

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC.

Petitioner,

v.

PORTSMOUTH NETWORK CORP.,

Patent Owner.

IPR2024-00506

Patent 8,014,394 B2

Record of Oral Hearing

Held: July 23, 2025

Before: ST. JOHN COURTENAY III, JUSTIN T. ARBES, and
CHARLES J. BOUDREAU, *Administrative Patent Judges*.

APPEARANCES:

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The above-entitled matter came on for hearing on July 23, 2025,
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P R O C E E D I N G S

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JUDGE ARBES: Good afternoon, everyone. This is Judge Arbes. And also appearing today are Judge Courtenay and Judge Boudreau. This is the oral hearing in case IPR2024-00506 involving Patent 8,014,394. Can Counsel please state your names for the record? Counsel for Petitioner?

MR. CHO: Good afternoon, Your Honor. My name is Taeg Sang Cho. And I represent the Petitioner, Cisco.

MS. CAPPAERT: Good afternoon, Your Honor.

JUDGE ARBES: And Counsel for --

MS. CAPPAERT: My name is Kate Cappaert. And I represent the Patent Owner, Portsmouth.

JUDGE ARBES: Thank you. Per the Trial Hearing Order in this case, the parties each have 60 minutes of total time to present arguments. The order of presentation will be first, Petitioner will present its case regarding the challenged claims, and may reserve time for rebuttal. Patent Owner then will respond to Petitioner's presentation, and may reserve time for sur-rebuttal. Petitioner then may use any remaining time to respond to Patent Owner's presentation. And finally, Patent Owner may use any of its remaining time for a brief sur-rebuttal, responding to Petitioner's rebuttal arguments only.

A few issues before we begin. We're able to view the parties' demonstratives on our screens. To ensure that the transcript is clear and everyone can follow along, please try to refer to your demonstratives by slide number. And given that this hearing is by video, please keep your

1 microphones muted when you're not speaking. When it's your turn to argue,
2 please speak slowly. And if you hear another voice, please stop so that we
3 do not talk over each other. Any questions from the parties before we
4 begin?

5 MR. CHO: Not from the Petitioner.

6 MS. CAPPAERT: Not from Patent Owner.

7 JUDGE ARBES: Counsel for Petitioner, you may proceed. And
8 would you like to reserve time for rebuttal?

9 MR. CHO: Yes, please. We'd like to reserve 10 minutes. So with
10 that, I will proceed. Thank you, Your Honor. To begin, I'd like to turn to
11 Slide 3 of our demonstratives. Before we dive into the specific disputes
12 between the parties, I'd like to briefly just walk through what the '394 Patent
13 is about so that we are on the same page. The '394 Patent describes a
14 network device that routes the multicast packet streams. It's made up of
15 several processing units, shown in green on the slide. And each one of these
16 units routes multicast packet streams.

17 Now, in this device, the multicast packet streams are formed using
18 what's called an IGMP protocol, Internet Group Management Protocol. And
19 that's the protocol that lets client devices send a join request when they want
20 to start receiving the multicast stream and the leave request when they want
21 to stop receiving the stream.

22 The Patent also mentions that the ports on these processing units
23 can be aggregated to form a high-capacity port, which provides a higher
24 traffic capacity and redundancy. So this is the basic setup of the device in
25 the '394 Patent. And the claims covered some aspects of this device.

26 Slide 4, please. The claims in the '394 Patent fall into two different

1 buckets. The first group are represented by Claim 1, shown on the left, is
2 focused on aggregating ports to form a high-capacity port. It also includes
3 the step of setting an upper limit on how many multicast packet streams can
4 be forwarded through that high-capacity port. There's also a second group
5 of claims represented by Claim 8, shown on the right, which deals with how
6 the claim device handles the newly added processing unit. And Claim 8
7 specifically requires deactivating ports of the newly added unit and then
8 performing initialization on that unit while those ports remain deactivated.

9 Slide 6, please. Petitioner presented seven invalidity grounds
10 demonstrating the older claims are the -- of the '394 Patent are invalid. In
11 the Institution Decision, the Board found that the Petitioner has established a
12 reasonable likelihood to prevail against all the independent claims of both of
13 the claim groups. The record created after the institution further supports
14 invalidity of the claims.

15 Slide 8, please. In the Patent Owner Response, the Patent Owner
16 raises four arguments, three directed to the first group of claims, shown in
17 blue, and one directed to the second group of claims, shown in green. And
18 in the remainder of this hearing, I'll walk through each of those arguments
19 and explain why each of them fails.

20 Slide 9, please. So first, I'd like to explain why it would have been
21 obvious to combine the Weyman and Li references used in Ground 1.

22 Slide 10, please. Before we do that, I guess I will briefly explain
23 the combination of Weyman and Li that we presented in the Petition. The
24 Weyman reference discloses a distributed router that includes individual
25 units, shown in green. And just like the '394 Patent, those units route
26 multicast packet streams locally using a locally stored forwarding table.

1 And the multicast streams here are serviced using the IGMP protocol that we
2 talked about just like the '394 Patent. And Weyman also teaches that the
3 ports on these units can be aggregated to form what it calls an aggregated
4 link, which is just like the '394 Patent's high-capacity port.

5 Slide 11, please. Now, turning to the Li reference, Li is also
6 directed to a multicast router. So for example, the Li discloses an access
7 device 91 that functions as a multicast router. This router is connected to
8 client devices, such as the set top boxes shown at the bottom with the
9 number 92. And the router provides what Li calls, quote, "multicast
10 channels" to those devices. Li explains that these multicast channels are
11 handled using the IGMP protocol, just like the '394 and the Weyman
12 reference. And Li also says that the multicast router 91 can control the
13 bandwidth of its ports.

14 Slide 12, please. So here, I'd like to just quickly touch on how Li
15 performs that port bandwidth control. According to Li, to perform the port
16 bandwidth control, the multicast router can configure a port with, quote, "a
17 maximum number of access to multicast channels allowable," and then use
18 that information to accept or reject request for additional multicast channels
19 on that port. Li performs this bandwidth control using a component called
20 channel joining processing unit 122 in the router, which is shown on the left
21 in red.

22 Slide 13, please. So in the combination we explained that it would
23 have been obvious to combine Weyman and Li so that Li's channel joining
24 processing unit controls the number of multicast streams that are carried on
25 Weyman's ports. This combination is illustrated on the left where each
26 processing unit in Weyman includes the channel joining processing unit in

1 Li, as shown in red. So that way, each unit in Weyman can locally control
2 the bandwidth of its ports.

3 Slide 14, please. In the Patent Owner's Response, the Patent
4 Owner challenges the combination for two main reasons. The first argument
5 is that a POSITA would not have combined the Weyman and Li references
6 because the two references are supposedly different.

7 Slide 15, please. But the Board has already considered this issue at
8 the institution stage. And the Board already made an initial finding that the
9 Weyman and Li relate to similar subject matter.

10 Slide 16, please. And the Patent Owner's Response shouldn't
11 disturb that initial finding. The Patent Owner's argument is based on two
12 alleged distinctions between Weyman and Li. First, they argue that
13 Weyman relates to a packet-switched network while Li relates to access
14 networks. That's the first argument. The second argument is that Weyman
15 discloses operations on layer 2 Ethernet, whereas Li's access devices are not
16 Ethernet-based.

17 Slide 17, please. But as we explained in the Reply, these
18 distinctions don't exist. First of all, like in Weyman, Li also relates to a
19 packet-switched network. On the top left of the slide, we show the system
20 architecture from Li. The multicast router, which is the access device shown
21 in gray, operates within an access network 12. We agree with that. But it
22 also communicates with an IP metropolitan area network 11 in blue, which
23 is a packet-switched network. So Li's not limited to describing an access
24 network, it's clearly relates to -- or related to a packet-switched network as
25 well, just like in Weyman.

26 Second of all, Li also discloses the access device operating on

1 layer 2 Ethernet, just like Weyman's distributed router. As shown on the
2 bottom left, Li teaches that the access device maintains, quote, "layer-2
3 multicast table," which is used for channel forwarding. And then Li also
4 explains, as shown on the right, that the access device conforms to 802.1p,
5 which as we explained in the Reply, is an Ethernet standard operating at
6 layer 2. So these alleged distinctions between Weyman and Li just don't
7 exist.

8 Looking at Patent Owner's demonstratives at Slide 13, it appears
9 that Patent Owner plans to also argue that Weyman and Li are different
10 because Li's access device is directly connected to the users, whereas
11 Weyman's distributed router is unable to directly connect to the users. But
12 Weyman's units can of course connect directly to the users. That is shown in
13 Figure 11 of Weyman, which is also included on our Slide Demonstrative
14 10. So it's not really clear to us on what basis the Patent Owner is making
15 that assertion.

16 Slide 18, please. I just wanted to also quickly point out that even if
17 these distinctions exist, we -- which we obviously disagree, these
18 distinctions are immaterial to the obviousness analysis. Nothing in the
19 record suggests that these distinctions are so severe that it would have been
20 created -- it would have created difficulties for a POSITA to put together the
21 Weyman and Li like pieces of the puzzle, as we explained.

22 Slide 19, please. The second argument raised by the Patent Owner
23 Response is that combining Weyman and Li would have contradicted
24 Weyman's teachings. But that argument is also without merit and here's
25 why.

26 Slide 20, please. Explaining Patent Owner's argument here

1 requires a little bit of a wind up, so please bear with me. As we talked about
2 earlier, Weyman discloses an aggregated link formed by combining multiple
3 ports. The aggregated link is shown in the figure on the left using the dotted
4 ovals.

5 Patent Owner argues that when Weyman's distributed router
6 receives an IGMP message over that aggregated link, the IGMP message
7 may arrive at either unit 10, shown in blue, or unit 20, shown in orange.
8 According to the Patent Owner, that creates a problem because Li's channel
9 joining processing unit needs to receive all IGMP messages. And the
10 combination, as we proposed, supposedly doesn't guarantee that only one of
11 the two units would receive the IGMP message.

12 So the argument goes to make sure that each unit receives an
13 IGMP message -- or all the IGMP messages, the combination would require
14 an additional coordination between the units 10 and unit 20. And Patent
15 Owner argues that this additional coordination requires using the fabric link
16 30, which they claim contradicts Weyman's teaching to minimize the usage
17 of the fabric link.

18 So at a high level, in summary, the Patent Owner's argument is
19 essentially that this combination that we presented, the units have to
20 coordinate receiving IGMP messages over the aggregated link and that
21 additional coordination allegedly requires using the fabric link, and so a
22 POSITA would not have made the combination.

23 Slide 21, please.

24 JUDGE ARBES: Counsel, before you move to the next slide, can
25 I ask a few questions about Figure 6?

26 MR. CHO: Yes, Your Honor.

1 JUDGE ARBES: First of all, why is Patent Owner's view here that
2 a person of ordinary skill in the art, if they were going to put Li's processing
3 unit into Weyman -- would do it in this manner in connection with Figure 6?
4 You rely on Figure 6 for the aggregation of step [j] in Claim 1. And Figure
5 11 does not show aggregation of ports. So why is Patent Owner's view here
6 wrong, that this isn't the way that it would be combined?

7 MR. CHO: So a couple of things, Your Honor. I think the Patent
8 Owner is relying on Figure 6 because in limitation [1k] requires setting a
9 limit on the number of packet streamed over the high-capacity port. And so
10 I think Patent Owner decided to focus -- because later on, the Patent Owner
11 is going to challenge limitation [1k]. And so I think that's why they're
12 focusing on this particular figure. But I agree with you that, you know, if
13 you look at Figure 11, this issue just doesn't arise.

14 But even in this particular scenario that we are talking -- that we're
15 looking at, we can explain that the issue doesn't arise.

16 JUDGE ARBES: Well, Counsel, just to go back, we can't just look
17 at Figure 11, right? I mean, Figure 11 does not have the aggregation that
18 you need for limitation [j].

19 MR. CHO: Correct. That's absolutely correct, Your Honor. And
20 our Petition, in fact, does rely on Figure 6 for the limitation [1j].

21 JUDGE ARBES: So why is it improper for Patent Owner to
22 combine the two references as shown in your Slide 20?

23 MR. CHO: Yup. So I don't think it's necessarily improper for the
24 Patent Owner to show Figure 6 the way that they do. I think, you know, we
25 can work with the configuration that the Patent Owner proposed in the POR.
26 What we take issue, though, is that the explanation that they provided that

1 this configuration somehow requires additional coordination between the
2 units 10 and 20, that statement just isn't -- is wrong. Because as we will -- as
3 we can explain later on, Weyman, that there would -- there is no need for
4 such an additional coordination between the units.

5 JUDGE ARBES: Can you explain why that's the case, why do
6 they not need to coordinate in the scenario that Patent Owner describes
7 where only one of the units is receiving it?

8 MR. CHO: Yup. I think we can do that with respect to Slide 21
9 and 22. So if Your Honor would turn to Slide 21, and we explained this in
10 the Reply as well. But there is actually no need for this additional
11 coordination because Weyman already does that coordination independently
12 of the combination.

13 And so specifically, Weyman explains in paragraph 162 when one
14 unit receives an IGMP message, it will send that same IGMP message to all
15 the other units in the distributed router over the fabric link. That's exactly
16 how Patent Owner's expert explained the operation of Weyman as well.
17 And he was asked during deposition, so when one of the units in the
18 distributed router receives an IGMP host report, the IGMP host report is
19 shared with all the other -- all the units in the distributed router, correct?
20 And his answer was correct.

21 And so if Your Honor would turn to Slide 22, we could --

22 JUDGE ARBES: Counsel, but before we move to that, I'd like to
23 ask about paragraph 162. Just to make sure I understand your position, your
24 position is not that no coordination is necessary, it's that the coordination is
25 disclosed in paragraph 162?

26 MR. CHO: Yes. That's correct, Your Honor. The coordination --

1 JUDGE ARBES: Okay. So there is some communication that
2 needs to go over the fabric link from one to another. But in your view,
3 paragraph 162 has it.

4 MR. CHO: Yeah. Paragraph 162 has it. And it's also described in
5 paragraph 137 through 139 of Weyman as well. It's pretty -- and so the
6 coordination that the Patent Owner is talking about is that when one unit
7 -- for example, going to Slide 22, when one unit, like unit 10 in blue,
8 receives an IGMP host report, that has to also be received by the unit 20,
9 shown at the bottom in orange. So the only coordination that the Patent
10 Owner is talking about is that all the units in the distributed router have to
11 receive the IGMP host report.

12 But that's already disclosed in Weyman. Weyman does that by
13 using its own default behavior. And because of that, there is no need for this
14 additional coordination to make sure that every one of the units received the
15 IGMP messages. To put it another way --

16 JUDGE ARBES: And that communication from one unit to
17 another has to take place over the fabric link, there's no other way that it can
18 communicate, right?

19 MR. CHO: That is correct, Your Honor. But even with that in
20 mind, the Weyman and Li combination doesn't need to use the fabric link
21 any more than how Weyman already uses it. And so a POSITA would have
22 understood that the Weyman and Li combination doesn't need to increase the
23 bandwidth usage of the fabric link. I don't know if that answers your
24 question, Your Honor.

25 JUDGE ARBES: I think so. I'd like to ask about paragraph 162 in
26 particular, because you do seem to rely heavily on that. Paragraph 162, it's

1 the last paragraph of Weyman. What is the relationship between that and all
2 of the earlier disclosure, like the description of Figure 11 that you rely on?
3 This last paragraph does seem to be disclosing something additional. It talks
4 about one possibility or alternatively, but it's not entirely clear to me how
5 that relates to all the earlier disclosure of Weyman. Can you explain that a
6 bit?

7 MR. CHO: Yup. Yes, Your Honor. So paragraph 162 is actually
8 consistent with the embodiment that's disclosed earlier in Weyman. So for
9 example, if Your Honor would turn to paragraph 137 of the Weyman
10 reference, this is Exhibit 1005, it states that in order to join the destination
11 group for the stream, the client would need to send that IGMP host report.
12 And so in the context of the figure that we're looking at, say, the unit 10
13 would receive the IGMP host report.

14 But in paragraph 138, it states that the control plane of the
15 multicast routers in both units -- I'm sorry, before we get to 138, the last
16 sentence of paragraph 137 states that Vbridge 12 in unit 10 would then
17 receive the report and forward it to unit -- to the router 31, which is on the
18 other unit, unit 20. And paragraph 138 states that the control plane of the
19 multicast routers in both units would use the report in the construction of the
20 respective forwarding table in the router. And so paragraph 138 is talking
21 about synchronizing or coordinating the update of the forwarding table in
22 each of the units in the router.

23 And so respectfully, Your Honor, paragraph 162 of Weyman is
24 talking about how you would sort of synchronize the forwarding tables in
25 each of the units. And it's consistent with the specific embodiment that's just
26 described in paragraph 137 and 138. And so I don't think --

1 JUDGE ARBES: And how does that mesh with Weyman's
2 disclosure that you want to minimize bandwidth usage on the fabric link?

3 MR. CHO: Yup. It meshes because -- for two reasons, Your
4 Honor. One, the additional implementation of Li's techniques on Weyman
5 doesn't add any bandwidth to the fabric link. Weyman is already teaching
6 that you do that. And so Weyman -- after considering it's a device that you
7 need to minimize the bandwidth usage over the fabric link, Weyman decided
8 that even with that in mind, you still need to coordinate, and this is the way
9 we're going to do it.

10 The combination with Li doesn't increase the bandwidth any more
11 than how Weyman is already using it. And so a POSITA would have
12 thought that the addition of the Li's techniques onto the Weyman's teachings
13 is completely consistent because Li can leverage the IGMP messages that
14 are already being shared between the units. And so there's nothing
15 inconsistent with the combination.

16 JUDGE ARBES: And that's even the case if we assume, for the
17 sake of argument, that Patent Owner's drawing on Slide 20 is the right one to
18 use, that argument still applies?

19 MR. CHO: That's correct, Your Honor. Because the only
20 coordination that Patent Owner is talking about is the distribution of the
21 IGMP host reports to all the units. And Weyman is doing that by default.

22 JUDGE COURTENAY: Mr. Ho, this is -- Mr. Cho, I'm sorry, is
23 that -- did I get your name correct, Mr. Cho?

24 MR. CHO: Yes, Your Honor.

25 JUDGE COURTENAY: My apologies. Isn't it true that
26 paragraphs 159 through 162 in Weyman are just describing generically this

1 IGMP protocol?

2 MR. CHO: So --

3 JUDGE COURTENAY: This Internet Group Management
4 Protocol, which I -- in all these, it appears to be in Li and also in the '394
5 Patent, all -- Weyman, Li, and the '394 Patent all seem to disclose this IGMP
6 protocol. Is that your understanding?

7 MR. CHO: So let me tease that up a little -- let me tease that out a
8 little bit. So you're -- I agree with you that the '394 Patent, the Li reference
9 and the Weyman reference, all talk about using the IGMP protocol. And
10 that's a standard protocol that all these references use. So I agree with that.

11 With respect to paragraph 159 through 162, my understanding of
12 those -- that paragraph is that it's an introduction of the IGMP protocol, but
13 also the application of the IGMP protocol in the context of the Weyman
14 reference or the architecture that's described in Weyman where the
15 distributed router includes multiple units, but the distributed router has to be
16 seen as a unique single router from the outside world.

17 And so how would you implement that? And the way you
18 implement that is by making sure that the IGMP reports are shared amongst
19 all the units that are in the distributed router. And that is specifically taught
20 in paragraph 162.

21 JUDGE COURTENAY: Mr. Cho, is that how you connect the
22 dots? I mean, I thought I understood you to say that the embodiments in
23 paragraphs 137 and 138 of Weyman was the same embodiment in paragraph
24 162, which seems to just be a generic description of IM -- IGMP rather.

25 MR. CHO: So the way I -- so correct. I apologize if I didn't make
26 this clear. I think paragraph 162 is summarizing the operation that is

1 specifically disclosed in paragraph 137 and 138. And the reason why we
2 were relying on paragraph 162 for some of these disclosures is because it
3 clearly shows that the IGMP reports are shared amongst all the units in the
4 distributed router.

5 And the -- I think the paragraph 162 is just sort of describing the
6 application of the IGMP protocol in the context of the architecture and in the
7 Weyman reference. And specifically, the sharing of the IGMP reports
8 amongst the unit within the distributed router, that I don't think is part of the
9 IGMP protocol as a standard. And so that will be something that is in
10 addition to what is generally known as the IGMP protocol standard. Did I
11 answer your question, Your Honor?

12 JUDGE COURTENAY: I think so. I'm understanding you that
13 the synchronization is teaching or suggesting this aggregation of ports in
14 Claim 1 of the '394 Patent.

15 MR. CHO: So the synchronization is telling us that you can
16 operate these individual units in the distributed router as a single router. So
17 the synchronization is important because from the outside world, you want
18 to make sure that this distributed router works as a single router.

19 The aggregation is a concept that's a little bit different. The
20 aggregation is talking about aggregating the ports, user ports in the unit,
21 such that multiple ports are effectively operating as a single large port. And
22 that is disclosed in the context of link aggregation. I believe that was in the
23 earlier paragraphs, paragraph -- it was 60 something if I remember correctly.
24 I apologize, Your Honor, I can't find it right away.

25 JUDGE COURTENAY: Okay. And within the scope of claim 1,
26 we just need two or more ports for this high-capacity port, right?

1 MR. CHO: Oh, that's correct, Your Honor. And that's in -- yes.
2 So unless Your Honors have any further questions, I can move on to the next
3 issue, which relates to limitation [1k].

4 JUDGE ARBES: One more question, Counsel. Can you respond
5 to the Patent Owner's argument in the Sur-reply that this coordination that
6 you're talking about in Weyman allegedly is global control, but in the
7 Petition at page 23, you are arguing that that would not have been desirable,
8 given what Weyman said about minimizing bandwidth usage?

9 MR. CHO: Yes, Your Honor. And so that's on Slide 25. So that's
10 certainly not what the Petitioner argued. Our position is that no coordination
11 -- no further coordination is required at all. There is no global control that's
12 required. But when we were talking about the local -- when we were talking
13 about incorporating the -- Li's channel joining processing unit into individual
14 units in Weyman's router, we were talking about that in the context of
15 operating each of the units sort of like as an independent sub-router within a
16 bigger distributed router.

17 And the synchronization occurs locally because all the units are
18 receiving the IGMP reports, and then locally updating their own forwarding
19 table without communicating further with the other units in the distributed
20 router. So that's what we meant by the local synchronization.

21 Here, we're not arguing that we need a global synchronization,
22 which is I think what Patent Owner is arguing. We're just saying that
23 because Weyman is already teaching us that you can locally synchronize by
24 sharing the IGMP reports across the fabric already, the combination doesn't
25 require any further synchronization in order to synchronize the operation of
26 the channel joining processing units.

1 JUDGE ARBES: I guess maybe there's some disagreement as to
2 what the words local and global mean in that context. I was reading local as
3 referring to a particular unit; and then globally, the distributed router as a
4 whole with many units. Is that the same way you're reading it?

5 MR. CHO: That's exactly the way I'm reading it, Your Honor.
6 And our position is that global control is not necessary at all. And in fact, no
7 additional coordination is necessary for the combination. In the interest of
8 time, I can move on to Slide --

9 JUDGE COURTENAY: Mr. Cho, Judge Courtenay here.

10 MR. CHO: Yes, Your Honor.

11 JUDGE COURTENAY: I just have a brief question.

12 MR. CHO: Yup.

13 JUDGE COURTENAY: Getting back to this aggregation, would
14 that be taught by paragraph 50 maybe, 49 describes aggregated links?

15 MR. CHO: Yes. That's exactly your --

16 JUDGE COURTENAY: So 50 describes the coordination between
17 units so that where the aggregated link has member ports on more than one
18 unit in the fabric, there is coordination between the units and so forth. So is
19 that the aggregation as claimed in your view?

20 MR. CHO: Yes, Your Honor. That's -- yeah, you're right. So
21 paragraph 50 and paragraph 49 are the ones that we actually point to in the
22 Petition. I think there's also paragraph 147 through 148, which is also
23 directed to the aggregated link. And so those will also be pertinent. And
24 then, you know, between the parties, there's no dispute that Weyman
25 actually discloses the high-capacity port that's claimed.

26 JUDGE COURTENAY: Thank you.

1 MR. CHO: Okay. I can move on to Slide 28, please. I can briefly
2 talk about the limitation [1k].

3 So Slide 29, please. So limitation [1k] requires setting an upper
4 limit on a number of the multicast packet streams that are permitted for
5 forwarding over the high-capacity port. We explained in the Petition that the
6 combination of Weyman and Li satisfies the limitation, because in the
7 combination, the Li's channel joining processing unit is used to limit the
8 number of multicast packet streams that are carried on the aggregated link.

9 Slide 30, please. In the Patent Owner Response, Patent Owner
10 argues that the Weyman and Li combination doesn't satisfy limitation [1k].
11 Because as you can see on the left, Li does not describe using the channel
12 joining processing unit with an aggregated link. And also shown on the
13 right, Li does not disclose setting an upper limit on a number of the multicast
14 packet streams.

15 So Patent Owner appears to be saying that the combination fails
16 because Li does not disclose their claim terms at high-capacity port and the
17 multicast packet streams. Slide 31, please.

18 JUDGE BOUDREAU: Mr. Cho, this is Judge Boudreau.

19 MR. CHO: Yes, Your Honor.

20 JUDGE BOUDREAU: Patent Owner also argued, back in the
21 Preliminary Response, that Li's multicast channels are not the same as the
22 multicast packet streams recited in the claims.

23 MR. CHO: Yes. That's absolutely right, Your Honor. We can
24 talk about that a little bit later. But I think the initial step in their analysis
25 was that Li does not disclose the high-capacity port or the multicast packet
26 streams. And it also doesn't disclose setting a limit on the number of the

1 multicast packet streams because Li's channels are different from the
2 multicast packet streams. So those are the positions that were --

3 JUDGE BOUDREAU: And maybe you're going to get to this
4 later, but in the Decision on Institution, we made a preliminary finding that
5 there isn't any difference between channel as used in Li and stream as used
6 in the '394 Patent. But we also included a footnote in that Institution
7 Decision saying that the parties are encouraged to address the interpretation
8 of multicast packet stream.

9 MR. CHO: Yeah.

10 JUDGE BOUDREAU: And I note that neither of the parties did so
11 subsequently in the course of the trial. And my question is whether we need
12 to construe that term.

13 MR. CHO: Yes. So you're absolutely right, Your Honor, that
14 neither party has proposed a construction of the term multicast packet
15 stream. Our view is that Your Honor can resolve this dispute without
16 construing the term. And the reason is that the multicast packet stream, as
17 disclosed in the '394 Patent, is essentially the same thing as what is disclosed
18 in Li's disclosure. And specifically, the Li's channels are essentially the
19 same thing as the multicast packet stream disclosed in the '394 Patent.

20 As I alluded to earlier on in the beginning of the presentation, in
21 the '394 Patent, the multicast packet streams are the flow of data that is
22 established by using an IGMP protocol. And you can -- Your Honors can
23 turn to '394 Patent in, say, column 3, lines 34 through 41. So at a minimum,
24 our view is that whatever the construction is for the multicast packet stream,
25 it has to include the flow of data established using IGMP. And that is
26 exactly what Li's channels are. Li's channels are also established by a user

1 sending an IGMP joining message to request a new channel.

2 So the link in Li's lingo, the flow of data that is established by
3 IGMP is called a channel. And so there's really no daylight between the
4 channel that is established in Li using the IGMP protocol and the multicast
5 packet stream that is established in the '394 Patent using the same IGMP
6 protocol. And so because both are essentially disclosing the same thing, that
7 Your Honor need not or construe the term multicast packet stream.

8 JUDGE ARBES: Counsel, I guess I'm unclear. Your argument is
9 that they're essentially the same, but why does that mean we don't need to
10 construe the term? I mean, both parties proposed claim interpretations in the
11 district court case, right? Are you advocating for your proposed
12 interpretation from the district court case in this proceeding?

13 MR. CHO: So we're -- so yes, Your Honor, the parties are
14 -- parties do dispute the interpretation of the term multicast packet stream in
15 the district court. And we are not advocating for that -- our position that we
16 advanced in the district court. And that the reason is our construction in the
17 district court was actually based on the Patent Owner's representation in the
18 POPR.

19 So in the POPR, Patent Owner appears to have made certain
20 representation about the meaning of the multicast packet stream in the -- and
21 we were just letting the court -- district court know that that's the position
22 that the Patent Owner was advancing in the IPR proceeding. And we were
23 asking the court to look at that and see what the correct construction is.

24 The district court didn't address that issue. And the plaintiff ended
25 up dismissing the case before the district court ruled on that issue, so there's
26 no ruling out there. And so it is actually not our position that that's the

1 correct construction. And in fact, it's the construction that the Patent Owner
2 appears to have made in the IPR proceeding that we're letting the district
3 court know about.

4 JUDGE ARBES: Can I ask about page 14 of your Reply? In the
5 second paragraph, Petitioner says that Li uses the term channel to refer to a
6 sequence of multicast packets that carry a multicast content, such as a TV
7 channel. And then says, that is precisely how the '394 Patent specification
8 uses the term multicast packet stream. Do you believe that that is the
9 appropriate interpretation of the term, a sequence of multicast packets that
10 carry a multicast content such as a TV channel?

11 MR. CHO: So I think it's relevant to understanding what the
12 multicast packet stream is. Because that's an example that is provided in the
13 '394 Patent. But Your Honor need not really construe that term. Because
14 the specific mechanics in which the '394 Patent establishes the multicast
15 packet stream is exactly the same as the mechanics that Li uses to establish
16 the channel. And so our view and our position is that the two are not
17 different at all.

18 JUDGE BOUDREAU: And what are the mechanics of the
19 establishment of those channels?

20 MR. CHO: The IGMP messages, IGMP protocol, Your Honor.
21 Did I answer your question?

22 JUDGE ARBES: Partially. I'm trying to figure out the -- to
23 crystallize the dispute between the parties. It does appear that both parties
24 may agree that a multicast packet stream is simply a sequence of multicast
25 packets that's carrying whatever content it wants. But it is a stream of
26 multicast packets in its simplified -- in its most simplified term -- language.

1 Is that something that you would disagree with?

2 MR. CHO: No. I wouldn't disagree with that characterization,
3 Your Honor.

4 JUDGE COURTENAY: Mr. Cho, this is Judge Courtenay again.
5 I don't see the word "channel" in the '394 Patents Claim 1. I do see it in the
6 specification, for example, column 6, line 1. And your district court
7 proposed construction, I believe I'm looking at page 8 of the Petition, the
8 actual content coming from a multicast source such as a channel or movie,
9 that would be -- correspond to the interpretation, proposed construction of a
10 multicast packet stream. So such as a channel or a movie, it could be
11 anything. I mean, it's not limited to a channel or a movie, it could just be
12 any data.

13 MR. CHO: So yes, Your Honor. So I agree that it can be any data.
14 But because Li is disclosing a specific example that falls under that
15 description, Li's channel, at a minimum, will satisfy the meaning of the
16 multicast packet stream as used in the '394 Patent.

17 JUDGE COURTENAY: Thank you.

18 MR. CHO: Thank you, Your Honor. I think I'd like to move -- so
19 I think that addresses the -- some of the disputes with respect to limitation
20 [1k]. So I can jump over to the dispute relating to Ground 4 if that's okay
21 with Your Honors. So that will be on Slide 44, please. So the dispute
22 related to Ground 4 addresses the second claim group, including Claim 8.

23 Slide 45, please. So Claim 8 is directed to initializing the
24 processing unit that's been added to the distributed router while the ports
25 assigned to that new unit remain deactivated. And the disputed issue here is
26 limitation [8k], which requires deactivating the ports to which the new

1 processing unit is assigned.

2 Slide 46, please. For Claim 8, the Petition presents a combination
3 of Weyman, Jain, and LeMaire. The combination begins with Weyman,
4 which discloses the distributed router with multiple processing units, as we
5 just talked about. And Weyman also teaches that the new unit can be added
6 to the distributed router. And it explains that the new unit should be
7 initialized before it becomes operational. And so a POSITA would have
8 been motivated to look for ways to initialize the new unit. And Jain and
9 LeMaire, the secondary references, teach the different aspects of the
10 initialization processes that can be used together.

11 Slide 47, please. For example, Jain teaches that during
12 initialization, certain ports in the new unit should be deactivated to prevent
13 them from initiating unintended network traffic over the external network.
14 And Jain teaches doing that by issuing a link down condition on those ports,
15 thereby deactivating them during initialization.

16 Slide 48, please. And LeMaire, on the other hand, teaches that the
17 initial configuration of a new unit can be updated by sending IGMP queries
18 to clients and then updating the configuration based on the responses to
19 those IGMP queries.

20 Slide 49, please. As we explained in the Petition, a POSITA
21 would have combined the Weyman, Jain, and LeMaire references to
22 initialize the new unit in the distributed router. And this combination is
23 illustrated on the left. So here, the new unit is shown in orange on the right,
24 and that's been added to the distributed router. And Weyman teaches that.
25 That new unit would have two different types of ports, the user ports at the
26 bottom of the unit and a fabric port at the top of the unit which connects the

1 new unit to the fabric link.

2 And based on Jain's teaching, during initialization, the user ports
3 on the new unit at the bottom are deactivated, as indicated by the blue Xs.
4 And in the meanwhile, LeMaire teaches that the new unit should transmit
5 IGMP queries to the client to initialize the configuration inside the new unit.
6 And because the user ports of that new unit in the Weyman and Jain
7 combination have been deactivated, a POSITA would have used the
8 available ports in the other units to send the IGMP queries. And all of this is
9 described on page 73 of the Petition.

10 And Slide 50, please. And we submit that the Weyman and
11 -- Weyman, Jain, and LeMaire combination meet the limitation [8k] because
12 Jain specifically teaches deactivating the ports using the link down condition
13 on those ports.

14 Slide 51, please. In the Patent Owner Response, the Patent Owner
15 argues that the Weyman, Jain, and LeMaire combination does not satisfy the
16 limitation [8k]. But Patent Owner doesn't identify any specific claim term in
17 limitation [8k] that is missing from the combination. Instead, Patent Owner
18 raises three arguments directly to why a POSITA would not have made the
19 combination, as shown in the Petition. And I'll explain that next.

20 Slide 52, please. The first argument is that the combination is
21 inconsistent with Jain's teachings because it deactivates only the user ports
22 of the new unit. According to the Patent Owner, Jain teaches deactivating
23 all of the active ports in the network node. And in their view, Jain requires
24 deactivating not just the user ports of the new unit but also its fabric port.

25 Slide 53, please. But the Patent Owner's argument doesn't really
26 hold up because the Petitioner's combination rely on what Jain expressly

1 teaches that, quote, "at least a portion of the link ports are deactivated during
2 initialization, not all ports." That language appears expressly in paragraph
3 20 of Jain, which is used in the Petition in the analysis of our limitation [8k]
4 and the combination of Weyman and Jain. So contrary to Patent Owner's
5 claim, Jain doesn't require deactivating all ports and certainly does not
6 require deactivating the fabric port in the new unit.

7 JUDGE ARBES: Counsel, just to make sure I understand your
8 position, are you equating the deactivation of a user port with setting the link
9 down condition at that device?

10 MR. CHO: Yes, Your Honor. And we can demonstrate that that
11 meets the limitation deactivating for two reasons. One is when the link
12 down condition is applied to a port, Jain is clear that the data transmission on
13 that port is discontinued. That is clear from the quote that you see here in
14 paragraph 20. And it is also described in more detail if you were to look at
15 the paragraph 20 of Jain, where it talks about how you would set the link
16 down condition on the port.

17 So if Your Honor were to look at paragraph 20 of Jain, it states that
18 in one implementation, the link down condition may be effectuated by
19 maintaining an appropriate logic level on a particular pin, i.e., TX disable
20 pin. In other words, here TX means transmission or transmit. And so the
21 way that you would issue a link down condition is by issuing a transmit
22 disable state on that port. And so the link - so that port that receives the
23 transmit disable signal will not transmit any data. So there's no transmission
24 of data going out of that port.

25 And there's also discussion that the remote devices that are looked
26 -- will know that this particular pin is link down and so the remote devices

1 will not send any traffic to that particular port. And so that particular port
2 will also not receive any data. And so this is demonstrating that once you
3 apply the link down condition on the port, the data transmission on that port
4 is completely deactivated.

5 And that is consistent with the deposition testimony that Patent
6 Owner's expert has given during the deposition. And I think --

7 JUDGE ARBES: Counsel, can I ask a couple of questions about
8 that? One, looking at paragraph 19, which Patent Owner points us to, that
9 does describe in the first sentence that link port interfaces are deactivated or
10 de-energized. And that takes place before it talks about setting the link
11 down condition and that being sensed by another node.

12 So I think Patent Owner is drawing a distinction between those two
13 things, that deactivation of a port is different than setting the link down
14 condition. Can you respond to that?

15 MR. CHO: Yeah. So our position is that there is no real
16 distinction, to the extent that the -- so there is no construction of the term
17 deactivating that will carve out the application of the link down condition to
18 the -- to not be the deactivating step. And in fact, if Your Honor were to
19 look at the embodiment, in the '394 Patent, that corresponds to deactivating
20 the port, it also talks about applying a state to disable the particular port or
21 the transmission or receiving of data on that particular port. And so there's
22 really no difference between the embodiment as disclosed in the '394 Patent
23 for the deactivating step versus the disclosure in the Jain reference.

24 JUDGE ARBES: Okay. And one last question. The sentence that
25 you point to in paragraph 20, that upon detecting the reset condition and in
26 response thereto, a link down condition is effectuated on at least a portion of

1 the link ports of the network node. That has to occur in conjunction with
2 other nodes sensing it, right? I mean, it's not that -- I guess my question is,
3 is that sentence really disclosing that I am deactivating some ports, or is it
4 really saying that not all of the nodes may sense that link condition?

5 MR. CHO: I see, Your Honor. So if I understand your question
6 correctly, I think what you're indicating is even if the link down condition is
7 applied to the port, the port may still receive data from other devices if that
8 other device -- if those other devices do not sense the link down condition.
9 Is that your --

10 JUDGE ARBES: Yes.

11 MR. CHO: Okay. I don't think that's the right way to look at it,
12 Your Honor, respectfully. Because the -- again, as I said earlier, the link
13 down condition will actually turn off the transmission on that port.

14 And if the section that I pointed to didn't convince you, there's
15 another sentence in paragraph 24 of Jain where it says that during the boot
16 up process, the PHY functionality is maintained in a, quote, "transmit
17 disable transmit disable state on boot up." And so this is indicating that once
18 you put down -- once you apply the link down condition by applying the
19 transmit disable logic level on that port, the PHY functionality is in a
20 transmit disable state. So it's not -- it cannot transmit any data at that point
21 and --

22 JUDGE ARBES: Can it receive data?

23 MR. CHO: And it goes on to say since PHY hardware in reset
24 cannot transmit, the remote site and network site entities detect this
25 condition as a link down condition. And so this is indicating that because
26 that state is communicated with the remote site and network site entities, as

1 interpreted as a link down condition, those other devices will just not send
2 anything. And so it's just disabled at that point.

3 JUDGE ARBES: Prior to that occurring, when I turn transmission
4 off, can it still receive at that point?

5 MR. CHO: I don't believe so, Your Honor.

6 JUDGE ARBES: Because if it could, then it would not truly be
7 deactivated, right?

8 MR. CHO: I agree with that. But paragraph 20 is pretty clear on
9 that issue. When the link down condition is sensed by the entities, i.e.,
10 devices and nodes connected to the network node via the respective links,
11 network traffic on the links is discontinued. I don't think there's any way
12 that you can be clearer than that, to suggest that there's no communication
13 between this -- over that particular port with the remote devices.

14 JUDGE ARBES: But I thought it was when the other node is
15 sensing the link down condition from the node we're talking about, then it is
16 going to stop transmitting, right? It's a step that's taking place on the other
17 node, if I'm reading that correctly.

18 MR. CHO: So I tend to disagree with that reading, Your Honor.
19 Because once the link down condition is applied to the port, the transmission
20 is stopped and for obvious reasons, you don't want to transmit anything that
21 will create spurious traffic. And because the other devices are not sending
22 anything to that particular port, the port is not going to receive anything.

23 I agree with you that the Jain reference doesn't specifically say that
24 it will not receive anything at all. But because nothing is coming in and
25 nothing is going out, it's been deactivated. At least that's the way I'm
26 reading the reference, Your Honor.

1 JUDGE COURTENAY: Mr. Cho, this is Judge Courtenay. I'm
2 just looking at Figure 2, which I believe that's what paragraphs 19 -- well,
3 particularly 20 of Jain describe. And looking at that flowchart, I mean this is
4 really just a boot up process where it could be a reset condition, power up or
5 system reset, as described in Element 202 and Figure 2 of Jain. And it does
6 describe consistent with paragraph 20 in Element 206 of Figure 2 that the
7 network traffic is discontinued on the links.

8 And then it continues with this initialization and configuration
9 process. And then we effectuate a link up, we enable the condition on the
10 nodes link ports in block 212 of Figure 2 of Jain.

11 MR. CHO: Yes, Your Honor. Yeah, I absolutely agree with that,
12 Your Honor. I mean, I guess the block 206 makes it clear that once the link
13 down condition is applied on the link port, that link port is, quote, "disabled"
14 at that point. And so I absolutely agree with that, Your Honor.

15 JUDGE COURTENAY: Speaking for myself, I think I would
16 agree with you on that point, as described in block 206 in Figure 2.

17 JUDGE ARBES: Counsel, I think -- I believe you may be getting
18 into your rebuttal time.

19 MR. CHO: Yup.

20 JUDGE COURTENAY: Yeah, that's correct. You have 51
21 minutes and --

22 MR. CHO: Yes.

23 JUDGE COURTENAY: You can probably see the clock, can't
24 you?

25 MR. CHO: Yes. I'll wrap up very quickly, Your Honor. And I
26 just want to quickly turn to Slides 58 through 60. Because I just wanted to

1 point out a couple of things that Patent Owner had raised in the Sur-reply.
2 The Patent Owner argues that our explanation in the Reply is a new
3 argument. And that the part that the Patent Owner takes issue with is the
4 statement that is a teaching of transmitting IGMP queries to clients using
5 other units in the distributed router. But that's not a new argument. The
6 Petition actually expressly laid that out and the Reply actually quotes that.
7 And that's shown on this particular slide. And the Petition that lays out this
8 combination is on page 73.

9 Slide 59, please. Ironically, though, it is actually the Patent
10 Owner's Sur-reply that includes improper new arguments that I want to
11 quickly point those out. As we explained earlier, the Patent Owner's
12 Response challenged limitation [8k]. In the Sur-reply, the Patent Owner
13 shifted focus to limitation [8l], arguing that the combination fails to teach
14 that limitation instead. And so we wanted to point that out, that's an
15 untimely argument, and that it should be rejected on the procedural ground.

16 And Slide 60, please. And this is the argument that I think, Judge
17 Arbes, you are raising. The argument here is that the link down condition
18 disclosed in Jain doesn't deactivate any port. But this is actually a new
19 argument because it was raised for the first time in the Sur-reply. And in
20 fact, the Patent Owner's Response doesn't even refer to the link down
21 condition at all, even though the Petition clearly referred to it as teaching the
22 deactivation of the ports. And so this argument itself is untimely and should
23 be rejected on that basis.

24 And so with that, Your Honor, unless you have any further
25 questions, I reserve my remaining time for rebuttal, please.

26 JUDGE COURTENAY: Mr. Cho, it looks like you'll have about

1 maybe six and a half minutes for your rebuttal.

2 MR. CHO: Thank you, Your Honor.

3 JUDGE COURTENAY: Okay.

4 MS. CAPPAERT: Good afternoon, Your Honors. I will start off
5 talking about -- I'll go to Slide 5. And I just want to go over the road map
6 for Patent Owner's arguments briefly and focus on some of the limitations
7 that I'll be addressing, starting with Ground 1 and it -- which relates to
8 independent Claims 1 and 11 and then several dependent claims. Primarily,
9 the argument that Patent Owner has raised, and as Petitioner addressed, is
10 that there would have been no motivation for a person of ordinary skill in the
11 art to combine Weyman and Li. And then also, that the cited art fails to
12 teach specific limitations in both Claims 1 and Claim 11 relating to the
13 -- limiting the number of multicast packet streams.

14 Ground 2, Dependent Claims 5 and 15, that the proposed
15 combination of Weyman, Li, and Rooholamini failed to disclose the
16 -- updating the list in each of the -- at Li's two processing units based on
17 their respective local copies.

18 Going ahead to Slide 8, I think the other main argument that I will
19 be addressing relates to Claims 8 and 18, which were just being discussed
20 with respect to deactivating the ports to which the new processing unit is
21 assigned.

22 So going ahead to Slide 12, I'll start with a discussion about the
23 motivation to combine Weyman and Li. And looking at Slide 13, I think
24 there are a few key points, the distinctions between Weyman and Li, to talk
25 about. And the first is the different types of networks that Weyman and Li
26 relate to. So Weyman is a packet-switched communications network, Li is

1 related to an access network. I think that the fact that the two are related to
2 different networks is not disputed between the parties.

3 I believe the Petitioner in their papers has also recognized that Li is
4 an access network. And an access network may connect to a packet-
5 switched communications network. But the two are not the same. They
6 serve different purposes. Access networks are your last mile. It's related to
7 actually connecting in your house, your router in your home to your set top
8 boxes, getting the actual content to the user who is watching that content.

9 Packet-switched communication networks are higher level than
10 that. They're layer 2, whereas Li access networks and Li are layer one in the
11 OSI standards. And I think that that difference is important. Because a
12 person of ordinary skill looking at it would recognize that Weyman and Li
13 are directed to two different aspects of network communications, the aspect
14 of actually getting your data to your client, which requires different
15 components, different protocols, different functionality than Weyman is
16 directed to.

17 And it wouldn't be obvious to a person of ordinary skill in the art
18 to take the teachings from an access network and put them into a packet-
19 switched network. And I think that that kind of is a main difference between
20 the two references. And I'll talk a little bit about the discussion and kind of
21 aspects of Petitioner's argument itself that Patent Owner takes issue with.

22 So going to Slide 14, Slide 14 shows a figure from Li. And
23 Petitioner is specifically relying on this figure of Li and the components in
24 Li that are shown from 91 in this figure looking downwards. Whereas
25 Weyman, as I just talked about, Weyman is focused to above what is shown
26 in 91. Again, Petitioner recognizes they're connected, but they are two

1 different networks. And I think that this is important for many reasons, and
2 one of which is just how -- what the -- Li is directed to.

3 So if you look at Slide 15, Li is directed to this channel joining
4 processing unit. And the channel joining processing unit in Li has a number
5 of different functions. One of those functions is limiting channels over an
6 xDSL service port, to make sure they are below a maximum. But limiting
7 channels over an xDSL service port is different than limiting multicast
8 streams. And I'll talk a little bit about that and why there's a difference
9 there.

10 But Li's network, again, is related to this access network, the actual
11 direct to the client. So it's also focused on other issues. It's focused on
12 managing join and quit messages from individual users downstream. It's
13 focused on those more specific user focus, user central aspects of network
14 connectivity and multicast streaming.

15 Weyman, however, is describing a distributed router in a packet-
16 switched network. So distributed routers are different from your access
17 networks, like in your home networks, because they're dealing with more
18 scalability, like the backbones of an ISP network are more the packet-
19 switched networks.

20 And Petitioner, for lack of a better way of saying it, kind of just
21 cherry picks Li's channel joining processing unit because Petitioner likes the
22 fact that it says that it limits the -- or is configured with the maximum
23 number of access to multicast channels allowable and then tries to drop that
24 into Weyman's system and kind of come up with a way that it would work in
25 Weyman's system. And where I would submit, Your Honors, that that is the
26 definition of hindsight analysis.

1 Looking at Slide 16, again, Slide 16 is talking about the different
2 aspects that the channel joining processing unit in Li is focused on in. And
3 again, some of those are receiving the multicast quitting and joining
4 messages from the different set top boxes.

5 Going ahead to Slide 19, so Slide 19 is just showing a Figure 6 of
6 Weyman, which Your Honor just discussed with Petitioner, and showing the
7 two different units that Petitioner asserts would be modified units, unit 10
8 and unit 20.

9 And then if you go to Slide 20, it actually shows the proposed
10 combination as set forth by Petitioner. Now, as Petitioner was discussing
11 with Your Honors, the main issue with the proposed combination and one of
12 the reasons that a person of ordinary skill wouldn't be motivated to make it,
13 relates to the fact that Weyman is related to aggregated ports and has lagged
14 ports. So you wouldn't know when a message was coming from Switch 91,
15 whether it was going to go to unit 10 or unit 20.

16 But Li's channel joining processing unit requires having this
17 knowledge that that's part of knowing what specific ports are being
18 impacted. And so you would need to be able to update it in -- if it -- if the
19 switch sends it to unit 10. For example, if you look at Slide 21, I think that
20 this shows it a little bit better. But if you look at Slide 21, the switch could
21 send the message to unit 10 or could send the message to unit 20. And
22 depending on which unit and which port actually needs it, it may be required
23 that there be communication and synchronization that occurs between the
24 two different units.

25 Now, I think what's important and kind of going to some of the
26 points that Petitioner made, and I think Petitioner -- and I'm going to try to

1 find Petitioner's slide on this point that's specifically talking about paragraph
2 162 in Weyman. I think Petitioner looks at paragraph 162 in Weyman and
3 points to it as establishing why the IGMP messages and why Weyman
4 would purportedly be sending messages over the fabric link and says, well, it
5 wouldn't be going out of the way in Weyman to do this coordination.

6 And respectfully, Patent Owner submits that that's just not the
7 case. If you look at paragraph 162 in Weyman, Weyman is not talking about
8 generally sending communications between the different units. Weyman is
9 very specific in paragraph 162. And it's specifically saying that any changes
10 to the multicast distribution tree must be kept synchronized for the units.
11 And then one possibility is to process the IMG report and send updates to
12 the remainder of the units and alternatively the IGMP message could be
13 delivered. And it's not saying that this is always occurring in Weyman, as
14 Petitioner is trying to argue.

15 Similarly, looking at the discussion of fabric ports, in paragraph
16 134 of Weyman, Weyman states that in order to avoid unnecessary usage of
17 the available bandwidth on a fabric link, it is generally preferred that the
18 device should not replicate or route multicast traffic to a fabric port. Thus,
19 all forwarding of multicast traffic to a fabric port needs to be done by
20 bridging.

21 And on paragraph 135, in order to control further the forwarding of
22 multicast traffic so that it only traverses a fabric link if it be necessary to do
23 so, the bridge should only forward multicast traffic to a fabric port if it
24 would be subsequently forwarded to a user port on another unit. So while it
25 is saying that it is a possibility, I would argue that Weyman is discouraging
26 from the use of the fabric ports in the way that Petitioner has proposed

1 combination of Weyman and Li, which would require consistent use of
2 forwarding messages across the fabric ports would result in.

3 Additionally, with respect to bandwidth, I think Weyman is
4 focused on limiting bandwidth. And not only would this additional use of
5 fabric ports increase the bandwidth but so would the fact that Li's channel
6 joining processing unit is not a standalone feature. It comes with other
7 purposes and other functionalities. And implementing those, it wouldn't just
8 be a drag-and-drop situation where you could implement them in Weyman,
9 and a person of ordinary skill would pick and choose. Again, Li is directed
10 to a very different type of network in a very different process than Weyman
11 is directed to.

12 JUDGE ARBES: Counsel, can you respond to Petitioner's
13 argument pointing to paragraph 137 of Weyman that does say Vbridge 22 in
14 device 20 would forward the report to the unit's multicast router and also the
15 fabric port? Vbridge 12 in unit 10 would then receive the report. So that
16 report is received by both units, and it's communicated over the fabric link.
17 How do you respond to that?

18 MS. CAPPAERT: So I think, Your Honor, that that is explaining
19 how the forwarding would occur in an instance where it has to occur. It is
20 providing an example of a way to do it in the system disclosed by Weyman,
21 not saying that it is something that should be done, not saying that that is
22 -- it is something -- if you look at the preceding paragraphs that I just
23 discussed, I think that those are focusing on the fact that this is an exception,
24 not a rule in Weyman, and that Weyman is trying to avoid having traffic on
25 the fabric ports. But if in an extenuating circumstance you need to have
26 traffic, paragraph 137 is explaining how it could happen.

1 JUDGE ARBES: And why is that not sufficient for Petitioner to
2 make its argument? It does not occur all the time, but in certain
3 circumstances it will be necessary. And Weyman acknowledges that you
4 may need to use the fabric link in those circumstances.

5 MS. CAPPAERT: I would submit, Your Honor, that a person
6 -- this goes to the motivation to combine and a person's reasonable
7 expectation of success in making the combination. And I think that a person
8 of ordinary skill looking at Weyman and the fact that Weyman is saying,
9 well, it could work, we really don't think that it would be beneficial, and
10 then looking at Li, which would -- due to the uncertainty of how the lagged
11 messages would be sent would require it to be happening on a more frequent
12 basis. And recognizing the difference in the networks would be -- would not
13 be motivated to combine the two references or would not -- and would not
14 have a reasonable expectation of success in doing so because of the fact that
15 Weyman is discouraging the use of this or is reluctant in discussing the use
16 of it.

17 JUDGE ARBES: But I guess -- what are we to do in a situation
18 like this where it perhaps discourages overall excessive bandwidth usage on
19 the fabric link, but does disclose communication from one unit to the other
20 over the fabric link? So it does disclose, at least in some circumstances, that
21 usage.

22 MS. CAPPAERT: I think that it's taking a look at the proposed
23 combination as a whole and assessing whether or not it's something that is
24 being done in hindsight. So the fact that it can be done doesn't mean that a
25 person of ordinary skill in the art looking at the two references would have
26 been motivated to combine them in order to change Weyman's system.

1 There is no reason why Weyman discloses the need for limiting
2 any sort of channels or multicast streams. So a person of ordinary skill
3 wouldn't be motivated to look to Li in the first place, especially because Li is
4 a different access network. So I think that it's taking a step back from
5 Weyman's disclosures kind of in a vacuum and looking at the entire
6 proposed combination and the scope of both of the references that Petitioner
7 is relying on.

8 Looking as well -- and I think there was some discussion of IGMP
9 messages and whether the fact that all of the '394 Patent, Weyman and Li all
10 discuss IGMP messages, would mean that there would have been a
11 motivation to combine them or that it would work. And again, I think that
12 network communications use a lot of protocols that can be used in different
13 levels of the network. And the fact that you have an IGMP message that can
14 -- is discussed in Weyman and the fact that an IGMP message may be
15 discussed in Li does not mean that the two are similar and does not mean
16 that the two are going to be used in the same way.

17 JUDGE COURTENAY: Ms. Cappaert, did I pronounce your
18 name correctly? I think I butchered it a couple of hearings ago.

19 MS. CAPPAERT: No, you're good. It's Cappaert.

20 JUDGE COURTENAY: Cappaert, is that correct?

21 MS. CAPPAERT: Yes, that is correct.

22 JUDGE COURTENAY: Okay. So I'm sort of focusing on your
23 hindsight argument. And is this a case where maybe you would admit that
24 the Petitioner has shown that an artisan could have made the modification,
25 but the Petitioner has not shown that an artisan would have made the
26 modification? There's case law on that. I'm looking at a particular case

1 here. Would this fact pattern here fit that scenario or not in your view?

2 MS. CAPPAERT: I think that that is closer to what I would
3 submit Petitioner has done. Petitioner has found references that disclose
4 certain aspects of networks and is arguing that while you have different
5 aspects of networks and they may possibly like -- that a Petitioner could try
6 to fit them in, but that's not what the references were directed to, and a
7 person of ordinary skill wouldn't have been motivated to make the
8 combination.

9 So I think -- again, I don't know whether or not -- while it could
10 have potentially be done, let's say for sake of argument -- I don't know that I
11 would necessarily agree to that. But for the sake of argument, if it could
12 have been done, I think that it would have gone against the teachings of
13 Weyman. And a person of ordinary skill would not have been motivated to
14 do so. Because doing so would have caused additional bandwidth issues in
15 Weyman's system and would have negatively impacted the overall system.

16 So again, I think as Your Honor is recognizing, while it is
17 something that maybe, for the sake of argument, could have been done,
18 that's different than a person of ordinary skill being motivated to make the
19 combination.

20 JUDGE COURTENAY: Okay. And you also mentioned to
21 support that, that Li is -- it operates in layer 1 of the OSI model and Weyman
22 operates in layer 2, which is a higher-level packet-switched network. And
23 you described the access network would be like your home network where
24 you connect to your Wi-Fi. And you have various devices or phones or
25 iPads or whatever you connect to your Wi-Fi hotspot in your home. That's
26 the layer 1 access network.

1 And that's the best evidence you have that these are not -- there
2 would be no motivation to actually do it to -- would have make those -- well,
3 as the case law says, merely indicating that a skilled artisan could have made
4 such modifications to arrive at the claimed invention does not establish that
5 a person of ordinary skill would have made such modifications. And the
6 case is Belden versus Berk-Tek LLC, 805 Fed.3d 1064 at 1073 (Fed. Circuit
7 2015). That's what I'm looking at.

8 MS. CAPPAERT: Yes. So with respect to the access switches and
9 the motivation to combine, I think that that is really a key argument. So
10 again, Weyman is focused -- if you look at it, Weyman is focused on talking
11 about aggregation and having lag. And that is not at all what Li is focused
12 on. Li is focused on very direct communications from set top box A, from
13 set top box B, from your iPads, from your phones, from your set top boxes
14 in your actual home network and how -- and the channel processing unit in
15 Li is focused on handling the individual processing of a specific join, a
16 specific quit request from those set top boxes. Whereas Weyman is focused
17 on lag aggregation, which doesn't require that specific one-to-one
18 understanding and instead is focusing on kind of the overall network and
19 minimizing bandwidth usage in your routing network.

20 So I think that, again, the two different networks and how they are
21 implemented and discussed in Li as well as the purposes of kind of how the
22 processing unit in Li is working show that the two are not similar references
23 that a person of ordinary skill would have been motivated to combine. And
24 that the fact that they could have been combined is not sufficient for
25 Petitioner to establish that the Weyman, in view of Li, renders the
26 challenged claims obvious.

1 JUDGE COURTENAY: Thank you. It's a very important point,
2 this hindsight. Because if your argument is successful, I mean Petitioner's
3 grounds that that rely on these two references, Weyman and Li, it's a dead
4 letter, you know. It's a threshold issue. So I just want to make sure that
5 we're considering all aspects of hindsight that you've argued or presented in
6 your brief.

7 MS. CAPPAERT: Yes. Thank you, Your Honor. Additionally, I
8 think a that focus in -- and going on to Slide 27, in addition to not being
9 motivated to combine, I think that even if a person of ordinary skill would
10 have combined Weyman and Li, they failed -- the proposed combination
11 fails to teach the limitations about limiting the number of multicast packet
12 streams.

13 Both Claim 1, as shown on Slide 28, and Claim 29, as shown on
14 Slide -- or Claim 11, as shown on Slide 29, apologies for that, relate
15 -- include limitations about setting an upper limit on the number of multicast
16 packet streams.

17 And looking at Slide 30, Petitioner is pointing for Claim [1k] to the
18 Weyman and Li combination but is pointing to the channel joining
19 processing unit from Li and is arguing that the channel joining processing
20 unit determines whether the number of channels being forwarded at the port
21 or aggregated link is below the maximum number of the access channels
22 allowable.

23 And again, I think that this goes to, if you look at Slide 31, a
24 specific discussion within Weyman and Li and also just your general
25 understanding of the packet streams of what is a channel and what is being
26 limited. So limiting a channel -- I would submit; and Patent Owner submits

1 -- can include multiple multicast packet streams. A channel could include an
2 audio multicast packet stream of video, closed captioning, several different
3 streams.

4 So limiting the number of channels that would be processed
5 doesn't necessarily limit the number of multicast packet streams. You could
6 say 5 channels could be processed, but that could be 5 multicast packet
7 streams, that could be 10 multicast packet streams, that could be 15
8 multicast packet streams. So limiting a channel is not the same as limiting a
9 multicast packet stream is Patent Owner's position with respect to the
10 disclosures in Li.

11 JUDGE BOUDREAU: Ms. Cappaert, this is Judge Boudreau. I
12 believe that Judge Courtenay pointed out to Petitioner's Counsel that the -- I
13 want to make sure I have the patent number right -- '394 Patent itself
14 references channels in several instances, including, I believe at the top of
15 column 6, for instance. Is the usage of the word channel in the '394 Patent
16 different from the usage of channel in Li?

17 MS. CAPPAERT: I think so. I think that, as Judge Courtenay also
18 may have pointed out, a multicast package stream can be many different
19 things. There are a lot of multicast packet streams. And it depends on
20 where you're looking at it as to kind of how you look at the -- what a
21 multicast package streaming entails.

22 The '394 Patent, like Weyman, is directed to the packet-switched
23 network. So a channel could be a multicast packet stream there. But in Li,
24 where you are going to your actual set top box, there are going to be
25 different multicast packet streams. So limiting a channel is not going to be
26 limiting the multicast packet streams.

1 And so limiting the multicast packet streams and channels in Li is
2 not the same discussion as limiting -- or as a channel as discussed in the '394
3 Patent. I think that it is -- also, if you look at that paragraph -- and I will
4 admit, Your Honors, that it is not necessarily the clearest worded paragraph.
5 But the language that it's transmitting multicast packet streams that carry, for
6 example, live IPTV channels, video movies, audio content, et cetera, it's not
7 necessarily equating a channel as a multicast packet stream but recognizing
8 that a channel could include a multicast packet stream.

9 JUDGE ARBES: Counsel --

10 JUDGE BOUDREAU: Which paragraph were you just referring
11 to?

12 MS. CAPPAERT: It's the bottom of column 5, line 66, going to
13 the top of column 6, line 3.

14 JUDGE BOUDREAU: Thank you.

15 JUDGE ARBES: Counsel, going back to the issue of
16 interpretation of the multicast packet stream, on page 14 of the Sur-reply,
17 Patent Owner is making the argument that, for example, even if the number
18 of multicast channels are limited, any number of multicast streams
19 consisting of a sequence of multicast packets can still be sent to the multicast
20 connection. That seems very similar to the language that's used in the Reply
21 at page 14, where Petitioner mentioned the sequence of multicast packets
22 that carry a multicast content.

23 So again, I'm trying to figure out the dispute between the parties.
24 Both parties have at least argued that a sequence of multicast packets is a
25 multicast packet stream. So is that how we should interpret that language?

26 MS. CAPPAERT: I think that a sequence of multicast packets is a

1 multicast packet stream. I actually don't know that the parties necessarily
2 dispute what a multicast packet stream is. I think that the dispute relies more
3 on whether limiting the number of channels in Li is disclosing setting an
4 upper limit of multicast packet streams as it relates to the claim limitation.
5 And we would submit that it does not.

6 JUDGE ARBES: Okay. And you are not advocating, for instance,
7 for the same interpretation of the term that you proposed to the district
8 court?

9 MS. CAPPAERT: I believe that we proposed the plain and
10 ordinary meaning in the district court, Your Honor.

11 JUDGE ARBES: I have the plain and ordinary meaning or a
12 packet stream that can be sent to multiple devices.

13 MS. CAPPAERT: I think that a packet stream that can be sent to
14 multiple devices is similar to what I would submit the plain and ordinary
15 meaning is, which is a stream consisting of many packets that can be sent to
16 multiple devices.

17 JUDGE ARBES: Okay. One more question about Petitioner's
18 specific arguments as to the limitation, if you have Petitioner's slides in front
19 of you or can look at Slide 31. Patent Owner, I believe, had argued the
20 Petitioner was relying on Li for the limitation. And Petitioner, I believe, is
21 arguing that it's really the combination of Weyman and Li. And it pointed to
22 two places in the petition where it alleges to have made that argument, page
23 24 and 45 to 46. What is your view of that? Are we only to look at Li, or is
24 it the combination of Weyman and Li for this limitation?

25 MS. CAPPAERT: I think that with respect to putting an upper
26 limit on it, it is only Li. Weyman does not disclose limiting the number of

1 streams in any way. So Petitioner is relying on Li for that disclosure. While
2 Petitioner may say in the Petition that in the combination there would then
3 be a limit on the multicast streams, it is getting that upper limit on the
4 multicast streams based on Li's disclosure that Patent Owner is saying would
5 be part of that combination that would limit the number of channels or there
6 would be a limit on the channels.

7 So I think it really is focusing on the Li. And I think if you look
8 even on this slide, on Slide 31, the second box says, accordingly, a POSITA
9 would have understood that Li's channel joining processing unit would have
10 provided a predictable result of limiting the number of multicast streams
11 carried on Weyman's ports. So it's really Li's channel joining processing
12 unit that is being relied on by Petitioner for this portion of the claim
13 limitation.

14 JUDGE ARBES: But there are earlier limitations in Claim 1, for
15 instance, limitation [e], [f], and [i], that introduce the multicast packet
16 streams that later appear in limitation [k]. And for those limitations,
17 Petitioner does rely exclusively on Weyman. So when Petitioner is mapping
18 Weyman to the multicast packet streams for those limitations, it has a
19 particular piece of data that it is mapping that to. And presumably, that
20 would have to be the same when you're discussing limitation [k], right?

21 MS. CAPPAERT: I would submit that it would, but I would
22 submit that that, again, goes to our argument with respect to the
23 combination, the combinability, that when you bring in Li, which is talking
24 about channels in a different context than the multicast package streams in
25 Weyman, there -- you have the issue of the combinability of the two
26 references.

1 And I think that limitation [1k] in Li, the limiting the number of
2 multicast package streams, I think as I -- again, that this goes to kind of the
3 hindsight argument that I think is pervasive throughout Petitioner's Petition
4 with respect to kind of taking specific sentences from other references and
5 then trying to backfill them into Weyman. And with this one, it's respect to
6 the channel joining processing unit and Li.

7 JUDGE BOUDREAU: This is Judge Boudreau again. Even if the
8 channels in Li could have multiple streams within them, isn't there a finite
9 number of streams that can be associated with a channel, just based on
10 physical limitations?

11 MS. CAPPAERT: I think, Your Honor, that is correct, that at
12 some point, they will become a physical limitation. But I think that the
13 claim language itself requires that their aggregating ports comprises setting
14 an upper limit. So it's not just that at some point you would reach an upper
15 limit, but there actually has to be this active step of setting one.

16 JUDGE BOUDREAU: But the claims don't specify what that
17 upper limit is in numerical terms. And so as long as it's preset, even if it's a
18 very large number, why isn't that inherently set by the physical limitations
19 on the number of streams that can be within a channel?

20 MS. CAPPAERT: I think, Your Honor, it's looking at the kind of
21 claim as a whole. And I think that a person of ordinary skill would
22 recognize that in this multicast streaming, you would want to have a specific
23 number in order to produce bandwidth and improve efficiency, which is
24 what the '394 Patent as a whole is directed to. So that a person of ordinary
25 skill would be setting some specific limitation and not just having the packet
26 streams go until there was no more physical, like, bandwidth or space left

1 because then the system wouldn't be operating as intended in the claimed
2 invention.

3 JUDGE BOUDREAU: But even in that situation, couldn't you set
4 a specific limit on the number of channels and -- with the recognition that
5 there would be a specific number of streams within the channel?

6 MS. CAPPAERT: I think that you could set a specific limitation
7 or a specific number, but I think that that needs to be disclosed somewhere.
8 And I would argue that Weyman does not disclose that. And a person of
9 ordinary skill would have not been motivated to use the channel joining
10 process of Li in Weyman's system is Patent Owner's argument. And I don't
11 think Petitioner has argued that Weyman, by itself, discloses it.

12 Going ahead, Your Honors, to Ground 2, which relates to
13 dependent Claims 5 and 15. Specifically, with respect to dependent Claims
14 5 and 15, I want to focus on the specific language relating to the fact that
15 they're -- there's an updating the list in each of the processing units. So it's
16 kind of the last limitation of Claim 5, for example, selectively updating the
17 list in each of the at least two processing units based on their respective local
18 copies.

19 For that limitation, if you look at Slide 36, Petitioner is adding in
20 another reference, they're adding in Rooholamini. And I apologize if I'm
21 saying that prior reference incorrectly. But Petitioner is adding in a third
22 reference and arguing that a person of ordinary skill in the art would have
23 understood that it would have been obvious to add it. And this is a portion
24 of the Reply where Petitioner argues that the combination does not require
25 any additional synchronization efforts.

26 Looking at Slide 37, the proposed combination requires -- and I

1 realize that the picture is small -- but that it requires adding in these
2 additional port counter tables or the counting tables in from Rooholamini.
3 But again, this -- Petitioner is failing to look at the entirety of the proposed
4 combination when making this proposed modification.

5 And it's similar to kind of taking a portion of Li and saying, we'll
6 add the channel joining processing unit. Here, Petitioner is taking a portion
7 of Rooholamini and saying, oh, well, they have a port count table. It would
8 have been obvious for a person of ordinary skill in the art to have a port
9 count table. But Petitioner just fails to explain how the proposed
10 combination would work and why a person of ordinary skill would be
11 motivated to do it.

12 Similarly, like, looking at Slide 38, we have the same problem in
13 this proposed combination that we had in the Weyman and Li combination
14 with respect to Weyman has this aggregation system going on in the lags.
15 The IGMP host report could go to unit 10 or it could go to unit 20. And the
16 Claim 5, for example, expressly requires that you are updating the list in
17 each of the at least two processing units based on the local copies. So if the
18 information is only sent to one of the units, again, Weyman discloses that it
19 is discouraged from using your fabric link.

20 So a person of ordinary skill would not be motivated to add these
21 port count tables in for the purpose, as recited in the claims of the '394
22 Patent because it would require additional coordination and synchronization
23 between units 10 and 20 that is not expected or called for in Weyman. So
24 we would submit respectfully, Your Honors, that Petitioner has failed to
25 establish and meet their burden of establishing that the combination of
26 Weyman, Li, and Rooholamini discloses Claims 5 and 15.

1 Going to the last group of claims that I want to discuss today,
2 which are dependent claims, which are Claims 8 and 18. I want to just talk
3 for a minute about the proposed combination of Weyman, Jain, and
4 LeMaire. And again, I think looking at Slide 42, it provides kind of the
5 main arguments that Petitioner kind of just says in its Petition, well, you
6 have this down link, and that would mean that the ports are deactivated.

7 But Jain doesn't actually say -- or Patent Owner's petition or
8 position is that Jain does not actually say that your link down condition is
9 this deactivation. In fact, in paragraph 19, as Judge Arbes has noted earlier,
10 that is what Petitioner is saying where there is a discussion of deactivation.
11 And in paragraph 19 of Jain, the argument is that the link port interfaces are
12 deactivated. So it is not just a portion of the link port interfaces or a portion
13 of just the internal ports versus the externally connected ports or vice versa
14 that are being deactivated. Similarly, even if --

15 JUDGE ARBES: Counsel, can you describe maybe in a little bit
16 more detail how would that occur, in your view, that -- the sentence in
17 paragraph 19 that link port interfaces are deactivated or de-energized, how
18 does that work?

19 MS. CAPPAERT: I think that if your network node is down and
20 so all of the ports go down is what our position would be in Jain. That it's
21 basically saying that every -- all of the ports go down until there's some sort
22 of remote device that brings everything and powers it all back up again.

23 JUDGE ARBES: And then later, when it's talking about setting
24 the link down condition, it talks about the method of doing that is
25 maintaining an appropriate logic level on a particular pin so that you're still
26 able to do that. After you deactivate, then you begin the initialization

1 process, and that takes place, in your view?

2 MS. CAPPAERT: Yes. I think that paragraph 19 and 20 are
3 happening in a sequential order. So it is the entire network unit, 102A or
4 network node A is down, and so all of the ports are deactivated. And then
5 upon reboot, in paragraph 20, it is talking about the flowchart of what would
6 happen on the boot up process in reboot, which it would occur after all of the
7 ports had already been deactivated.

8 JUDGE ARBES: Okay. And if we can take a look at Figure 2, for
9 instance, I want to make sure I understand the parties' positions. There are
10 two separate steps there, step 202 where the node is put into a system reset
11 or power up condition and then step 206 which is effectuating the link down
12 condition. Petitioner seems to be saying that step 206 constitutes
13 deactivating the port. Is it your position that step 202 instead would be
14 deactivating a port?

15 MS. CAPPAERT: I think that 202 is actually happening after the
16 deactivation, respectfully. I think that it's -- the entire system is deactivated,
17 and then 202 happens where it's put into a system reset or power up. So 202
18 is --

19 JUDGE ARBES: Okay. So deactivation of the port takes place
20 before step 202?

21 MS. CAPPAERT: Yes.

22 JUDGE ARBES: Okay. And what's the best -- go ahead.

23 JUDGE BOUDREAU: And so just for notification -- I'm sorry.

24 JUDGE BOUDREAU: I was just going to ask, and so step 206
25 would just be notification of the deactivation condition?

26 MS. CAPPAERT: I think step 206 would be a separate kind of

1 discontinuing so that you would have another -- you would have a de-boot
2 up process, and then during the de-boot up process there would be a link
3 down condition on some of the -- or on the link ports of the network node
4 that would discontinue on those links. And then there would be an
5 initialization and configuration process. So it's part of -- it's describing kind
6 of how the entire reboot process works with linking down some of the ports
7 and then having them come back up.

8 I also think with respect to -- even Jain as it's being disclosed, as
9 Petitioner is relying on it, with respect to paragraph 20, I think it -- or in
10 paragraph 19, it's not saying just some of the ports are going down. And I
11 think that that's the other difference as well. I think that in the -- when it
12 -- when Jain talks about deactivation, it is talking about all of the ports. And
13 I would submit that the link down process is different from the deactivation
14 and that the claim of the '394 Patent requires deactivating the ports.

15 JUDGE ARBES: And can you respond to Petitioner's argument
16 that -- I believe, basically because the node is no longer able to transmit, that
17 that is in some sense constituting deactivating the port that would normally
18 transmit from?

19 MS. CAPPAERT: I understand Petitioner's -- what Petitioner is
20 saying. But I think that Jain is using different wording. I think -- I mean,
21 Jain expressly says that traffic is discontinued. It doesn't say it is the -- it's
22 deactivated. So the link down is not -- if you look at paragraph 20, it says
23 the link down condition is effectuated on at least a portion of the link ports
24 of the network node. When the link down condition is sensed by the
25 entities, i.e., devices and nodes connected to the network node via respective
26 links, network traffic on the links is discontinued.

1 I would argue that in describing link down, Jain is describing it
2 discontinuing, whereas it uses deactivation differently in paragraph 19. It
3 doesn't say in paragraph 19 that the ports are -- or the transmission is
4 discontinued. It says that they are deactivated and then the reboot process
5 occurs. So I think you have to look at how Jain is discussing the actual flow
6 of traffic. And discontinuing is different, I would submit, from deactivating.

7 JUDGE ARBES: And does Jain ever describe why you would set
8 the link down condition on only some ports and not all of them?

9 MS. CAPPAERT: I do not believe so, Your Honor. But I am not
10 100 percent certain of that standing here today.

11 JUDGE ARBES: And the only time that it talks about deactivation
12 is paragraph 19, right?

13 MS. CAPPAERT: Correct.

14 JUDGE ARBES: Okay.

15 MS. CAPPAERT: I think that link down is discussed in the
16 context of connections to the network node. So if there isn't a connection to
17 a network node, then there wouldn't be a link down.

18 And then I just wanted to talk very briefly, Your Honors, about
19 LeMaire and the combination of Jain and LeMaire. And if you look at Slide
20 46, for example, Petitioner is arguing that LeMaire meets the "while the
21 ports to which the new processing unit is assigned are deactivated, sending a
22 multicast status requests." And I would submit, Your Honor, that LeMaire
23 is -- the Petitioner is relying on LeMaire's bridge initialization technique and
24 that there is no evidence supporting that the bridge initialization technique
25 would actually function when the user ports are deactivated.

26 So going ahead to Slide 51, I think, really, Patent Owner's

1 argument is that Petitioner has failed to establish that it would have been
2 obvious to combine the references that Petitioner is relying on in its
3 proposed combinations, that it would not have been obvious to a person of
4 ordinary skill in the art to combine Weyman and Li, that there would not
5 have been any motivation.

6 And that proposed combination, even if a person of ordinary skill
7 was motivated to make it, does not disclose the -- all of the limitations of
8 Claims 1 and 11. That dependent Claims 5 and 15 have not been shown to
9 be obvious in view of the combination of Weyman, Li, and Rooholamini.
10 And that dependent Claims 8 and 18 have not been shown to be obvious in
11 view of Weyman, Jain, and LeMaire. And that in view of those deficiencies
12 in the Petition, that Petitioner has failed to show that all of the challenged
13 claims are rendered obvious.

14 And unless the Board has any additional questions, I would reserve
15 the rest of my time.

16 JUDGE COURTENAY: Okay. Counselor, we're at about 45 and
17 a half minutes. So you have about 15 minutes, I guess, in your surrebuttal.
18 And we're proposing maybe a five-minute short break. Is that agreeable to
19 the parties? We've been at this for about an hour and 45 minutes, I guess.

20 MR. CHO: Yes, Your Honor.

21 JUDGE COURTENAY: Before the rebuttals -- okay.

22 MS. CAPPAERT: Yes, Your Honor.

23 JUDGE COURTENAY: Okay. So we'll be back in five minutes
24 then.

25 MR. CHO: Thank you.

26 (OFF THE RECORD)

1 JUDGE COURTENAY: Okay. Mr. Cho, welcome back. As I
2 recall, you have six and a half minutes for your rebuttal to Patent Owner's
3 arguments. And you can talk about whatever you need to address. But it
4 would be helpful to me to address the hindsight argument that Patent Owner
5 has made.

6 MR. CHO: Yes, Your Honor. Yes. Thank you, Your Honor. So
7 to -- I can start with the hindsight point. There really is no hindsight
8 problem here for combining Weyman and Li because the Petitioner already
9 explained that there is an affirmative motivation to combine the references.

10 In the Petition, we explained that a POSITA would have been
11 motivated to control the bandwidth of the ports to avoid overloading the
12 ports and the units. And contrary to Patent Owner's argument, the POSITA
13 -- you know, going to the use of the fabric link and the sharing of the IGMP
14 messages, contrary to their argument, POSITA would have actually thought
15 that there was an additional motivation to combine because Weyman is
16 teaching you that you can share the IGMP messages.

17 Because if you want to apply these teachings to Weyman, even
18 without making the additional modification, Weyman's units are already
19 sharing or coordinating the receipt of the IGMP messages. So a POSITA
20 would have realized that, oh, the -- because Weyman is already teaching you
21 that IGMP messages are being shared, I can apply Li's teachings directly on
22 top of the Weyman's teachings without making further modification. I think
23 that constitutes an additional motivation to combine, not a hindsight, as the
24 Patent Owner seems to argue.

25 And maybe staying with a little bit longer on the Weyman and Li
26 combination, I just want to emphasize that this is not a situation where the

1 combination requires using the additional bandwidth over the fabric link
2 because Weyman is already using the fabric link for the same purpose. The
3 modification, really, layers on top of the expressed disclosure on Weyman
4 that the IGMP messages are already shared amongst the unit. So the
5 modification doesn't go against the Weyman's disclosure that you should
6 limit the use of the fabric link bandwidth.

7 And, you know, the Patent Owner also appears to argue that
8 paragraph 162 of Weyman does not apply or has little relevance here
9 because the IGMP message is not always shared amongst the units, that it
10 may just be one option but you may not do that all the time.

11 But I agree with Judge Arbes that obviousness doesn't require
12 more. Weyman teaches that the units would at least sometimes, at a
13 minimum -- but I actually dispute that. But assuming that the units would
14 only sometimes share the IGMP messages across the units, if you apply Li's
15 teachings to that specific configuration, you would have reached the
16 configuration in the Petition that meets all the limitations in the claim
17 without implicating the Weyman's teaching of limiting the use of the fabric
18 link. So with that, I think, we've more than enough -- more than established
19 that the combination of Weyman and Li will render Claim 1 obvious.

20 With respect to Claim -- Ground 4, combining Weyman and Jain, I
21 just want to reiterate, that the Patent Owner's argument that Jain's link down
22 condition doesn't deactivate the port. It's a new argument that was presented
23 for the first time in the Sur-reply. So we really haven't had a chance to
24 properly respond to it.

25 But what I can tell you now is that it's a position that Patent
26 Owner's expert does not appear to agree with. The Patent Owner's expert,

1 Dr. Olivier, stated during the deposition that the link down condition in Jain
2 disables the port during the controlled portal process. And this is in Exhibit
3 1033 on page 86, line 22, and it goes on to page 87 and line 14.

4 And I think the specific question and answer that's relevant here is
5 this. Question: So issuing the link down condition on the link port
6 deactivates the link port? Answer: So it disables the link port. That was his
7 testimony. So to the extent that Patent Owner is arguing that disabling a port
8 is different from deactivating the port, that's a claim construction argument
9 that was never presented, and it's also not supported by the '394 Patent.

10 And how do we know that? Because the way that Jain issues the
11 link down condition is actually very similar to how the '394 Patent
12 deactivates the port. And I sort of mentioned this in passing, but I want to
13 fully air this out. As stated in the '394 Patent, in column 9, lines 43 through
14 47, the new unit disables its local port for a certain period of time by setting
15 the admin status of those ports to down. That's very similar to the way that
16 you issue a link down condition on Jain's port by issuing the transmit disable
17 -- a transmit disable state to a particular logic level.

18 And so Jain appears to teach the very similar technique that the 34
19 -- '394 Patent uses to deactivate the port. And so we submit that Jain
20 discloses deactivating the port that's required by the claim. Unless Your
21 Honors have further questions, I rest on the papers.

22 JUDGE ARBES: Counsel, can you explain a bit more why you
23 believe that is an improper new argument made in the Sur-reply? Looking at
24 Patent Owner's Response, particularly at page 25 and subsequent pages,
25 Patent Owner did point to paragraph 19 of Jain and specifically the
26 deactivation that it was referencing there. So why is that an improper

1 argument in Sur-reply?

2 MR. CHO: Because the specific reason as to why the combination
3 doesn't satisfy the limitation was never raised in the POR. So in the Petition,
4 we specifically called out the link down condition as the condition that
5 deactivates the link -- deactivates the port in Jain. In the POR, there is no
6 reference to the link down condition at all. And so to the extent that they are
7 now arguing that the link down condition doesn't deactivate, that I submit as
8 a new argument.

9 JUDGE ARBES: Okay. And can you respond to Patent Owner's
10 position that the deactivation in Jain occurs before step 202 and that
11 everything after is part of that initialization process, including setting the
12 link down condition?

13 MR. CHO: Yes, Your Honor. So two points to make there. One
14 is that I don't think there's any difference between deactivating versus
15 maintaining the deactivation. I think Patent Owner appears to be drawing a
16 distinction between the two. Our position is that if you issue a link down
17 condition on the port, you are maintaining the deactivated state of that
18 particular port such that it doesn't communicate with anyone else on the
19 network. So that's one. The second point is -

20 JUDGE ARBES: Isn't there a difference between taking the active
21 step of deactivating a port and maintaining a deactivation status? Those
22 seem like two different things.

23 MR. CHO: Well, I respectfully disagree, Your Honor. Because
24 without the step of issuing the link down condition on the port, you will be
25 activating the port. You are -- the port itself will be activated. And that's
26 going to cause all the spurious -- all the unintended traffic on the network.

1 By issuing the link down condition, you are keeping that link port
2 deactivated, such that it doesn't communicate with anyone else. And so you
3 are, in fact, deactivating or disabling that particular port.

4 And the second point I wanted to briefly mention is exactly what I
5 said earlier, which is that their expert agreed that the link down condition on
6 the link port deactivates or disables the link port, you know. And I think
7 -- and this subsequently, the other side's experts stated that the -- because
8 -- even though the link down condition is issued after the -- during the boot-
9 up process, this disables the link port during the boot-up process.

10 So to the extent that they are -- the Patent Owner is now arguing
11 that disabling the link port during the boot-up process is any different from
12 deactivating the link port during the boot-up process, we believe that that's a
13 distinction without a real difference. And the Patent Owner's expert doesn't
14 seem to agree with that either.

15 JUDGE COURTENAY: Thank you, Mr. Cho. We're at about
16 eight minutes, but you had to respond to some questions. So Patent Owner
17 --

18 MR. CHO: Thank you, Your Honor.

19 JUDGE COURTENAY: Yes, thank you.

20 MS. CAPPAERT: I'll be very brief, Your Honor. I think, just
21 quickly with respect to Dr. Olivier's testimony, I don't think that Dr. Olivier
22 was agreeing in his response. I believe that he was expressly asked whether
23 the link down deactivates. And he did not say, yes, it deactivates. He
24 responded by answering it differently. So I don't think that we can say that
25 Dr. Olivier agrees that Jain deactivates the port. I actually think that he has
26 taken a different position in that.

1 I think with respect to the other points that Petitioner raised, we
2 would disagree. I think that the -- as I stated in the earlier argument,
3 Weyman, Li, Rooholamini, Jain, they are all different references directed to
4 different aspects. And Petitioner, in its proposed combinations, is using
5 hindsight reconstruction and the claim limitations themselves to attempt to
6 fit together pieces in a way that a person of ordinary skill would not have
7 been motivated to do.

8 And so respectfully, we think that Petitioner has failed to establish
9 that the challenged claims are obvious in view of the grounds raised in its
10 Petition. And unless you have any further questions, I will rest on our
11 briefing.

12 JUDGE ARBES: Counsel, just one more question about Jain.
13 Neither party has offered an interpretation for the claim language
14 deactivating the ports. Presumably, you disagree with Petitioner's position
15 that maintaining a deactivated status meets that limitation. Can you explain
16 your position?

17 MS. CAPPAERT: Sure. I do disagree with that, Your Honor. I
18 think that deactivating is an active step. I think that if you are deactivating
19 something that requires an active step of taking something from active to
20 deactive, so you're doing an actual physical change. Maintaining something
21 that is deactive does not actually require doing any sort of change. It doesn't
22 require that deactivation that I would submit is required by the actual claim
23 limitation itself.

24 JUDGE ARBES: All right. We thank both parties. That
25 concludes the hearing for today. We can go off the record. I'll just ask both
26 parties to stay on the line for a minute in case the court reporter has any

1 questions.

2 MS. CAPPAERT: Of course. Thank you, Your Honor.

3 MR. CHO: Thank you, Your Honor.

4 (Whereupon, the above-entitled matter went off the record at 3:02

5 p.m.)

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