

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMPHENOL CORP.,
Petitioner,

v.

PPC BROADBAND, INC.,
Patent Owner.

IPR2023-01363
Patent 9,008,483 B2

Record of Oral Hearing
Held: December 16, 2024

Before: BART A. GERSTENBLITH, GEORGE R. HOSKINS, and
JON B. TORNQUIST, *Administrative Patent Judges*.

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P R O C E E D I N G S

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JUDGE TORNQUIST: Okay. Good morning. This is an oral hearing for IPR2023-1363, Amphenol Corp. v. PPC Broadband, Inc. We're discussing patent number 9,008,483. I am Judge Tornquist, and with me are Judges Gerstenblith and Hoskins. Who do we have from Petitioner?

MR. HART: Good morning, Your Honors. This is Paul Hart with Erise IP for Petitioner Amphenol.

JUDGE TORNQUIST: Okay. Welcome. Do you have anyone with you today?

MR. HART: Just me and you on the Webex.

JUDGE TORNQUIST: Okay. Thank you. And Patent Owner?

MR. SULLIVAN: Good morning, Your Honor. This is Dennis Sullivan with Barclay Damon representing Patent Owner PPC Broadband. It will just be me on the Webex.

JUDGE TORNQUIST: Okay. Okay. Per our oral hearing Order, each side will have 60 minutes to argue today. Petitioner bearing ultimate burden of proof, you will go first, and you can reserve time for rebuttal. After your initial argument, we're going to take a five-minute break to allow counsel to set up for their argument, Patent Owner's argument. Then we'll hear from Patent Owner, who may also reserve a short period of time for rebuttal. And after Patent Owner's argument, we're going to take another short five-minute break, get set up, and then we'll hear the rebuttal and sur-rebuttal arguments.

We have your demonstratives, but as you're going through them,

1 please be -- please announce clearly what slide you're on so the record
2 reflects that. As this hearing is remote from time to time, technical issues
3 arise for the parties and the Board. If any technical issues arise, please let us
4 know as soon as possible, and we can work to get those resolved. I guess
5 with that, Petitioner, when you're ready, and if you'll let us know how much
6 time you'd like to reserve for your rebuttal.

7 MR. HART: Sure, Your Honor. I'll reserve 20 minutes of my
8 hour.

9 JUDGE TORNQUIST: Okay.

10 MR. HART: Okay. Thank you very much. I'd like to start with
11 DX-2 of Petitioner's demonstratives. DX-2 provides a high-level overview
12 of the '483 patent challenged in this proceeding. The '483 patent describes
13 and claims an enclosure. It refers to this enclosure as a drop interface box or
14 DIB that accepts as input a bundle of fibers from a service provider and
15 outputs multiple distribution fibers for delivering optical data service to end
16 users. Typical applications for these DIBs include delivering fiber to
17 individual apartments in an apartment building, referred to as a multi-unit
18 dwelling in both the '483 patent and the Holmberg reference, which we'll be
19 talking about quite a bit.

20 Turning to DX-3, I've reproduced Claim 1, as well as a
21 representative figure from the '483 patent. As you see here on DX-3, the
22 '483 patent claims are structural in nature. They recite three panels, a base
23 unit, a cover, and an intermediate fiber storage panel. They also recite three
24 retaining mechanisms for storing fiber that is routed within that enclosure.
25 First illustrated on DX-3 is annotated blue and that is on the base unit panel
26 of the enclosure. And then on the fiber storage panel annotated green and

1 red are the other two of the three fiber retaining mechanisms.

2 The final aspect, structural aspect, of these claims are hinges. The
3 claims require a first hinge for connecting the base unit to the cover and a
4 second hinge for connecting the fiber storage panel to the base unit. It is this
5 second hinge that was the focus of the '483 patent's prosecution and that is
6 the focus of this IPR proceeding.

7 So, turning to that prosecution process. In DX-4 I've reproduced a
8 couple figures from the Holmberg reference. So, in prosecution the
9 examiner rejected the original claims over Holmberg. As we see on DX-4
10 from Patent Owner's own annotated figures, Holmberg teaches a fiber
11 enclosure that includes all of the main components recited in the claims of
12 the '483 patent. We see here that it includes three panels, a base unit, a
13 cover, as well as a fiber storage panel. The fiber storage panel in Holmberg
14 is referred to as the splice tray 230. On the left in Figure 6 it is kind of
15 floating removed from the main structure and then on Figure 4 on the right
16 of DX-4 we see it secured to the base unit within Holmberg's enclosure.

17 Holmberg does not teach the second hinge. That is the big missing
18 element from the Holmberg prior art reference. Instead of a hinge
19 connection between that fiber storage panel and the base unit Holmberg uses
20 four screws referred to as fasteners 276 in the Holmberg reference. Given
21 that distinction, applicant amended its claims to obtain issuance over
22 Holmberg. If we turn to DX-5, we see that amendment that was introduced
23 during the prosecution process. So, the claims were amended to recite a
24 hinge connection between the fiber storage panel and the base unit, and that
25 hinge connection has to be opposite the main hinge that holds the cover to
26 the base unit.

1 In the Notice of Allowability, the examiner called that out and
2 expressly identified that Holmberg was properly traversed and the claims
3 were allowable over Holmberg because Holmberg does not have that second
4 hinge connecting its fiber storage panel to the base unit.

5 DX-6 summarizes the grounds in this proceeding, and effectively
6 what we've done here is we've provided the evidence in the prior art that the
7 examiner was not privy to during the original prosecution process. All five
8 grounds presented in this proceeding rely primarily on Holmberg and its
9 enclosure, which we just saw in the preceding slides. They propose adding
10 Battey's hinge to secure Holmberg's fiber retention tray to its base unit. So,
11 rather than four screws, we're using a hinge from the Battey reference to
12 hold that fiber tray onto the base unit in Holmberg's enclosure.

13 Now, I'll get to the disputes in the next slide, but I do, as a bit of
14 housekeeping on this slide, it's worth noting that the grounds focused on by
15 the parties has been a bit narrowed post-institution. Grounds 3 and 5 were
16 presented in the petition, and they were premised on a narrow construction
17 of drop cable that required the input drop cable to retain its jacketed cover as
18 it is routed within the enclosure. In the litigation, Patent Owner argued that
19 cables are not structural limitations, and at institution, the Board
20 preliminarily accepted that interpretation. Accordingly, the parties have
21 focused on Grounds 1, 2, and 4 post-institution, all of which apply a broader
22 scope consistent with Patent Owner's claim construction theories advanced
23 in the litigation.

24 So, getting to the disputes, DX-7 summarizes the remaining
25 disputes between the parties. Nearly all of them relate to motivation to
26 combine. For Ground 1, there's no dispute that Holmberg teaches the three

1 panels recited in the claims, the three fiber retaining mechanisms, and the
2 first hinge that connects the base unit to the cover. The only live dispute for
3 Ground 1 is whether a POSITA would have been motivated to add Battey's
4 hinge to Holmberg's splice tray. As I'll cover in detail today in the
5 subsequent slides, the record demonstrates that Holmberg's mid-span box
6 terminates fiber to subscribers in the same way the '483 patents DIB does,
7 and has the same need for easy access to add and remove customers, as
8 necessary. The record will also or has also demonstrated that Holmberg's
9 box is specifically designed to retain fiber slack, avoiding damage when
10 opening that splice tray to access the back of the splice tray in order to add
11 and remove customers, as necessary.

12 For Ground 2, the proposed combination replaces Holmberg's
13 splice tray holder with an adapter pursuant to the Blankenship ground. That
14 simplifies and makes more robust the coupling between feed breakout cables
15 and distribution cables within the Holmberg enclosure. Patent Owner's only
16 remaining arguments turn on mischaracterizing the combination as having
17 proposed, not replacing the splicing with an adapter, but adding an entirely
18 new adapter and an entirely new section of cabling to Holmberg,
19 complicating rather than simplifying the enclosure's fiber coupling. Patent
20 Owner is simply wrong that Petitioner ever proposed such a combination
21 and with the combination properly characterized, there's no basis on which
22 to find against the Ground 2 challenge.

23 The last dispute relates to Ground 4, Claim 10. This was a simple
24 addition of Cowen's clips to the base unit in Holmberg to provide additional
25 security holding that fiber within the enclosure during the installation
26 process and after. It's a simple trade-off between additional fiber security

1 and ease of installation, and the record demonstrates that that trade-off is
2 well within the capabilities of a POSITA.

3 Turning to DX-8, I provide a brief overview of the combination.
4 As I mentioned earlier, Holmberg teaches everything except for that second
5 hinge connecting the fiber storage tray to the base unit. Here we see
6 Holmberg splice tray 230, which is mapped onto that fiber retention tray,
7 annotated in purple. The combination simply relies on hinges from the
8 Battey reference. Here we see expressly illustrated hinges in Battey for an
9 intermediate fiber tray, annotated green, and Battey also teaches that those
10 hinges could be on the opposite side of the enclosure. So, Battey captures
11 both sides, both hinges, and because our claims that we're challenging here
12 require a hinge on the opposite side of the main hinge, Battey covers that.
13 So, we're simply taking Battey's hinges, adding them to Holmberg, and
14 creating a hinged connection between that purple splice tray 230 in Battey's
15 enclosure and the base unit that we see against the wall on DX-8 here.

16 Turning to DX-9, I want to provide a brief overview of the
17 motivation to combine Holmberg and Battey. Battey expressly teaches that
18 hinged fiber trays beneficially provide full and convenient access to the
19 components below the tray. Petitioner's expert Dr. Kiaei testified that a
20 POSITA would have recognized those same easy access benefits would
21 apply to Holmberg's enclosure. He explained that attaching Holmberg's
22 splice tray with hinges rather than four screws would be a simple
23 substitution of a known attaching mechanism to provide easier access to the
24 splice tray, as well as two components behind the splice tray.

25 In DX-10, I summarized the arguments Patent Owner has
26 advanced against our motivation to a combined case here. So, Patent

1 Owner's criticisms fall into two main arguments. First, Patent Owner argues
2 that the nature of Holmberg's enclosure as a mid-span box with pass-through
3 cabling means the box is designed to or intended to prevent rather than ease
4 access to the splice tray and the components behind the splice tray. Patent
5 owner insists that mid-span boxes do not terminate service to subscribers
6 and therefore do not require the same easy access to add and remove
7 customers as would be required of a box that does terminate service to end
8 subscribers. Patent Owner also insists that mid-span boxes have to prevent
9 access in order to protect the those fibers that pass through the box. That's
10 really the main distinction between the DIB and the '483 patent and
11 Holmberg's wall box that we focused on in all five of our proposed grounds.
12 Holmberg's wall box allows some fibers to pass through while other fibers
13 are terminated. In the '483 patent's DIB, all fibers that enter that box are
14 terminated. There are no fibers that pass through to downstream locations in
15 the network.

16 Patent Owner's second argument is that Holmberg's splice tray
17 could not be opened on a hinge without first removing all the fibers. They
18 argue that you have to remove the fibers before you can open that tray to
19 prevent damaging those fibers that are wrapped around the retaining
20 mechanisms on the splice tray 230 in Holmberg. Both arguments, both
21 buckets of arguments that Patent Owner advances are premised on
22 fundamental misunderstandings of the Holmberg reference. As to the first
23 argument, Holmberg, like the '483 patent DIB, terminates service to end
24 subscribers and therefore requires the same easy access to add and remove
25 customers.

26 This Board should not, as Patent Owner requests, ignore how

1 Holmberg's enclosure actually functions just because other mid-span access
2 enclosures may function differently. I'll walk through, I have three slides on
3 this point. It is very clear from the Holmberg disclosure that Holmberg's
4 wall box is terminating optical service to end subscribers and per Patent
5 Owner's expert's admission, it would require the easy access that a hinge
6 provides.

7 The second argument from Patent Owner regarding damage
8 ignores that Holmberg's enclosure is specifically designed to retain fiber
9 slack when installed. That allows the splice tray to be opened and closed
10 without damaging those fibers that are stored on the splice tray 230.

11 DX-11, this is the first slide where I want to walk through what
12 Holmberg is actually disclosing. So, Holmberg's background section begins
13 by introducing a traditional fiber network, and they illustrate this traditional
14 fiber network in Figure 1 expressly labeled prior art. In these traditional
15 fiber networks, there are mid-span breakout locations, 125. I've annotated
16 that in red. This is a mid-span box that the parties have addressed at length
17 in the briefing in this case. That mid-span breakout box is used to bring
18 fiber from a main cable to a drop terminal, which I've annotated in green.
19 That's drop terminal 104 in Figure 1. In these traditional network
20 topologies, fiber is terminated to end subscribers from that drop terminal 104
21 rather than the mid-span breakout location in red, 125.

22 The background sections --

23 JUDGE TORNQUIST: Counsel, this is Judge Tornquist. You
24 would agree, though, that in Figure 1, these mid-span locations are intended
25 to send fiber to another, like a drop cable box or something. They're not
26 dropping directly to users.

1 MR. HART: I absolutely agree with that. That is -- we don't
2 dispute that there is a traditional topology that aligns with the arguments
3 Patent Owner has advanced in this case. It is very common to use these
4 breakout locations on a main cable. They take cable, drop cable to a
5 separate intermediate box like a DIB and then that DIB box will distribute
6 the fiber to the end subscribers. But as I address on DX-12, the next slide,
7 the background section continues and introduces an entirely different
8 network topology that relies on a wall box. And this is the network topology
9 that is the focus of the inventive concepts in Holmberg.

10 So, in DX-12 we see Figure 2 that is discussed in the background
11 section, just after paragraph 6 we were just looking at which related to
12 Figure 1. So, in Figure 2 what they're describing is a cable 150 that brings
13 service to a multi-unit dwelling such as an apartment complex. Paragraph 7
14 in the background section explains that wall boxes are typically provided at
15 different floors of the multi-unit dwelling with each wall box having optical
16 coupling locations corresponding to a plurality of different subscribers. For
17 example, each resident on a given floor. So, this is a different topology than
18 we saw in Figure 1 where you have a main cable that runs along the length
19 of a multi-unit building like an apartment building, and there is a wall box
20 designated for each floor in order to distribute optical service to those
21 individual subscribers or individual apartment units.

22 We see here --

23 JUDGE TORNQUIST: Counsel, this is Judge Tornquist. Just so
24 the record's clear, you will agree that Figure 2 is also talking about the prior
25 art, right?

26 MR. HART: Yes, Your Honor.

1 JUDGE TORNQUIST: Okay.

2 MR. HART: Figure 2 is laying a foundation for the inventive
3 concept. So, it's saying this is an alternative network topology that uses wall
4 boxes. And then as we see in paragraph 8 which is the first paragraph of the
5 summary of the invention, the Holmberg reference makes clear that it is
6 these wall boxes that is the focus of its inventive concept. And we see
7 throughout the specifications, certainly throughout the embodiments that we
8 have relied on over and over and over again, Holmberg reiterates that its
9 invention is a wall box.

10 And so, the background section in paragraph 7 that introduces this
11 multi-unit dwelling topology relying on a wall box per floor sets the table for
12 what is to come, which is the inventive concept. It is a wall box that is
13 mounted in a network topology just like we see in Figure 2. One wall box
14 per floor distributing fiber service to those individual apartments within that
15 building.

16 JUDGE TORNQUIST: Okay. So, did you -- is there anything in
17 the record, any other patents, or publications where a mid-span access box
18 was used to deliver fiber directly to a user?

19 MR. HART: I don't recall whether we focused on any other
20 references where a mid-span location terminates to individual subscribers. I
21 think that really is the inventive concept in Holmberg. You know, if you
22 think about the DIB, and I'll get to this in a subsequent slide, and just for
23 reference, I have this illustrated on the next slide, DX-30. If you think about
24 how the DIB works in the '483 patent, it has a single input that is a drop
25 cable, and it takes that and breaks it out eventually into multiple distribution
26 cables that go to the end subscribers, to the apartments of the building.

1 The Holmberg box also takes optical fiber and spreads it out to the
2 individual apartments within a multi-unit dwelling, but it allows some of
3 those fibers to pass through. So, it is really describing an end box, like a
4 DIB, but it has this additional functionality where it allows fiber to pass
5 through the box to pass on essentially to the next floor, to the next floor in an
6 apartment complex. That really seems to be what was unique and what was
7 novel in the Holmberg reference, is having a box like a DIB that terminates
8 fiber service to end units, but that does so and allows you to feed an entire
9 building with a single large fiber cable. So, adding that pass-through
10 capability is what was new and what was unique, and that's really what
11 was --

12 JUDGE TORNQUIST: Right. So, this is Judge Tornquist again.
13 Why would you do that? Like why take the risk of sending the whole cable
14 up through the building and not just terminating it somewhere say in the
15 basement with this sort of mid-span access box, then send individual -- I
16 guess you do have a figure coming up where you do have the two options.
17 I'm wondering why you would do your option here instead of the one that's
18 sort of in the basement.

19 MR. HART: Absolutely. So, the one in the basement, and if I'm
20 understanding your question correctly, would require a separate drop cable
21 for each floor. So, you would have a main cable in the basement, you would
22 run a cable to each floor, and you would have a box like '483's DIB on each
23 floor terminating service to the independent apartments. Holmberg, you
24 know, in the background section identifies these buildings as being served
25 with fiber optic telecommunication cables. And the implication is that these
26 are cables that are running the length of the apartment buildings. So, I think

1 what Holmberg is doing is it's saying, look we have these existing network
2 topologies where a multi-unit building is served by a single cable, and it
3 would really be useful to be able to mount these terminating boxes that can
4 provide service to the apartments on that single cable, making use of the fact
5 that there is one large cable that is passing by each floor and that would
6 accommodate a wall box per floor and a pass-through arrangement.

7 So, it's really serving a need in the art. It's identifying this non-
8 traditional network topology and it's providing an inventive enclosure that
9 supports that non-traditional network topology for multi-unit dwellings
10 specifically.

11 JUDGE TORNQUIST: Okay. So on, for example, your DX-13,
12 we don't need to decide whether one of skill would want to do this. What
13 you're saying is that that's exactly what Holmberg discloses already.

14 MR. HART: That's exactly right, yes. Yep. The really the critical
15 conclusion here is just that Holmberg is describing a box that terminates
16 fiber to the end subscriber rather than serving a traditional topology like in
17 the Figure 1 network. So, if Holmberg, if you conclude that Holmberg does
18 terminate to end subscribers as we've kind of laid out the full case forward in
19 our papers, essentially all the criticisms of our motivation to combine
20 evidence fall away. They are all premised on an understanding of traditional
21 mid-span access boxes rather than Holmberg's mid-span access box
22 specifically.

23 It is worth noting that the Cook reference that was discussed by Dr.
24 Kiaei in his original declaration, 1003 at paragraphs 44 to 45 does teach a
25 mid-span box that sends connections to subscribers. So, that's one additional
26 example in the record. Cook was really a focus in -- it focused more

1 prominently in Grounds 3 and 5 which were premised on that narrower
2 construction. So, the parties had spent a little less time on Cook throughout
3 the proceeding, post-institution than the other references. But that is one
4 additional example in the record of a mid-span box that terminates
5 connections to end subscribers.

6 JUDGE HOSKINS: Counsel, one question for you. On your DX-
7 13 there's a figure of two apartment buildings, and it looks like there's two
8 different designs for the cable setup. Where does this figure come from?

9 MR. HART: This is a figure that was generated in collaboration
10 with our expert. The lefthand side is depicting what is expressly described
11 in Holmberg, a fiber optic telecommunication cable, which is highlighted in
12 yellow in Holmberg paragraph 34 on the left of DX-13. So, you have a
13 multi-unit dwelling in Holmberg where you have a single fiber optic
14 telecommunications cable feeding that multi-unit dwelling, and Holmberg's
15 mid-span boxes are located one per floor along the length of that fiber optic
16 telecommunications cable. On the right, as we've explained in our papers
17 and our expert has laid out in detail, this is depicting the '483 patent's DIB.
18 So, the '483 patent's DIB enclosure does not have pass-through capabilities.
19 Its input is a drop cable from a main telecommunications optical cable. And
20 so, for the '483 patent's DIB to serve individual floors in a large building,
21 you're going to need a separate drop cable per floor. That's really the key
22 distinction between how Holmberg's box and how the '483 patent's box are
23 connected on the network side in order to service individual subscribers in
24 these multi-unit buildings like apartment complexes.

25 JUDGE GERSTENBLITH: So, in the building on the left that has
26 Holmberg's pass-through box, even the top floor would still have a pass-

1 through for the cable to continue somewhere else, or where would that go?

2 MR. HART: You know, Holmberg has left that open-ended. It
3 hasn't discussed that. I understand that it is somewhat common with these
4 boxes to cap the egress ports on those boxes. So, use the same box, but you
5 will use it with no further fibers passing through it. We haven't gotten into
6 that level of detail in this case. You know, the disputes between the parties
7 have been more fundamental about before the last box what is happening
8 rather than what is happening at that last box. But it's my understanding that
9 it is common to cap those ports. So, there is one box that may not have
10 anything pass through.

11 I think it's also possible, although this is not developed in the
12 record, to have that cable connecting between buildings. So, you might
13 have, you know, the cable running up one and down the other, something
14 along that line. Again, those are implementation details that are beyond the
15 scope of what Holmberg is really describing. It is simply introducing this
16 network topology in Figure 2, where you have a single telecommunication
17 optical fiber feeding that building, and it is proposing this type of box that
18 allows you to mount these boxes one per floor along the length of that single
19 cable.

20 JUDGE GERSTENBLITH: So, if Holmberg is on the left and the
21 patent is on the right, would you think that Holmberg is proposing an
22 improvement over the design that the patent is using? Because you only
23 need the one cable going up?

24 MR. HART: Certainly. That is the proposed benefit that
25 Holmberg ascribes to its invention. The benefit of Holmberg of allowing
26 this pass-through arrangement when you are terminating to end subscribers

1 is that if you have a network topology where you have a single fiber, or a
2 single bundle of fibers running up the building, you could use that single
3 bundle of fibers in the arrangement that Holmberg describes. So, I would
4 say that Holmberg treats that as its benefit. In terms of overall benefit, it
5 may be more of a marketing issue than anything, but I think practically some
6 buildings will have a single bundle of fibers like Holmberg is presuming and
7 some will not. And so, there very likely will be some apartment buildings
8 that require something more akin to the '483's DIB, and some that really
9 benefit from Holmberg's pass-through arrangement.

10 JUDGE GERSTENBLITH: Is there anything in the challenged
11 claims that precludes the claims from covering a pass-through box?

12 MR. HART: There is not. It all comes back to motivation to
13 combine. And really the key question is just, is Holmberg's box terminating
14 fiber to end subscribers? If it is, per Patent Owner's expert's admissions, it
15 needs the same easy access to add and remove subscribers as the '483
16 patent's DIB does. It all comes down to motivation to combine here.

17 JUDGE GERSTENBLITH: Okay, thank you.

18 MR. HART: Thank you, Your Honor. All right. Moving on to
19 DX-14 and kind of picking up that very last point, DX-14 highlights a
20 critical ignition.

21 JUDGE HOSKINS: Mr. Hart, I apologize. I was on mute. I tried
22 to stop you before you went forward. Can we go back to your slide 13,
23 please?

24 MR. HART: Absolutely.

25 JUDGE HOSKINS: Just for a moment, this will not take too long.
26 So, I understand your position that Holmberg discloses this arrangement that

1 is in the left building. I just want to make sure you have given us two
2 paragraphs here because I think Patent Owner's not going to like that
3 position. These two paragraphs that you cited here for paragraph 34 and
4 paragraph 7, is that your best written description aspect of what leads you to
5 tell us that Holmberg discloses what we see here on the left in your
6 illustration?

7 MR. HART: So, you know, we have these somewhat out of order
8 in order to emphasize the key points here. No, I think there's a lot more in
9 Holmberg. And so, taking them in order temporally, I think it's helpful to
10 understand the structure of Holmberg's disclosure. So, as we saw in
11 paragraph 6 in the background section, Holmberg first starts out by talking
12 about a traditional topology where the mid-span access does not reach end
13 subscribers. It then talks about Figure 2 in paragraph 7 contrasting that
14 traditional topology. And that's the first time where we introduce the
15 concept of a wall box, a wall box that serves the floor, a wall box that serves
16 end subscribers, you know, one per floor, distributing out that fiber service
17 to the individual apartments. Then we have paragraph 8 in the summary of
18 the invention that reiterates that this is an invention about those wall boxes.

19 Paragraph 34 is the very first paragraph in the detailed description
20 in Holmberg. And so, it is kind of starting us out saying this is a patent
21 disclosure about these wall boxes, about that Figure 2 topology where the
22 wall boxes are arranged to provide service to those end subscribers. And
23 then if you look at 35, which I have not replicated in DX-13 or in any of my
24 slides, but I can pull it up just to make sure I'm getting this just right. Oh, I
25 already had it up. All right. In paragraph 35, Holmberg says Figures 3
26 through 12, those are the -- those are the figures that depict the embodiment

1 we have focused on in our papers, show a wall box 200 having features in
2 accordance with the principles of the present invention. So, from that point,
3 from really 34 on, we are talking until we get to the other embodiments, we
4 are talking about these wall boxes that are specifically designed to
5 accommodate a pass-through arrangement in a network topology where you
6 have a wall box per floor and you are terminating service to those end
7 subscribers in the individual apartments.

8 JUDGE HOSKINS: Thank you.

9 MR. HART: Thank you, Your Honor. Too many things on my
10 screen here. All right. Coming back to DX-14. So, DX-14, it really
11 highlights a critical admission from Patent Owner's expert, as well as his
12 confusion about Holmberg's disclosure. Starting with the admission, which I
13 have annotated in green on DX-14, Patent Owner's expert admitted that the
14 multi-dwelling units served by Holmberg would in fact require an ability to
15 connect and disconnect new subscribers as needed. That is really the phrase
16 that Patent Owner and its expert use to describe boxes that require that easy
17 access that would be provided by the hinge in our proposed combination.
18 That is a feature of the DIB in the '483 patent and it is also a feature of
19 Holmberg's in our proposed combination.

20 This really gets to the heart of the combination. As Patent Owner
21 explained in its response, pages 5 through 13, if an enclosure terminates to
22 the end customers like in the '483 patent, the goal is to make it easy for a
23 technician to access the inside of the box, ensuring customers can be added
24 and removed. If you terminate to end subscribers per Patent Owner's
25 admissions, a POSITA would be incentivized to make it easy to come back
26 and access that tray, those splices over and over again. That's really the

1 main benefit of the proposed combination in this case. That hinge from
2 Battey makes it easier to access the front and the back and the components
3 below or behind Holmberg's splice tray 230.

4 In red on DX-14, we see that the arguments Patent Owner has
5 advanced, including through its expert are really premised on a
6 misunderstanding of Holmberg. On the left, Exhibit 1023, which is doctor --
7 Patent Owner's expert's cross-examination in this case, page 49, lines 4
8 through 11, he admits that it is true the multi-unit dwellings served by
9 Holmberg require inability to connect and disconnect subscribers, but he
10 says typically that ability is provided by the drop terminal that Holmberg
11 describes or a drop interface box, such as the '483 patent. That drop terminal
12 is the red -- I'm sorry, the green highlighted box in Figure 1, the prior art.
13 Drop terminal 104 is discussed in Holmberg in paragraph 6 and only
14 paragraph 6. As we walk through in the preceding slides, it is really a wall
15 box embodiment, Figure 2, and the remaining figures that Holmberg focuses
16 on as its inventive concept. The drop terminal 104 in Figure 1, the prior art
17 topology is not the focus. It is not the inventive concept and it is not what
18 Holmberg's enclosures are targeting.

19 On the right, some additional cross-examination testimony from
20 Patent Owner's expert. He says the Holmberg device is intended as a mid-
21 span device that routes signals through fibers to a building, but with the
22 intention of there being another interface unit to bring the signals to the
23 ultimate user location. Again, he is ascribing traditional topology,
24 traditional mid-span access functionality on Holmberg's wall box. But
25 Holmberg sets forth in clear detail, it is not targeting a traditional network
26 topology. It is an end user terminating box that accommodates a specific

1 network topology where you have one large main cable serving all floors of
2 the building.

3 Let's turn to DX-15. Just very briefly, Dr. Kiaei, Petitioner's
4 expert, he is the only expert in this case that has properly interpreted
5 Holmberg's teaching. As he explained in response to the Patent Owner's
6 arguments in its POR, Holmberg's wall boxes are directed to terminating
7 fiber directly to end subscribers in a multi-unit dwelling. He points to that
8 same paragraph 34 that I've talked about a number of times now. He walks
9 through in more detail in his declaration, which we discuss at pages 6
10 through 10 in our reply. So, that's really the big, the biggest view. Can I
11 interrupt very quickly? Are you all seeing and hearing me okay? I got a
12 note from a team member that they're getting some lag from me. Okay, very
13 good.

14 JUDGE HOSKINS: Yeah.

15 MR. HART: Well, hopefully it's just in our Kansas City location
16 with their internet connection and nothing between me and you today.

17 All right. DX-16. DX-16 further supports a conclusion. This is
18 evidence further supporting the conclusion that Holmberg's splice tray is in
19 fact intended to provide easy access even without a hinge. Holmberg's
20 splice tray 230 is secured by standard screws. Fasteners 276, as Patent
21 Owners expert conceded, are added, and removed to the box simply by
22 screwing them in and removing them. Standard screws, not security screws,
23 there's no welding, there's no gluing, there's no locking. When asked what a
24 technician does with splice tray 230 during installation, while they're
25 splicing fibers and doing something that requires two hands, Patent Owner's
26 expert proposed that two screws could be used to temporarily hold the splice

1 tray in place.

2 So, these are standard screws that can be added and removed at
3 will using standard screwdrivers. If the splice tray really were intended to
4 block access, as Patent Owner alleges, a POSITA would have expected the
5 tray to be secured by more than standard screws. Dr. Kiaei addresses this
6 point in his supplemental declaration, paragraphs 20 to 27. He provides a
7 lengthy discussion of various techniques known in the art for blocking
8 access, and he concludes that Holmberg, contrary to those examples, did not
9 intend to block access to its splice tray.

10 In sum, the evidence of record demonstrates that Holmberg's wall
11 box terminates service to end subscribers, requires easy access to the splice
12 tray to add and remove customers, and was designed to accommodate easily
13 accessing the splice tray to do that, to add and remove subscribers or
14 customers, as necessary. Patent Owner's insistence that Holmberg intends to
15 block such repeated access is just contrary to Holmberg's clear teachings and
16 should be rejected.

17 DX-17 addresses evidence developed post-institution that further
18 bolsters the motivation to combine Holmberg and Battey. In its response,
19 Patent Owner and its expert introduce their understanding of how fibers are
20 routed and installed in Holmberg's wall box. Patent Owner's expert
21 explained that Holmberg's splice tray, which we see in DX-17 being held by
22 a right hand, that that splice tray is not secured to the base unit via screws
23 until after the feed breakout cables are spliced to the distribution cables. He
24 also admitted that Holmberg's enclosure has no mechanism for holding the
25 splice tray during installation. He suggested that typically a technician holds
26 the splice tray in one hand and uses their second hand to perform the routing

1 and other installation processes.

2 But importantly, he admitted that a technician typically requires
3 two hands to splice fibers together. So, I asked him on cross-examination,
4 what is a technician supposed to do with Holmberg's floating splice tray 230
5 when they need two hands to splice the fibers together? He offered two
6 possibilities for what happens at that stage in the installation process. First,
7 he said a technician might just let that splice tray 230 hang by whatever
8 fibers have been routed around its spools at that point in the process.
9 Second, he said a technician might alternatively use two of Holmberg's
10 screws to temporarily hold the splice tray 230 in place while the splicing
11 process proceeds. As Petitioner's expert Dr. Kiaei explained in his
12 supplemental declaration, the proposal to add Battey's hinge is a
13 significantly better solution than either of those proposed by Patent Owner's
14 expert. The proposed hinge acts as a third hand during installation,
15 permitting the technician to use both hands for all routing, splicing,
16 operations, and any other thing that is easier to perform or to accomplish
17 using two hands.

18 It also avoids the downsides that are associated with the options
19 Patent Owner's expert introduced into the case. It doesn't risk damaging the
20 fibers, which is a distinct possibility if you just let the weight of the splice
21 tray hang on whatever fibers have been wrapped around it. And it's much
22 more convenient to simply open and close a hinge than to install and remove
23 multiple screws every time the technician needs to use both hands for an
24 operation. Accordingly, a POSITA would have understood that Battey's
25 hinges provide the benefit of easing access to the internals of Holmberg's
26 enclosure as set forth in the petition, and as further developed post-

1 institution.

2 JUDGE HOSKINS: Mr. Hart, by my count, you have about two
3 minutes left and I'm hoping you can at least get to Claim 10 before we go
4 over to Patent Owner's counsel.

5 MR. HART: I absolutely will, Your Honor. And I don't anticipate
6 needing a full 20, so if you'll permit it, I will freely run over my reserve time
7 here to make sure I cover everything you need me to.

8 In DX-18, I address Patent Owner's argument that Holmberg's box
9 seeks to prevent access behind the splice tray to avoid damaging the pass-
10 through fibers. This is fairly simple and I'll cover it quickly. Patent Owner's
11 expert admitted that the risk of damaging fibers and disturbing service to
12 other users applies to all fiber enclosures. So, you are going to risk
13 interrupting service downstream if you have pass-through fibers in
14 Holmberg's box, but you similarly are going to risk interrupting service to
15 downstream subscribers for the '483 DIB. So, the risk of damaging fibers
16 and disturbing service applies to every fiber enclosure, not just Holmberg.

17 JUDGE TORNQUIST: And there's a difference in degree there,
18 right? With a DIB, there's maybe four, five, I don't know how many, that
19 you might interrupt. With a pass-through, you might interrupt the entire
20 downstream set of users, right?

21 MR. HART: I would absolutely agree. Again, it's an
22 implementation detail, so it really depends on the details. But if you are on
23 the first floor of a 20-floor building with Holmberg's box, you certainly risk
24 disturbing service to more subscribers on upper floors than you would if you
25 had the '483 patent's DIB.

26 JUST TORNQUIST: Okay. So, there's a risk to both of them, but

1 it's a larger risk in Holmberg?

2 MR. HART: I think that's fair.

3 JUDGE TORNQUIST: Okay.

4 MR. HART: I think the key point here is, you know, how the
5 industry views solving this problem. So, you always have to be careful.
6 You never want to damage fibers. You never want to disturb service. As
7 our expert explained in a supplemental declaration, the industry --

8 JUDGE HOSKINS: We just had a network connectivity issue,
9 Counsel.

10 MR. HART: Can you hear me now, okay?

11 JUDGE HOSKINS: Yes.

12 MR. HART: Very good. So, as Petitioner's expert explained,
13 training is really the process that accommodates this or avoids this damage
14 and disturbance of downstream network users. So, you don't prevent a
15 technician from doing his or her job by blocking their access to the box.
16 You train them to work within the boxes without causing damage. So, that's
17 laid out in detail with a lot of references to industry guides for how to train
18 the technicians in Dr. Kiaei's supplemental declaration.

19 DX-19, this is the final critique of the proposed combination. It's
20 something the Board picked up on in institution. Patent Owner has argued
21 that once installed, you would not be able to open on a hinge splice tray 230
22 in Holmberg's box without first removing all the fibers. And the argument is
23 you'd have to remove the fibers in order to prevent damaging them as you
24 open splice tray 230 on that hinge. That, again, fundamentally ignores that
25 Holmberg's enclosure is specifically designed to retain fiber slack.

26 So, what I've depicted here in DX-19 is when you move that fiber

1 tray from your working condition as you're routing everything around the
2 enclosures, you're putting your splices in their holders, and you move that
3 against the base unit, all that slack in the fibers as you move it expands
4 around the spools, expands around those fiber retaining mechanisms. And
5 I've illustrated that here on DX-19 with red arrows showing the direction of
6 expansion where that slack goes in Holmberg's fiber retention mechanisms.
7 And it is that expansion, that additional slack that is specifically designed to
8 be held by these fiber retention mechanisms that allows you to open and
9 reclose Holmberg's splice tray 230 without damaging the fiber. So, this is a
10 specific feature that is designed in Holmberg that allows you to do that
11 without damage.

12 I do want to get to Claim 2, so I'm going to go ahead and turn to
13 DX-20 unless there are any further questions on the main combination.
14 Okay, very good. DX-20 --

15 JUDGE HOSKINS: Actually, I do have -- this is Judge Hoskins. I
16 do have one question. Let's suppose that we end up finding, contrary to your
17 position, that Holmberg does not actually disclose that the cables that are
18 coming out go to end users. I guess you've been using, I guess the phrase
19 you've been using is terminal cables. But so let's suppose it's limited to
20 those kind of harkening back to Holmberg's Figure 1, the kind of the true
21 mid-span cables, I guess, that are kind of underground going to houses or in
22 a building, I guess, going to houses. Does that mean then we need to hold
23 for Patent Owner because there is no reason to do this hinge in one of those
24 kind of more upstream boxes?

25 MR. HART: No, Your Honor. And this is a good example of, you
26 know, the arguments advanced in a POR kind of dictate the progression of

1 the evidence as it comes in the case. The primary motivation to combine
2 rationale is that placing a hinge makes it easier to install these fibers, to
3 access the fibers, to, you know, access the components behind splice tray
4 230 as well as the back of splice tray 230. That applies regardless of
5 whether you are terminating to end subscribers or not. The arguments
6 against our motivation to combine from Patent Owner all focused on
7 challenging whether there were actually terminated fibers to subscribers and
8 proposed that because there were not in Patent Owner's view that there was
9 no need for this easy access. But as we lay it out in our petition and our
10 subsequent papers in this case, the easy access applies regardless. It is going
11 to make the technician's life easier regardless of whether they are
12 terminating to an intermediate box or to the end subscriber.

13 JUDGE HOSKINS: Thank you.

14 MR. HART: Thank you, Your Honor. DX-20. I know I'm
15 running out of time, so I'll try to get to this quickly. So, as we see on DX-
16 20, Claim 2, Ground 2 adds in adapters to couple the feed breakout cables to
17 the distribution cables. So, this mapping starts out by cross-referencing the
18 above mapping of Holmberg and Battey. It establishes that feed breakout
19 cables are coupled to distribution cables by splicing, and those splices are
20 held in splice sleeve holder 294 on the front side of splice tray 230. And we
21 see that on the right side of DX-20.

22 Turning to DX-21, the motivation to make this modification to
23 Holmberg and Battey is that using adapters instead of splicing provides a
24 simplified and a more robust optical connection between the fibers of the
25 feed breakout cables and distribution cables. That was the rationale that the
26 Board identified from our petition and its institution decision. So, we have a

1 simplified process, simplified installation process and a more robust end
2 result by using an adapter instead of splicing.

3 Now, on DX-22, I'm going to attempt to distill down Patent
4 Owner's argument here. As I understand it, Patent Owner proposes that our
5 Ground 2, Claim 2 combination did not, in fact, propose replacing splicing
6 with an adapter, but maintain the splicing in place, added an entirely new
7 coupling in the form of an adapter, and added an entirely new section of
8 cable to connect the splicing to that adapter. The reason it's doing that, it's
9 characterizing our combination in that way, is because the claims require the
10 adapter to be located on the splice tray. If the splicing is retained from
11 Holmberg, Holmberg's splice tray holder occupies that space on the splice
12 tray, and Patent Owner argues that the adapter from Blankenship would have
13 to be located somewhere else failing to satisfy the claim. The Board should
14 reject this attempt to rewrite the petition and to fundamentally
15 mischaracterize the proposed ground against Claim 2.

16 As the Board recognized at institution, the rationale underlying the
17 combination was to simplify and to make more robust that one coupling
18 between feed breakout cables and distribution cables. Retaining splicing,
19 adding new couplings in the form of an adapter and an entirely new section
20 of cable is wholly inconsistent and would be the opposite of simplifying and
21 making more robust this coupling connection.

22 So, Patent Owner's arguments simply target a combination that we
23 did not propose, and they have no substantive arguments against the
24 combination we did propose. And I know there was a mention of Claim 10,
25 so if there are no questions on Claim 2, I do want to jump to Claim 10 very
26 quickly.

1 So, Claim 10 starts out on DX-23. This is really just a trade-off
2 analysis, very common analysis in obviousness. So, Claim 10 proposes or
3 Ground 4, Claim 10 proposes either replacing or adding Cowen's clips on
4 the base unit of Holmberg's enclosure. Those clips fully enclose the routed
5 fiber around and within Holmberg's box and provide more security than just
6 the single fingers that extend outward in the native Holmberg enclosure. So,
7 the proposed combination provides additional security, but admittedly it
8 does so at a slightly more complicated installation process. It requires
9 slightly more dexterity to route the cables in these fully enclosed clips than it
10 would to just use those fingers that exist natively in Holmberg's box. The
11 main point here is that Holmberg itself establishes a POSITA would have
12 understood that trade-off and would have been willing to make that trade-
13 off.

14 As we see in DX-24 on the front side of splice tray 230, Holmberg
15 uses these opposing fingers annotated in navy in Figure 6 on DX-24. Those
16 opposing fingers provide more security than just one set of fingers extending
17 outward or extending inward. Patent Owner's expert admitted on cross-
18 examination that they do provide more security and that they also are
19 slightly more difficult, require more dexterity to route the fibers around than
20 if you were just using a single set of externally facing fibers. So, Holmberg
21 demonstrates that a POSITA would have understood and Holmberg
22 understood that in certain cases it does make sense to get additional security
23 in exchange for a slightly more complicated installation process.

24 When trade-offs are implicated, as we touched on in our reply, the
25 law does not demand that a combination is the single best option, only that it
26 is a suitable option. That Holmberg itself traded convenience for security on

1 the front side of splice tray 230 demonstrates that this type of trade-off is not
2 only suitable, but desirable. And that's really the fundamental issue as it
3 relates to Claim 10 in Ground 4 here.

4 JUDGE TORNQUIST: Okay. This is Judge Tornquist. I just
5 want to -- I have to admit, I was a little confused reading your section as to
6 why you went to the fingers. It almost seemed like you were looking at a
7 different section. So, if I understand you correctly, you're still going to use
8 the clips on the main panel in the back?

9 MR. HART: Yes.

10 JUDGE TORNQUIST: Just went to the fingers to show that there
11 were other options available at different levels of difficulty?

12 MR. HART: That's exactly right. So, that -- those fingers on the
13 front side of splice tray 230 demonstrate the exact trade-off implicated by
14 our proposed combination. But you're exactly right. The proposed
15 combination adds Cowen's clips to the base unit, the orange, in a different
16 location within Holmberg's enclosure.

17 And I know I've run over. I'm more than happy to use my primary
18 time if there are more questions. Otherwise, I'll reserve whatever is left for
19 rebuttal.

20 JUDGE TORNQUIST: Okay. Seeing no other questions, you
21 have 10 minutes left for your rebuttal. And what we're going to do now is
22 we'll take a five-minute break so that Patent Owner's counsel can get
23 prepared. And then we will come back at 10:57.

24 MR. HART: Thank you, Your Honor.

25 JUDGE TORNQUIST: Thank you. Okay. Looks like we are all
26 back. With that, Patent Owner, when you are ready, and just let us know

1 how much time you'd like to reserve.

2 MR. SULLIVAN: Thank you, Your Honor. I'd like to reserve 15
3 minutes.

4 JUDGE TORNQUIST: Okay. When you're ready.

5 MR. SULLIVAN: Thank you. I'm going to go ahead and share
6 my screen if you could just confirm that you could see it, please.

7 JUDGE TORNQUIST: Okay. I can see looks like you have
8 Claim 1 of the '483 patent up.

9 MR. SULLIVAN: Great, thank you.

10 JUDGE TORNQUIST: Okay.

11 MR. SULLIVAN: So, I'll skip over some of the earlier slides,
12 much of which Petitioner's counsel covered. But I do want to focus on this
13 claim element of fiber storage panel having a hinge connection to the base
14 unit. So, I think it's important that this is a storage panel that has storage
15 capability for feed breakout cables and drop cables. So, it's -- the claimed
16 panel must have storage capabilities. And what we'll see is in all of the prior
17 art, including the main prior art references, Holmberg and Battey, there is no
18 disclosure of any hinged panel that's provided for storage. The Battey
19 reference has a hinge splice tray, but has fixed components for storing cable.
20 So, that is a key component. There's a lot of discussion about splice trays
21 and because the Holmberg storage also is called a splice tray, but the
22 Holmberg tray is a fixed, stationarily mounted, screw mounted panel
23 because it stores cable. Battey also has storage for cables that is also fixed
24 by fasteners. The only thing that's hinged in Battey is a splice tray, but
25 there's no disclosure of using a hinged panel or any hinge component to
26 store cables in any of these references.

1 So, I'm turning to slide DX-8 and the next several slides will show
2 that in the '483 patent in order to accomplish the storage of cables on a hinge
3 panel, there are a number of different features that are used to avoid
4 straining or stressing or kinking the fiber optic cables. Now, I'll address the
5 issue that -- the question or the argument was made in the reply well, none
6 of these features are necessarily claimed. But if Petitioner is proposing that
7 the Holmberg panel can be hinged, we've provided evidence that that
8 hinging if you did hinge the panel you would strain the cables, and they
9 don't provide any other modifications -- they don't even identify what the
10 modifications would be and they certainly don't identify that those
11 modifications would be obvious or easy, this matters. So, the reason the
12 hinged panel in the '483 patent works and does not strain the fibers is
13 because there are a number of different features that make it work. It's not
14 simply putting a hinge on, there are other things. So, for example, when the
15 drop cable transitions, and I'm looking once again at slide 8, when the drop
16 cable transitions from the main body to the hinge panel, it has to transition at
17 the location of the hinge.

18 Turning to slide 9, that interface or plug or adapter between the
19 drop cable and the feed breakout cables, that adapter is specifically located
20 at the hinge location.

21 Moving ahead to slide 10, which is Figure 53 of the '483 patent,
22 there are a number of integrated cable channels that are detailed and
23 described in the '483 patent of how they're able to provide stress-free
24 rotation of the panel to avoid straining or kinking the cables. None of these
25 features, and lastly slide 11, shows more channels in routing the cables from
26 the back -- excuse me, from the front of the hinge panel to the back. All of

1 these features enable the hinge panel to be rotated 180 degrees or further
2 without causing any disruption of the cables. None of that is described
3 certainly in Holmberg, nor does the Petitioner even attempt to argue what
4 other modifications would need to be made.

5 Now, turning to the argument of Holmberg and Battey as
6 disclosing this hinged panel, so the Petitioner is correct that the splice tray in
7 Holmberg, which is shown on the left side of slide 12, that panel does
8 provide storage, but it's a fixed storage panel. Similarly, Battey, another
9 mid-span access location enclosure, also provides storage, but it's fixed
10 storage. But importantly, these are both mid-span access enclosures, and at
11 this point, after we provided our response, there is no dispute that each of
12 these boxes are mid-span access location enclosures.

13 Now, in the petition, and in the Petitioner's expert's opening
14 declaration, there was a fundamental mistake. Petitioner and its expert
15 expressly stated that Holmberg discloses a drop interface box, just like the
16 '483 patent. Also with respect to Battey, the Petitioner and its expert
17 expressly disclosed that their opinions were based on their understanding
18 that Battey discloses a drop interface box. That is simply not true. They do
19 not. And in the reply, they acknowledged that and then pivoted to new
20 theories. But essentially, they were fundamentally wrong. These are
21 different boxes, different purposes. Battey and Holmberg both deal with
22 main fiber cables that pass through. And their designs are based on that.

23 JUDGE HOSKINS: Mr. Sullivan, this is Judge Hoskins. So, drop
24 interface box, I guess you're taking that to mean that we have to have wires
25 coming out and what Mr. Hart was talking about before about the terminal
26 wires, is that what defines a drop interface box to kind of say that there's a

1 difference between drop interface box and Holmberg?

2 MR. SULLIVAN: That's correct, Your Honor. And if I go back to
3 slide 4, slide 4 shows what a mid-stand access location box would address,
4 and it would be the main fiber cable coming in, a certain number of fibers --
5 well, all of the fibers would be exposed for a certain length so that the
6 technician could then access the number of fibers required for that particular
7 box.

8 Slide 5, which is Figure 1 of the '483 patent, slide 5 shows what,
9 and there's no dispute amongst the parties, a drop interface box is understood
10 as you have a mid-span access location or you have some box that a drop
11 cable is received from into the building of the location, that drop interface
12 box then takes that drop cable and separates it out to individual units. So,
13 there's no misunderstanding or debate about what a drop interface box is,
14 what it's understood to be in the art, and in the petition and the Petitioner's
15 expert declaration, opening declaration, there was a statement that we're
16 basing our opinion on the fact that both of these disclose DIBs or drop
17 interface boxes.

18 JUDGE HOSKINS: Thank you for that. So, then just one more
19 question if you don't -- could you go back to your slide 5?

20 MR. SULLIVAN: Sure.

21 JUDGE HOSKINS: So, this is Figure 1 of the challenged patent.

22 MR. SULLIVAN: Yes, Your Honor.

23 JUDGE HOSKINS: So, what Petitioner is telling us is that
24 Holmberg, those boxes that are on each floor, in Petitioner's reading of
25 Holmberg, the only difference from Figure 1 is that you would have another
26 line kind of coming out the top of this drop interface box in Figure 1 that

1 would go to the next floor up, right? If you were to make that change kind
2 of to what we see in Figure 1, does that make it no longer a drop interface
3 box, in your view?

4 MR. SULLIVAN: Yeah, and that question wasn't addressed by the
5 experts, but I believe that's correct, that it would no longer be a drop
6 interface box. It's a mid-span access location box. And I think it's important
7 that throughout the Holmberg reference, maybe half a dozen or even more, it
8 is consistently referred to as a mid-span access location box. That is a well-
9 defined term. It's supported by all of the other prior art that Petitioner has
10 introduced, as well as some of the prior art that we've introduced. So, I
11 believe once you have a main line going through the box, it is a mid-span
12 access location box.

13 I'm sorry, did you have anything further there?

14 JUDGE HOSKINS: I was just going to say thank you, so thank
15 you.

16 MR. SULLIVAN: I do want to address this, you know, something
17 from -- a few things from the opening presentation. So, I want to go to the
18 slide -- I'm going to slide 12, DX-12 of Petitioner's. You know, I think Your
19 Honors did ask the question, is there anything else besides paragraphs 7 and
20 34 from Holmberg that supports this notion that, you know, the diagrams
21 that are on slide 13 of Petitioner's presentation. And the answer is no.
22 Those are the only paragraphs. And I base that not only slide 13, the only
23 information cited is reply page 10, Holmberg, paragraphs 7 and 34. But I
24 think if you look closely at those paragraphs, and we'll look at paragraph 7
25 now for a moment in Holmberg on slide DX-12. There's nothing in
26 paragraph 7 that indicates that you would put a mid-span access location box

1 on each floor. Paragraph 7 simply says in the prior art, you could have wall
2 boxes on each floor, and each of those wall boxes would serve subscribers.
3 That's what paragraph 7 is. Those could be DIBs. There's no indication that
4 you would use a mid-span access location on each floor. In fact, it doesn't
5 make sense to do so.

6 And then if we look at paragraph 34, which Petitioner has shown
7 on DX-13, if you look at that paragraph, it simply says that you could use a
8 wall box for an indoor application. That you have multi-dwelling units
9 where a plurality of subscribers are located. Even if those multi-dwelling --
10 even if there's multiple floors, it doesn't say that you would use a mid-span
11 access location box on each floor. In fact, if we look at, you know, part of
12 Holmberg paragraph 34 is represented there, and it's highlighted the indoor
13 application, but there's nothing in that paragraph that says put a Holmberg
14 box on each floor. It doesn't make sense. It doesn't make sense to run the
15 main fiber cable all the way up through the top, and then you wouldn't cap it
16 as suggested by Petitioner's counsel. It has to keep going. It's the main fiber
17 line unless it's the very last building. But if we look at paragraph 34, and I'm
18 going to Holmberg paragraph 34, the rest of that paragraph says this design
19 can be used for either indoor or outdoor applications. And it says certain
20 embodiments can be sealed for use in below grade applications, for use in
21 hand holes. This box is not designed to have frequent access. It's not
22 designed to have the main cable exposed on all kinds of floors. There's
23 nothing in this paragraph that says let's have multiple boxes on each floor
24 that technicians can access the main cable. And those are the only
25 paragraphs that Petitioner is relying upon. And I would suggest they don't
26 support this diagram on page -- on slide 13 that you would have multiple

1 Holmberg boxes on each floor with the main cable going to each floor. It
2 doesn't make sense.

3 I would also say that even if it were the case, and it's not, even if it
4 were the case that you would put a mid-span access box on each floor with
5 Holmberg, you still would want to protect the main fiber. So, when
6 Petitioner's counsel suggests that this argument rests solely on whether you
7 believe Holmberg discloses that it can be terminated directly to subscribers,
8 that's not true. Even if that was the case, and we've presented evidence that
9 it's not the case, but even if it were, you would not want the main fiber cable
10 to be accessed without having -- inadvertently accessed, without having to
11 remove the screws. So, it really doesn't matter whether or not a DIB is used,
12 you know, to address the question of whether it stands or falls on this one
13 point. You still want to protect the main fiber cable, whether it's in the
14 basement in one location, or whether it's on each floor.

15 I'm returning to my presentation.

16 JUDGE TORNQUIST: Counsel, I'm sorry, this is Judge
17 Tornquist. I'm sorry to throw you off. Would you go back to that Figure
18 again, they're DX-13?

19 MR. SULLIVAN: Sure.

20 JUDGE TORNQUIST: As you mentioned, even in your example
21 on the right, where the main line sends the orange cables up, the drop cables
22 up, we need a mid-span access point at that spot, correct?

23 MR. SULLIVAN: You would need a mid-span access location,
24 and there was a fair amount of cross-examination on this point, and there
25 was no clarity provided by Petitioner's expert. But you would need a
26 mechanism to take the -- to get from the main cable to a drop cable. And

1 yes, you could have a mid-span access location either in the basement, or
2 you could have it outside the building.

3 JUDGE TORNQUIST: Okay. And am I right that your expert
4 agreed that even in that situation, you'd need to be able to add or remove
5 subscribers?

6 MR. SULLIVAN: In the situation on the right?

7 JUDGE TORNQUIST: Yes, if it's in the basement -- or is it at the
8 end?

9 MR. SULLIVAN: Yeah. So, the example on the right, those are
10 drop interface boxes as with the '483 patent. And in each of those boxes,
11 you would have the ability and flexibility to add or remove subscribers.
12 That's correct.

13 JUDGE TORNQUIST: Okay. So, that's maybe a critical question.
14 I'm making sure I understand the testimony correctly. If that mid-span
15 access box is in the basement sending up those orange lines, do we still need
16 to get access to that mid-span box from time to time to add lines and remove
17 lines as subscribers come in and out of the building?

18 MR. SULLIVAN: So, it's a good question. The Holmberg box
19 does provide the ability in those rare occasions, repair or otherwise, in those
20 rare occasions where you have to access the main fiber line, which would be
21 extraordinary because if you start cutting lines in the main fiber line to add
22 new subscribers, you are impacting downstream subscribers. So, in those
23 very rare occasions, you are able to remove the screws and access it. But it
24 is not a frequent occurrence. That's why you have the DIBs. That's why you
25 have the convenience of the DIBs. So, we're not saying that you never need
26 access. We're saying that in those rare occasions you would have access,

1 you just don't want unfettered access.

2 JUDGE TORNQUIST: Okay. And Claim 1 has a drop interface
3 box in the preamble. Do we need to find the preamble limiting for your
4 arguments to work, or is it just motivation to combine at this point?

5 MR. SULLIVAN: We did not argue that the drop interface box
6 limitation is limiting. It's the context of the storage of the cables, whether
7 you would hinge it. We don't believe there's disclosure of a hinged storage
8 panel, and we don't believe there's a motivation to combine where you
9 would modify Holmberg's storage panel to make it hinged.

10 JUDGE TORNQUIST: Okay. And last question for right now is,
11 Petitioner's counsel said that Grounds 3 and 5 are really no longer in play
12 because we're not arguing about the types of cables at this point. Do you
13 agree with that?

14 MR. SULLIVAN: In our Patent Owner response, we did not make
15 a distinction based on the types of cables, that is correct.

16 JUDGE TORNQUIST: Okay, thank you.

17 MR. SULLIVAN: How am I doing on time? About 18, 20
18 minutes in, is that right?

19 JUDGE TORNQUIST: Yep. So, you're about 19 minutes in.

20 MR. SULLIVAN: Okay. Thank you. Returning to my
21 presentation, if we go to slide 16 where I was addressing the fact that both
22 Holmberg and Battey disclose mid-span access locations where there is
23 storage of cables in a fixed manner, and we'll look at that. But also that
24 these are mid-span access locations dealing with main fiber lines, and in
25 each case, including in Battey and in other prior art that we introduced in the
26 case, actually prior art that Petitioner had issues, it's clear that in these mid-

1 span access locations you want to protect and you want to restrict access to
2 these boxes that have the main fiber cable line because you don't want to
3 disrupt any delicate splices, and certainly you don't want to disrupt the main
4 fiber line.

5 Now, specifically with respect to Holmberg, I'm on slide 17
6 showing Figure 6 of Holmberg, we annotated Holmberg, and there's no
7 dispute about the accuracy of the annotations, to show what's happening in
8 Holmberg. So, in Holmberg, what's shown in orange is the main fiber line is
9 coming in about four feet of the sheath or the cover is removed to expose the
10 main fibers that are passing through and those fibers are routed around and
11 stored on the retaining members 260, 264 of the main cable. Now, it's
12 shown in exploded view but the storage -- the splice tray 230, which is
13 shown removed, that will eventually be -- when the insulation is done, that
14 will be fastened onto the main box using the four fasteners. So, it is a
15 fixed -- this is teaching fixed storage of the cables.

16 Looking at slide 18, another aspect of Holmberg is the storage
17 spools on Holmberg are on both sides of the splice tray. So, Figure 7 is
18 showing in orange that the fibers, the main fibers that are going to be
19 spliced, those are stored on the backside of the splice tray. And then turning
20 ahead to slide 19, what we showed here was that we superimpose that hub
21 when the splice tray is fastened onto the box, that hub will be located in the
22 center of the stored main fiber cable.

23 So, you know, importantly, and what I addressed in your previous
24 question, Your Honor, is you don't need access to these main fiber cables
25 often at all. What we'll see is the splices to the customers, those are located
26 on the front of the splice tray intentionally. That you might need access to

1 frequently and that you can access simply by opening the cover of the box.

2 The main fiber, it's not an accident, it's intended that the main fiber is

3 protected by the fixed storage panel being screwed on top of it.

4 Now, shown in slide 20 is the annotated version of Figure 4 of

5 Holmberg showing the completed installation. Now, I want to return to

6 Petitioner's presentation and specifically slide 9. Now, the only motivation

7 to combine that was provided in the petition was that you would want to -- a

8 person of ordinary skill in the art would want to hinge Holmberg's splice

9 tray to provide convenient and easy access to the splice tray. Now, the slide

10 says components behind the splice tray, but essentially the motivation to

11 combine that was offered was convenient and easy access to the splice tray.

12 So, if I go back to my presentation, what you can see in Figure 6, so the

13 splices where you would be able to add or disconnect customers, those

14 splices, they're already easily accessible. They're already on the front of the

15 splice tray. So, there's no reason or need to hinge the splice tray if you want

16 to disconnect a customer or connect a customer.

17 JUDGE TORNQUIST: Counsel, this is Judge Tornquist. Just so I

18 understand, on the figure that you have annotated on your slide 20, the teal

19 fibers are the ones that are ultimately going to the customers, correct?

20 MR. SULLIVAN: It could be going to the -- they will ultimately

21 go to the customer. We have proffered that they would go to a DIB, but

22 whether they go to a customer or a DIB, it's the same issue.

23 JUDGE TORNQUIST: Okay. So, fair enough. So, how do they

24 get -- transition from that splice tray 230 up to the upper right corner to leave

25 the device?

26 MR. SULLIVAN: So, Holmberg doesn't specifically address that.

1 So it, and neither expert details that, but the -- based on the construction of
2 the box and the splice tray, the blue or teal cables, they need to get behind
3 the splice tray in order to access it. So, they could go through the same
4 opening 296 that the main orange fibers are coming through. But it's not
5 detailed, but that presumably that would be one way, you know, maybe in
6 the corners but it has to get to behind the splice tray in order to get up and
7 out.

8 JUDGE TORNQUIST: Okay. So, if you're doing a repair or a
9 disconnect do you then have to take that panel off? Potentially to route
10 these?

11 MR. SULLIVAN: If you are doing a repair or a disconnect in
12 those -- for a disconnect, no. You could disconnect them from the front.
13 But if you had to do a repair that involved those cables or the main fiber, you
14 would, in certain circumstances, you might have to remove the four screws.

15 JUDGE TORNQUIST: Okay.

16 MR. SULLIVAN: Now, I do want to point out that, you know,
17 there's a lot of discussion about whether our position is that we want to block
18 access behind the splice tray. We're saying we don't want inadvertent access
19 to the splice tray. We want to restrict it so it's not -- you don't just open up
20 the cover and you now have access to the main fiber cable. In their own
21 papers and their own expert, they argue that it's easy to remove the panel.
22 It's easy to take out four screws. I think it's in their reply and I'm showing
23 on my screen their reply pages 12 and 13. They say a POSITA would have
24 understood that the fasteners are just normal screws, easily removed as
25 needed. So, whatever -- and the same on page 13, Holmberg chose to secure
26 a splice tray with only easily removable screws. So, this isn't a situation

1 where you couldn't access it if you needed. You would just have to be
2 intentional about it. You couldn't inadvertently access the main fiber cable.
3 You have to be intentional about it.

4 Returning to to slide 20. So, Holmberg teaches the storage of the
5 main fiber cable that's on the back of the splice tray and the storage of the
6 output cable that's on the front of the splice tray. That is a fixed storage
7 panel. There's no indication that it would be hinged or would want it to be
8 hinged. If you need access to the splices to connect or disconnect a
9 subscriber, you have access to it on the front. If you needed access in a rare
10 circumstance to get behind the panel, you'd be able to do that by removing
11 four easily removed screws. There's no dispute about that.

12 Now, once you do have it installed, as shown in slide 20, in order
13 to remove that panel, you would have to unspool the fibers. So, that alone
14 would be a cumbersome process. So, whatever convenience you might
15 allegedly gain by putting a hinge on a panel, if you then have to remove or
16 unspool the fibers in order to do so, you're really not gaining any
17 convenience or easier access. And you don't even need access that
18 frequently for the reasons we've already described. But, and if you didn't
19 unspool them, you know, Petition -- I'm jumping ahead to slide 23,
20 Petitioner's own expert when asked, is it easy to remove that splice tray? He
21 said, if you yanked it out of there, you would cut all the lines or break them.
22 You would have all the lines disrupted. So, it's not -- you can't just move the
23 splice tray without disrupting the lines. And in particular, the splices that are
24 on the front of the splice tray.

25 Now, I'm turning ahead to slide 21. We spent some time on this
26 diagram earlier in the presentation in response to a question. But I do want

1 to reiterate that, you know, when you look at this diagram, we don't believe
2 there's support for the notion that you would have a mid-span access location
3 box on each floor. It doesn't make sense to route the main fiber cable
4 through each floor, expose it to harm. Where does it go after the top floor?
5 It just seems to be floating. If it's capped, then it couldn't go to another
6 building. It just doesn't make sense. But even if you were to do that and
7 you were to try and go directly to subscribers, you would still have a need to
8 protect the main fiber cable. And if you needed to access it for some reason,
9 you could with the screws. Both parties agree that there is a need to avoid
10 damaging the pass-through fibers. So, I'm looking at Petitioner's reply, page
11 13, they agree. There is a need to avoid damaging the pass-through fibers.
12 And the way Holmberg does that is by using a splice panel that protects
13 those fibers.

14 This argument that -- I'll go to slide 19 of Petitioner's presentation.
15 So, Petitioner argues without any support from Holmberg and just there's
16 really no evidentiary support, documentary evidence, that you wouldn't
17 spool the fibers in Holmberg where you would need to unspool them or
18 unwind them to take the tray off. They speculate that you would do it
19 loosely, but there's no support for that. If you look at -- and I'm returning
20 back to my presentation slide 22, if you look at the '483 patent, the fibers are
21 spooled tightly. They're tightly wound. The reason you're winding them
22 tightly is there are certain bend radiuses that you don't want to violate. You
23 don't want the fiber to kink. So, there's really no reason why you wouldn't
24 wind them tightly. And there's no support for that position.

25 If I go back to slide 20, so there's also a discussion about, you
26 know, where you would be, you know, you would only be doing the splices

1 at a certain distance away. There's a reason why you expose four feet of the
2 main fiber. You need to take that a decent distance away from the panel in
3 order to do the splicing, most likely on some sort of table. There's testimony
4 in the record in our sur-reply, these are heavy splicing machines. So, and I'll
5 address the argument of, you know, this new motivation to combine. But
6 the splicing would be done on a table, most likely with the panel next to it.
7 And then you would, the four feet of cable would then need to be wound or
8 spooled back on. There's no support for this notion that you wouldn't spool
9 it tightly. And you would be able to remove it without having to unspool.

10 Before I get to that new motivation, I just wanted to briefly address
11 Battey. Once again, as I mentioned, if I go back to Petitioner's slide 9,
12 where they discuss the motivation to combine, they point to Battey as
13 evidence of a hinged connection. But once again, the only -- back to my
14 presentation at slide 24, the only hinged connections in Battey are the cover
15 and the splice tray. There's no disclosure of storage panels that are hinged.
16 The storage panels or the slack storage baskets in Battey are fixed. They're
17 fixed for a reason. You don't want moving panels when you're storing
18 wound cables around them.

19 Similarly, if we go back to slide 9, they also point to the
20 Castonguay reference. But Castonguay, similarly, the storage in -- there is a
21 hinged panel in the Castonguay, but the storage is done on the fixed base
22 panel. There is no -- there is no hinged storage panel in Castonguay. So,
23 there is no prior art that shows you would hinge a storage panel. They've
24 simply taken a hinge, any hinge, a hinge used for a splice tray for a different
25 purpose for not storage, and they've, using hindsight, they've said you would
26 hinge the storage panel in Holmberg simply because the storage panel in

1 Holmberg is referred to as a splice tray.

2 I do want to address slide 17 of Petitioner's demonstratives. So,
3 this -- the title of the slide is reinforcing the motivation to combine. So, this
4 is a brand new motivation to combine that was introduced in the reply. It
5 was not in the petition. It's only, if we look at slide 17, the only cites are to
6 the reply. It's not supported, but it's a brand new motivation that says in
7 addition to the convenience, convenient access, which we've shown we
8 already have convenient access to the front without the hinge. We already
9 have access to the rear whenever we need it, but not inadvertently. This is a
10 new motivation to combine which are not allowed to introduce in reply. It
11 was questioning by Petitioner's counsel to Petitioner's expert after the Patent
12 Owner response. And we have articulated reasons why it's not technically
13 correct, but it's also inappropriate to introduce at this time.

14 I'd like to, before I turn to the dependent claims, were there any
15 other questions on Claim 1? And it looks like I have about 10 minutes or so.
16 So, I'm now on slide 26 of Patent Owner's demonstratives. So, Dependent
17 Claim 2 adds that the fiber storage panel further includes an adapter bracket.
18 So, importantly, it's not just an adapter bracket. It's an adapter bracket that's
19 on the fiber storage panel. In the petition, the Petitioner, and its expert, they
20 never alleged that it would be obvious to locate Blankenship's adapter
21 bracket on Holmberg's splice tray that they allege is the claimed storage
22 panel. So, there was no allegation that the fiber storage panel, it would be
23 obvious to put an adapter bracket on it.

24 If we look at Petitioner's slide 21, where they point to the locations
25 in the petition that addresses Claim 2, if we look on the bottom left of slide
26 21, this is a quote or an excerpt from page 65 of the petition. It simply says,

1 a POSITA would have been motivated and found it obvious to modify
2 Holmberg-Batthey to utilize an adapter bracket holding one or more brackets
3 to couple a plurality of feed break out cables to a plurality of distribution
4 cables. It simply says that a POSITA would have found it obvious to use an
5 adapter bracket in that combination. It never indicates how or where that
6 adapter bracket would be located.

7 JUDGE TORNQUIST: Counsel, this is Judge Tornquist. In
8 Holmberg, the feed break out cables are spliced to the distribution cables on
9 the front end of that splice tray 230, correct?

10 MR. SULLIVAN: That's correct.

11 JUDGE TORNQUIST: Okay. I mean, I understand your concern
12 about lack of, maybe the lack of clarity here, but it seems like if they're
13 going to replace the splice tray, it needs to be at that same spot.
14 (CROSSTALK) the splice area.

15 MR. SULLIVAN: Sure. That's a key point. They did not allege
16 that it was a replacement. And the prior art that they're relying upon shows
17 that you have a splice -- you have a splice tray where you do a splice, then
18 you use a pigtail to an adapter bracket. So, the prior art, which we'll see, the
19 prior art says, don't replace the splicing. Use the adapter bracket in addition
20 to the splicing in a different location from where you're doing the splicing.
21 So, if I return to my demonstratives, I'll address that point now and then go
22 back.

23 But in Holmberg, Holmberg teaches embodiments, Figures 16
24 through 21, where they do use adapters. They mount adapters, they don't
25 use an adapter bracket on the splice tray. They use an adapter bracket in
26 addition to the splice tray, in addition to the sleeve holders, and this is

1 undisputed, their expert agrees, their own papers agree, that it's, in Holmberg
2 it teaches use the splice tray plus adapters that are on the wall in certain
3 embodiments. So, the adapters do not replace the splice tray, they do not
4 replace the splicing function.

5 And I'm looking at slide 28, this is from -- this is Petitioner's own
6 words in their reply at page 29, the adapters in Holmberg's other
7 embodiments attached to the outside of the enclosure, the connections
8 secured on the splice tray are still required. So, Holmberg teaches, you
9 would -- so, if we go to -- if we go back to my slide 20, if you're, and I'm on
10 slide 20. If you're going, actually, I'll go a little further. Slide 19. If you're
11 going to use adapters instead of the splice sleeve holders, you still need to
12 splice the main fiber cable and the way it's disclosed in Holmberg, the way
13 it's disclosed in the prior art that they rely upon in Blankenship, you use a
14 pigtail. On one side of the pigtail, you splice fiber to fiber. On the other
15 side of the pigtail is the connector that you connect to the adapter bracket.
16 So, you still have a need to splice. So, there's no support for this notion that
17 you would replace the splice sleeve holders. Even if you were to use an
18 adapter bracket, the adapter bracket would be located elsewhere, or there's
19 certainly no evidence that it would be located on the splice tray 230 as well.

20 Looking at slide 29, this is the Blankenship reference. Once again,
21 the adapter -- so, they're relying upon the adapter bracket in Blankenship,
22 and they're saying it would be obvious to use that adapter bracket in
23 Holmberg. But even in Blankenship, just like Holmberg, when an adapter is
24 used, there is a separate splice tray, a separate location, where a pigtail then
25 interfaces between the splice and the separately located adapter bracket.

26 I do want to address the question of whether they identified the

1 location or not. I think those arguments alone that the prior art teaches that
2 you would actually put a splice -- you would put the splicing in a separate
3 location than the adapter. I think that's sufficient, but I also think it's
4 inappropriate. In their reply they're suggesting that there's no suggestion,
5 and I'm looking at page 28 of the reply, there's no suggestion in the petition
6 that the adapter would be located anywhere other than the location of
7 Holmberg's splice sleeve holder, which it replaces. They never argued in the
8 petition that it would be replaced. So, to suggest they never -- there's no
9 suggestion that it would be elsewhere. I don't think that meets their burden,
10 especially given that the prior art they're relying upon all shows that the
11 adapters would be located separately.

12 I'd like to turn to Dependent Claim 10. Dependent Claim 10,
13 which is slide 30 of my demonstratives, it adds that the drop cable retaining
14 mechanisms in the base unit comprise storage clips positioned on opposing
15 sides of the base unit.

16 Turning ahead to slide 31. In Holmberg, now remember Holmberg
17 is -- the cable that's being retained in Holmberg is an uncut cable. It's the
18 main fiber cable that's uncut. So, it's not an accident that the retaining
19 mechanisms are open. They're not fully enclosed because you want to be
20 able to route and wind that uncut cable around the retaining mechanisms.
21 It's undisputed that Holmberg already discloses a solution for handling this
22 uncut cable. And it's also undisputed that adding the clips from Cowen
23 would make this installation more difficult. Those are undisputed. The only
24 response from Petitioner, and I've turned ahead to slide 34, where these
25 Cowen clips, these clips are fully encircled, Petitioner and its expert, they
26 agree this would make the installation in Holmberg more difficult for that

1 main cable.

2 But, and I think Your Honors noted, slide 24 of Petitioner's
3 presentation, they are pointing to the clips on the front, not clips, but the
4 retaining mechanism. They're not even fully enclosed clips. They're
5 pointing to alternate retaining mechanisms on the front that they claim
6 would be more difficult. But those are in a different location. Those are
7 different clips. It doesn't provide any support of why you would use clips
8 that are enclosed. Those are retaining mechanisms. Those are not the
9 Cowen clips that are being addressed here. And they're not -- they don't
10 store the main cable. So yes, it's another retaining mechanism. Yes, it might
11 introduce slightly more difficulty, but it's not the Cowen clips, and it's not
12 for the application of the main fiber cable.

13 I believe I am up against 45 minutes, so if there's no other
14 questions, I'm all set.

15 JUDGE TORNQUIST: Okay. I don't see any further questions.
16 You will have 15 minutes in rebuttal. We're going to take a quick five-
17 minute break again, and then we will hear the rebuttal and sur-rebuttal
18 arguments. So, let's come back at 11:50. Thank you.

19 COURT REPORTER: Okay. We're going off record. The time is
20 11:45 a.m. Eastern Standard.

21 (Whereupon, the above-entitled matter went off the record at 11:45
22 a.m. and resumed at 11:50 a.m.)

23 JUDGE TORNQUIST: I see all the Judges and counsel present.
24 Just reconfirm again that we have the court reporter on the line.

25 COURT REPORTER: Yes. I'm online, the time is 11:50 a.m.
26 Thank you.

1 JUDGE TORNQUIST: Perfect. Thank you very much. Okay.
2 Petitioner, you have 10 minutes for your rebuttal and you can start when
3 you're ready.

4 MR. HART: Thank you very much, Your Honor. Repeatedly
5 today in Patent Owner's arguments, Patent Owner's counsel admitted that
6 accessing the back of Holmberg's panel is necessary some of the time. So,
7 this is really an issue of degree. The hinge unquestionably makes this access
8 easier, but Patent Owner argues that maybe it makes it too easy because its
9 interpretation of Holmberg is that such access would be rare and
10 discouraged. As I discussed at length in my opening argument, Patent
11 Owner's interpretation of Holmberg is wrong. Holmberg terminates to end
12 customers and therefore requires easy and frequent access to both sides of its
13 splice panel.

14 But Patent Owner's arguments are also legally insufficient. There
15 is just no question that access is required some of the time, which he has
16 admitted multiple times today. There's also no legitimate dispute that
17 providing a hinge to obtain that access makes the technician's job easier.
18 Infrequently realizing a benefit does not negate that benefit. There is still
19 motivation to make this combination, even if that easy access is only
20 realized some of the time. The only remaining rationale for avoiding a hinge
21 is that pass-through fibers may be damaged. Again, these arguments from
22 Patent Owner can't really co-exist properly and logically at the same time.

23 The damage is a risk regardless of whether you are accessing it
24 frequently or infrequently. So, the solution to avoid damage is training. As
25 we laid out in our reply and as our expert, Dr. Kiaei discussed at length. A
26 POSITA would not be motivated to make a technician's job harder, just as a

1 reminder that they should be extra careful when they're accessing the back of
2 the panel. You want to make the technician's job as easy as possible. You
3 train to ensure that technician doesn't do any damage when they are inside
4 the box as accessing the back of that panel.

5 A couple related points. To add customers, once the fiber tray is
6 secured to the back panel, you must access the back of splice tray. You
7 cannot access the fibers on that spool 298 on the backside of the splice tray
8 without unsecuring the tray. And I think the best illustration of this, and it
9 was discussed at length in the reply and the supplemental declaration from
10 Dr. Kiaei is on DX-19 in Petitioner's demonstratives. On the left in figure --
11 I think there is actually in a labeling issue, the left is certainly Figure 6, I
12 believe the right is Figure 4, but was mislabeled in the briefing at some point
13 is Figure 6. On the left in Figure 6, we can see that pass through port 296 on
14 the splice tray 230 just over that orange spool. That is where those fibers are
15 routed from the back side of the tray to the front side of the tray.

16 We can see on the right side, which is actually Figure 4, once those
17 teal fibers are installed, once the splicing's done, those teal fibers are
18 wrapped around, that hole, 296, that port is no longer available. There is no
19 way to access the fibers behind the tray and route them through 296 once
20 you have installed everything. That's why the hinge provides such a benefit.
21 You can open it up, access the fibers, and then route them to the front side.

22 As a point of clarification, although I don't think it's critical, I do
23 believe the rectangular shaped ports on the right side of splice tray 230 that
24 you can see on the right side of DX-19, I believe that is where those teal
25 fibers are actually routed to eventually make their way through the egress
26 port of the box. Neither party has illustrated that or discussed it. There were

1 certainly more important issues to attend to, but that is our expert's
2 interpretation of how those teal fibers actually get from the back side of the
3 tray out of the box.

4 The third-hand motivation, this is not a new argument. On DX-17,
5 Patent Owner's counsel addressed our argument that providing a third-hand
6 functionality as additional benefit supporting the motivation to combine was
7 new and should be rejected. First, this theory falls within the overall
8 motivation to combine evidence advanced by the petition, making it a fair
9 extension of the case presented in the petition. Second, it directly responds
10 to evidence introduced by the Patent Owner. Patent Owner and its expert in
11 the response introduce their understanding of how fibers enter Holmberg's
12 enclosure, are routed through Holmberg's enclosure, and how the entire
13 operation progresses from a technician's perspective. We simply cross-
14 examined their expert about that process, and through that cross-
15 examination, it was revealed that there is a real need in Holmberg's
16 enclosure for some additional mechanism to hold that tray in place while the
17 technician is working.

18 That third-hand functionality is that benefit that Battey's hinge
19 provides, and it is a significant benefit given Patent Owner's expert's
20 admission that you cannot splice these fibers together with a single hand.
21 And that makes sense. You know, having your splice tray held on by those
22 hinges while your both hands are free to do all the installation, all the
23 splicing, all the routing and spooling is a significant and logical benefit of
24 Battey's hinge and Holmberg's enclosure.

25 Lastly, I'd like to touch on implementation details. There was
26 some discussion early on about all of these implementation details described

1 and illustrated in the '483 patent that are not set forth and are not discussed
2 in the proposed combination of Holmberg and Battey. Again, claims, the
3 language of the claim defines the scope of the invention. We have addressed
4 all requirements, all structural requirements of these claims. The fact that
5 there are some additional beneficial structures described and illustrated in
6 the '483 patent does not make them part of the claims, and it was not our
7 obligation to address those additional implementation details, as Patent
8 Owner suggested.

9 I know I'm probably low on time, but I do want to stop here and
10 ask, is there any specific item that you would like me to address or any
11 specific questions that I can handle before concluding?

12 JUDGE TORNQUIST: Before you close, I would like to hear
13 your response to their discussion on Claim 2 and the adapter bracket,
14 whether you're having -- you're adding it additionally or you're replacing the
15 splice tray.

16 MR. HART: It's a replacement. It's a replacement. That is the
17 only theory, as you pointed out in your questioning, we did not use the word
18 replace, but we described a theory of replacement. The only way that our
19 theory makes any sense simplifying and making this more robust is if you
20 are getting rid of your splicing and you are replacing it with an adapter. The
21 adapters are more robust. It's a simpler process. It avoids the delicate nature
22 of the splicing operation. So, our theory was replacement. No more
23 splicing. You're just using an adapter, and that adapter is going on the splice
24 tray in place of the splice sleeve holder described in Holmberg's native
25 teachings. The idea of keeping splicing and then using a separate adapter,
26 that comes in through separate embodiments in Holmberg where you have

1 external adapters on the outside cover of the box. We did not rely on those.
2 Those are not part of our combination for any ground, certainly not for
3 Claim 2. The fact that Blankenship may have some splicing and adapters in
4 its teaching also, that was not part of our combination. Our combination was
5 very straightforward and simple. It is replacing splicing with an adapter.
6 The adapter goes where the splice sleeve holder previously existed on that
7 front face of splice tray 230. Thank you very much for your time, Your
8 Honors.

9 JUDGE TORNQUIST: Okay. Thank you very much. With that,
10 Patent Owner, you have time for your sur-rebuttal. I have you with 15
11 minutes.

12 MR. SULLIVAN: Thank you, Your Honor. I first want to address
13 the argument that it is unquestionably more easy to have the hinge rather
14 than the fastened splice tray. Patent Owner presented evidence that there
15 were benefits to having the fastened splice tray versus the hinge. Those
16 arguments were not rebutted. First, we argued in the petition at pages 34
17 and 63 that there was a benefit to removing the entire splice tray to have
18 unobstructed access to the main box as opposed to having a hinge that would
19 block access, including access on the side where the main fiber cable was
20 coming in and out. So, we made an argument that unobstructed access was a
21 benefit. That was not rebutted.

22 Secondly, we argued that -- let me see here. Secondly, we argued
23 that removal of the splice tray when you needed to, when you had the cables
24 wound or spooled on the tray, would be easier because you would have the
25 ability in three dimensions to rotate the panel in order to unwind the cables
26 as necessary. And in particular, the main fiber cable on the back side of the

1 splice panel. That was also unrebutted, that that would be an advantage to
2 having the splice tray where you could completely remove it instead of
3 having it hinged.

4 And then lastly, the point about this new motivation about the third
5 hand, we introduced evidence that because of the length of the cable, the
6 four feet, because of the size of the splicer, their own expert testified it
7 would be a heavy table-mounted splicer, it would be advantageous to have
8 the splice tray next to where you were splicing as opposed to remote. You
9 then have to, if it's on the hinge, you still have to wind all the cables. It
10 would be easier to have a remove splice tray. So, those are three reasons
11 that we offered unrebutted that it would be beneficial and better to have the
12 fastened splice tray in Holmberg.

13 With respect to to Claim 2, the question was about, once again,
14 replacing the splice sleeve holders with an adapter bracket, as opposed to
15 still needing splicing. So, I do want to, if I can share my screen -- so, I'm
16 sharing my screen and I'm showing what was -- oh, I think I'm sharing but
17 I'm not. I'm sharing my screen, demonstrative exhibit slide 19 which shows
18 the annotated version of Holmberg where it shows the main fiber cable that's
19 been terminated in order to splice in the Holmberg box.

20 So, what we saw is in Holmberg even if you use adapters you still
21 need to splice that fiber. We saw in Blankenship which is the only reference
22 they rely upon for an adapter, when you use an adapter you still need to
23 splice a pigtail onto an adapter. They are now arguing for the first time that
24 you don't need any splices in order to use an adapter. There's no argument
25 made that you don't need to splice. All of the evidence, all of the record
26 evidence, all of the prior art shows that you still need to splice that fiber in

1 order to splice it to the outbound fiber. There's no evidence of how you
2 would accomplish that. The way the evidence is that you would use a pigtail
3 and when you use a pigtail in Holmberg or in Blankenship you splice the
4 pigtail, you still have a splice, one end of the pigtail splice, the other end has
5 the adapter that goes to the adapter bracket. It's a new argument that you
6 wouldn't need to splice, but moreover there's no support in the record,
7 argument was never made. There's no support.

8 If there are no other questions, that is all I had.

9 JUDGE TORNQUIST: Okay. I see no further questions. Thank
10 you very much. Thank you very much to both counsels. It was an excellent
11 argument here today and I'd also like to say I very much appreciated the
12 annotated figures from both parties. Really helped to understand how each
13 of these devices was working.

14 With that, this hearing is adjourned.

15 (Whereupon the above-entitled matter went off the record at 12:04
16 p.m.)

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