

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ARISTA NETWORKS, INC.,
Petitioner,

v.

ORCKIT CORPORATION,
Patent Owner.

Case IPR2024-01239
U.S. Patent No. 10,652,111

PATENT OWNER'S RESPONSE PURSUANT TO 37 C.F.R. § 42.120

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2003	Stipulation and Order To Stay Action in Orckit Corporation v. Arista Networks Inc., C.A. No. 23-821, Dkt. No. 14 (D. Del., Dec. 4, 2023)
2004	Proof of Service in Orckit Corporation v. Arista Networks Inc., C.A. No. 23-821
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2006	Declaration of George Stamatopoulos
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2008	Declaration of Nader F. Mir, originally marked as Exhibit 1003 from <i>Juniper Networks, Inc. v. Orckit Corporation</i> , IPR2024-00895 (May 6, 2024)
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I. INTRODUCTION

Orckit Corporation (“Orckit” or “Patent Owner”) submits this Patent Owner Response (“POR”) to Arista Networks, Inc.’s (“Petitioner”) Petition challenging claims 1-54 (the “Challenged Claims”) of U.S. Patent No. 10,652,111 (the “’111 Patent”).

The ’111 Patent is directed to novel methods for implementing deep packet inspection (“DPI”) in software defined networks (“SDN”). The ’111 patent explains that protocols used in software defined networks (*e.g.*, the OpenFlow protocol) allowed the programmability of network nodes (*e.g.*, switches or routers) by a central controller but failed to provide a mechanism for deep packet inspection, a technique that was useful among other things for detecting security threats. *See* Ex. 1001, 1:50-67. The patent explains further that routing all packets from the network nodes to the central controller had a number of drawbacks, including “increased end-to-end traffic delays between the client and the server; overflowing the controller capability to perform other networking functions; and a single point of failure for the re-routed traffic.” *Id.* at 2:1-6. The inventors of the ’111 Patent recognized a need to “provide a solution that overcomes the deficiencies [of prior art SDN protocols and allowed for] efficient DPI in SDNs.” *Id.* at 2:7-9. The claims of the ’111 Patent recite methods that are directed to such a solution.

Among other elements, the independent claims of the '111 Patent (claims 1 and 32) recites: (i) a SDN “controller” that is capable of controlling deep packet inspection¹ and (ii) the use of a criterion (a “packet-applicable criterion”) to determine whether packets transmitted over a SDN network should be sent to their destination or to some other entity for further inspection. The dependent claims recite additional limitations, for example, about the criterion to be used or the specific entities to which packets should be sent in response to satisfying or not satisfying the claimed “packet-applicable criterion.”

The inventive crux of these claims was a novel SDN in which: (i) the SDN controller, unlike prior art SDN controllers (that were typically uninvolved in DPI but were dedicated to other network functions), was also capable of controlling DPI; *and* (ii) a criterion handed down by the controller to the nodes was used to intelligently determine whether and when to send packets to their destination and when to divert them for further inspection with DPI. These two elements in tandem

¹ As discussed below, Patent Owner’s arguments in this response are the same under either construction proposed by Petitioner (i.e., “an entity capable of controlling deep packet inspection” or “entity configured to perform deep packet inspection on packets”).

were critical in the inventors' efforts to address the limitations in prior art SDNs discussed in the patent.

The Petition advances three grounds: first, that claims 1-6, 8-15, 18-19, 21-36, 41-42 and 44-54 are obvious over Lefebvre in view of Chua, second, that claims 7-8 and 37-38 are obvious over Lefebvre and Chua in view of Rash, and third, that claims 16-20 and 39-43 are obvious based on Lefebvre and Chua in view of RFC 793. This POR submits new arguments that were not before the Board at institution which show that the Challenged Claims are patentable over each ground.

Specifically, the prior art Lefebvre reference teaches a traffic steering system that is an alternative to DPI. A POSITA would not add DPI to Lefebvre's controller because Lefebvre is directed to avoiding costly services like DPI. Moreover, for reasons set forth below, the dependent claims recite additional patentable elements that are not obvious in view of Lefebvre and Chua. Accordingly, Patent Owner respectfully asks that the Board issue a Final Written Decision finding all challenged claims patentable over the asserted prior art.

II. BACKGROUND

A. Procedural History

This proceeding is the fourth IPR filed against the '111 Patent. IPR2023-00554 was filed on February 21, 2023 by Cisco and resulted in a Final Written Decision determining no challenged claims unpatentable. That matter is now final. IPR2024-00037 was filed on October 11, 2023 by Juniper Networks. A copycat of IPR2023-00554, it was joined with the -00554 IPR. IPR2024-00895 was filed on May 6, 2024 by Juniper Networks and resulted in noninstitution under 35 U.S.C. § 314. This IPR uses the same Lefebvre, Chua and Rash references as IPR2024-00895 but adds a fourth reference (RFC 793) for a few dependent claims.

The '111 Patent was asserted by Patent Owner in *Orckit Corporation v. Cisco Systems, Inc.*, Case No. 2:22-cv-00276 (E.D. Tex. July 22, 2022), *Orckit Corporation v. Arista Networks Inc.*, Case No. 1:2023-cv-00821 (D. Del. July 28, 2023) and *Orckit Corporation v. Juniper Networks, Inc.*, Case No. 1:2023-cv-00822 (D. Del. July 31, 2023).

Patent Owner and Cisco agreed to a jointly stipulated dismissal of the *Cisco* litigation without prejudice. With the conclusion of Cisco's IPRs, Patent Owner refiled the *Cisco* litigation as *Orckit Corporation v. Cisco Systems, Inc.*, Case No. 2:25-cv-00181 (E.D. Tex., February 14, 2025), asserting the '111 Patent and several

other patents. The *Juniper* and *Arista* litigations are currently stayed pending resolution of this IPR.

B. Patent Owner

Orckit Corporation owns the '111 patent, which originated from significant research and development by Orckit Communications Ltd. (also known as Corrigent-Systems Ltd., referred to herein as “Orckit-Corrigent”).

Orckit-Corrigent was founded in 1990 in Israel by Izhak Tamir and Eric Paneth. Orckit-Corrigent’s products offered networking infrastructure for the delivery of residential, business, and mobile backhauling services in packet-based networks.

By the early 2000s, Orckit-Corrigent was a pioneer in telecommunications, with revenues some years exceeding \$500M from sales to various tier 1 global telecommunications providers. Over the years, Orckit-Corrigent and its subsidiaries developed and sold products in a variety of telecommunications areas, including DSL, Packet Transport Networks (PTN), Carrier Ethernet technologies, PWE (Pseudo-Wire Emulation) technology, and Resilient Packet Ring (RPR) technology, which was developed and introduced to the market as the IEEE 802.17 Standard, part of the company’s packet transport technology. In 2007, Orckit-Corrigent launched its CM4000 PTN line of products, which were purchased and deployed by

telecom providers worldwide, including leading Indian carrier Bharat Sanchar Nigam Ltd. (BSNL); T-Systems (Deutsche Telekom) in Germany; Tele2, a leading Pan-European Scandinavian Service Provider; redIT (formerly MetroNet) in Mexico, and others. At one time, Orckit-Corrigent had offices in Israel, US, India, Japan, Korea, Germany, Russia, Brazil, Mexico, Thailand, and the Philippines.

Orckit-Corrigent also engaged in extensive research and development (investing over \$200M) and prosecuted an extensive patent portfolio. Many of the patents in this portfolio were practiced by its products, notably, the CM-4000 product family, which was a series of packet transport network switches (consisting of, among other products, the CM-4140, CM-4206 and CM-4314T/4314 models), and the CM-401x portfolio of switches that included the CM-4011, CM-4012 and CM-4013 products. Ex. 2001 [Orckit-Corrigent Executive Summary].

In 2012, Orckit-Corrigent entered into debt restructuring/bankruptcy proceedings in Israel. After a series of transactions that followed the Israel proceedings, Orckit Corporation acquired a smaller set of Orckit-Corrigent's patents, including the '111 patent.

C. '111 Patent

The '111 Patent is titled "Method and System for Deep Packet Inspection in Software Defined Networks." Ex. 1001, abstract. DPI is a technique for examining

network communications at the packet level, which can be used to extract data patterns from a data communication channel. Ex. 1001, 1:21-25. The extracted data patterns are useful for a variety of purposes, including network security and data analytics. *Id.*

A software defined network (SDN) is a networking architecture that provides for centralized management of the nodes in a network, as opposed to the distributed architecture utilized by conventional networks. Ex. 1001, 1:30-38. For example, a SDN may utilize a controller to manage network nodes such as vSwitches. *Id.* SDN-based architectures typically decouple the data forwarding (*e.g.*, data plane) from control decisions (*e.g.*, control plane), such as routing, resources, and other management functionalities. Ex. 1001, 1:39-49. The decoupling may allow the data plane and the control plane to operate on different hardware, in different runtime environments, and/or operate using different models. *Id.*

The inventors of the '111 Patent recognized that the OpenFlow protocol used by prior art did not support DPI of packets through the various networking layers. Ex. 1001, 1:50-67. This limited the ability of the OpenFlow protocol to support a number of networking features associated with DPI, including detecting security threats. *Id.* The inventors also recognized that “routing all traffic from network nodes to the central controller introduces some significant drawbacks, such as increased

end-to-end traffic delays between the client and the server; overflowing the controller capability to perform other networking functions; and a single point of failure for the re-routed traffic.” *Id.* at 2:1-6. The inventors thus explain that “it would be advantageous to provide a solution that overcomes the deficiencies [in prior art SDNs] and allow[s] efficient DPI in SDNs.” *Id.* at 2:7-9. The ’111 Patent proposes methods for DPI in a software defined network. Ex. 1001, 2:27-3:3. In one exemplary embodiment, a network system 100 as shown in Fig. 1 includes a controller 111 “configured to perform deep packet inspection on designated packets from designated flows or TCP sessions... the central controller 111 is further configured to instruct each of the network nodes 112 which of the packets and/or sessions should be directed to the controller 111 for packet inspections:”

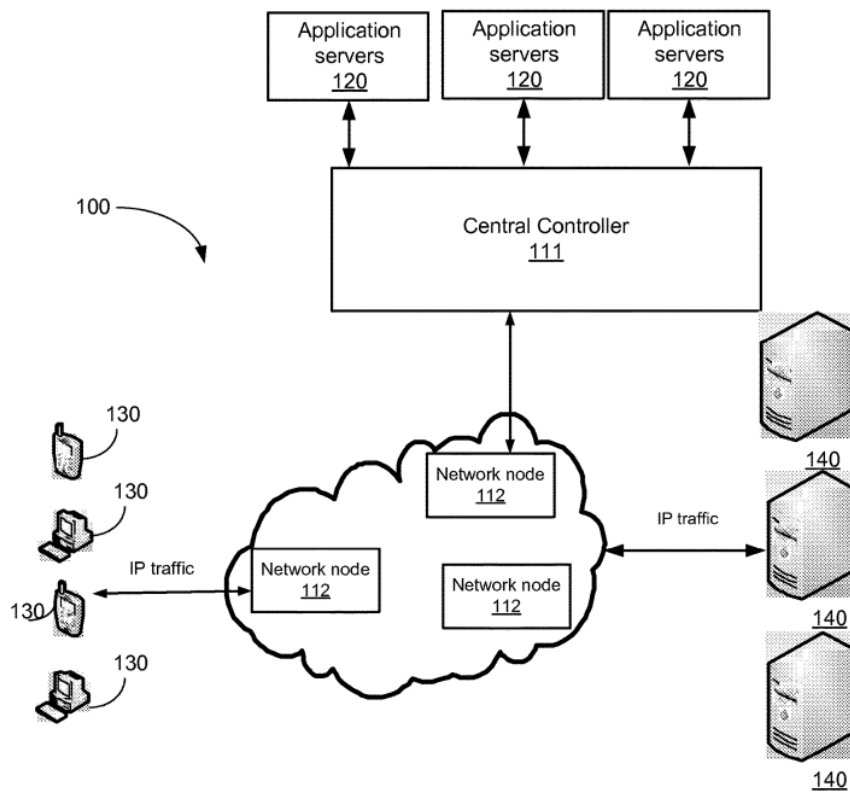


FIG. 1

Ex. 1001, 4:5-11, Fig. 1.

Controller 111 may provide instructions to the network nodes that configure the network nodes to analyze the headers of incoming packets for DPI. Ex. 1001, 4:23-37. For example, the network node may be instructed to either redirect the packet to controller 111 or send the packet to the destination server 140. *Id.* Alternatively, the controller 111 may instruct the network nodes to mirror a number of bytes within the packet to be sent to controller 111 to perform DPI. *Id.* The TCP packet's header may include fields such as TCP FLAG SYN, TCP FLAG ACK, TCP

FLAG FIN, TCP FLAG RST, which are analyzed by the network node to execute the instructions sent by the controller, which may vary depending on the contents of the TCP packet's header field. Ex. 1001, 4:23-46.

The '111 Patent has two independent claims (1 and 32) and 52 dependent claims, of which only independent claim 1 and a subset of its dependent claims are at issue in this proceeding. Consistent with the description in the '111 Patent, the claims recite a method for transporting packets based on an instruction and a packet-applicable criterion sent from a controller to a network node (claim 1) for performing DPI (claim 9).

1. Prosecution History

The '111 Patent claims priority to provisional application no. 61/982,358, filed on April 22, 2014. Ex. 1001 ['111 Patent], 1:8-10. The '111 Patent was filed on April 21, 2015 as Appl. No. 15/126,288 (the "'288 Application"). *Id.*

On September 12, 2018, the Examiner issued a non-final rejection rejecting the then-pending claims under 35 U.S.C. § 103 over U.S. Pub. No. 2010/0208590 (Dolganow) and U.S. Pub. No. 2014/0052836 (Nguyen), which was made final on April 15, 2019 following an Applicant response on December 9, 2018. Ex. 1002, 170-195, 230-238, 240-263.

In response to the rejections, Applicant on May 7, 2019 amended the claims

to explicitly recite that the controller “is external to the network node,” thus clarifying that the instruction and packet-applicable criterion are sent by the controller to the network node over the packet network. Ex. 1002, 148-168.

On July 8, 2019, the Examiner issued a new rejection substituting Nguyen with U.S. Pub. No. 2016/0219080 (Huang). The Examiner subsequently withdrew the rejection and allowed the claims following Applicant’s October 2, 2019 response to the Examiner’s July 8, 2019 Office Action. Ex. 1002, 15-16, 55-64. The Examiner’s January 7, 2020 Notice of Allowance credited the arguments made by Applicant’s October 2, 2019 response, including that the prior art failed to disclose “sending, by the controller to the network node over the packet network, an instruction and a packet-applicable criterion” because the prior art “only described receiving packets as part of the regular traffic to be analyzed, and are silent regarding any receiving from a controller in general, and receiving of ‘the instruction and the criterion’ in particular.” Ex. 1002, 15-16, 62-64.

The ’288 Application issued as the ’111 Patent on May 12, 2020. Ex. 1001.

D. Petitioner’s Cited References and Challenged Claims

The Petition asserts the following three grounds:

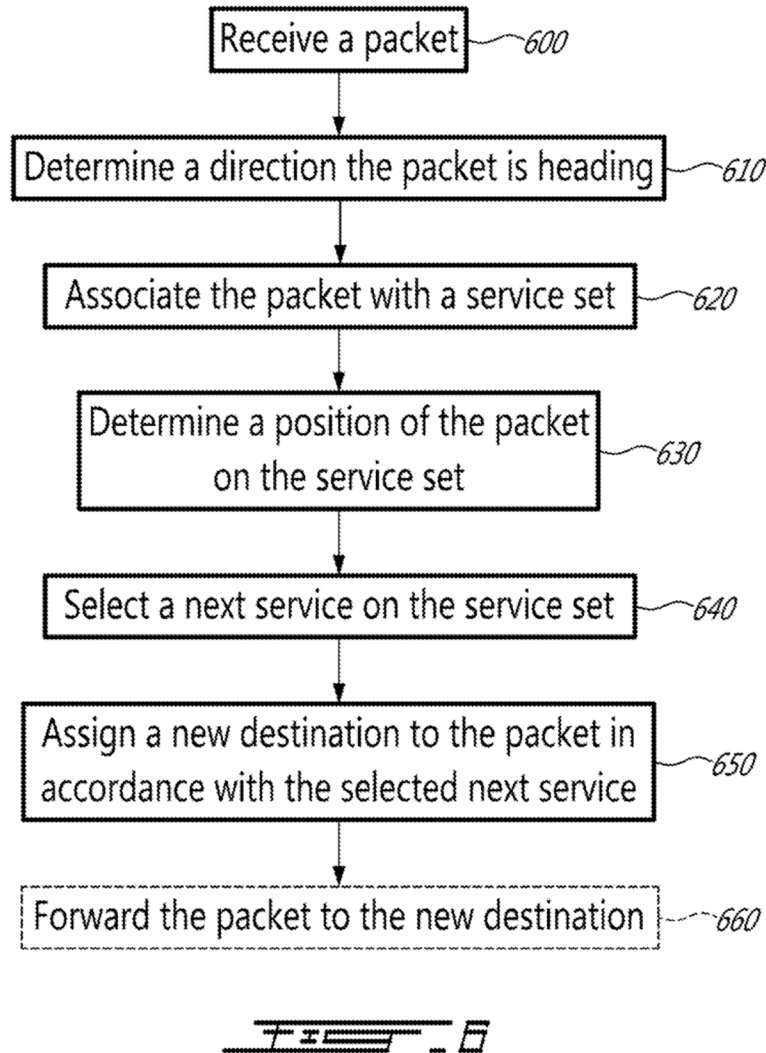
Ground	Claims	Basis
#1	1-6, 9-15, 18-19, 21-36, 41-42, 44-54	35 U.S.C. § 103 (AIA) over Lefebvre and Chua

#2	7-8, 37-38	35 U.S.C. § 103 (AIA) over Lefebvre, Chua and Rash
#3	16-20, 39-43	35 U.S.C. § 103 (AIA) over Lefebvre, Chua and RFC 793

1. Lefebvre (Ex. 1005)

U.S. Patent No. 10,097,452 to Lefebvre et al. (“Lefebvre”) is titled “Chaining of Inline Services Using Software Defined Networking” and describes a system and method for steering traffic through a set of services. Ex. 1005, Abstract. According to Lefebvre, services are “middleboxes” that “inspect and alter network traffic transitioning” through a network. EX1005 [Lefebvre], 1:19-21. An ordered set of services is “[a] service chain, or path.” EX1005 [Lefebvre], 1:44. “Traffic steering is the action of classifying traffic and directing the different classes of traffic through specific service chains.” *Id.*, 1:45-49. By “selectively direct[ing] traffic to specific sets of services instead of forcing all traffic through every service,” Lefebvre avoids “expensive services such as deep packet inspection.” *Id.*, 1:32-38. Thus, Lefebvre’s traffic steering is an alternative to deep packet inspection.

Lefebvre Fig. 6 illustrates an embodiment of Lefebvre’s alleged traffic steering invention:



EX1005 [Lefebvre], Fig. 6.

In Lefebvre Fig. 6, the process receives a packet (600) and determines its direction (upstream or downstream) based on the “ingress port the packet was received on” (610). EX1005 [Lefebvre], 15:47-53. At 620, “the received packet is associated with a service set.” *Id.*, 15:54. At 630, the process determines a position

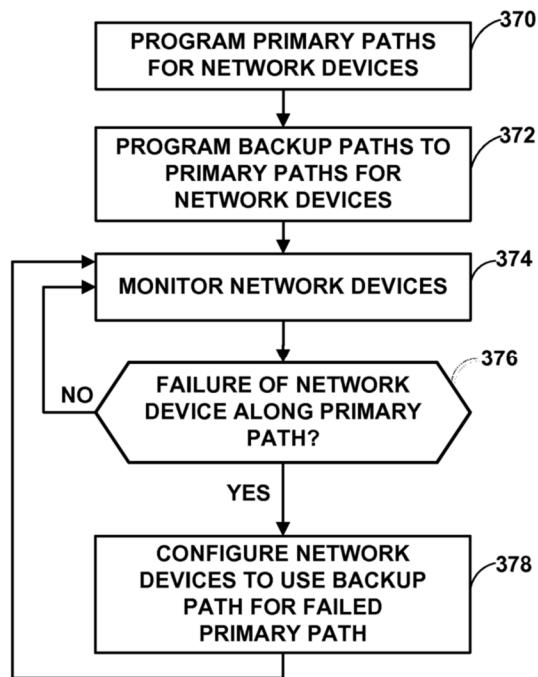
of the packet on the service set. *Id.*, 16:4-5. “All previous services applied, can be determined based on the current position of the packet in the service set and the direction the packet is heading.” EX1005 [Lefebvre], 16:8-10. At 640, a next service is selected for the packet based on the determined direction and position of the packet. *Id.*, 16:10-15. The packet is assigned a new destination (650) and forward to the new destination (660).

2. Chua (Ex. 1006)

U.S. Patent No. 9,264,301 to Chua et al. (“Chua”) is titled “High Availability for Software Defined Networks” and describes a controller device for a software defined network (SDN) including one or more network interfaces configured to communicate with network devices of the SDN. Ex. 1006, Abstract. “A software defined network is generally a network of interconnected computing devices having forwarding planes or data planes that can be programmed remotely by one or more controller devices.” *Id.*, 1:46-50. “As an example of software defined networking, in the case of routing, rather than routers performing individual analyses to determine routes through the network, the controller can determine the routes and program other devices in the network to behave according to the determinations made by the controller.” *Id.*, 1:29-35.

Chua’s SDN is configured to determine a primary and backup path for traffic

between network devices and configure the network devices to switch from the primary to the backup path in case of a failover event. *Id.*, Abstract, cl. 1. Chua Fig. 8 below is a flowchart illustrating an example method for using one or more backup paths to a primary path through an SDN:

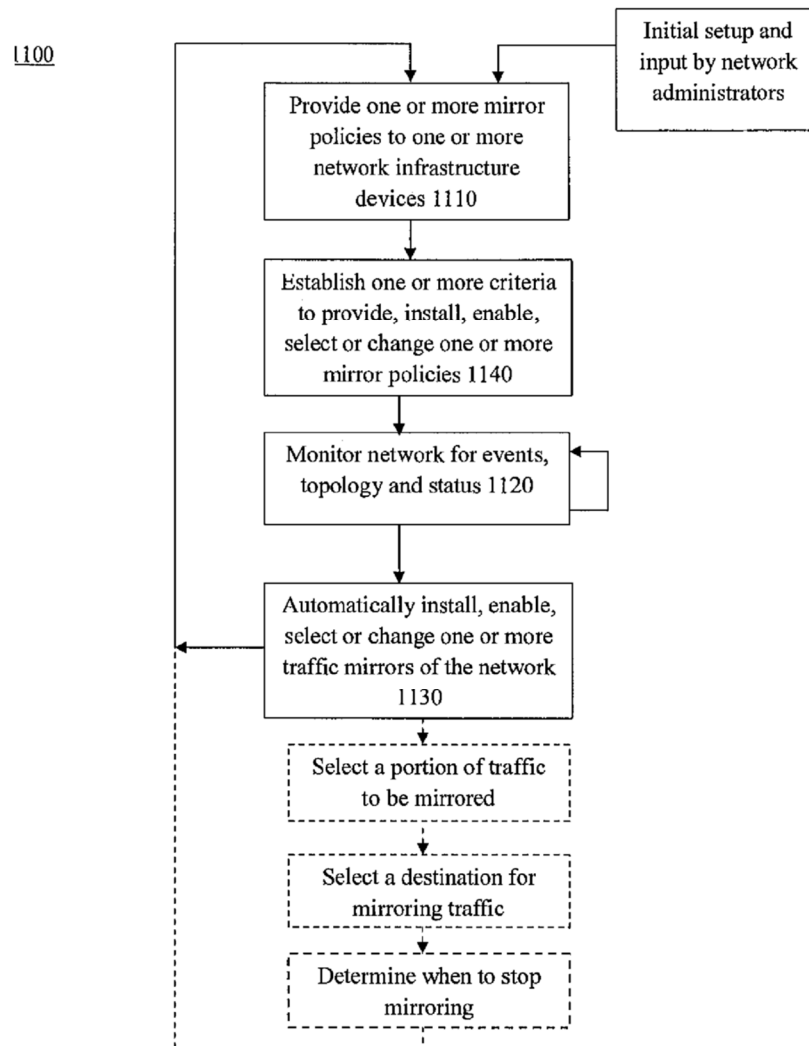


As can be seen, the SDN first programs the primary paths for the network devices (370). *Id.*, 29:51-52. Then, Chua's SDN programs backup paths to the primary paths (372). *Id.*, 29:52-54. Chua's SDN may monitor the network devices to determine whether a failure has occurred along the primary path. (374, 376). *Id.*, 30:24-32. If so, Chua's SDN configures the network devices to use the backup path for the failed primary path (378). *Id.*

3. Rash (Ex. 1007)

U.S. Patent No. 9,813,447 to Rash et al. (“Rash”) is titled “Device and Related Method for Establishing Network Policy Based on Applications” and describes a function provided in a network system for adjusting network policies associated with the operation of network infrastructure devices of the network system. Ex. 1007, Abstract. “An example policy to change is [to] direct a network device to mirror traffic to an application identification appliance for the purpose of identifying applications running on the network through a plurality of mechanisms.” *Id.*

Figure 11 of Rash shows a diagram of steps associated with controlling dynamic traffic mirrors with mirroring policies:



As shown in Rash Fig. 11, the system provides mirror policies to network infrastructure devices (1110). *Id.*, 35:31-37. At step 1120, the network is monitored, and at step 1130, based on the information gathered at step 1120, the system can install, enable, select or change traffic mirroring. *Id.*, 35:37-43. The method can also select a portion of the traffic to be mirrored and a destination for the mirrored traffic, as well as determine when to stop mirroring. *Id.*, 35:54-36:4.

4. RFC 793 (Ex. 1015)

RFC 793 is a 1981 request for comments prepared for DARPA by USC and titled “Transmission Control Protocol Darpa Internet Program Protocol Specification.” EX1015 [RFC793], 1. The document describes an early version of the TCP standard as it existed in 1981. *Id.*, 5.

E. Level of Ordinary Skill

Petitioner’s Level of Ordinary Skill copies the Level of Ordinary Skill from IPR2023-00554, IPR2024-00037 and IPR2024-00895. Pet., 16. For purposes of this Patent Owner Response, Patent Owner does not dispute Petitioner’s level of ordinary skill. Ex. 2009 [Gomez Decl.], ¶¶51-52.

III. CLAIM CONSTRUCTION

A. “Controller”

The Board in IPR2023-00554 construed “controller” as “an entity that is either 1) configured to perform deep packet inspection on packets, or 2) that is capable of controlling deep packet inspection.” *Cisco Systems, Inc. v. Orckit Corporation*, IPR2023-00554, Paper 43 at 6-8 (P.T.A.B. Sept. 17, 2024). In doing so, the Board combined the construction proposed by Cisco in the -00554 case with the district court construction. *Id.* The Board explained that it did so because it “agree[d with the parties] that we do not need to decide between the two constructions.” *Id.*, 7.

The Petitioner in this IPR takes a similar approach, arguing that both the construction proposed by Cisco/Juniper and the district court construction are acceptable. Pet., 17.

Patent Owner maintains that the appropriate construction for “controller” is “an entity that is capable of controlling deep packet inspection.” However, given that the merits of this IPR do not turn on the distinctions between the -00554 IPR construction and the district court’s construction, Patent Owner has developed its arguments based on the -00554 IPR construction: “an entity that is either 1) configured to perform deep packet inspection on packets, or 2) that is capable of controlling deep packet inspection.” Ex. 2009 [Gomez Decl.], ¶ 54.

B. “Criterion”

The Petition proposes to construe “criterion” “to include ‘the conditions, or basis, used to identify packets for actions, such as inspection.’” Pet., 18.

No construction is necessary for this term. The construction does not appear to impact the merits of the Petition. No construction of this term was proposed or applied in IPR2023-00554. Further, Petitioner’s proposed construction does not appear in the intrinsic record. Neither Petitioner nor Petitioner’s expert cite any source including language similar to the proposed construction. Pet., 18; EX1002

[Min Decl.], ¶61. Accordingly, no construction is necessary for this term. Ex. 2009 [Gomez Decl.], ¶ 56.

IV. NO COMBINATION OF THE CITED PRIOR ART REFERENCES TEACHES OR SUGGESTS EVERY LIMITATION OF THE CLAIMS

Ground 1 is the only ground that includes independent claims 1 and 32. Pet., 13. Ground 1 is also the only ground that includes the dependent claims 4, 10, 11, 30, 35 and 53 below. *Id.* Accordingly, the patentability of these claims depends solely on Petitioner’s arguments for Ground 1.

A. A POSITA Would Not Combine Lefebvre With Chua

Each ground in the Petition relies on Lefebvre and Chua. Pet., 13. For independent claims 1 and 32, the Petition uses Chua to satisfy the “controller” limitation, arguing that “Lefebvre’s modified controller is programmed to execute DPI, as Chua teaches.” Pet., 31-32; 39-40.

The stated goal of Lefebvre’s software defined networking is to avoid “expensive services such as deep packet inspection.” EX1005 [Lefebvre], 1:34-38. Lefebvre explains:

Operators are facing a sharp increase in traffic demand and continue looking at new ways to monetize their network. Due to the high cost of service appliances, operators want to avoid matching the capacity of these services with this growth. Operators would rather have the ability to selectively direct traffic to specific set of services instead of

forcing all traffic through every service. This ability would allow an operator to steer video traffic, which is a source of the recent traffic explosion, away from expensive services such as deep packet inspection, thus reducing the need for investing in new service appliances.

Id., 1:28-38. Petitioner’s expert, Dr. Min, agreed that avoiding expensive services such as deep packet inspection was a goal of Lefebvre. *See, e.g.*, EX2011 [Min Dep. Tr.], 143:7-14 (“Q So using an SDN to route the flows more intelligently is one of the aims of the Lefebvre patent, right, to avoid having flows go through unnecessary or expensive dedicated appliances unless they have to? [] THE WITNESS: That is one of the descriptions as a goal.”).

A POSITA looking to improve upon Lefebvre would not implement DPI in the system because the traffic steering methods taught by Lefebvre are an alternative to DPI. Ex. 2009 [Gomez Decl.], ¶ 60. Lefebvre explains that the service appliances performing deep packet inspection have a “high cost” that network operators seek to avoid. EX1005 [Lefebvre], 1:30-34. Services such as deep packet inspection “are usually packaged and sold as dedicated appliances (either physical or virtual) and are often expensive.” *Id.*, 1:25-27. Thus, Lefebvre proposes systems and methods for steering particular classes of traffic through

predefined sets of services to avoid high-cost services such as deep packet inspection. EX1005 [Lefebvre], 1:28-38; Ex. 2009 [Gomez Decl.], ¶ 60.

Petitioner argues that incorporating DPI into Lefebvre's controllers would "help reduce the cost and complexity of the separate dedicated service appliances that Lefebvre discloses existed in the prior art." Pet., 24. But Lefebvre is clear that it is trying to steer certain traffic away from services like DPI in order to lower the costs associated with such services. EX1005 [Lefebvre], 1:28-38. In other words, Lefebvre's traffic steering is trying to avoid DPI so operators can avoid the cost associated with DPI, not perform DPI as Petitioner suggests. Lefebvre teaches—contrary to Petitioners' argument—that incorporating DPI into Lefebvre's controllers would make the controllers more expensive and complex. Thus, Petitioners' position would render the alleged invention of Lefebvre meaningless. Ex. 2009 [Gomez Decl.], ¶ 61.

Petitioner similarly argues that "[a] POSITA would recognize Chua's teaching means performing DPI and other services is not an expensive task that requires dedicated appliances." Pet., 26. But Petitioner cites nothing in Chua indicating Chua improves on the expense of DPI or explaining how a POSITA could reduce that expense. Ex. 2009 [Gomez Decl.], ¶ 62. Chua is directed to "techniques related to controlling software defined networks (SDNs)." EX1006

[Chua], 1:45-46. Nothing in Chua indicates DPI is less expensive in Chua than in other networks. Nor does the fact that DPI is implemented in software in Chua make it any less expensive. Lefebvre recognizes the “service appliances” performing functions like DPI can be “either physical or virtual” yet are still expensive. EX1005 [Lefebvre], 1:25-27.

The Petition’s other arguments for adding DPI to Lefebvre’s traffic steering disclosure are generally premised on the purported advantages of DPI. Pet., 24-25. But again, Lefebvre is teaching that DPI’s high cost is a disadvantage to be avoided. EX1005 [Lefebvre], 1:28-38. *See also id.*, 1:34-38 (“This ability would allow an operator to steer video traffic, which is a source of the recent traffic explosion, *away from* expensive services *such as deep packet inspection*, thus reducing the need for investing in new service appliances.”). It would defeat the purpose of Lefebvre to modify Lefebvre and force its traffic steering system and methods to always use DPI. Ex. 2009 [Gomez Decl.], ¶ 64. Accordingly, a POSITA would not combine Lefebvre and Chua to arrive at the claimed invention. Thus, the challenged claims are not unpatentable.

B. Lefebvre-Chua Does Not Teach Or Suggests Claims 4 and 35

Claims 4 and 35 both recite “upon receiving by the network node the ‘probe’ instruction and responsive to the packet satisfying the criterion, the method further

comprising: sending the packet, by the network node, to the controller; responsive to receiving the packet, analyzing the packet, by the controller; sending the packet, by the controller, to the network node; and responsive to receiving the packet, sending the packet, by the network node, to the second entity.” The Petition addresses claims 4 and 35 together. Pet., 43-46.

Arista has not met its burden to show claims 4 and 35 are obvious. As Arista concedes, Lefebvre “does not explicitly disclose a probe instruction.” Pet., 44. Instead, Arista attempts to map the steps of the claimed “probe” instruction to “Chua’s redirect action [that] sends the traffic to another network device for either inspection or to occupy a potential hacker.” Pet., 44.

But there is no evidence of record to suggest that it would have been obvious from Chua to perform the claimed steps of the “probe” instruction beyond the conclusory say-so of Arista’s expert that “a POSITA would have found it obvious that service devices executing DPI would have received similar instructions.” Pet., 45. But this expert testimony is contradicted by Arista’s own admission that “Lefebvre selectively steers traffic away from expensive services, such as DPI.” Pet., 44. Since Lefebvre teaches steering traffic away from DPI, a POSITA would not have found it obvious to steer traffic towards DPI to perform the “probe” instruction. Ex. 2009 [Gomez Decl.], ¶ 67.

Furthermore, Arista's expert cites no evidence to support his conclusion that "a POSITA would have found it obvious that service devices executing DPI would have received similar instructions." This "conclusion" improperly uses unsupported expert testimony to supply a missing claim limitation and should be rejected. *See DSS Tech. Mgmt. Inc. v. Apple Inc.*, 885 F.3d 1367, 1377 (Fed. Cir. 2018) (The Board may not "rel[y] on 'ordinary creativity' 'as a wholesale substitute for reasoned analysis and evidentiary support' 'when dealing with a limitation missing from the prior art references specified'"); *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 851 F.3d 1270, 1274-1275 (Fed. Cir. 2017) (expert may not "fill in missing limitations" by alleging that a person of ordinary skill in the art would envision them).

For these reasons, Arista has not met its burden of showing claims 4 and 35 obvious.

C. Lefebvre-Chua Does Not Teach Or Suggest Claim 10

Claim 10 depends from claim 9 and further requires that the claimed method be "use[d] with an application server that communicates with the controller, wherein the analyzing comprising sending the packet, by the controller, to the application server, and analyzing the packet by the application server."

Arista has not met its burden to show claim 10 obvious. Claim 10 depends from claim 9, and thus requires both “analyzing the packet, by the controller” and further “sending the packet, by the controller, to the application server, and analyzing the packet by the application server.” The structure of claims 9 and 10 requires two steps of analysis: by the controller and then by the application server. But the only “evidence” Arista adduces for the second step of “analyzing the packet by the application server” required by claim 10 in addition to analyzing the packet by the controller is its expert’s say-so that a “POSITA would have understood that packets sent to the appliances or server-based application-aware devices based on DPI would be analyzed, which teaches ‘analyzing the packet by the application server’.” Pet., 49. This again improperly concludes that a claim is obvious based solely on unsupported expert testimony to supply a missing claim limitation and should be rejected. *See DSS Tech. Mgmt*, 885 F.3d at 1377; *Nidec Motor Corp.*, 851 F.3d at 1274-1275.

For these reasons, Arista has not met its burden of showing claim 10 obvious.

D. Lefebvre-Chua Does Not Teach Or Suggest Claim 11

Claim 11 depends from claim 10 and further requires that the “the analyzing [step of claim 10] further compris[es] sending the packet after analyzing by the

application server to the controller, and sending the packet, after receiving from the controller by the network node, to the second entity.” After declaring claim 10 obvious based on nothing but conclusory expert testimony without any supporting evidence, Arista does the same for claim 11: “a POSITA would have understood Chua’s teaching of sending data (e.g., data of the packet flow after the data has been inspected) would also be applicable to scenarios in which the controller sends a packet to a device for further inspection (e.g., in the case of Chua’s controller distributing traffic to an appliance or server-based application-aware device, such as intrusion detection, based on DPI). Pet., 50. This again improperly concludes that a claim is obvious based solely on unsupported expert testimony to supply a missing claim limitation and should be rejected. *See DSS Tech. Mgmt*, 885 F.3d at 1377; *Nidec Motor Corp.*, 851 F.3d at 1274-1275. Arista’s unsupported expert testimony is insufficient to meet its burden to show claim 11 obvious.

V. CONCLUSION

For the reasons set forth above, Petitioner has not met its burden of proving claims 1-54 of the ‘111 Patent are unpatentable by a preponderance of the evidence. The Board should therefore issue a final written decision finding claims 1-54 not unpatentable.

Date: June 18, 2025

Respectfully submitted,

/Stephen McBride/

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

This Patent Owner's Response ("POR") consists of 4,928 words, excluding table of contents, table of authorities, certificate of service, this certificate, or table of exhibits. The POR complies with the type-volume limitation of 14,000 words as mandated in 37 C.F.R. § 42.24. In preparing this certificate, counsel has relied on the word count of the word-processing system used to prepare the paper (Microsoft Word).

Dated: June 18, 2025

/Stephen McBride/
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the following documents were served
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