

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.,
Petitioner

v.

PORTSMOUTH NETWORK CORP.,
Patent Owner

Case No. IPR2024-00506

U.S. Patent No. 8,014,394

PATENT OWNER'S SUR-REPLY

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I. INTRODUCTION

As the Patent Owner Response (Paper 14, “POR”) explained, the Petition failed to demonstrate that the ’394 Patent’s claims are unpatentable at least because (1) a person of ordinary skill in the art (“POSITA”) would not have been motivated to combine Weyman with Li, and (2) even if a POSITA were motivated to combine the references, the combination fails to disclose specific limitations recited in claims 1, 8, 11, and 18.¹ Petitioner’s Reply is filled with unavailing responses to Patent Owner’s (“PO”) arguments that, at base, fail to establish that the challenged claims are invalid. Accordingly, the Board should find the challenged claims valid.

II. GROUND 1 – IT WOULD NOT HAVE BEEN OBVIOUS TO COMBINE WEYMAN AND LI

A. There Is No Motivation to Combine Weyman and Li

Petitioner asserts that Weyman and Li render obvious the challenged claims. POR at 18. But as PO explained, Petitioner failed to establish a motivation to combine Weyman and Li. Petitioner’s Reply fails to cure this deficiency and instead mischaracterizes PO’s arguments, avoids substantively responding to them, and manufactures purported, but non-existent, similarities between Weyman and Li to support Petitioner’s obviousness argument. When the references are viewed in the proper light, Petitioner’s arguments fail.

¹ Ground 2 concerns claims 5 and 15, which depend from Claims 1 and 15 respectively, and fail for the same reasons as Ground 1.

Further, while Petitioner repeatedly attempts to distract the Board from its flawed combination, Petitioner fails to rebut PO's argument that a POSITA would not be motivated to combine Weyman and Li because the combination would use additional bandwidth on the fabric link. Thus, and as discussed further below, Petitioner has failed to establish a motivation to combine Weyman and Li.

1. PO Explained Why Petitioner's Motivations for Combining Weyman and Li Fail

PO spent 10 pages of its POR explaining why Petitioner's motivations for combining Weyman and Li fail. POR at 10-20. In a single sentence, Petitioner attempts to rebut these arguments with the statement that "PO does not directly dispute the specific reasons for combining Weyman and Li." Reply at 2. This is incorrect.

For example, PO explained that a POSITA would not be motivated to combine Li's "channel joining processing unit" into Weyman's distributed router for "port control," to "control the assignment of multicast streams to ports locally," and to "control the workload of Weyman's aggregated links." Petition at 17-23; POR at 17-20. Specifically, PO explained that Petitioner's proposed combination would "require[] increased bandwidth usage on the fabric, which contradicts Weyman's teachings." POR at 17-20.² The Reply does not rebut this point.

² This also rebuts Petitioner's obvious to try argument, which is grounded in the statement that "there was a design or market need to control a port's bandwidth." Petition at 25; POR at 20; *see also* § II.A.4.

Similarly, PO explained that Weyman and Li are different in kind and thus the combination would not yield predictable results. POR at 22. As Petitioner recognizes, Li discloses “each xDSL service port is configured with the maximum number of accessed multicast channels allowable.” POR at 22 (citing Petition at 45). This rebuts the assertion that the combination would yield the predictable result of “limiting the number of multicast streams carried on Weyman’s ports to avoid overloading Weyman’s ports” as Petitioner asserts. Petition at 24. At base, the two references are “different in kind” because Weyman is directed to limiting streams and Li directed to limiting channels. POR at 12. Thus, the combination would lead to unexpected results. *See infra* § II.A.2; *Galderma Laboratories, L.P. v. Tolmar, Inc.*, 737 F.3d 731, 739 (Fed. Cir. 2013) (“Unexpected results that are probative of nonobviousness are those that are different in kind and not merely in degree from the results of the prior art.”). Accordingly, a POSITA would not have been motivated to combine Weyman and Li.

Therefore, contrary to Petitioner’s assertion, PO fully addressed Petitioner’s reasons for why Weyman in combination with Li fails and Petitioner’s Reply fails to meaningfully rebut these arguments.

2. Petitioner Fails to Establish Weyman and Li Are Similar and Thus Obvious to Combine

Petitioner argues that Weyman and Li both operate in a packet switched network. Reply at 2-3. Not so. As Petitioner admits, Weyman operates in a packet

switched network and Li relates to an access device operating on an access network. *See id.* (“Weyman . . . **operates in a packet switched network**” and Li . . . relates to an **access device** that is . . . **coupled to a . . . packet switched network.**”) (emphasis added). In doing so, Petitioner recognizes that the two relate to different networks: Weyman relates to a packet switched network, Li relates to access networks. POR at 12.³

Petitioner also argues that both operate on layer 2 of the OSI model: “Weyman . . . performs operations on layer 2 ethernet” and Li “operates on layer 2.” Reply at 3. But there is no evidence that Li operates on layer 2. Instead, Petitioner cherry picks and twists Li’s disclosures to try to make the two seem more similar. But Li merely states “[a] layer-2 multicast table on a line card” without mentioning operating on ethernet. *Id.* This is consistent with the **access network in Li** being coupled to a packet switched network. As Dr. Olivier explained, Li’s access device operates in layer 1 and can use layer 2 protocols when coupled to a packet switched network, but Li itself does not disclose operating on level 2. *Id.* at 93:1-9.

3. Petitioner’s Reliance on *PACT XPP* Does Not Support A Finding of Obviousness

Petitioner argues that a POSITA would have been motivated to combine

³ Dr. Olivier testified that Li’s access device is coupled to an IP metropolitan area network which is a packet switched network. This is consistent with Li’s access network operating on an access network, not that Li’s network is a packet switched network. Ex. 2001 at ¶¶ 41-43; Ex. 1007, Fig. 1.

Weyman and Li, despite their differences, based on a misplaced reliance on the *PACT XPP* case. *Id.* In *PACT XPP*, the Federal Circuit reversed the “the Board’s rejection of [the petitioner’s] ‘known-technique’ rationale.” *Intel Corp. v. PACT XPP Schweiz AG*, 61 F. 4th 1373, 1379 (Fed. Cir. 2023). The Court explained that “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill . . . [t]his is the so-called ‘known-technique’ rationale.” *Id.* at 1380 (citing *KSR Intern. Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007)). These facts are inapposite to the proposed combination at issue here.

Here, the POR provides substantial evidence that “Weyman and Li relate to two different types of products using two different types of media in two different types of networks.” POR at 13. As explained above, the Reply does not factually rebut this conclusion. Accordingly, Petitioner’s reliance on the *PACT XPP* known-technique rationale is inapposite, as the principles and context of that case are fundamentally distinct from those present here.

Unlike Petitioner’s reliance on *PACT XPP*, the Federal Circuit’s holding in *INVT* is applicable to the facts here and is instructive:

[s]ubstantial evidence supports the Board’s finding that a skilled artisan would not have been motivated to modify [reference 1] to measure average transmission power in accordance with [reference 2]’s teachings. Although [reference 1] and [reference 2] both involve

measuring transmission power, they do so for different reasons, on different time scales, and compare the results to different thresholds.”

Apple Inc. v. INVT SPE LLC, 851 Fed. App’x 200, *202-203 (Fed. Cir. Apr. 13, 2021). Like in *INVT*, “Weyman and Li relate to two different types of products using two different types of media in two different types of networks.” POR at 13. Thus, the Board should find that “[g]iven the disparities, a reasonable fact finder could conclude there was no motivation to combine [Weyman and Li].” *Apple Inc.*, 851 Fed. App’x at *203.

4. Combining Weyman and Li Would Contravene the Teaching of Weyman To Minimize Bandwidth Use On The Fabric Link

In the Petition, Petitioner incorrectly asserted that a POSITA would have been motivated to incorporate Li’s channel joining processing unit in Weyman’s router. Petition at 21. As PO explained, combining Weyman and Li would result in “coordinating the reception of the IGMP report at two different network units **requir[ing] using additional bandwidth on the fabric link**” and thus a POSITA would not be motivated to make the proposed combination. POR at 18 (emphasis added). While the Reply does not expressly state it is responding to that argument,⁴ Petitioner’s response suggests that receiving IGMP messages at all units in

⁴ Petitioner makes two strawman arguments that require no response: 1) “Weyman/Li combination does not require further modification to coordinate the reception of the IGMP report messages at two different networks” and 2) “even if Weyman/LI combination require additional modification . . . nothing in Weyman prohibits distributing the IGMP host reports using the fabric link.” Reply at 5-7.

Weyman's distributed router would not contravene Weyman's teachings to minimize bandwidth use on the fabric link. Reply at 4-7. But Petitioner's argument contradicts a position it previously took and fails to address PO's argument.

In the Petition, Petitioner argued local control, as opposed to global control, of the port's workload is desirable. Petition at 23. Now, Petitioner argues that global control rebuts PO's argument because global control is required for all units in Weyman's distributed router to receive IGMP reports regardless of which unit initially receives the report. Reply at 5. But as the Parties previously explained, global control of the port's workload contravenes Weyman's objective to limit bandwidth use on the fabric link. Petition at 23; POR at 14-15. Thus, Petitioner fails to rebut PO's argument that Weyman in combination with Li contravenes Weyman's teachings to minimize bandwidth use on the fabric link.

B. Petitioner Failed To Demonstrate That Weyman and Li Teach Aggregating Ports By Setting An Upper Limit On A Number Of The Multicast Packet Streams That Are Permitted For Forwarding Over The High Capacity Port as Recited in Claim Limitations 1 and 11

Claim limitations 1 and 11 recite "aggregating ports by setting an upper limit on a number of the multicast packet streams that are permitted for forwarding over the high capacity port." Ex. 1001 at 12:21-23; 14:5-8. PO explained that the Weyman/Li combination fails to teach this limitation. In its Reply, Petitioner proffers four unavailing arguments for why the combination of Weyman and Li

teach claim limitation 1(k).⁵ First, Petitioner incorrectly argues PO's argument is limited to Li in isolation, as opposed to the combination of Weyman and Li. Not so. Second, Petitioner incorrectly argues that PO is making an impermissible bodily incorporation argument. Third, in response to PO's argument that no single channel joining processor receives both a channel joining and channel quit message, Petitioner incorrectly argues that all units in Weyman's distributed router would receive channel joining and channel quit messages. Fourth, Petitioner incorrectly argues that setting a limit on a number of channels meets claim limitation 1(k)'s requirement that a limit must be set on the number of multicast streams.

1. Petitioner's Argument That The POR Maps Li In Isolation To The Claim Limitation Is A Red Herring

In its POR, PO argued that the combination of Weyman and Li fails to "disclose setting an upper limit on a number of the multicast packet streams." Reply at 21. Petitioner responds that the POR maps the claim limitation to Li in isolation. Petitioner is incorrect.

The POR repeatedly explains how the combination of Weyman and Li do not teach this limitation. For example, the POR explains that "[t]he Petition relies on Weyman and Li as allegedly disclosing setting an upper limit on the number of multicast packets streams that are permitted for forwarding over the high-capacity port," and then provides why "[p]etitioner's arguments fail." POR at 20-21.

⁵ The claim 1(k) arguments also apply to claim 11(j).

Accordingly, PO clearly argues that the combination of Weyman and Li fails to disclose this limitation, which stands unrebutted by Petitioner’s argument that PO made an “attack on Li alone.”

2. PO Did Not Argue That Li Cannot Be Bodily Incorporated Into Weyman

Petitioner also incorrectly asserts that PO’s argument that Weyman in view of Li does not disclose limitation 1(k) is based on an unavailing bodily incorporation argument. But PO’s argument is not based on the inability to physically incorporate Li into Weyman, it is based on the fact that “such a modification is inconsistent with [Weyman’s] stated goal.” *Black & Decker, Inc. v. Positec USA, Inc.*, 646 Fed. App’x 1019, 1027 (Fed. Cir. 2016) (reversing the Board’s decision that the claims would be obvious because the proposed modification was inconsistent with the base reference’s stated goal.). PO explained that Weyman’s teachings are incompatible with Li’s channel joining processing unit because no single channel joining processor is guaranteed to receive both channel joining and channel quit messages. POR at 21-22; *See Intel Corp. v. Koninklijke Philips N.V.*, 2024 WL 725243 at *1 (Fed. Cir. Feb. 22, 2024) (“substantial evidence supports the Board’s determination that [reference 1]’s teachings are incompatible with [reference 2]’s and [reference 3]’s multi-bit exchanges.”).⁶ Therefore, PO never argued that Li and Weyman could

⁶ PO also addressed why a POSITA would not have been motivated to combine Weyman and Li above. *See* § II.A.2. A POSITA would further not have found it obvious to implement because, as discussed below, limiting the number of channels

not be physically combined, but rather a POSITA would not have been motivated to combine their teachings to arrive at the claimed invention for the reasons provided here and in the POR.

3. IGMP Messages Received By All Units In Weyman's Distributed Router Fail To Satisfy The Claim Limitation

The Petition argues that “[w]hen a multicast router receives a multicast join request, Weyman/Li’s channel joining processing unit determines whether the number of channels being forwarded at the port or aggregated link is below the maximum number of access channels allowable,” which meets the “setting an upper limit on a number of the multicast packet streams” limitation of claim 1(k). Petition at 45. PO argued that “determination is not possible because no single channel joining processing unit is guaranteed to receive both a channel join and channel quit messages.” POR at 21-22. Petitioner replies that “all units in the distributed router are guaranteed to receive the channel joining and channel quit messages, regardless of which unit receives the messages first.” Reply at 10. But Petitioner’s argument fails to consider that a single channel joining unit—not all units—must receive the channel join and channel quit messages, otherwise global synchronization of the port is necessary. POR at 14-15, 21-22. Indeed, a single channel joining processing unit must receive the channel join and channel quit messages, otherwise the distributed router will not know if the number of channels being forwarded at the port or

is not the same as limiting the number of multicast packet streams. *Infra* § III.B.3.

aggregated link is below the maximum number of access channels allowable. Even if all units in Weyman's distributed router can receive the channel join and quit messages, as Petitioner suggests, there is no guarantee that a single channel joining processing unit receives the channel join and channel quit messages or that separate channel joining processing units coordinate with one another concerning the number of channels being forwarded at the port or aggregated link and thus the limitation is not met. POR at 21-22.

4. Setting An Upper Limit On A Number Of Program Channels Does Not Meet Claim Limitation (1k) Requiring Setting An Upper Limit To The Number Of Multicast Packet Streams

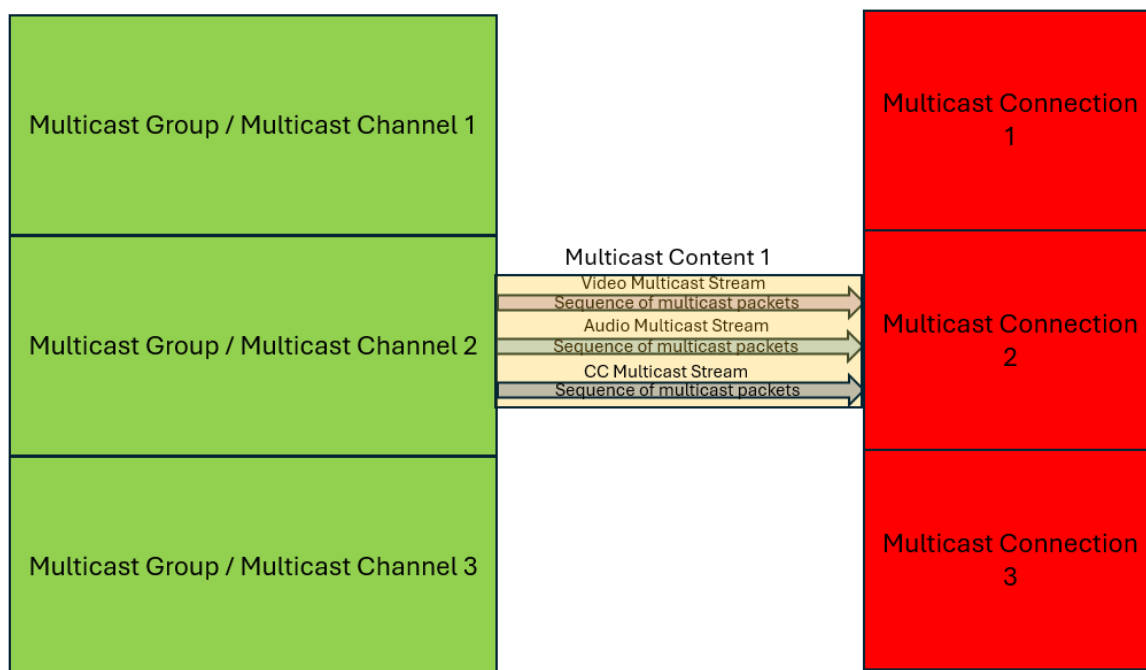
Petitioner and PO also dispute whether setting a limit on the **number of program channels** satisfies the setting an upper limit on a **number of multicast packet streams** limitation of claim 1(k). As explained below, it does not.

a. Setting An Upper Limit On Channels Does Not Necessarily Set An Upper Limit On Multicast Packet Streams

PO argued that the Weyman and Li combination fail to meet claim limitation 1(k)'s "set an upper limit on multicast packet streams" because Li discloses setting the maximum **number of accessed multicast channels** allowable—not multipacket streams as required by claim 1(k). POR at 20-23. Petitioner's Reply asserts that setting a maximum number of channels allowable satisfies claim limitation 1(k)'s requirement of setting a maximum limit on the multipacket streams. Reply at 12-14. As shown below, Petitioner's argument fails because there is no support for why

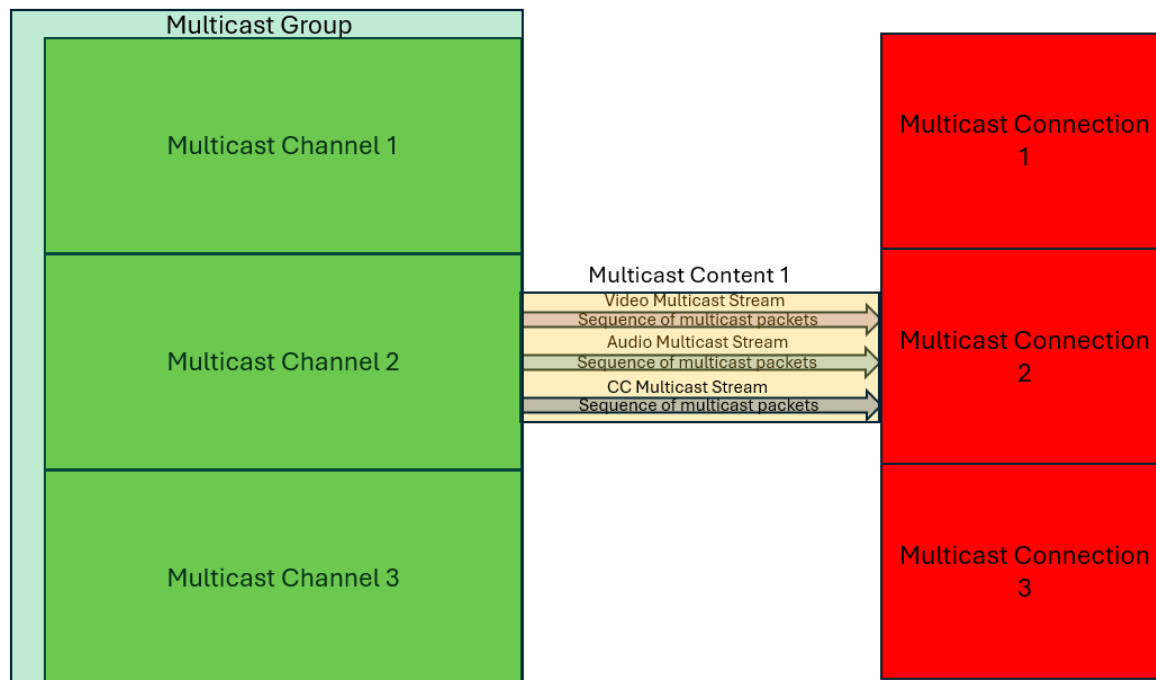
setting a maximum **number of accessed multicast channels** satisfies claim limitations requiring setting a maximum number of **multipacket streams**.

Petitioner's conclusion is based on the following: 1) the assumption that "Weyman teaches that **multicast stream** is associated with a **multicast group**" (Reply at 12), 2) Dr. Olivier's testimony that "a **multicast group** identifies the **multicast connection** that transmits a **sequence of multicast packets**" (Reply at 12; Ex. 1033, 28:14-20), and 3) "**channel**" is synonymous with "**multicast group**," which is the position PO took in the POPR (Reply at 13). As to the third point, the Board viewed the facts differently and in the institution decision found that "**multicast group**" is a **group of multicast channels**. Paper 8 at 28. Yet, even in view of Petitioner's assumptions, Petitioner's arguments still fail. Petitioner's argument is represented below:



As PO explained (and Petitioner does not appear to dispute) **multicast channels** provide consumers with multicast content (e.g., movies or shows) which consists of **multicast streams** (e.g., audio multicast stream, video multicast stream). POR at 22-23. And as Dr. Olivier explained, “a **multicast group** [synonymous with a **multicast channel**] identifies the **multicast connection** that transmits a **sequence of multicast packets**.” Reply at 12; Ex. 1033, 28:14-20.

If the Board’s view of “multicast group” is used (i.e., “**multicast group**” is a **group of multicast channels**”), an altered representation of Petitioner’s argument is shown below. The only change is that the channels are shown within a group, instead of a multicast channel being synonymous with a multicast group.



Petitioner’s argument still fails because, as shown, limiting the number of **multicast channels (or multicast groups)** does not necessarily limit the number of **multicast streams**. POR at 22-23. For example, even if the **number of multicast channels** are limited, any **number of multicast streams**, consisting of a sequence of multicast packets, can still be sent to the **multicast connection**. Thus, Petitioner’s argument that setting a maximum number of channels per port fails because it does not satisfy the claim limitation’s requirement of setting an upper limit to the number of multicast packet streams.

b. Li Teaches That Channels and Multicast Streams Are Different

In the Reply, Petitioner further argued that “channel” teaches “multicast

streams.”⁷ Reply at 14-15. Petitioner is wrong for the reasons provided above and because Li specifically distinguishes “channels” and programs (i.e., “multicast packet streams”). Ex. 1032 at 20:24-21:5 (discussing “programs” and “channels” separately). Because Li discloses that “channels” are distinguishable from programs (i.e., “multicast packet streams”) Petitioner’s argument fails.⁸

c. The ’531 Patent Contradicts Petitioner’s Attorney Argument

PO relied on the ’531 Patent to support a POSITA understanding that a channel contains at least video and audio multicast streams. POR at 22-23. Although Petitioner admits that the ’531 Patent “can provide evidence,” it also argues that PO’s reliance on the ’531 Patent is misplaced. Reply at 15. But it is Petitioner’s argument that is misplaced, because attorney argument cannot overcome PO’s reliance on the ’531 Patent as evidence. *See, e.g., Cisco Systems, Inc. v. K. Mizra*

⁷ Petitioner appears to repeat the same argument that “channel” teaching “multicast packet stream” supports its argument, but now states that the Board agrees with Petitioner’s characterization of the relationship between “channel” and “multicast packet stream.” Reply at 14-15. Even if true, as shown in § II.B.4.a, setting a limit on the number of channels does not necessarily set a limit on the number of multicast packet streams.

⁸ Petitioner also appears to argue that the ’394 Patent specification teaches multicast packet streams carrying IPTV channels. Reply at 14. But this cuts against Petitioner’s argument that Li discloses the ’394 Patent’s invention. *Compare* Ex. 1001, 5:64-6:3 (“Source 24 may transmit **multicast packet streams** that **carry**, for example, live IP Television (IPTV) **channels**”) *with* Ex. 1032 at 20:24-21:5 (“In practice, **a program** priority is not constant but **associated with** time or region. For example, shopping, cooking, and entertainment **channels** are popular in daytime”).

LLC, 2024 WL 3841809, at *9 (Fed. Cir. 2024); *Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017).

Petitioner then argues that the '531 Patent does not support PO's position that channels have multiple streams. Reply at 15. This conclusion is based on a misleading partial quote taken out of context that says "single multicast video stream." *Id.* at 16 (citing Ex. 2005 6:18-25). But the full quote, makes clear that the '531 Patent is not limited to single multicast video streams:

Although the exemplary illustration refers only to a single multicast video stream, it should be appreciated by those skilled in the art that the **concepts described herein may apply to multiple incoming video streams.**

Ex. 2005 at 6:18-22. Thus, Petitioner's conclusion that "nothing in the '531 Patent suggests that 'channels typically have multiple streams'" is contrary to the express language of the '531 Patent. *Id.*; Reply at 16.

For the reasons provided above, Petitioner failed to meet its burden of showing that the Weyman/Li combination teaches limitation [1k].⁹

III. GROUND 2 - PETITIONER FAILED TO DEMONSTRATE THAT WEYMAN IN VIEW OF LI AND ROOHOLAMINI RENDER OBVIOUS CLAIMS 5 AND 15

Claims 5 and 15 depend on claims 1 and 11, respectively. Petitioner fails to meet its burden of showing that the combination of Weyman in view of Li and

⁹ Petitioner failed to meet its burden of showing that the Weyman/Li combination teaches claim 11, and dependent claims 2, 4, 6, 7, 12, 14, 16, and 17 for the same reasons provided above and in the POR for the same reasons as claim 1.

Rooholamini render obvious claims 5 and 15 for the same reasons PO raised above with respect to Ground 1. *See supra* § II. Petitioner’s response for why a POSITA would combine the references suffers from the same flaws as above as Petitioner relies on similar arguments to what it raised for Ground 1.

Petitioner also fails to show that the combination meets the “updating the list in each of the at least two processing units” limitation of claims 5 and 15. Here Petitioner concludes that “as long as the IGMP messages are shared amongst all units in the distributed router, the port count tables would remain synchronized.” Reply at 18. However as previously explained, a single channel joining processing unit must be guaranteed to receive the IGMP messages. *See generally* § II.B.3. This is because the Weyman/Li combination does not teach coordinating IGMP messages received by different channel joining processing units in Weyman’s distributed router. *Id.* To illustrate, if IGMP messages are received at all units in the distributed router, the combination with Rooholamini fails to disclose the “updating the list in each of the at least two processing units” claim limitation without coordination. *Id.*

Because a POSITA would not have been motivated to combine Weyman, Li and Rooholamini, Petitioner fails to meet its burden of showing that the combination satisfies the claim limitation.

IV. GROUND 4 - PETITIONER FAILED TO DEMONSTRATE THAT WEYMAN IN VIEW OF JAIN AND LEMAIRE RENDERS OBVIOUS CLAIMS 8 AND 18

Claims 8 and 18 recite “deactivating the ports to which the new processing

unit is assigned . . . while the ports to which the new processing unit is assigned are deactivated, sending a multicast status request, receiving multicast membership reports sent by multicast clients in response to the multicast status request, constructing the list by the new processing unit based on the received multicast membership reports.” To argue that claims 8 and 18 are invalid as obvious, Petitioner has the burden of showing that at least requests are sent, reports are received, and a list is constructed while a new processing unit’s ports are deactivated. Petitioner fails to meet its burden.

PO explained that Jain teaches deactivating all active ports in a network node while the system software is in an incomplete operational state and thus fails to teach sending requests and receiving reports while the new processing unit’s ports are deactivated. POR at 26. In the Reply, Petitioner argues that Jain teaches deactivating only some of the active ports and proffers two arguments for why only some ports of the new processing unit are deactivated: 1) the Link Down condition shows that Jain does not require deactivating all the active ports; and 2) Jain does not require deactivation of internal ports, like the fabric port disclosed in Weyman. Reply at 23-26. As explained below, both arguments fail because 1) the Link Down condition disclosed in Jain does not deactivate any ports and 2) the plain language of Jain says that all link port interfaces are deactivated, without differentiating between internal and externally connected ports.

Further, in its Petition Petitioner relied on LeMaire's bridge initialization technique to disclose the "constructing the list by the new processing unit based on the received multicast membership reports" limitation of claims 8 and 18. Petition at 73-74. The POR explained that LeMaire's bridge initialization technique fails to disclose the "while the ports to which the new processing unit is assigned are deactivated." POR at 27-28. In the Reply, Petitioner argues that the ports are deactivated in the Weyman/Jain combination and LeMaire teaches transmitting IGMP queries to clients using other units in the distributed router. Reply at 26. As explained below, this fails to rebut PO's arguments.

A. The Link Down Condition Disclosed In Jain Deactivates All Active Ports

Claims 8 and 18 require "while the ports to which the new processing unit is assigned are deactivated, sending a multicast status request, receiving multicast membership reports sent by multicast clients in response to the multicast status request." Petitioner fails to show that Jain discloses a "new processing unit" sending any requests or receiving any reports while "the ports to which the new processing unit is assigned are deactivated." POR at 24-28. Petitioner argues that the "Link Down" condition effectuating at least a portion of the link ports of the network nodes means that only a portion of the link ports of the network nodes are deactivated. Reply at 23. This is incorrect.

Petitioner's argument is grounded in a misapplication of Jain's controlled

boot-up process. Jain explains “[w]hen network node 102A is down for some reason, e.g., catastrophic switch software and/or hardware failure, reset, power down, rebooting, etc., **its link port interfaces are deactivated** or de-energized, including the device-side and network-side interfaces.” Ex. 1010 at [0019] (emphasis added). The plain language of Jain says the link port interfaces are deactivated. There is also no differentiation between internal and externally connected link port interfaces—all link port interfaces are deactivated. Jain goes on to say “[w]hen network node 102A is powered up again (i.e., power-on or system reset condition), **it engages in a controlled boot-up process** thereafter, as will be set forth in detail below, such that its link ports do not exhibit spurious logic conditions” *Id.* Jain’s explanation of the boot-up process is:

when the Ethernet node (such as e.g., network node 102A described above in reference to Fig. 1) is put into a system reset or power-up condition, the boot-up process involving initialization and configuration of both hardware and software is commenced (blocks 202 and 204). Upon detecting the reset condition and in response thereto, a **“Link Down” condition is effectuated on at least a portion of the link ports of the network nodes.**

Id. at [0020] (emphasis added).

In its Reply, Petitioner interprets “at least a portion of the link ports” to mean “deactivating a portion of . . . the active ports during the controlled boot-up process.” Reply at 23. But the “Link Down” condition¹⁰ has nothing to do with deactivating

¹⁰ “Link Down condition is sensed by the entities (i.e., devices and nodes) connected

ports because all link ports (externally and internally connected) are already deactivated before the boot-up process. Ex. 1010 at [0019].

Petitioner next argues that Jain's fabric port is an "internal port," the user ports are "externally connected," and that Jain teaches only deactivating externally connected ports. Reply at 24-26. Not so. As explained above, Jain specifically discloses that all link ports (internally and externally connected links) are deactivated before the "boot-up process." Ex. 1010 at [0019]. During the boot-up process, the "Link Down" condition is effectuated on the externally connected link ports. *Id.* at [0020]; *infra* note 10. As explained above, the Link Down condition has nothing to do with deactivating ports and Jain does not support Petitioner's conclusion that the internally connected fabric port of Weyman is activated during the boot-up process. Thus, Jain fails to disclose the "while the ports to which the new processing unit is assigned are deactivated" limitation of claims 8 and 18.

B. Petitioner Fails to Show that LeMaire's Bridge Initialization Technique Operates When Ports Are Deactivated

Claims 8 and 18 require "while the ports to which the new processing unit is assigned are deactivated . . . constructing the list by the new processing unit based on the received multicast membership reports." Petitioner's argument that the ports are deactivated in the Weyman/Jain combination and that LeMaire teaches

to the network node via respective links, network traffic on the links is discontinued." Ex. 1010 at [0020]. Jain describes sensing entities and discontinuing their traffic. There is no discussion of deactivating ports.

transmitting IGMP queries to clients using other units in the distributed router fails because Petitioner relies on LeMaire's bridge initialization technique, which does not satisfy the "while the ports to which the new processing unit is assigned are deactivated" limitation.

In the Petition, Petitioner argues that "the distributed router (e.g., Jain/Weyman combination), uses LeMaire's initialization technique to update its forwarding table while the new unit's user ports are disabled." Petition at 73. To overcome PO's argument that LeMaire's initialization technique only functions when ports are disabled, the Reply ignores this and raises a new argument based on LeMaire's teachings of transmitting IGMP queries to clients using other units in the distributed router. Reply at 26-27.

If Petitioner is arguing that LeMaire's bridge initialization technique can function when user ports are deactivated, Petitioner has failed to meet its burden of showing how LeMaire's teachings support this argument. Further, it is not an impermissible bodily incorporation argument (Reply at 26), rather PO asserts that Petitioner failed to meet its burden of showing that LeMaire teaches a bridge initialization technique that can function when user ports are deactivated. Thus, Petitioner fails to show that LeMaire discloses the **"while the ports . . . are deactivated . . . constructing the list by the new processing unit"** limitations of claims 8 and 18, because LeMaire's bridge initialization technique only operates

when ports of the new processing unit are activated. POR at 27-28.

V. CONCLUSION¹¹

For the reasons stated in POR and above, Petitioner has failed to carry its burden to establish that any of the claims of the '394 Patent are invalid over the prior art. The claims should be upheld as patentable.

Date: May 27, 2025

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¹¹ For claim construction, PO argued Petitioner failed to establish that the prior art combinations render obvious the challenged claims under the constructions proffered in the District Court litigation. POR at 8. Petitioner argues in the Reply that “petitioners are not categorically barred from advancing different claim construction positions in district court and before the Board.” Reply at 30. But, Petitioner must demonstrate that the challenged claims are unpatentable and Petitioners failed to meet this burden under the claim constructions proffered in the District Court.

CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

This Response complies with 37 C.F.R. § 42.24(b)(2). As calculated by the “Word Count” feature of Microsoft Word 2010, it contains 5,448 words, excluding the words contained in the following: Table of Contents, Table of Authorities, List of Exhibits, Certification Under 37 C.F.R. § 42.24(d), and Certificate of Service.

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned hereby certifies service of PATENT OWNER'S SUR-REPLY was served on May 27, 2025 by filing this document through the P-TACTS platform as well as by delivering a copy via the delivery method indicated to the attorneys of record for the Petitioner as follows:

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