandwidth broker establishing their own domain and communicating with each other, instead of the explicit claim language that recites that *one BB*, BB<sub>A</sub>, establishes *all the different domains* required to reach the destination network.

Fourth, Petitioner's Reply underscores its ignorance of the phrase "intra-domain" in its arguments attempting to render obvious the claimed "passing resource requests from the Bandwidth Broker (BB) to at least one intra-domain (IDB),

wherein each intra-domain broker (IDB) is responsible for admission control and the Label Switched Path, LSP, setup.” Petitioner’s ignorance is compounded by its switching arguments between Petition and Reply as to what constitutes the claimed intra-domain broker.

Accordingly, the Board should issue a Final Written Decision finding all the Challenged Claims of the ’698 Patent not unpatentable.

## **II. PETITIONER’S NEW EXPERT DECLARATION AND CORRESPONDING ARGUMENTS IN PETITIONER’S REPLY SHOULD BE REJECTED**

Petitioner blatantly circumvents the Board’s Trial Practice Guide that states that a reply “may only respond to arguments raised in the preceding brief,” which means that it does not “proceed in a new direction with a new approach as compared to the positions taken in a prior filing” “in the context of 37 C.F.R. § 42.23(b).” Patent Trial and Appeal Board Consolidated Trial Practice Guide (“Trial Practice Guide”) (Nov. 2019), at 74, available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf>. However, that is exactly what Petitioner does in its Reply by introducing a new expert declaration (*i.e.*, introducing new evidence). *See generally* Ex. 1046.<sup>1</sup>

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<sup>1</sup> Notably, Dr. Houh’s latest declaration (presumably by mistake or by using an attorney-provided template) refers to claim limitations not in the ’698 Patent Challenged Claims. Ex. 1045, ¶¶ 5-6 (referring to “selecting . . .,” “working entity,” and “protection entity” in the context of claim construction where no such claim

Instead of merely rebutting the arguments in Patent Owner's Response, Petitioner improperly utilizes an additional expert declaration to (i) add new arguments and (ii) correct and characterize Dr. Houh's prior deposition testimony that supported Patent Owner's arguments in its Patent Owner Response. *Id.*; Trial Practice Guide, at 74 ("While replies and sur-replies can help crystalize issues for decision, a reply or sur-reply that raises a new issue or belatedly presents evidence may not be considered.").

First, Dr. Houh introduces arguments that are not provided for (and contradict) those arguments made in the Petition. For example, the claim language requires that "each intra-domain broker (IDB) is responsible for admission control and the Label Switched Path, LSP, setup." The Petition argues that the "administrative server together with one or more connection manager, corresponds to '*at least one intra-domain (IDB).*'" Pet. at 57; *see also id.* at 57 ("The connection manager works together with the administrative server to setup LSPs and perform admission control"). Dr. Houh's new declaration argues that "Gibson's coordination among the admission manager and the administrative server is consistent with the claimed

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limitations exist). Dr. Houh's declaration also includes a citation to a "Xu" prior art reference that is not in the record and seemingly unrelated arguments to this proceeding. *See id.*, ¶ 23. These are indications that Dr. Houh probably did not write this expert declaration, and therefore constitute further rationale for why this expert declaration should be rejected, at a bare minimum.

approach to LSP setup.” Ex. 1046, ¶ 20; Reply, 21. Switching arguments (from “**connection manager** works together with the administrative server” to setup LSPs to “coordination among the **admission manager** and the administrative manager” for LSP setup) is wholly improper for a Reply, let alone a brand new expert declaration in support of the Reply. As a result, both Dr. Houh’s declaration and the Reply should be rejected as to at least this new argument.

Second, the new Houh declaration attempts to correct Dr. Houh’s prior deposition testimony. For example, the new declaration states that “I did not testify, and I do not agree, that Schelen-2’s maintained resource information does not correlate to “resource usage information” or to “used resource information,” despite the exact testimony of Dr. Houh agreeing that the “reserved resource” of Schelen-2 **does not** “necessarily imply that a resource is used” (*i.e.*, the claimed “resource usage information”). *See* Patent Owner Response, 28-29 (citing Ex. 2003, 74:9-75:25). The testimony speaks for itself without Dr. Houh’s (or his attorneys’) additional characterization.

Changing arguments and attempting to recharacterize earlier deposition testimony rises to the level of a “newly raised rationale to combine the prior art references that was not expressed in the petition” that is barred by the Board. *See* Trial Practice Guide, at 74 (citing *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369–70 (Fed. Cir. 2016)). As a result, the Petitioner’s

introduction of new evidence and arguments by way of a new expert declaration that characterizes and corrects Dr. Houh's prior deposition testimony should not be considered by the Board. Because "[i]t is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify 'with particularity' the 'evidence that supports the grounds for the challenge to each claim.'" (citing 35 U.S.C. § 312(a)(3)) and that a "reply may only respond to arguments raised in the corresponding opposition or patent owner response," these late identifications, which could have been presented in the Petition and which are not responsive to the Patent Owner's Response, should be rejected by the Board as untimely and improper. *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) ("Once the Board identifies new issues raised for the first time in reply, neither this court nor the Board must parse the reply brief to determine which, if any, parts of that brief are responsive and which are improper. As the Board noted, 'it will not attempt to sort proper from improper portions of the reply.'"). The Board should refuse the Reply brief and the Supplemental Reply Declaration as untimely and improper. Patent Owner recognizes that the Board will address whether Petitioner's Reply exceeds the proper scope of a reply and that a reply that raises new issues or belatedly introduces new evidence will not be considered. *See Cyanotech Corp. v. The Bd. of Trs. of the Univ. of Ill.*, IPR2013-00401, Paper 44 (P.T.A.B. June 6, 2014).

### III. CLAIM CONSTRUCTION

#### A. Preamble of Claim 1

Petitioner's Reply (and Petition) improperly fails to take a position on whether the preamble of Claim 1 is limiting or not. During Patent Owner's Response, Patent Owner sufficiently explained how, "in view of the several examples where Claim 1 itself and its dependent claims rely on phrases within the preamble that are essential for understanding those subsequent limitations in Claim 1 and its dependent claims, a person of ordinary skill in the art would understand the preamble of Claim 1 to be limiting." Paper No. 17 ("Patent Owner Response"), 6-8.

If Petitioner believed that any claim terms required construction, it had a duty to identify "how the challenged claim is to be construed" in its Petition. 37 C.F.R. § 42.104(3); *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide, at 48 ("The Board, in its claim construction determinations, will consider statements regarding claim construction made by patent owners and by a petitioner filed in other proceedings, if the statements are timely made of record.") (citations omitted). Instead, Petitioner completely skirts the issue of claim construction entirely as it pertains to whether the preamble of Claim 1 is limiting or not.

Notably, the Court in the related District Court Litigation confirmed that the "Preamble is limiting." Ex. 2006, 55. The Board should also construe the preamble of Claim 1 as limiting.

**B. Bandwidth Broker**

Petitioner's Reply confirms Patent Owner's position that the "Board need not expressly construe" "bandwidth broker." Reply, 7-8.

**IV. THE COMBINATION OF XIAO, SCHELEN-1, AND GIBSON FAILS TO RENDER CLAIM 1 OBVIOUS**

**A. The Combination of Xiao, Schelen-1, and Gibson Does Not Render Obvious "*Method in a packet based communication network including network domains, wherein at least one domain is a Multiprotocol Label Switching MPLS domain, to establish a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST),*" as Required by Claim 1**

Petitioner's Reply does not dispute that Petitioner relies on only Xiao to disclose the limitation of "a packet based communication network including network domains, wherein at least one domain is a Multiprotocol Label Switching MPLS domain, to establish a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST)." Reply at 8-10. Petitioner's Reply also does not dispute Patent Owner's assertion that Xiao's Fig. 4 corresponds to DiffServ, and not MPLS (which corresponds to Xiao's Fig. 5), as its Petition argued (Pet. at 19-24).

Instead, Petitioner now argues that it is combining Xiao's figure of DiffServ (Fig. 4) with Xiao's separate figure on MPLS (Fig. 5) and accompanying

disclosures. Notably, the Petition never cited to Xiao's Fig. 5 in its arguments related to this claim limitation. *See* Pet., 19-28. Petitioner admits that its alleged combination between DiffServ and MPLS is based on a couple of broad sentences in Xiao that states: "MPLS can be used together with differentiated services to provide QoS" "the DS-field based and MPLS-based architectures can easily interoperate." Ex. 1005, 14. These sentences are red herrings because even the '698 Patent states that DiffServ and MPLS networks can interoperate. *See* '698 Patent, 4:54-56 ("possibly a mix of DiffServ and MPLS networks").

What matters is the remaining claim language that the interoperation allows "establish[ing] a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST)." Xiao does not show any details or results of the interoperation beyond the paltry two sentences that describe the possibility of interoperation. In fact, Xiao states the limitations of the prior art interoperation, namely, that "with such schemes, the MPLS effect is confined within the ISPs that use MPLS." Ex. 1005, 14. Xiao's explicit limitation on interoperation between MPLS and DiffServ networks precludes the claimed "establish[ing] a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST)." The '698 Patent describes that:

*An overall object of the present invention is focused on the implementation of a VLL service* with bandwidth guarantees, which requires path sensitive admission control. For the service to be as useful as possible it is important that service control is dynamic and managed automatically. The service issues focused on are:

End to end-services.

Resource planning over time.

The end-to-end issue is of great importance when service requests span multiple network provider domains and possibly a mix of DiffServ and MPLS networks. *A service that is only available within one provider domain is unlikely to be successful* in a world where global services of all kinds are increasingly important.

'698 Patent, 4:46-59 (emphasis added). "The end-to-end issue" in the excerpt above is directly tied to the claim language of "establish[ing] a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST)." However, Xiao cannot disclose such a VLL because "with such schemes [in Xiao], the MPLS effect is confined within the ISPs that use MPLS." Ex. 1005, 14. In other words, Xiao discloses, at best, a separate VLL that would be applied within each type of domain, where there is an interoperation of MPLS and DiffServ domains. It cannot disclose the claimed one "VLL between a source and destination in different domains."

Even considering Xiao's disclosure of DiffServ and MPLS, a person of ordinary skill in the art would still not apply Petitioner's arbitrary edits to Xiao's Fig. 4 (Pet. at 30) in order to disclose a "[m]ethod in a packet based communication network including network domains, wherein at least one domain is a Multiprotocol Label Switching MPLS domain, to establish a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST)." Therefore, the combination of Xiao, Schelen-1, and Gibson cannot render Claim 1 obvious.

**B. The Combination of Xiao, Schelen-1, and Gibson Does Not Render Obvious "*wherein the bandwidth broker (BB) is associated to each network domain and the bandwidth broker (BB) is configured to control a hierarchical routing domain,*" as Required by Claim 1**

Petitioner still ignores, despite its own expert's testimony, that Xiao's statement that "it is technically better to have a BB [bandwidth broker] to allocate resources" is only in the section of Xiao related to DiffServ, not in the section related to MPLS. *See* Ex. 1005, 10-12; Patent Owner Response, 11-13 (citing Ex. 2003, 38:6-40:2 ("while they're discussing some processes, generally, and I think they are in the context of the section with the main -- with a higher level heading Differentiated Services, and they're giving examples of certain things that happen.")). This claim limitation requires a bandwidth broker to be associated to each network domain, *including the claimed MPLS domain*. This is not shown by

Xiao (outside of Petitioner's fabricated Fig. 4 annotation in the Petition, 30).

Whether a bandwidth broker ("BB") generally "provides scaling benefits," as Petitioner asserts (Reply, 11-12) is inapposite as to whether a BB would be present in an MPLS domain.

Petitioner's subsequent argument (without support other than Dr. Houh's conclusory remark) that "BBs may not be needed in MPLS-based ISP networks' leaves open circumstances where using a bandwidth broker are in fact needed or at the very least beneficial" somehow discloses (i) a system with both DiffServ and MPLS network domains; and (ii) a BB in each of the DiffServ and MPLS network domains is not persuasive and a logical leap. At best, it shows the possibility of a BB in an MPLS system (*i.e.*, where all the network domains are MPLS). Xiao then proceeds to list only one example where "[w]ithout BBs in the ISP networks, the signaling process for dynamic SLAs is slightly different from the one described earlier. It is depicted in Fig. 5 and described below." Ex. 1005, 14.

The remaining arguments in Petitioner's Reply with respect to this claim limitation and Schelen-1 and Gibson are irrelevant. Petitioner cannot dispute Patent Owner's assertion that Schelen-1 does not even mention MPLS. Instead, Petitioner argues that Schelen-1's teaching is not limited to any particular network. Reply, 13. Whether a reference is not limited in a particular way is not the standard for an obviousness combination to affirmatively disclose a limitation for a particular

network (in this case the claimed “at least one domain is a Multiprotocol Label Switching MPLS domain”), let alone to combine this “non-limitation” with an already fabricated combination of DiffServ and MPLS in another reference.

Similarly, Petitioner’s arguments with respect to Gibson are unavailing. Even if Gibson’s admission managers were bandwidth brokers (they are not), the claim limitation requires “the bandwidth broker (BB) is associated to each network domain.” Gibson does not disclose that, and therefore, Gibson’s contribution in Petitioner’s alleged combination would not disclose that limitation in Petitioner’s alleged mixed DiffServ/MPLS system.

For the reasons noted above, the combination of Xiao, Schelen-1, and Gibson cannot render Claim 1 obvious.

**C. The Combination of Xiao, Schelen-1, and Gibson Does Not Render Obvious “*ii) BB<sub>A</sub> establishes the different domains involved to reach the destination network (DST),*” as Required by Claim 1**

Since Petitioner fails to show how the combination of Xiao, Schelen-1, and Gibson discloses, teaches, or suggests “wherein the bandwidth broker (BB) is associated to each network domain,” it therefore cannot disclose, teach, or suggest “BB<sub>A</sub> establishes the different domains involved to reach the destination network (DST).”

Petitioner's Reply confirms that Schelen-1 does not disclose the claimed limitation because "Schelen-1 teaches . . . a bandwidth broker establishes the existence of all other bandwidth brokers and their domains." Reply, 15. In other words, Petitioner admits that Schelen-1 only discloses each bandwidth broker establishing their own domain and communicating with each other. But the claim language explicitly recites that *one BB*, BB<sub>A</sub>, establishes *all the different domains* required to reach the destination network.

Petitioner also relies on a construction of the claim limitation that contradicts the explicit claim language. Specifically, Petitioner argues that "Patent Owner does not identify a claim limitation that precludes a bandwidth broker from communicating with other bandwidth brokers on a multicast address to establish the different domains involved." Reply, 16. This construction is wrong in view of the explicit claim language requiring one BB to establish all domains. Moreover, it is not Patent Owner's burden to propose claim construction (or suggest preclusions in a claim limitation), especially where the claim language is clear and Petitioner's proposed construction blatantly contradicts the claim language. If Petitioner believed that any claim terms, including this claim limitation, required construction, it had a duty to identify "how the challenged claim is to be construed" in its Petition. 37 C.F.R. § 42.104(3). It did not do so, and therefore, this new argument stemming from an incorrect claim construction should be rejected. Petitioner "may not submit new

evidence or argument in reply that it could have presented earlier [in the petition], e.g. to make out a prima facie case of unpatentability.” Trial Practice Guide at 73; *see also Rembrandt Diagnostics, LP v. Alere, Inc.*, 76 F.4th 1376, 1384 (Fed. Cir. 2023) (Petitioner’s Reply must keep “within the confines of 37 C.F.R. § 42.23(b).”).

**D. The Combination of Xiao, Schelen-1, and Gibson Does Not Render Obvious “iii) *BB<sub>A</sub> directly or indirectly passes requests to all Bandwidth Brokers (BB) of the involved domains regarding a VLL of the predefined QoS from ingress to egress of each domain,*” as Required by Claim 1**

Since Petitioner fails to show how the combination of Xiao, Schelen-1, and Gibson discloses, teaches, or suggests a “[m]ethod in a packet based communication network including network domains, wherein at least one domain is a Multiprotocol Label Switching MPLS domain, to establish a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST)” or “wherein the bandwidth broker (BB) is associated to each network domain,” it therefore cannot disclose, teach, or suggest “BB<sub>A</sub> directly or indirectly passes requests to *all Bandwidth Brokers* (BB) of the involved domains.”

**E. The Combination of Xiao, Schelen-1, and Gibson Does Not Render Obvious “iv) *each involved bandwidth broker (BB) performs admission control in its domain,*” as Required by Claim 1**

Since Petitioner fails to show how the combination of Xiao, Schelen-1, and Gibson discloses, teaches, or suggests “wherein the bandwidth broker (BB) is

associated to each network domain,” it therefore cannot disclose, teach, or suggest “iv) each involved bandwidth broker (BB) performs admission control in its domain.”

**F. The Combination of Xiao, Schelen-1, and Gibson Does Not Render Obvious “v) *each involved bandwidth broker (BB) returns a result of the admission control to BB<sub>A</sub> that passes it back to the requesting entity and if the request was admitted along all domains between the source (SRC) and the destination (DST) a VLL of the predefined QoS is granted,*” as Required by Claim 1**

Since Petitioner fails to show how the combination of Xiao, Schelen-1, and Gibson discloses, teaches, or suggests “a packet based communication network including network domains, wherein at least one domain is a Multiprotocol Label Switching MPLS domain, to establish a virtual leased line, VLL, between a source (SRC) and a destination (DST) in different domains in order to achieve packet transfer between the source (SRC) and the destination (DST),” “wherein the bandwidth broker (BB) is associated to each network domain,” or “iv) each involved bandwidth broker (BB) performs admission control in its domain,” it therefore cannot disclose, teach, or suggest “*each involved bandwidth broker (BB) returns a result of the admission control* to BB<sub>A</sub> that passes it back to the requesting entity and *if the request was admitted along all domains* between the source (SRC) and the destination (DST) a VLL of the predefined QoS is granted.”

**G. The Combination of Xiao, Schelen-1, and Gibson Does Not Render Obvious “characterized in that step iv) comprises the following step: performing [LSP] Label Switched Path, LSP setup, passing resource requests from the Bandwidth Broker (BB) to at least one intra-domain (IDB), wherein each intra-domain broker (IDB) is responsible for admission control and the Label Switched Path, LSP, setup,” as Required by Claim 1**

Since Petitioner fails to show how the combination of Xiao, Schelen-1, and Gibson discloses, teaches, or suggests either “iv) each involved bandwidth broker (BB) performs admission control in its domain,” it therefore cannot disclose, teach, or suggest “characterized in that step iv) comprises the following step: performing [LSP] Label Switched Path, LSP setup, passing resource requests from the Bandwidth Broker (BB) to at least one intra-domain (IDB), wherein each intra-domain broker (IDB) is responsible for admission control and the Label Switched Path, LSP, setup.”

Put simply, the claim limitation requires an intra-domain broker, which is a broker within the domain. Such language excludes the possibility that a broker that corresponds to multiple domains (*i.e.*, an inter-domain broker) can be the claimed intra-domain broker. Yet, an *inter*-domain broker is exactly what Gibson’s administrative server is since “[t]he Administrative Server 35 has a COPS interface *to all the admission managers at the edge of the network.*” Ex. 1006, 8:49-50 (emphasis added). The Petition underscores Petitioner’s ignorance of the term “intra-

domain” since it cites an entire “configuration or network” as corresponding to the IDB instead of a singular domain:

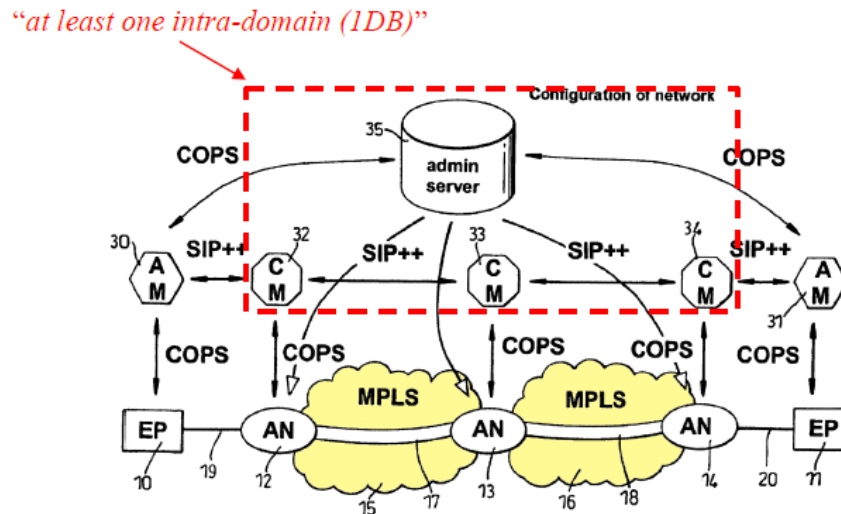


**Fig. 1**

Ex.1006, Fig. 1 (annotated); Ex.1003, ¶267.

Petition, 58. Notably, the preamble of Claim 1 distinguishes that each network has multiple domains (and therefore multiple IDBs within each domain): “Method in a packet based communication *network including network domains.*” ’698 Patent, Claim 1 (emphasis added).

Assuming that RATES does require COPS<sup>2</sup> and that IDBs using RATES to perform LSP setup is the ’698 Patent’s preferred embodiment, as Petitioner argues (Reply, 24), the claim language still requires an IDB. But Petitioner does not dispute

<sup>2</sup> This is also a brand new argument in Petitioner’s new expert declaration and Reply. See Ex. 1046, ¶ 25; Reply at 24. The Petition only refers to COPS twice and not in the context of RATES. See Pet. at 59. For this additional reason, Dr. Houh’s declaration and this portion of the Reply should be rejected.

that a person of ordinary skill in the art would understand Gibson's administrative server to correspond to multiple domains. Therefore, Gibson's administrative server cannot disclose the claimed "IDB." Gibson's administrative server also cannot disclose the claimed bandwidth broker (and Petitioner does not allege so) because Claim 1 requires that "the bandwidth broker (BB) is associated *to each network domain*."

Petitioner's Reply also fails to render this claim obvious because Petitioner is unable to definitively state what components of Gibson disclose the intra-domain broker that perform the LSP set up. Petitioner resorts to combinations of Gibson's components that conflict between its Petition (*connection manager* with the administrative server) and its Reply (*admission manager* with the administrative manager"), as described in Section II above. Regardless of the combination, as shown above, Gibson's administrative manager is neither the bandwidth broker nor the intra-domain broker, and therefore cannot play either role in disclosing the claimed "*passing resource requests from the Bandwidth Broker (BB) to at least one intra-domain (IDB)*", wherein each intra-domain broker (IDB) is responsible for admission control and the Label Switched Path, LSP, setup."

For these reasons, Claim 1 is not rendered obvious by the combination of Xiao, Schelen-1, and Gibson.

**V. BOTH PETITIONER’S GROUND 1 OR GROUND 2 COMBINATION OF XIAO, SCHELEN-1, GIBSON, AND SCHELEN-2 DOES NOT RENDER OBVIOUS CLAIMS 2-5 AND 7-8**

Claims 2-5 and 7-8 depend upon Claim 1, and for at least the same reasons as Claim 1, any combination of Xiao, Schelen-1, Gibson, and Schelen-2 fails to obviate Claims 2-5 and 7-8.

**VI. THE COMBINATION OF XIAO, SCHELEN-1, GIBSON, AND SCHELEN-2 FAILS TO RENDER CLAIM 6 OBVIOUS**

Petitioner’s Reply confirms its improper reading of Claim 6: “that the bandwidth broker (BB) comprises a data structure which keeps resource usage information over time for each link in the topology which enables ability to plan ahead of time.” The language of the claim limitation is explicit that “a data structure [] keeps resource usage information over time.” In other words, a bandwidth broker comprises a database (*i.e.*, data structure) that keeps historical (*i.e.*, “over time”) usage information for each resource (*i.e.*, resource usage information).

Petitioner underscores its failure to meet this claim limitation by requiring a construction where the claimed “data structure which keeps resource usage information over time” may include “information about resources (e.g., bandwidth) currently reserved and used and information about resources (e.g., bandwidth) reserved for future use.” Reply at 26-27 (citing Ex. 1046, ¶ 27); *see also* Ex. 1046, ¶ 28 (including the same conclusory statement as ¶ 27 with no citation).

Petitioner did not propose any construction for this claim limitation that would expand its meaning beyond the explicit language that “resource usage information [is kept] over time.” If Petitioner believed that any claim terms required construction, it had a duty to identify “how the challenged claim is to be construed” in its Petition. 37 C.F.R. § 42.104(3). Petitioner did not do so, and its belated attempt to read new meaning into this claim limitation should be rejected.

Petitioner’s citation to the deposition testimony of Patent Owner’s expert, Dr. Congdon, is inapposite because the claim limitation does not relate to the purpose of “usage information,” and particularly since Schelen-2 does not disclose or suggest “keep[ing] resource usage information over time.”

Therefore, Claim 6 is not rendered obvious by the combination of Xiao, Schelen-1, Gibson, and Schelen-2.

## **VII. CONCLUSION**

Petitioner’s combinations fail to render obvious any Challenged Claim. The Board should issue a Final Written Decision finding the Challenged Claims not unpatentable.

Respectfully submitted,

Dated: June 5, 2024

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**CERTIFICATE OF WORD COUNT**

The undersigned hereby certifies that the portions of the above-captioned PATENT OWNER'S SUR-REPLY specified in 37 C.F.R. § 42.24 has 4,309 words in compliance with the 5,600 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word for Office 365.

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

A copy of the foregoing Patent Owner's Sur-Reply and Exhibit 2006 have been served on Petitioner's counsel of record as follows:

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