

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

JUNIPER NETWORKS, INC.,
Petitioner,

v.

MONARCH NETWORKING SOLUTIONS, LLC,
Patent Owner

IPR2024-00561
Patent 8,130,775 B2

Record of Oral Hearing
Held: May 12, 2025

Before THU A. DANG, KEVIN TURNER, and NORMAN BEAMER,
Administrative Patent Judges.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

JAMES GLASS, ESQUIRE
Quinn, Emanuel, Urquhart & Sullivan, LLP
295 5TH Avenue, 9TH Floor
New York, NY 10016
(212) 849-7142
jimglass@quinnemanuel.com

ON BEHALF OF THE PATENT OWNER:

WILL COLLIER, ESQUIRE
Heim Payne & Chorush, LLP
609 Main Street
Suite 3200
Houston, TX 77002
(713) 221-2017
wcollier@hpcllp.com

The above-entitled matter came on for hearing on May 12, 2025, commencing at 1:00 p.m., via video teleconference.

P R O C E E D I N G S

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MS. LOTT: We are now beginning the hearing for IP number IPR2024-00561 with Judge Dang as the lead Judge. Judge Dang?

JUDGE DANG: Good afternoon, everyone, and good morning for those on the West Coast. We are here today for oral arguments in IPR2024-00561, challenging Patent Number 8,130,775. Juniper Networks, Inc., is the Petitioner and Monarch Networking Solutions, LLC, is the Patent Owner. Your panel today includes myself, Judge Thu Dang, along with Judge Kevin Turner and Judge Norman Beamer. Okay. Let's start with appearances. Who do we have today for Petitioner?

MR. GLASS: Good afternoon, Your Honors. For Petitioner, James Glass. I'll be arguing today. With me on the line also is backup Counsel, Nima Hefazi.

JUDGE DANG: Okay. So Mr. Glass, you will be presenting?

MR. GLASS: Correct, Your Honor.

JUDGE DANG: And who do we have for Patent Owner?

MR. COLLIER: Good afternoon, Your Honor. For Patent Owner, this is Will Collier with the law firm of Heim, Payne & Chorus. And with me today is lead Counsel, Allan Bullwinkel. And I will be presenting today.

JUDGE DANG: Okay, great. Thank you so much. We would like to thank everyone for joining us today. Before we get started, I have a couple of administrative issues to go over first. I'd like to remind everyone that unless you are speaking, please place yourself on mute. And when speaking, please identify yourself first.

1 We have access to all papers, so we can follow along. So just refer
2 to your demonstratives and exhibits by number, if you can. There will be --
3 there might be an audio delay, so please observe a slight pause before you
4 speak and also, it would be good to prevent crosstalk.

5 I'd also like to ask the parties to remain on line at the end to answer
6 any questions our Court Reporter may have. Please be reminded there is a
7 public line connected today. With that, let's begin. Petitioner, Mr. Glass,
8 you will have 60 minutes. Would you like to save any for rebuttal?

9 MR. GLASS: I would, Your Honor. Optimistically, I'll reserve 20
10 minutes, if that's all right.

11 JUDGE DANG: Okay, great. So, 40 minutes. And please begin
12 any time you're ready and I'll start the clock.

13 MR. GLASS: All right. Let me share my screen. Hopefully you'll
14 be able to see it. Can you see my screen, Your Honors?

15 JUDGE DANG: Yes.

16 MR. GLASS: All right. So I know Your Honors are familiar with
17 the record and the prior art, so I'm going to jump right to Slide 12. I'll jump
18 right into the issues. I'm just going to set the table very briefly on where we
19 are and what the issues are. I'll start with the claim. Just at a high level --
20 I'm not going to walk through all of the limitations -- but as Your Honors are
21 aware, the claims specifically relate to pseudo-wires, specifically to two
22 pseudo-wires that comprise two links and share one of the links.

23 Now, there's not a lot of dispute in this case over much of the claim
24 language in Claims 1 and 6. The dispute really focuses on this phrase that
25 I've highlighted at the bottom of this -- at the bottom of the claim that the
26 first link of each of the pseudo-wires are shared between the two pseudo-

1 wires. There's various flavors of that argument for the different references,
2 but they're pretty much repeated across both grounds. So I'm going to walk
3 through that in a moment.

4 Now, Patent Owner has spent a significant amount of time in their
5 briefs on claim construction. I think ironically, there really is not a ton of
6 dispute here over what the terms mean. I am going to use the agreed to
7 meanings of these terms. The link, for example -- so there -- excuse me --
8 there's two -- really two phrases that have been construed, link and pseudo-
9 wire. Link, and this is from Patent Owner's, I believe, it's their POR at page
10 19, is simply a connection -- I'm sorry -- is a connection between an
11 interface of an input router and an interface of an intermediate router.

12 Patent Owner has argued throughout their briefs that it has to be
13 the same interface, that it has to be a physical link. They've, I believe,
14 backed off from the fact that it has to be a physical link. They say that their
15 arguments don't really revolve around that. We don't agree with them that a
16 interface has to be the same interface, but it ultimately does not matter here
17 because as I'll walk through, that's really just based on the Wainner ground.
18 In Wainner, we identify the same interface, and it actually is a same physical
19 interface between the intermediate and the input router.

20 For pseudo-wire, and again, I'm just setting preliminaries here,
21 pseudo-wire, again, we have an agreed to definition here. This is, again, at
22 page 19 of Patent Owner's briefs. It is simply a type of emulated or virtual
23 connection achieved via encapsulation of packets. That's their definition --
24 or I'm sorry -- it's the agreed to definition. We've applied that to the prior
25 art, and as I'll walk through, both Wainner and Kamite and Bocci disclose
26 that pseudo-wire as laid out in the claims.

1 So setting that aside, I will jump to slide -- actually, I'll start right
2 with the issues. I'll start with Wainner. Now, Wainner is Ground 1. We've
3 applied really two mappings to Wainner. We have started with Wainner
4 alone, that Wainner discloses, on its face, on its own, discloses all of the
5 limitations in Claims 1 and 6. We've also provided an alternative ground to
6 the extent Patent Owner argued that you could not concatenate the various
7 components of Wainner. We've added the teachings of Bocci. I'll get to that
8 next, but I'll start with Wainner alone. And again, just at a high level, I
9 juxtaposed on Slide 52, Figure 2 from Wainner on the left-hand side and
10 Figure 3 from the '775 patent.

11 Now, there's no dispute that Figure 3 of the '775 patent is covered
12 by the claims. As you can see, they're very similar. We have an input
13 router -- I'll just use a pen here -- we have an input router in both figures.
14 It's highlighted in red. Just to get terminology, T-PE1, that's a terminator
15 provider edge. We can call that just an edge router. In this case, it's an input
16 router. We have two on this -- two routers, two edger routers on the '775
17 patent. That's highlighted in yellow.

18 Same thing in Figure 2. And we have an intermediate router, S-
19 PE. That's referred to as a switching provider edge router. We refer to that
20 throughout this case as an intermediate router. They are virtually identical.
21 There's no dispute that each of these elements, 22, 24, 26, and 28, are
22 pseudo-wires. There's also no dispute that pseudo-wire 22 comprises a link
23 between PE1 and PE5. The only material in dispute here is whether
24 Wainner discloses that the link is shared between two pseudo-wires, as
25 required by the claims. Wainner expressly disclosed this.

26 I'm just going to clean this up a little bit because I am going to

1 jump back to it. Now, just jumping ahead to Slide 52. Patent Owner argues
2 that -- I have their argument from their Patent Owner response on Slide 52.
3 This is at the POR at 42. Patent Owner argues that, well, Wainner refers to
4 each of those links as pseudo-wires and each of them are a single pseudo-
5 wire. Because you only have one pseudo-wire between link -- between the
6 input router and the intermediate router, there can be no sharing.

7 This goes -- and one thing you're going to see I'm going to really
8 not get into, Patent Owner laid out in their claim construction these, I think
9 they called it category 1, category 2, and category 3. That's not claim
10 construction. They're attempting to categorize the various prior art. I think
11 they refer to Wainner as a category 2, where it's one pseudo-wire, one link. I
12 may be getting that wrong. But their argument here is that Wainner only
13 discloses a single pseudo-wire that comprises that first link.

14 What they ignore, however, is that as Your Honors -- and Your
15 Honors pointed this out in the institution decision. I believe it was at 26.
16 What Wainner discloses is a multi-point, multi-hop pseudo-wire. So you
17 have multiple hops for single pseudo-wires. And importantly -- this is
18 disclosed at the reply and -- I'm sorry, in our petition and at Wainner at
19 paragraph 20 -- importantly, Wainner expressly states that in its model, it
20 statically binds an upstream pseudo-wire to one or more downstream
21 pseudo-wires.

22 Now, what does that mean? I'll back up. Let me just annotate this
23 figure. I'm back on Figure -- excuse me -- Slide 51. Just looking at Figure
24 2, just to get terminology. Upstream is towards the input side. I'll put a U
25 on that side. It's toward the input router. Downstream is towards the output
26 routers. And what is Wainner saying? Wainner is saying this model binds

1 an upstream pseudo-wire, so it's referring to pseudo-wire 22. It's binding an
2 upstream pseudo-wire with one or more downstream pseudo-wires. And
3 that's exactly what Your Honors focused on in the institution decision. So
4 it's binding this upstream pseudo-wire with one or more downstream
5 pseudo-wires. And that is an expressed disclosure of one or two pseudo-
6 wires that share that same link at 22.

7 Now, our expert confirmed this. This is at Slide 53. Our expert
8 walked through that exact language. Wainner explains, this is at paragraph,
9 I think, 73 of his report -- of his declaration. Wainner explains that it
10 employs a model that statically binds an upstream pseudo-wire to one or
11 more downstream pseudo-wires. In other words, Wainner teaches creating
12 multiple, multi-hop pseudo-wires that share a first upstream pseudo-wire.
13 And that's exactly how Your Honors found in the institution decision. And
14 he goes on to explain exactly what I just walked through, that you combined
15 the input pseudo-wire to one or more of the downstream pseudo-wires
16 connecting the edge routers.

17 He went on to explain this in paragraph 87. I believe he also
18 explained this in paragraph 85. That is an expressed disclosure of Wainner
19 using two pseudo-wires in exactly the same manner as the '775 patent.
20 Please keep in mind, what is the point of the '775 patent? One of the points
21 is that you don't have to repeat the transmission of data to all of these -- to
22 each of these output routers. So you share this first link and that's exactly
23 what Wainner is disclosing by linking -- by binding the upstream pseudo-
24 wire to these downstream pseudo-wires.

25 Now, in response -- in the surreply and in response, Patent Owner,
26 for the most part, completely ignores this language that it statically binds an

1 upstream to a downstream. They repeat their categorization of Wainner as
2 simply a category 2, one pseudo-wire, one link system. They ignore this
3 teaching, and they ignore this express language that Wainner discloses
4 statically binding an upstream to a downstream pseudo-wire.

5 And what do they say, again? They just repeat their analogies to
6 the different categories. They also argue that the claims -- that an
7 intermediate router requires that it must see the two incoming pseudo-wires.
8 This is from their POR 42 through 43. I'm not entirely sure how much
9 they're pressing this argument. I will address it because it is an argument
10 they made.

11 They're arguing that the term "intermediate router" must be
12 construed to see two incoming pseudo-wires. Now, we've addressed in
13 our -- I believe it's our reply -- how that's met by Wainner. I'm not going to
14 walk through that because this is not a requirement of the claims. This is -- I
15 mean, Your Honors know -- are very familiar with Federal Circuit case law.
16 This is from the Phillips decision. This is the cardinal sin of claim
17 construction.

18 We are importing -- or Patent Owners are importing limitations
19 from the specifications into the claim with zero legal analysis. They're
20 arguing that Figure 5 should be read into this notion of what an intermediate
21 router is with no legal analysis, no lexicography, no disavow, no prosecution
22 history disclaimer. They simply say it must be read into the claims. Of
23 course that's incorrect. And to the extent it is required, we point out where
24 in Wainner that is disclosed, but it is objectively not a correct claim
25 construction.

26 I will make one or two more points on this on Slide 63. We also

1 pointed out in our petition and in our reply that the technology in Wainner,
2 which points to multi-point distribution using pseudo-wires was exactly
3 what Petitioner argued infringed in the Cisco litigation. Now, this is not a
4 claim construction argument. It serves really to underscore that the way we
5 are interpreting the prior art and mapping it onto the claim is exactly the way
6 they did. So it's simply additional evidence that our interpretation is correct.

7 And in the Cisco complaint, they argue that Cisco's routers, which
8 implement multitask with point to multi-point traffic engineering using
9 pseudo-wires infringe the claims. That is exactly what Wainner discloses.
10 Point to multi-point using pseudo-wires. It's a point that shares a link
11 between multiple pseudo-wires and distributes it amongst multiple edge
12 routers. That is exactly what they accuse of infringing in the Cisco
13 litigation.

14 Now, they come back in response and they raise two -- really only
15 two points. They say, well, we identified in Cisco -- this is different than
16 Wainner because we identified two pseudo-wires in Cisco. Well, that just
17 repeats the same argument and doesn't address what we've already said
18 about Wainner. We also identified two pseudo-wires using that binding
19 language. And as Your Honors pointed out in the institution decision, that
20 Wainner discloses a multi-point, multi-hop system.

21 They also argued -- and I'm, again, not entirely sure how much
22 emphasis they're placing on this -- that in Cisco's accused system, they
23 pointed out that pseudo-wires share the same link because they connect to
24 the same interface. Well, again, that's also exactly what we showed. I'm
25 reading on the bottom on Slide 63, from our petition at 39, we pointed to
26 Figure 7 for this notion of the interface. Figure 7 is the networking interface

1 that is used by the routers in Wainner. It's a description of the hardware.
2 And Wainner says that the communication interface 214 allows the network
3 device 240 to communicate with external devices or systems.

4 So we pointed to that specific communications interface 214. If
5 you look at -- can you see what I've placed on the screen, Your Honors?
6 Okay, just checking. So if you look at -- this is Wainner, Exhibit 1030 at
7 Figure 7. If you look at what 214 is, that is a communications interface. Not
8 only is it a communications interface, it is the only communications
9 interface used by these routers. So to the extent they're attempting to make a
10 distinction between Cisco and our allegations because we did not identify
11 the same interface, they ignore what we did identify, and again, that's at the
12 petition at page 39.

13 Now, I'm going to move on now to the Bocci basis, but just to
14 pause, again, Wainner alone expressly discloses the claims, expressly
15 explains that you have these pseudo-wires and you want to bind upstream to
16 downstream pseudo-wires. Again, as Your Honors explained in the
17 institution decision, it is a multi-point, multi-hop system. The pseudo-wires
18 share the same first link. Our expert explained what that language meant.
19 For the most part, they've completely ignored that language in their surreply
20 and their response, but even if Wainner is missing language or an
21 explanation of how those pseudo-wires are concatenated and combined
22 together, this is expressly disclosed by Bocci. I'm going to jump now to
23 Slide 7. Just, again --

24 JUDGE BEAMER: Counsel?

25 MR. GLASS: Yes, Your Honor.

26 JUDGE BEAMER: This is Judge Beamer. I'm looking at Claim

1 1. It seems like you're saying that -- you're basically reading Claim 1 to
2 allow for the first pseudo-wire to comprise a first pseudo-wire and a second
3 pseudo-wire, and a second pseudo-wire to comprise a first pseudo-wire and
4 a third pseudo-wire. Is that what we're saying?

5 MR. GLASS: I'm not entirely sure that that's -- to the extent I
6 understand, Your Honor, what we're arguing is that in -- let me bring up the
7 figure. Actually, I'll bring up Wainner. In Wainner Figure 2, the way it sets
8 up, it's -- so Wainner describes each of these -- it states that each of these are
9 separate pseudo-wires -- 22, 24, 26, and 28. And then it explains that you
10 can bind this pseudo-wire to one or more downstream pseudo-wires. And
11 what our expert has explained is that is -- to one of ordinary skill in the art --
12 that is a teaching that you combine them into multiple pseudo-wires that
13 share that first link. I think my screen may have glitched a little bit.

14 So what we're arguing is that we have a first pseudo-wire between
15 the input router, the intermediate router, and one of the edge routers; a
16 second pseudo-wire that uses -- that's bound to this same link, and they
17 share -- both pseudo-wires share that link. Does that answer your question,
18 Your Honor?

19 JUDGE BEAMER: Right. In the claims, the word "link" you are
20 associating with pseudo-wires?

21 MR. GLASS: Well, each of the pseudo-wires comprised links.
22 That's correct.

23 JUDGE BEAMER: And they're comprised of -- the links are
24 pseudo-wires, right? I mean, that's what you're saying.

25 MR. GLASS: So the links -- the pseudo-wires comprise links.
26 The links are connections between the two -- the input router and the

1 intermediate router. Patent Owner argued that they must be physical links.
2 So for example, an ethernet wire. We don't dispute that they could be
3 physical links, but they also could include virtual links, for example, but the
4 difference really is, is a link is the thing that carries the pseudo-wire, if that
5 makes sense.

6 So the claims are not a model of clarity because they do say that
7 the pseudo-wire comprises a first and second link. The link is the thing that
8 connects the two routers and the pseudo-wire is the thing that carries the
9 data, and it sits on top of -- or it sits within the link. Does that answer your
10 question? Did I make that worse or better, Your Honor?

11 JUDGE BEAMER: Well, I understand what you're saying, but I
12 just wanted to make sure I understood that what your position is, is these
13 first, second, and third links are in fact themselves pseudo-wires, which are
14 used to create the pseudo-wires that are explicitly set out in the claim.

15 MR. GLASS: So the pseudo-wires comprise the links. So the
16 links -- again, the links could be the physical wires. They could be a virtual
17 wire connecting the various routers. The pseudo-wire is a virtual connection
18 that is set up that -- the way the claims read, that comprise the links, but they
19 are virtual connections that run through these links. Does that make sense?
20 And that's exactly how Wainner and as we'll get to in a moment Bocci
21 explain it. That these are -- and that's actually how we've all agreed -- that
22 Patent Owner and Petitioners agreed that a pseudo-wire is construed. It's
23 simply a virtual link -- excuse me -- a virtual connection between devices
24 that carries -- encapsulates data.

25 JUDGE BEAMER: Okay. I think the record is clear. I thank you.

26 MR. GLASS: Again, I hope I made that clear and not worse. I'll

1 move on. I believe I was on -- I was jumping to the Bocci reference. Okay.
2 So Bocci -- we included Bocci to the extent Patent Owner raised an
3 argument that Wainner could not -- Wainner's pseudo-wires could not be
4 combined or there was not sufficient information within Wainner on how to
5 combine. Bocci expressly discloses that.

6 Bocci is -- describes an architecture -- again, I know Your Honors
7 are familiar with the technology, but just to set the preliminaries -- Bocci
8 describes an architecture for extending pseudo-wires across multiple packet-
9 switched network segments. More specifically, it teaches expressly
10 combining consecutive segments to form what it calls a multi-segment
11 pseudo-wire.

12 Now, in the Bocci combination -- and none of this is disputed. We
13 have -- the motivation to combine has not been disputed. I'll get to the
14 dispute in a moment, but again, just to set the table, we have argued that one
15 of ordinary skill in the art would start with Wainner, would look at
16 Wainner's discussion of binding an upstream pseudo-wire to a downstream
17 pseudo-wire, and assuming that was insufficient, assuming Patent Owner's
18 arguments are correct that that is insufficient, would turn to Bocci for the
19 teaching of exactly how to do that. And Bocci explains expressly on how to
20 combine multiple segments of pseudo-wires into a single pseudo-wire.

21 Now, what is the issue? Patent Owner has -- as I mentioned,
22 Patent Owner has assumed, for the sake of discussion, that one could
23 combine -- I'll pull the figure up again -- but they have assumed, for sake of
24 discussion, that one could combine the various pseudo-wires in Wainner in
25 the manner that we've set forth. They've labeled this, the first pseudo-wire,
26 MSPW22-24. That's multi-segment pseudo-wire 22-24.

1 What they're arguing -- let me get rid of some of this mess I have
2 on this figure. What they're arguing is that -- well, what they're assuming is
3 that yes, you can create a pseudo-wire that goes from 22 to 24 and they're
4 going to call that MS22-24. They also agree, for purposes of argument, that
5 you could create a pseudo-wire -- a multi-segment pseudo-wire -- called
6 MSWP22-28. That would be this one down here.

7 What they do argue, though -- and this is important -- that you
8 cannot use Bocci. You cannot use Bocci. And they say this in their Patent
9 Owner response, and they say this again in their surreply, because multi-
10 segment pseudo-wires cannot connect to any interface of the intermediate
11 router. That's their position, that a multi-segment pseudo-wire is prohibited
12 by definition from connecting to an intermediate pseudo-wire.

13 Now, there is a lot of discussion in the beginning of their claim
14 construction portion of their briefs on Bocci, but when we get to the
15 argument section, this is their argument, that you cannot connect to any
16 interface or an intermediate router. They double-down on this. I don't have
17 this in the slides. They double-down on this in their surreply. This is at
18 page 4. They say a POSITA would understand that multi-segment pseudo-
19 wires could only connect to an input and output router and did not connect to
20 an intermediate router. And that is their only argument. Their only
21 argument against combining Bocci with Wainner is that you cannot connect
22 to intermediate routers.

23 If we look at -- well, let's look at Bocci for a second. The problem
24 is that's not what Bocci discloses. Bocci discloses the exact opposite. I'm on
25 Bocci -- I brought Bocci on the screen -- Exhibit 1031 at page 6. They rely
26 almost exclusively on this definition of a multi-segment pseudo-wire that I'm

1 highlighting on the screen. For context, a multi-segment pseudo-wire is
2 defined as a static or dynamically configured set, two or more contiguous
3 pseudo-wire segments, that behave and function as a single point to point
4 pseudo-wire. And they focus on this last bit of this statement, that each end
5 of a multi-segment pseudo-wire, by definition, must terminate on a
6 terminating provider edge unless terminating on an edge router.

7 And their argument, again, is that that definition -- I'll bring that
8 back on the screen -- precludes multi-segment pseudo-wires from connecting
9 to any interface of an intermediate wire. But that's not what that statement
10 says. I'm going to explain why, but that's -- all that statement is saying is
11 when you have a multi-segment pseudo-wire, the end points -- the ultimate
12 end points -- must begin and terminate on an edge, on an input router or on
13 an output router. And this is expressly shown -- this is on page 7 of Exhibit
14 1031 -- this is expressly shown in the next section, applicability.

15 Bocci expressly states a multi-segment pseudo-wire is a single
16 pseudo-wire, so it's a single pseudo-wire, and that for technical or
17 administrative reasons, has been segmented into a number of concatenated
18 hops. From the perspective of the edge router, a multi-segment pseudo-wire
19 is indistinguishable from a single segment pseudo-wire. Thus, the following
20 are equivalent from the perspective of the terminating provider edge and
21 from the output routers. Now, this is a ASCII figure, but it's pretty
22 understandable. The top portion of Figure 3 shows a single segment pseudo-
23 wire and that is one segment that connects an input router and edge router to
24 an edge router.

25 As equivalent -- and Bocci is very clear -- we have an equivalence
26 of a multi-segment pseudo-wire. This is -- as I'm highlighting it -- this is the

1 bottom one on Figure 3. And as you can see in this segment -- in this multi-
2 segment pseudo-wire -- it is connecting to an SPE. That is an intermediate
3 router. So Bocci is not, as Patent Owner is arguing, that multi-segment
4 pseudo-wires cannot connect to any interface. It's the exact opposite. Bocci
5 is expressly disclosing that that's exactly what you do with a multi-segment
6 pseudo-wire.

7 The point is that from the perspective of the edge router, it looks
8 like a single segment pseudo-wire, but this multi-hop, multi-point pseudo-
9 wire expressly allows you to connect to SPEs, which again, no dispute, those
10 are intermediate routers.

11 Now, to the extent there's any dispute on that point, that Bocci
12 expressly discloses that you can connect to any interface of an intermediate
13 router, this is expressly disclosed by the '775 patent itself. Now, I'm on
14 Slide 73. Slide 73, I have Figure -- I have on the top, their statement. On
15 the bottom, I have the '775 patent's discussion of Figure 1. There is no
16 dispute here. Figure 1 is the prior art. Figure 1 is Bocci. We've all agreed
17 to that. And as you can see, in this figure, the '775 patent agrees that this
18 multi-segment pseudo-wire is a pseudo-wire. It's labeled at PW1.

19 You can see it has two links. A link going from a terminating edge
20 provider, an input or an edge router, to an intermediate router. So again,
21 they have argued that you cannot connect to any interface. That's exactly
22 what the '775 patent explains. It goes on to explain this in the text. A first
23 link L1 is part of the pseudo-wire P1 is set up between the first router T-PE
24 and an intermediate router SPE of the packet-switch network.

25 So their entire basis on arguing that Bocci cannot be combined
26 with Wainner is that you can't connect to any interface, that is refuted

1 expressly by Bocci itself. It's refuted expressly by their own patent in
2 describing Bocci. Of course you can connect to an intermediate router. That
3 is the entire point of a multi-segment pseudo-wire, that it allows you to have
4 multiple hops and multiple segments. And again, this is exactly what Your
5 Honors found in the institution decision.

6 Now, I'm going to move on, Your Honors, if I may, to the Kamite
7 grounds. And that -- I'll jump to Slide 82. Now, just like with the Wainner
8 grounds, in Ground 2, we relied on Kamite alone. We also relied on Kamite
9 combined with Bocci. I have a bunch of slides walking through the Kamite
10 and Bocci grounds. I'm not going to do it. They raised exactly the same
11 argument. In fact, they brought in for the Kamite alone ground, they argued
12 that Bocci somehow defines what Kamite is doing, and they, again, referred
13 back to their same argument that Kamite -- excuse me -- Bocci expressly
14 prevents and precludes a multi-segment pseudo-wire from connecting to an
15 interface. I'm not going to walk through that. It's the exact same argument.
16 It's wrong for the very same reasons I just went through.

17 Now, with respect to Kamite alone, they start off by
18 misrepresenting -- or miscasting, I should say to be clear -- what Kamite
19 discloses. And they argue that, well, Kamite is just like -- I'll jump to the
20 slide, actually. I'm on Slide 85. They argue that in Petitioner's view, the
21 length between the input router in Kamite and the intermediate router is one
22 pseudo-wire segment. So they're basically saying, they're analogizing
23 Kamite to exactly what Wainner is.

24 Now, Kamite is similar to Wainner in the sense that it is a point to
25 multi-point setup. It is dissimilar to Wainner in that it never refers to the
26 components between the individual routers as individual pseudo-wires. And

1 I'll walk through this in a moment. It expressly discloses that setting up a
2 pseudo-wire -- a single pseudo-wire -- between the input and one of the
3 outputs and another pseudo-wire between the input and one of the other
4 outputs. And we explained this to them on the bottom. In our reply, we said
5 this. Juniper never asserted that it was a component pseudo-wire and that's
6 not supported by Kamite either.

7 I'm going to jump back to Slide 23. Now, in Kamite, we relied on
8 two embodiments, Figure 3 and Figure 10. I'm going to focus, for the most
9 part -- well, I'm going to focus exclusively on Figure 10. It was unclear to
10 us which way they were going to go in their response. I think Figure 10 is
11 the more relevant of the two.

12 Now, specifically, what we focused on in Figure 10 was this
13 multicast tunnel that sets up two pseudo-wires between an input router --
14 multiple input routers and output routers. And I think it's important to walk
15 this through. So Figure 10 is the result of setting up those pseudo-wires.
16 Kamite walks through how those pseudo-wires are set up. Your Honors
17 walked through that. I believe it was at page 32 of the institution decision.
18 And this is all laid out in paragraphs 15 through 17 of Kamite. I'll just walk
19 through the figures. And this again, Your Honors walked through this in the
20 text. It's in paragraphs 15 through 17.

21 What does Kamite disclose? We have an input router. This is at
22 Figure 5 of Kamite. And the input router sends a label request message to
23 an output router. That's PE -- an edge router -- PE11 sub 2. And as part of
24 that request, as part of setting up the pseudo-wire, it says, first off, I have a --
25 this is -- it's setting up a tunnel, which a pseudo-wire is a tunnel. It says, I'm
26 setting up a pseudo-wire type ethernet tag mode. That's a pseudo-wire that's

1 used over ethernet. So this arrow is a request from the input to set up a
2 pseudo-wire with the edge router. It explains in this request, my source ID
3 is 1. It explains labeling conventions that the two devices are going to be
4 using.

5 In Figure 6, an acknowledgement is sent from the edge router,
6 PE11 sub 2, back to the input router. Again, confirming, hey, I am the point
7 to multi-point end point number 2, I'm on the same VPN instance, and
8 confirming that this pseudo-wire type ethernet tag mode is being set up.
9 Again, this is all in paragraphs 15 through 17.

10 Kamite goes on to explain, in connections with Figure 7 and 8, that
11 now that we've set up the pseudo-wire between the input and the edge router,
12 the first edge router, we're going to set up another one. Kamite says we
13 repeat this in connection with one of the other edge routers. Again, the input
14 router with the same input ID number sends a label request message to
15 another output. This is to create yet another pseudo-wire type of ethernet tag
16 mode. And again, that request is then acknowledged and sent back to the
17 input router.

18 So what do we have from Kamite? We have expressed disclosure
19 of not only two pseudo-wires that share this same link between the input and
20 intermediate route, we have expressed disclosure of exactly how that's set up
21 and tagging that indicates that it is a pseudo-wire type. So again, Kamite is
22 like Wainner, only in the sense that it is using point to multi-point. It is
23 unlike Wainner because it is not using -- it does not refer to these as pseudo-
24 wire segments. It explains to us that these routes are individual pseudo-
25 wires.

26 I'll also point out that just like Wainner, we have the same benefits

1 in Kamite. Instead of having to send the same data three separate times to
2 the various edge routers, we only have to send it once because the
3 intermediate router replicates that to all of the edge routers. You see it's the
4 same exact data, but it's only being sent once. And this is expressly
5 disclosed. I'll jump back to Slide 22. This is expressly disclosed in Kamite.
6 We cited this multiple times that the benefit is that the traffic can be reduced
7 to one-third of the conventional volume because you're only sending the data
8 once.

9 Now, just one more point on this. Patent Owner argues -- well, let
10 me take a step back. Wainner discloses that to do this, to set up these
11 pseudo-wires, it uses a technology called multicast tunnels. Now, a
12 multicast tunnel -- all pseudo-wires are tunnels. Not all tunnels are pseudo-
13 wires, but all pseudo-wires are tunnels. And as Kamite explains -- I'll just
14 put this up -- in paragraph 2, it's explaining the background and it explains
15 that in the prior art, we have a method to establish a pseudo-wire. And it
16 explains that tunneling technology is generally used for the above
17 encapsulation.

18 It goes on just like the '775 patent to explain that the problem with
19 the prior art is that they use unicast tunnels. Again, a tunnel is simply
20 encapsulating a pseudo-wire. The invention in Kamite is that it uses
21 multicast tunnels, which the tunnels simply encapsulate multiple pseudo-
22 wires, and it uses a slightly different labeling method that allows it to send
23 the same data to multiple edges. That's the invention in Kamite.

24 Patent Owner argued -- I don't have a page number -- but they
25 argued at some point in their POR that we're conflating multicast tunnels
26 with pseudo-wires. We're not. Again, a multicast pseudo-wires

1 encapsulates multiple -- excuse me -- a multicast tunnel encapsulates
2 multiple pseudo-wires. I'll also ask you to keep in mind that their definition
3 of a pseudo-wire is simply a type of emulated or virtual connection achieved
4 by encapsulation of packets. We're not pointed to multicast tunnels for -- to
5 achieve the pseudo-wire definition, but a multicast tunnel certainly meets
6 their definition of a pseudo-wire.

7 Now, I will jump now to Slide 86. Really just two last points on
8 Kamite, Your Honors. We've, again, pointed out that Kamite uses the exact
9 same technology that they accused of infringing in the Cisco litigation,
10 multicast point-to-point, multi-point using pseudo-wires. It's the same exact
11 arguments they raise in connection with Wainner. I'm not going to repeat
12 that. It is the same technology and it simply underscores what we've said
13 about Kamite.

14 I'll also point out, just to repeat, again, what I have gone through is
15 simply the Kamite alone ground. I have not touched the Kamite, Bocci
16 ground. It's exactly the same theory as we have on Wainner, that to the
17 extent they're arguing that there's no single pseudo-wire connecting the input
18 and edge router in Kamite, Bocci explains how to concatenate those. They
19 have the exact same argument, that Bocci precludes connecting to an
20 intermediate router. I've already walked through that. I'm not going to go
21 through that, again, but I think it's very clear, even without Bocci, Kamite
22 expressly disclosed the claim limitations on its own. And with that, Your
23 Honors, unless there's any questions, I'll bank the remainder of my time for
24 rebuttal.

25 JUDGE DANG: Okay. Thank you so much, Mr. Glass. You have
26 21 minutes left, so.

1 MR. GLASS: Right on time.

2 JUDGE DANG: Thank you. Mr. Collier, you will present for
3 Patent Owner, right?

4 MR. COLLIER: Yes, Your Honor.

5 JUDGE DANG: How many minutes would you like to reserve or
6 would you like to reserve any?

7 MR. COLLIER: I'd like to reserve 15 minutes.

8 JUDGE DANG: Fifteen minutes. Okay. So let me know when
9 you're ready and I'll begin the clock.

10 MR. COLLIER: All right. I would like to share my screen and if
11 that works, then I'll begin.

12 JUDGE DANG: Okay, thank you.

13 MR. COLLIER: Okay. Can you see my screen? It should be
14 Patent Owner's Slide 3. So again, just at a high level, we're planning to walk
15 through first the '775 patent and the technology in each of the two grounds
16 presented in the petition, but I think there's one key misunderstanding that
17 we'll get into that permeates Petitioner's arguments.

18 The prior art in the '775 patent deal with essentially three layers of
19 networking. There's the links described in the '775 and its claims, there's the
20 pseudo-wires that are also described in the '775 in its claims, and then
21 there's, on top of that, a multi-segment pseudo-wire layer that is disparaged
22 by the '775 patent, but is discussed in some of the prior art.

23 These sort of three separate components each function as a
24 separate part of this system when they're all combined. As the '775 patent
25 explains, the top layer, this multi-segment pseudo-wire system described by
26 Bocci, creates challenges and problems. And so the '775 invented a way to

1 avoid those problems using only pseudo-wires built on links.

2 So let me start just briefly going over these technologies. As we've
3 discussed, a pseudo-wire is a tool that emulates a wire over a packet-
4 switched network. So it allows the wire, the pseudo-wire, to emulate
5 behavior of other services that need to use the pseudo-wire over a packet-
6 switched network, like an IP network. One defining aspect of a pseudo-
7 wire, as you can see here from Exhibit 1010, is that it is defined by an
8 unshared link. So one pseudo-wire is not using a link, which we'll talk about
9 in a second, with any other pseudo-wire.

10 Going to Slide 5. As I mentioned, a separate concept is the multi-
11 segment pseudo-wire. This is another prior art technique which layers on
12 top of a set of pseudo-wire segments this idea of a multi-segment pseudo-
13 wire. The pseudo-wire segments that can form part of a multi-segment
14 pseudo-wire each function as traditional point-to-point pseudo-wires. The
15 multi-segment pseudo-wire is an abstract idea, essentially, a further
16 abstraction that encapsulates a payload into a higher layer on top of those
17 pseudo-wires.

18 And so what this allows, as you can see in this figure from Bocci
19 from Exhibit 1031, is the multi-segment pseudo-wire encapsulated layer can
20 effectively simulate a packet going directly from one terminal router to
21 another terminal router without connecting in any way to the underlying
22 intermediate routers. But at the lower pseudo-wire layer, this packet has to
23 travel several individual pseudo-wires, between an input router, an
24 intermediate router, and in further intermediate routers to output routers.
25 However, the pseudo-wire itself does not form any sort of connection, does
26 not connect to an interface of the intermediate routers. It is effectively

1 operating above that layer of connection.

2 And this goes to much of Petitioner's argument that conflates the
3 idea of a link with a pseudo-wire, and then a pseudo-wire with a multi-
4 segment pseudo-wire. You're sharing a pseudo-wire, which we'll see in
5 some of this art, is not the same thing as sharing a link, which is required by
6 the '775. And I think Petitioner's conflating of these two ideas highlights the
7 issue with the art that they've relied on.

8 So turning to the '775 itself, as I noted, the inventor recognized a
9 problem in art and that's particularly highlighted in the structure from Figure
10 2 of the '775, which I have on this slide. Here in the past, if one were to run
11 these connections between T-PE1 and T-PE2, and then T-PE1 and T-PE3,
12 one would've had to create four links illustrated here, link 1, link 2, link 3,
13 and link 4. Obviously, creating -- having two links connecting the input
14 router, T-PE1, and intermediate router, SPE, is inefficient. You're using
15 extra interfaces that you wouldn't otherwise have to use.

16 So going on to Slide 7, the '775 patent solves this problem by
17 creating methods (INDISCERNIBLE - TECHNICAL DIFFICULTY)
18 pseudo-wires share a single link from an input router to an intermediate
19 router, and this is illustrated in Figure 3, where you can see the two pseudo-
20 wires, P1 and P2. P1 runs from T-PE1, input router, to T-PE2, the output
21 router. Likewise, P2 runs from T-PE1 to T-PE3, but these two pseudo-wires
22 only travel on three links to reach their destinations. Both travel on link 1
23 and pseudo-wire 1 then travels on link 2, T-PE2, to where 2 travels on link 3
24 towards T-PE3.

25 As far as noting that in this figure, the lines -- the solid lines --
26 represent links, not pseudo-wires. Instead, the '775 pseudo-wire, the single

1 pseudo-wire, travels the entire length of its input and output router path. So
2 pseudo-wire 1 travels the entire length of T-PE1 through SPE to T-PE2.
3 And of course, this is -- this solution -- sorry, I'll go to Slide 8 -- is embodied
4 in the claims.

5 So Claim 1, for example, claims setting up this system which
6 comprises a first pseudo-wire on a first link between input router,
7 intermediate router, followed by a second link to the output router. And then
8 the second pseudo-wire is set up using that same first link, and then a third
9 link between the intermediate router and the output router. So going on to
10 Slide 9 --

11 JUDGE TURNER: Counsel?

12 MR. COLLIER: Yes.

13 JUDGE TURNER: Yeah, so this is Judge Turner. Before you
14 move on, if you could go back to 8.

15 MR. COLLIER: Yes, Your Honor.

16 JUDGE TURNER: You were sort of indicating that a multi-
17 segment pseudo-wire -- where in Claim 1 do we distinguish in Claim 1
18 between a first or second pseudo-wire and a multi-segment pseudo-wire in
19 your view?

20 MR. COLLIER: So actually, the next slide I think will help with
21 that, and I'll go back to the slide in a second. As we've discussed, the link
22 means a connection between an interface of a first router and interface of a
23 second router. And essentially what this means is that a pseudo-wire must
24 use -- or must comprise both links as defined by the parties and defined by
25 the patent. And so because the pseudo-wire is traveling over these links, it
26 is, in fact, connecting to each router in its path. A multi-segment pseudo-

1 wire does not do that. A multi-segment pseudo-wire will not actually
2 connect in any meaningful way to this intermediate router because it's
3 operating at a layer above the pseudo-wire itself.

4 You know, as the Petitioner highlighted in Bocci, it expressly says,
5 a multi-segment pseudo-wire only appears as a pseudo-wire to terminal
6 devices and not the intermediate devices. By requiring that these pseudo-
7 wires comprise these links, which again, are a connection between an
8 interface of a first and second router, the '775 is claiming the embodiments
9 that it describes, where it is, in fact, not doing -- not implementing a multi-
10 segment pseudo-wire, as it disparages it earlier in the patents. And instead,
11 doing this process at the pseudo-wire layer.

12 JUDGE TURNER: This is Judge Turner. So let me ask a follow-
13 up. So if I had a system where I'm setting up multi-segments of pseudo-
14 wires, there would be no way that I could infringe this claim; is that correct?

15 MR. COLLIER: So you could create a system, hypothetically,
16 of -- or actually, let me bring up a figure from Bocci and then we can
17 discuss, if you don't mind. So this is Bocci's Figure 7 and this highlights it a
18 little clearer than some of the earlier images, this different layer idea. So we
19 have, at the lowest physical layers -- or physical layer and the lower layers,
20 you have the PSN tunnels. Above that layer is the pseudo-wire layer, and
21 you'll see that pseudo-wire layer must go -- or essentially, stops and
22 connects to every single router along its path. So that's illustrated here by
23 this box -- sorry -- the middle of this figure, if I can find the -- where you
24 can see the pseudo-wire segments are divided and connect to several pseudo-
25 wire demultiplexers.

26 The multi-segment pseudo-wire is operating on top of this system

1 and it is only connecting to the two terminal devices. And so to answer your
2 question, you could create a system, plausibly, of multiple pseudo-wires that
3 infringe the '775 patent that are organized into a multi-segment pseudo-wire,
4 but a multi-segment pseudo-wire in and of itself does not necessarily
5 infringe the claims, if that makes sense.

6 JUDGE TURNER: I think it makes sense, but it's not incredibly
7 clear and maybe that's my intent. Maybe it's not. Maybe it is a very difficult
8 puzzle I'm giving you. That's completely possible, but when you're sort of
9 indicating to us, well, if it's a multi-segment pseudo-wire, that's completely
10 different, whereas if I had a system that was setting those two up, well, it
11 could easily I guess you're saying, potentially infringe the '775 patent. So
12 I'm still struggling to find the distinction you're trying to bring us --

13 MR. COLLIER: So --

14 JUDGE TURNER: -- if that makes sense.

15 MR. COLLIER: Yes, Your Honor. The only reason I don't say
16 that a multi-segment pseudo-wire would or would not infringe is because it's
17 a different idea. It's built on top of pseudo-wires. So in a multi-segment
18 pseudo-wire, a traditional multi-segment pseudo-wire, you would have one
19 pseudo-wire connecting -- I'll just use the boxes here. If we start on the left
20 and say the left side -- actually, I'm going to use one of the earlier figures
21 from Bocci.

22 So we'll look at Figure 3, which I think Petitioner highlighted a
23 few times. So Figure 3 isn't exactly clear because they've sort of combined
24 the two separate ideas with this one PW1, but what's actually happening is
25 that the pseudo-wire layer, you have pseudo-wire 1 from a terminal device,
26 the input device, to an intermediate router, then pseudo-wire 2 between the

1 two intermediate routers, and a pseudo-wire 3 between intermediate router
2 and the terminal router.

3 Above that, as sort of a separate idea, you could have a multilayer
4 pseudo-wire, which essentially encapsulates data going between the two
5 terminal devices. And so for those terminal devices, it's as if they're directly
6 connected. But in reality, if we're actually looking at the pseudo-wires, it is
7 separate individual pseudo-wires.

8 What the '775 claims say is we can actually take this concept and
9 we're going to change it to be one pseudo-wire that goes from, say T-PE1 to
10 T-PE2, instead of the multi-segment pseudo-wire abstract layer. In doing
11 that, we are also allowing two separate pseudo-wires to share a common
12 link, which forms a layer below this, between say, T-PE1 and S-PE1, if two
13 separate pseudo-wires were coming off of S-PE1.

14 And of course, to infringe the claims you have to have both
15 separate pseudo-wires. And so a multi-segment pseudo-wire will not by
16 itself, in the traditional sense, infringe the claims because it will not actually
17 form this link. Instead, a separate layer is forming these links and handling
18 these connections.

19 Now, as I said, if you happen to set up a system of infringing
20 pseudo-wires that you had formed into a multi-segment pseudo-wire, that
21 may infringe, but the infringing aspect isn't the multi-segment pseudo-wire.
22 It's this novel approach to handling the pseudo-wires themselves.

23 JUDGE TURNER: Okay. I think I understand your position.
24 Thank you for your response. I'll let you move on, unless anybody else has
25 a question.

26 JUDGE DANG: Actually, Mr. Collier, I have a question.

1 MR. COLLIER: Yes, Your Honor.

2 JUDGE DANG: So is your position that a pseudo-wire has to have
3 physical connection because if it's multi-segment, then it's not a physical
4 connection?

5 MR. COLLIER: So to be clear, we said physical connection in the
6 response, but it doesn't necessarily -- it doesn't -- it's not limited. A link, in
7 other words, is not limited to a physical connection. So if I go back to
8 Figure 7 on Bocci, Bocci itself refers to the lower layers, so it's the tunnel,
9 the PSN -- or PSN tunnel, the PSN itself, and then the physical layer.

10 When the '775 talks about a link, it's -- again, it's a lower concept
11 in the pseudo-wire. So I guess to directly answer your question, the pseudo-
12 wire itself is not necessarily limited to a particular physical connection. A
13 link is a connection -- as we've defined it, it's a connection between an
14 interface of two routers. And that link includes the physical parts of the
15 system -- it necessarily does if we're talking about interfaces, but the key
16 part is that it's connected to an interface.

17 Now, the interface, in some instances, may just be a single port on
18 a router, for example. It could also be a virtual -- some sort of virtual port.
19 The record is not exactly -- hasn't gone into detail on what an interface of
20 say a switching router would be exactly, but the idea of the claims is that
21 that interface, which would be both, the physical and virtual aspects of that
22 interface, is shared by two pseudo-wires on a single link. So the pseudo-
23 wires comprise the same link for that first connection from input router to
24 the intermediate router.

25 JUDGE DANG: Okay, thank you.

26 MR. COLLIER: So I will continue on to our Slide 10 and this --

1 we just touched on this -- but the '775, you know, highlights this idea that
2 two pseudo-wires share a same link in its invention. This can be seen, for
3 example, in Figure 5 which I have here from the '775 patent. What Figure 5
4 illustrates is the routing table on the intermediate router. And in these
5 blocks, there's a top sort of block of table entries and a lower block that's --
6 the lower block is identified by backup. This is referring to the backup
7 pseudo-wire embodiment, but it shows a first pseudo-wire in this top block
8 and a second pseudo-wire in this lower second block.

9 Both pseudo-wires share the same input, the same IF1 -- or the
10 same interface, I should say -- at the intermediate router. They then flow on
11 to their separate links onto their destination routers, but coming into the
12 intermediate router, they in fact share the exact same interface.

13 Moving on to Slide 11. Petitioner makes this argument that
14 Monarch is being inconsistent between prior litigation and this case on
15 whether a multi-segment pseudo-wire can infringe the claims. You know,
16 they mostly point to Cisco's branding of their product, rather than the actual
17 facts, but if we look at the complaint, for example, from that case, paragraph
18 33 there shows that Monarch identified the specific shared interfaces of the
19 infringing router in that case. The shared interface in this case is on the
20 input router, PE1, which ends in .225. And in the shared interface on the
21 intermediate router, P is at .226, and so it is, in fact, one interface on both
22 routers that is shared by two pseudo-wires as the claims require.

23 So moving on to Slide 12. I have here this figure created by our
24 expert, Dr. Mitzenmacher, to illustrate this idea of pseudo-wires and what
25 the '775 patent claims. As you can see, the two pseudo-wires travel all the
26 way from the input router to the output router and share that first link, which

1 is shown, essentially, as a yellow or a white tube, and they share that first
2 link between the input router and the intermediate router.

3 This is distinct from essentially two different prior art approaches
4 that all of the prior art at issue here utilize. So the first is this -- what we call
5 one link, one pseudo-wire approach, and we've illustrated that here in the
6 figure to the right. This is where you have multiple separate pseudo-wires,
7 but each with their own links. And this is exactly what, for example, Bocci
8 talks about -- and I believe it's exactly what Wainner is discussing, but we'll
9 get into that -- where you actually have separate pseudo-wires, all with their
10 own individual links. And then on top of that, you could build a multi-
11 segment pseudo-wire type of connection, but the pseudo-wires themselves
12 are all individual pseudo-wires.

13 Moving on to Slide 14 is the second prior art approach, which is
14 two pseudo-wires on two links. So in this instance, we have illustrated that
15 pseudo-wire 1 travels from input router fully to the output router, and the
16 same thing with pseudo-wire 2, but they're actually not sharing the same
17 link. They do not both connect to the same interfaces on the intermediate
18 router.

19 So I'll turn now to the grounds, starting with Wainner and Ground
20 1, and we'll go over to Slide 16. So the Petitioner, if I understood their
21 argument, and it seems to be changing their argument from obviousness to
22 anticipation, but a lot of that discussion focuses on this Figure 2 from
23 Wainner. And essentially what it alleges that, because Figure 2 looks the
24 same or similar to Figure 3 in the '775 patent, it discloses the same thing.
25 But every pseudo-wire -- or every numbered wire in that figure, in Figure 2,
26 is a pseudo-wire -- is an individual pseudo-wire. Nothing in Wainner says,

1 oh, these are actually all one pseudo-wire.

2 They pull out a quote that refers to one pseudo-wire connecting to
3 multi pseudo-wires, but this is not the same thing. And there's nothing in
4 any reference that suggests it's the same thing as a single pseudo-wire
5 traveling across the full network or from one terminal router to the output
6 router.

7 And on top of that, there's nothing that suggests that this pseudo-
8 wire 22 is two pseudo-wires. It's a single pseudo-wire connected to an
9 intermediate router that is then connected to several other pseudo-wires
10 going to different output routers. This is the exact prior art embodiment that
11 the '775 patent disparages -- that the '775 patent tries to improve upon.

12 The next part of their argument is that, well, you could put a multi-
13 segment pseudo-wire layer on top of the pseudo-wires in Wainner and that
14 teaches the claims, but in that instance, that runs into the problem we've
15 already discussed. The multi-segment pseudo-wire is not itself a pseudo-
16 wire. It's an abstraction on top of the pseudo-wire layer, and as Bocci itself
17 states, as Petitioner highlighted, it can only connect to the terminal routers.
18 It doesn't connect to the intermediate routers. That packet is instead -- that
19 connection is not handled at that layer. It's handled only by the pseudo-
20 wires and those pseudo-wires that form the multi-segment pseudo-wire are
21 all individual pseudo-wires traveling on their own links.

22 So going on to Slide 17, I'll turn back to the link idea here. As I've
23 discussed and as the agreed definition of link makes clear, two pseudo-wires
24 to infringe the '775 patent must connect to the same interface on the input
25 router and the same interface on the intermediate router. In Wainner, this
26 PE5 router is an intermediate router and since that intermediate router --

1 since a multi-segment pseudo-wire hypothetically layered on top of Wainner
2 cannot connect to an intermediate router, it cannot form a link for a single
3 pseudo-wire between the input router and the intermediate router. And I'll
4 go ahead and skip over -- if there aren't any further questions on Ground 1,
5 I'll go ahead and proceed to Ground 2. So going to --

6 JUDGE DANG: Go ahead.

7 MR. COLLIER: I'm sorry.

8 JUDGE DANG: Yeah. I'm sorry. I was going to say, go ahead,
9 please.

10 MR. COLLIER: Okay. Thank you, Your Honor. I jumped the
11 gun a little bit there. So going to Ground 2 -- I'm on Patent Owner's Slide
12 20 -- the Petitioner, in the petition in their replies, they actually had two
13 theories of infringement for Kamite. One related to Figure 10 and one
14 related to Figure 3. It seems now they're focusing on Figure 10, but I'll
15 touch on both of those, starting with Figure 10.

16 I'll go to Slide 21. Before I sort of get into this here, Petitioner
17 spent a lot of time on Figure 6, discussing Figure 6, but that discussion --
18 that Figure is not cited in their briefing. They have instead relied on Figure
19 10 and some of the discussion around it. In Petitioner's view, this Figure 10,
20 the link between this PE11-1 and PE12-1, includes one pseudo-wire
21 segment, and this is highlighted, I think, by this figure.

22 So Figure 10 shows just a single line traveling between PE11-1
23 and PE12-1. This pseudo-wire segment includes an interface parameter that
24 Kamite discusses that would specify which interface that single pseudo-wire
25 connects to. But this is really only -- this is only one pseudo-wire segment.
26 It only connects to a single interface on the two routers. There's nothing in

1 Kamite that suggests that this is in any way multiple pseudo-wires. It's just
2 silent on it. So there's no way -- there's simply no way that Kamite can teach
3 the claimed requirement of two pseudo-wires sharing a single link. This is
4 simply a single wire -- a single pseudo-wire.

5 And so this, in reality, is the familiar one link, one pseudo-wire
6 approach. Even if data on that first pseudo-wire is ultimately traveling to
7 multiple destinations or different destinations, there is actually no shared
8 pseudo-wire. It's all traveling over one pseudo-wire on one link between the
9 two routers.

10 Going on to Slide 23. So Petitioner didn't discuss this embodiment
11 in great detail, but it is in their brief. I'll just briefly touch on it. This is
12 Figure 3 from Kamite where three pseudo-wires transverse
13 (INDISCERNIBLE - TECHNICAL DIFFICULTY) PE11-1 and PE12-1.
14 And I think now, Petitioner realizes that these are, in fact, not sharing a
15 single link. The Petitioner -- they allege that they do, but they don't, so
16 Kamite explains that Figure 3 uses conventional pseudo-wire technology, in
17 which there's three instances of traffic between PE11-1 and PE12-1. Those
18 three pseudo -- because they're conventional pseudo-wires, which, you
19 know, Kamite discusses, they cannot share a first link. This is a definitional
20 aspect of a traditional pseudo-wire is that it's characterized by an unshared
21 link.

22 And so these three pseudo-wires, going from PE11-1 to PE12-1 in
23 Kamite, are separate pseudo-wires on separate links. And so that, as a result,
24 means that Kamite is one of the prior art embodiments that the '775 patent
25 expressly disparages. It's this problem of having to share -- of having to use
26 multiple links when you're connecting pseudo-wires between an input router

1 and an intermediate router, instead of the novel approach of the '775, which
2 allows two pseudo-wires to share a single link between that input router and
3 the intermediate router.

4 JUDGE DANG: Mr. Collier, this is Judge Dang. I have a question
5 for you.

6 MR. COLLIER: Yes, Your Honor.

7 JUDGE DANG: So how are you defining link in the Figure 3
8 then? Isn't it the connection between PE and the intermediate P?

9 MR. COLLIER: So I'll go back up just to the slide I have with that
10 definition. Sorry, here we go. Slide 9. It's not just the connection. It's a
11 connection between an interface of a first router and an interface of a second
12 router. And each of those pseudo-wires in Kamite have to connect to
13 separate interfaces on those routers, and that's because Kamite explains they
14 are traditional pseudo-wires and traditional pseudo-wires are, by definition,
15 travel on unshared links. And so this is the definition that the parties have
16 both used and it's a key part of the '775 patent, is that this -- the '775 patent
17 approach allows a pseudo-wire to share these interfaces, which was not done
18 in the prior art and was not able to be done in prior art.

19 JUDGE DANG: Okay. Thank you. So you're saying there are
20 more than one interfaces on each one of these?

21 MR. COLLIER: Yes, Your Honor.

22 JUDGE DANG: And the tunnels, I guess, are sharing -- are not
23 sharing the same interface? Okay, thank you.

24 MR. COLLIER: Yes, Your Honor. And I think Kamite does
25 highlight -- does explain this to some extent. It describes an interface in
26 paragraph 14 and simply states that it's used in the traditional sense of a

1 pseudo-wire, which is, again -- it has to be an unshared link so they cannot
2 share interfaces. So that's the final point I wanted to make on Ground 2. So
3 unless there's further questions, I'll reserve the remainder of my time for my
4 rebuttal.

5 JUDGE DANG: Oh, okay. Thank you so much. In that case, you
6 have 28 minutes. Thank you. Mr. Collier, you have 21 -- I'm sorry -- Mr.
7 Glass, you have 21 minutes, and you can begin any time you're ready. I'm
8 sorry, I think you're on mute. Yeah, we still can't hear you yet.

9 MR. GLASS: All right. Can you hear me now?

10 JUDGE DANG: Yes, great. Thank you. Let me know --

11 MR. GLASS: Seems like --

12 JUDGE DANG: -- when you're ready.

13 MR. GLASS: My engineering degree comes in helpful. So okay,
14 let me start off -- I'll work -- I'll start off where Counsel ended on Kamite.
15 Number 10. Counsel, I believe, stated that I focused on Figure 6. I didn't. I
16 focused on 5, 6, 7 and 8. There's a reason for that. That is -- again, if Your
17 Honors look at page 32 of your institution decision -- let me go back to these
18 figures. Sorry, I'm jumping around a tiny bit.

19 If you go back to your institution decision at page 32, Your Honors
20 focused on paragraphs 15 through 17, which details the setup of Figure 10.
21 And as Your Honors pointed out, once this is set up -- once Kamite's
22 network is set up -- once the -- I'm reading directly from the institution
23 decision. Kamite explains that once the VCLSPs are successfully
24 established between the edge routers -- quote -- you're quoting Kamite --
25 "point to multi-point pseudo-wire can be used for communicating between
26 those PEs." Patent Owners argued that while there's no evidence that those

1 are pseudo-wires, this -- Figures 5, 6, 7 and 8 -- that is setting up the pseudo-
2 wires. I expressly walked through this.

3 There's a label request message. As part of that label request
4 message, setting up the pseudo-wires, it explains the point to multi-point
5 pseudo-wire type is ethernet tag mode. We never -- Patent Owner -- even
6 though I said they were incorrect, Patent Owner, again, argued that this link
7 between the input router and the intermediate router, that we argue it's a
8 component. That is not what we're arguing. That's not what Your Honors
9 said in the institution decision, and it's not what Kamite says.

10 Kamite explains very clearly that this link between the input router
11 and the edge router is a pseudo-wire. It sets up the first pseudo-wire in
12 Figures 6 -- 5 and 6 -- and it sets up a second pseudo-wire in Figures 7 and
13 8. Figure 10 is the result of that setup and that's exactly what Your Honors
14 walked through page 32 of your institution decision.

15 I'll walk through -- now, I'll back -- I don't -- Patent Owner did not
16 spend a lot of time on Kamite. I think Kamite is very expressly disclosing
17 the use of two pseudo-wires sharing that same link. The only arguments
18 they have, frankly, misrepresent what Kamite discloses and they don't
19 explain how Your Honors got it wrong in the institution decision. You
20 quoted exactly from Kamite and that's exactly what Kamite discloses.

21 Just a few other points. I'll back through on -- I'll go to Slide 52.
22 Give me one moment, Your Honors. I need to reshare my screen. Can you
23 see my screen?

24 JUDGE DANG: No, not yet.

25 MR. GLASS: Oh. Okay. Now can you see my screen?

26 JUDGE DANG: Yes.

1 MR. GLASS: I walked through, in pretty significant detail, in my
2 presentation on Wainner's disclosure of statically binding an upstream
3 pseudo-wire to one or more downstream pseudo-wires. Counsel -- as they
4 did in their briefs, they basically ignore this. This is an expressed teaching,
5 not only of using -- of creating those two separate pseudo-wires, our expert
6 explained exactly how that works. He explained that by statically binding,
7 you create multiple multi-hop pseudo-wires. They don't dispute that, but
8 what they do say is well, multi-segment pseudo-wires must be different than
9 pseudo-wires. They said that -- Counsel said that several times. I wrote that
10 down as he said that. I'm just going to point out that's not supported by the
11 evidence.

12 Bocci -- reading from Bocci, page 7, Exhibit 1031 -- explains a
13 multi-segment pseudo-wire is a single pseudo-wire. Period. This notion that
14 it doesn't connect meaningfully. I think that's what he said. Oh, Counsel
15 said, in multi-segments, pseudo-wire does not connect in a meaningful way
16 to an intermediate router. That's their opinion. It's not supported by any
17 evidence in the record.

18 It's expressly refuted by Bocci. It's also expressly refuted by -- I
19 don't have it -- the disclosure in the '775 patent expressly stating that the --
20 I'm not going to be able to find it. I went through it earlier. But the '775
21 patent's expressed discussion of Bocci that it is a pseudo-wire. There is
22 nothing that they've pointed to, other than Counsel's rhetoric, that a multi-
23 segment pseudo-wire is in any way different than a pseudo-wire. In fact,
24 Bocci calls them equivalent.

25 The other point, too, is they're arguing that now they're -- they've
26 come up with yet another restriction for the claims. Not only does the

1 pseudo-wires have to connect to the intermediate routers, not only does the
2 intermediate router have to see two separate pseudo-wires, but because
3 Bocci expressly discloses connecting to those intermediate wires, Counsel
4 now argues that, well, it has to connect in a meaningful way. That's
5 nowhere to be found in the claims. That is yet another new claim
6 construction position Counsel raised for the first time today.

7 I walked through statically binding. Again, they've ignored that
8 disclosure in Wainner. Just let me go through my notes. In terms of the
9 same interface, again, I pointed this out in Wainner, we specifically cited in
10 our petition -- they say that we haven't shown a single interface. We pointed
11 out to element 214 at page 39 of our petition, 214 is a single interface. It is
12 the only interface shown in Wainner. So of course, the links are using the
13 same exact interface. There is nothing else disclosed in Wainner other than
14 a single interface.

15 One last point. I'll walk through the Cisco complaint. Patent
16 Owner argued -- and I think Your Honor's instinct was correct -- Patent
17 Owner was a bit evasive on that response in connection with the Cisco
18 litigation, because they did accuse multi-segment pseudo-wires of
19 infringing. Patent Owner argues, well, there's two separate pseudo-wires in
20 Cisco, because we identified P, which is the intermediate router; we
21 identified PE2, which is an edge router; and PE3, which is another edge
22 router.

23 Well, if you look at the backup -- if you look at what they relied on
24 in Cisco, 228 is in the Cisco documentation as pseudo-wire ID number 1.
25 PE2 is 227, pseudo-wire ID number 1. The same thing. The input router is
26 pseudo-wire ID number 1. They not identify two pseudo-wires, so this is

1 even more egregious than Kamite. It's more egregious than Wainner
2 because in Cisco, there really was only one pseudo-wire. What did they
3 argue? This is on the next -- on that second half of the slide. The pseudo-
4 wire paths are to the P direction and to the PE3 destination.

5 So they argued that there were two pseudo-wires, but they argued
6 that by creating a single pseudo-wire in Cisco and sharing that amongst
7 multiple edge routers, that constituted to two pseudo-wires that are shared.
8 Directly contrary to what they're arguing today. It could not be more
9 inconsistent. I'll just leave off -- again, I just have one more note on this,
10 that again, Patent Owner is arguing -- they've ignored, for the most part,
11 everything I said about Kamite and how the pseudo-wire is set up. They
12 ignored the Wainner alone argument, where Wainner expressly discloses
13 concatenating multiple pseudo-wires.

14 Think about their arguments. They are arguing that a multi-
15 segment pseudo-wire must be at a different level. It must be different than a
16 pseudo-wire. He said -- I wrote this down as Counsel said this -- it's
17 processed at a different layer. A multi-segment pseudo-wire is not a pseudo-
18 wire. Those were his exact words. This is the exact opposite of what
19 Kamite discloses -- of what Bocci discloses.

20 My last point is where is that in the claims? It says a pseudo-wire.
21 Bocci expressly states it's a pseudo-wire. Keep in mind, their definition of a
22 pseudo-wire is quite broad. It's simply a virtual or emulated link that
23 encapsulates data. How does that somehow exclude what Bocci is talking
24 about when Bocci expressly states that a multi-segment pseudo-wire is a
25 pseudo-wire? Your Honors, I have nothing further. Unless there's any
26 questions, I will end my discussion.

1 JUDGE DANG: Actually, can you please address Mr. Collier's
2 comment about -- or I'm sorry -- Kamite having not sharing the same
3 interface?

4 MR. GLASS: So in the Figure 10 and Figure 3, they are sharing
5 the same physical interface, and we pointed out -- I don't have it in front of
6 me, but we've pointed out the interface parameters, and especially with
7 Figure 10. That was not something they had disputed. Now, in connection
8 with Figure 3, I think we called it -- in our briefs, we called it a double-bind.
9 We were unclear where they were going to go in terms of their claim
10 construction. So I think in Kamite, because they use the same interface
11 parameters, they are using the same link and it's sharing that link in Figure 3
12 by virtue of these unicast tunnels.

13 Figure 10, I think, as the briefing has progressed, Counsel says that
14 we've realized at Figure 10 -- no, no, it's as the briefing has progressed, as in
15 any IPR petition, the issues have become more finely tuned and it's become
16 clear that Figure 10 reads on to the claims more directly. And that, as I've
17 walked through in explicit detail, and which Patent Owner completely
18 ignored in its presentation, that discloses a single link. We've pointed to the
19 interface parameters, which they have not disputed on their briefs, and
20 setting up two pseudo-wires between two separate edge routers. I rambled a
21 bit on that, Your Honor. Did I hopefully answer your question?

22 JUDGE DANG: Yes, thank you so much.

23 MR. GLASS: Unless there are any further questions, I have
24 nothing further Your Honors, and thank you.

25 JUDGE DANG: Yes. And so Mr. Collier, you have 28 minutes,
26 so you have -- yeah. I'm sorry. You can begin any time you're ready.

1 MR. COLLIER: Thank you, Your Honor. I'll go ahead and share
2 my slides again. So the fundamental issue here, Your Honor, is that
3 Petitioner is ignoring the expressed teachings of Bocci, the expressed
4 discussion of the '775 patent, and the claim language to continue to conflate
5 a multi-segment pseudo-wire with the claimed pseudo-wire.

6 In Kamite, as we explained in our response, Kamite, as the Board
7 recognized, is describing, in some instances, multi-segment pseudo-wires.
8 Multi-segment pseudo-wires cannot connect to intermediate routers. This is
9 expressly stated in Bocci. They only connect to terminal routers. And
10 because they cannot connect to intermediate routers, they cannot form the
11 claimed structure. They cannot form one pseudo-wire comprising a first link
12 between an input router and an intermediate router, and then a second
13 pseudo-wire also comprising the first link between the two routers.

14 Petitioner is essentially ignoring this requirement in the claims to
15 try to say that multi-segment pseudo-wires teach or render obvious the
16 claims of the patent. If you would take out the word link, like Petitioner has
17 tried to do, and ignore the fact that it requires a very specific connection
18 shared by two individual pseudo-wires, you've defeated the meaning of the
19 claims.

20 In every instance that they've pointed to, this comes up, this idea of
21 the pseudo-wire and the multi-segment pseudo-wire being different. The
22 '775 patent itself explains that it is not implementing a multi-segment
23 pseudo-wire. When it discusses the Figure 1 prior art -- in fact, I think I'll
24 try to bring it up here -- when it discusses the prior art system, it's describing
25 links. This is referring to Figure 1. It describes a first link L1, and then a
26 second link L2. I'll just go back to Figure 1 to illustrate that.

1 The '775 realizes these links are not themselves pseudo-wires. The
2 pseudo-wire is comprising these links. By ignoring that claim limitation,
3 they are trying to expand this traditional idea of multi-segment pseudo-wires
4 to include the '775 patent, even when the '775 itself says these multi-segment
5 pseudo-wires are a bad system and we are doing something differently.

6 To respond to one point, particularly, I think earlier, I misspoke
7 and said, multi-segment pseudo-wires do not meaningfully connect to the
8 intermediate routers. They do not connect to intermediate routers. That's
9 what Bocci is talking about. They only connect to the terminal routers.
10 These are fine distinctions, but there are real changes in how pseudo-wires
11 work and this whole argument is really based on how a pseudo-wire and a
12 multi-segment pseudo-wire and a link all work, and what these components
13 are. You cannot -- as the '775 is clear, you cannot conflate a multi-segment
14 pseudo-wire with a pseudo-wire itself.

15 And Your Honor, I'll -- just to note, on the Cisco litigation, I don't
16 have the full briefing in front of me, but a lot of their arguments focus on
17 how Cisco describes these systems, Cisco's own sort of trademarks and that
18 sort of thing. Our argument has always been that there were two separate
19 pseudo-wires in the Cisco system that formed the claimed first link -- or that
20 were both comprised of the claim first link, and we have not -- we're not
21 changing our position on that. So if there aren't any further -- if there are no
22 further questions, Your Honor, then I will conclude. That's all I have.

23 JUDGE TURNER: This is Judge Turner. I guess I have a quick
24 question since I -- it feels a little bit like you're equivocating what you said
25 before. I'm assuming that making no connection, that's based on some sort
26 of level, because I'm assuming the packets do pass through, do interact, you

1 know, this is still a physical network. They're not flying through the air
2 somehow, but I think you're saying they don't connect on a particular level.
3 Is that what I'm understanding you to say?

4 MR. COLLIER: Yes, Your Honor. That's the way to understand
5 this. I mean, that's the way that the claims work is they're talking about the
6 link level and then the pseudo-wires at the level above that. This Figure 7
7 from Bocci that I discussed earlier, I think is probably the clearest
8 illustration of this, but it shows that the multi-segment pseudo-wire is simply
9 traveling -- it's above the pseudo-wire layer.

10 That multi-segment pseudo-wire does not connect or interface with
11 or form a link with the intermediate routers. It is simply a connection
12 between the two terminal routers, and Bocci itself even states that to those
13 terminal routers, it's a direct link, a direct connection -- I don't know the
14 exact term it uses -- between those two terminal routers. And again, because
15 the '775 patent claims themselves talk about forming these links, the multi-
16 segment pseudo-wire cannot render the claims obvious because it cannot
17 form that link from the input router to the intermediate router.

18 JUDGE TURNER: And just to make sure that I understand, so it's
19 a link, but it's not a link on the link level?

20 MR. COLLIER: Well, it should, I suppose, be some other term. It
21 is not a link as defined in -- as we defined link in the '775 patent. So it's not
22 a connection between an interface of a -- well, it's not a link on -- between
23 the intermediate router, I should say, and the input router. So it's not a
24 connection between interface of an input router and intermediate router. I
25 suppose it could be a connection between an interface on the two terminal
26 routers, but that certainly hasn't really been -- hasn't been briefed or

1 discussed, and it's not what's claimed anyway. So it doesn't -- whatever we
2 consider the interface on those terminal routers with respect to the multi-
3 segment pseudo-wire, it is not the claimed interfaces of the '775.

4 JUDGE TURNER: Well, words are always a problem with claim
5 construction, but that's what we have to deal with. So, thank you. Thank
6 you for trying to explain the subtleties there. I don't have any additional
7 questions.

8 MR. COLLIER: So if there's no other questions, that is all I have,
9 Your Honors. Thank you.

10 JUDGE DANG: Okay. Thank you so much. The Patent Board
11 would like to thank the parties for your presentations today. Your
12 explanations of the record really helped and it will help us in our final
13 determination. We will issue the final decision in due course. And with
14 that, we are adjourned.

15 (Whereupon, the above-entitled matter went off the record at
16 2:37 p.m.)

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PETITIONER:

Todd M. Briggs
James M. Glass
Nima Hefazi
Kevin Johnson
QUINN EMANUEL URQUHART & SULLIVAN, LLP
toddbriggs@quinnemanuel.com
jimglass@quinnemanuel.com
nimahefazi@quinnemanuel.com
kevinjohnson@quinnemanuel.com

PATENT OWNER:

R. Allan Bullwinkel
Michael F. Heim
Christopher L. Limbacher
HEIM PAYNE & CHORUSH, LLP
abullwinkel@hpcllp.com
mheim@hpcllp.com
climbacher@hpcllp.com