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UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

AMPHENOL CORP.,

Petitioner

v.

PPC BROADBAND INC.,

Patent Owner

Case No. IPR2023-01363

U.S. Patent No. 9,008,483

CONTINUED DEPOSITION OF DR. SAYFE KIAEI, VOL II

APPEARING REMOTELY

September 25, 2024

11:00 a.m.

Reported by: Eileen Mulvenna, CSR/RMR/CRR

DIGITAL EVIDENCE GROUP

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Amphenol v. PPC
IPR2023-01363

PPC EX-2008

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1 CONTINUED REMOTE VIDEOTAPED DEPOSITION of
2 DR. SAYFE KIAEI, witness on behalf of Petitioner in
3 the above-titled action, held on Wednesday,
4 September 25, 2024, commencing at approximately
5 11:00 a.m., before Eileen Mulvenna, CSR/RMR/CRR/RDR,
6 Certified Shorthand Reporter, Registered Merit
7 Reporter, Certified Realtime Reporter, Registered
8 Diplomat Reporter, and Notary Public of the State
9 of New York.

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1 A P P E A R A N C E S:

2

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1 A P P E A R A N C E S (Continued):

2

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1 I N D E X

2 WITNESS EXAMINATION BY PAGE

3

4 DR. SAYFE KIAEI

5

6 MR. SULLIVAN 118

7 E X H I B I T S

8 PAGE

9

10 Exhibit 1003 No Bates Numbers, 209

11 Declaration of Dr. Sayfe

12 Kiaei in Support of

13 Petition for Inter Partes

14 Review of U.S. Patent No.

15 9,008,483

16 Exhibit 1004 No Bates Numbers, Holmberg 121

17 Reference

18 Exhibit 1006 No Bates Numbers, 208

19 Blankenship Reference

20

21

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1 E X H I B I T S

2 Exhibit 1033 No Bates Numbers, 119

3 Supplemental Declaration of

4 Dr. Sayfe Kiaei in Support

5 of Petition for Inter

6 Partes Review of U.S.

7 Patent No. 9,008,483

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1 DR. SAYFE KIAEI,

2 having been duly sworn by Eileen Mulvenna,

3 a Notary Public of the State of New York,

4 was examined and testified as follows:

5 EXAMINATION

6 BY MR. SULLIVAN:

7 Q. Good morning, Doctor.

8 A. Good morning. How are you this
9 morning?

10 Q. I'm fine, thank you.

11 Can you confirm -- I sent a package to
12 you of -- in UPS of various exhibits. Did you
13 receive that package?

14 A. Yes, I did. I received them yesterday
15 afternoon, yes. Thank you.

16 Q. Okay. So that package includes hard
17 copies of exhibits that I may refer to during
18 today's deposition. So feel free to use those
19 documents as you see fit.

20 A. Wonderful. Thank you. I'll do that.

21 Q. Now, do you understand that your
22 deposition today is a continuation of your

1 deposition taken back in May?

2 A. Yes, I do.

3 Q. Are you aware that under the rules for
4 inter partes reviews, once you start your deposition
5 today and until the conclusion of your deposition,
6 your counsel cannot consult or confer with you
7 regarding the substance of your testimony except for
8 the purpose of conferring on whether to assert a
9 privilege?

10 A. Yes, I am.

11 Q. Is there any reason why you cannot
12 give honest, complete, and truthful testimony today?

13 A. No.

14 MR. SULLIVAN: If we could introduce
15 Exhibit 1033.

16 (Exhibit 1033, No Bates Numbers,
17 Supplemental Declaration of Dr. Sayfe Kiaei
18 in Support of Petition for Inter Partes
19 Review of U.S. Patent No. 9,008,483, received
20 and marked.)

21 BY MR. SULLIVAN:

22 Q. 1033 is the supplemental declaration

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1 of Dr. Sayfe Kiaei -- how do you pronounce your
2 first name?

3 A. Sure, sure. First name, Sayfe, so
4 it's like safety without the T, Sayfe. And the last
5 name Kiaei, so you can think of the Korean car, Kia,
6 rhyming with Hawaii, Kiaei.

7 Q. Thank you.

8 A. Sure.

9 Q. So Exhibit 1033, do you recognize this
10 as your supplemental declaration submitted in this
11 IPR proceeding?

12 A. Yes, sir, I am aware of that. Yes.

13 Q. So I'm going to be asking you various
14 questions and referencing this declaration.

15 Do you have a hard copy of that
16 declaration with you if you need to access it?

17 A. I have it in front of me. Let me just
18 take it out. Actually, the hard copy of my original
19 IPR declaration is here, not the supplemental. But
20 that's okay. I have a -- the PDF copy is fine.

21 Q. Okay. I think it's in there, because
22 I personally checked to make sure it was in there,

1 but --

2 A. Oh, okay. Let me make sure then. Let
3 me make sure it's the --

4 Q. There's three declarations. It was
5 your first, then Dr. Eldering's, and then I think
6 your second. I could be wrong, but I'm pretty sure
7 it's in there.

8 A. Yeah, Dr. Eldering's is here. Oh,
9 wait a minute, maybe they're all -- ah, you know
10 what, they're all in one batch.

11 That's my IPR. It is here. Thank you
12 for clarifying that. Yeah, it was all connected
13 with a paper clip. So it's all here. Yes, it is.

14 Q. Okay.

15 MR. SULLIVAN: If we could introduce
16 Exhibit 1004, which is the Holmberg
17 reference.

18 (Exhibit 1004, No Bates Numbers,
19 Holmberg Reference, received and marked.)

20 BY MR. SULLIVAN:

21 Q. Do you see that in front of you?

22 A. Yes, I have Holmberg also in front of

1 me. So...

2 Q. The title of Holmberg on the first
3 page is a "Wall box adapted to be mounted at a
4 mid-span access location of a telecommunications
5 cable."

6 Do you see that?

7 A. Yes, I do.

8 Q. And what is your understanding of what
9 a mid-span access location is, in the context of
10 Holmberg?

11 A. In the context of Holmberg, as is
12 shown in the -- Figure 2 and also as discussed in
13 Holmberg's paragraph 7, it describes it as -- it's a
14 box that provides at different floors of the
15 multi-dwelling units, each having special coupling
16 location corresponding to a plurality of different
17 subscriber.

18 As is also shown in Figure 2 and also
19 in the Figure 3 of Holmberg is the box 200, which
20 says that in the paragraph 34, that it is wall boxes
21 configured to easily be mounted at the mid-span
22 locations along the length of the fiber optic

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1 telecommunication cable, which is -- later on in
2 that same paragraph, it says that it is preferred
3 for wall boxes in accordance with the principles of
4 the present disclosure to be used for indoor
5 applications, such as multi-dwelling units or
6 commercial buildings -- or commercial buildings
7 where a plurality of subscribers is located.

8 Q. What would a person of ordinary skill
9 in the art understand a mid-span access location to
10 mean?

11 MR. HART: Object to form.

12 THE WITNESS: In the context of
13 Holmberg and in the context of what we're
14 talking about in '483, this is a box that --
15 as also discussed in the paragraphs 7 and 34
16 of Holmberg and elsewhere in Holmberg, as
17 well, this box, as I talked about it, is a --
18 it can be used indoors and outdoors, and it's
19 used for applications such as multi-dwelling
20 units or commercial buildings where a
21 plurality of subscriber is located. And it's
22 providing the connections to the subscribers,

1 or the end users.

2 BY MR. SULLIVAN:

3 Q. I'm asking you more generally about
4 the term "mid-span access location." What would a
5 person of ordinary skill in the art understand that
6 to be in these telecommunications networks?

7 What is the purpose of a mid-span
8 access location?

9 A. Well, it depends on the area, depends
10 on the specific applications and so on. So within
11 the content of this patent and within what Holmberg
12 discusses, the mid-span is that box -- clearly says
13 that the mid-span is that box 200, which is -- as
14 shown in Figure 2, is providing the optical signals,
15 cables to the end user.

16 Q. Is the Holmberg wall box 200 a
17 mid-span access location box?

18 A. As it says in the paragraph 34, it
19 does specifically says that the present disclosure
20 relates generally to wall boxes configured to be
21 easily mounted at mid-span location.

22 And as shown in Figure 4, as well, the

1 box -- and Figure 2, both the box 200 is the
2 mid-span -- is the -- I want to make sure I get the
3 figures right.

4 Sorry, in Figure 2, it is showing the
5 optical cable entering the building 152. As well as
6 in Figure 3, the box 200, it is the mid-span box.

7 Q. You agree with me that the Holmberg
8 wall box 200 is a mid-span access location box;
9 correct?

10 MR. HART: Object to form.

11 THE WITNESS: I prefer to go what
12 Holmberg also calls it, which is the -- as
13 it's saying is that it is used -- that it is
14 easily mount on enclosure of mid-span
15 location of the telecommunication cable,
16 which is what's used in the Holmberg's
17 disclosure. So...

18 BY MR. SULLIVAN:

19 Q. Do you have an opinion on whether
20 Holmberg's wall box 200 is a mid-span access
21 location box?

22 A. The box 200, as Holmberg is showing,

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1 is the box -- mid-span box which is connected to the
2 end user's -- at one end, and the other end, it's
3 connected to the cable signal coming in.

4 Q. If you go to your declaration,
5 Exhibit 1033. And when I say "your declaration"
6 today, if I use that, I'm referring to your second
7 declaration.

8 Do you have that? If you could go to
9 paragraph 5 of your declaration.

10 A. Yes, sir, I have it.

11 Q. In paragraph 5, which starts at the
12 bottom of page 8, about three lines up, you say,
13 "Holmberg references drop terminal 104 only in the
14 Background section as a component of traditional
15 prior art fiber optic network topologies." And you
16 cite Holmberg, paragraph 6.

17 Do you see that?

18 A. Yes, I do.

19 Q. And then in the parenthetical, you
20 say, "teaching that prior art networks used mid-span
21 access locations 125 (or 'break-out locations') to
22 connect the main cable to 'drop terminals 104' that

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1 terminate fiber to subscriber locations)."

2 Do you see that?

3 A. Yes, sir, I do.

4 Q. So in your sentence that I just read,

5 the second sentence I read, you are equating

6 mid-span access locations 125 to the term "break-out

7 locations"; correct?

8 A. That is what Holmberg, when he's

9 discussing the prior art in the -- in its

10 introductory paragraphs, that's what it's

11 discussing, and that's what I'm referring to.

12 Q. If we look at paragraph -- if we go to

13 Holmberg, Exhibit 1004, and we go to paragraph 6.

14 That was the paragraph that you cited

15 in the sentence we just looked at; correct?

16 A. That is correct, yes.

17 Q. And the beginning of that paragraph

18 says, Referring to Figure 1, the network includes a

19 plurality of break-out locations 125 at which branch

20 cables are separated out from main cable lines.

21 Do you see that?

22 A. Yes, I do.

1 Q. Now, in paragraph 6, Holmberg refers
2 to break-out locations 125. Those are mid-span
3 access locations; correct?

4 A. Not necessarily. I mean, he's talking
5 about prior art. And in that paragraph, he doesn't
6 talk about a mid-span until later on towards the end
7 of the paragraph, when he's talking about break-out
8 locations are often provided at mid-span locations.
9 It is desirable for field mounted enclosures to be
10 easily mounted at mid-span locations without
11 requiring the main cable to be threaded length-wise
12 through the enclosure.

13 So it's talking about the prior art
14 and that in the prior art, those break-out
15 locations, 125 for example, where it's located and
16 what are they -- leading it up to the paragraph 7,
17 which he's talking about the -- the invention that
18 is disclosing in Holmberg.

19 Q. Back to your declaration again,
20 paragraph 5, I want to make sure I understand what
21 you just said.

22 So we looked at that sentence, and

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1 these are your words, "prior art networks used
2 mid-span access locations 125 (or 'break-out
3 locations')." "

4 Those are your words. So are you
5 suggesting that mid-span locations 125 are not
6 break-out locations in Holmberg? Are you changing
7 your testimony?

8 A. No, I'm not. What I said was that in
9 the prior art -- so that paragraph -- that sentence
10 that you read in the parentheses has -- the complete
11 sentence is saying that -- what I'm saying is there,
12 the prior art networks used mid-span locations 125
13 (or "break-out locations") to connect the main cable
14 to the drop terminal that terminates fiber to the
15 subscriber locations.

16 So that is talking about -- I'm
17 talking about the use of and the configuration of
18 the mid-span locations in the prior art. I
19 continued on with the rest of that sentence --
20 paragraph 5 in my declaration, that I discuss that
21 Holmberg's Figure 1 below depicts such a traditional
22 prior art network below in Figure 1, which

1 specifically says Figure 1.

2 And then I come out in paragraph 6,
3 and I talk about what Holmberg teaches and the
4 box 200, which is the teachings of the Holmberg.

5 Q. Go back to paragraph 6 of Holmberg
6 Exhibit 1004.

7 Is it your testimony that the
8 break-out locations 125, referred to in that
9 paragraph 6, are those mid-span locations or not?

10 A. In the prior art network, they use
11 mid-span locations 125 or break-out locations, in
12 the prior art. In Holmberg's teaching, the box 200,
13 which is the mid-span locations that he uses and
14 discusses later, that has different configurations
15 that the prior art has.

16 In the prior art, the mid-span
17 locations 125 connect the main cable to the dropped
18 terminal 104 that terminates fiber to the subscriber
19 locations.

20 However, in the teachings of Holmberg,
21 I discuss that later on in the paragraph 7 and the
22 figure at the end of paragraph 7, that mid-span box,

1 which I also specifically say it's a mid-span box on
2 the figure right above paragraph 8 in my
3 declaration, supplemental declaration, I discuss
4 what are the characteristics of mid-span box in
5 details.

6 Q. Going back to paragraph 6 of Holmberg,
7 as you noted, paragraph 6 distinguishes between drop
8 terminals 104 and break-out locations 125; correct?

9 A. In the prior art. In the prior art --

10 Q. And that distinction -- oh, sorry.

11 A. In the prior art it describes it, and
12 in the prior art that's what the terminology he --
13 he shows that these are in the prior art.

14 Q. And that prior art is shown -- if we
15 could go to Figure 1 of Holmberg, which is labeled
16 "Prior Art," that diagram or that figure shows the
17 break-out location 125 as a separate component from
18 the drop terminal 104; correct?

19 A. In the prior art, I think -- I also
20 discuss the beginning, the parenthesis. In the
21 prior art, it discusses that the network used -- the
22 prior art network used mid-span locations 125 or

1 break-out locations to connect the main cable to the
2 drop terminal. So that is what 125 was, the
3 mid-span location there.

4 However, in the Holmberg's teachings,
5 and what he shows in the patent, is a -- the
6 mid-span location boxes are what are shown in
7 Figure 7 -- sorry, in paragraph 7, in the prior art.

8 That's what I have shown, and that's
9 in the Figure 1, which I have discussed it in the
10 paragraph 5 of my declaration, as well as in
11 paragraph 6 of Holmberg's declaration. That's
12 Holmberg's patent.

13 Q. Now, if we could go to Figure 2 of
14 Holmberg.

15 You made reference to Figure 2 in your
16 testimony earlier today; correct?

17 A. Yes, I did. Yes.

18 Q. And if we could go to paragraph 7 of
19 Holmberg.

20 And in your testimony earlier today,
21 you also referenced paragraph 7 in one of your
22 answers; correct?

1 A. Yes, I did.

2 Q. Now, do you understand that
3 paragraph 7 is part of the background of the
4 invention to Holmberg?

5 A. I don't know what you mean by that
6 question.

7 Q. Sure.

8 If you could look at the entirety of
9 the page on which paragraph 7 of Holmberg is on. If
10 we just backed out to the whole page.

11 Do you see there's different headings
12 to the different portions of the patent, including
13 "Technical Field," on the left-hand side, and
14 "Background"? Do you see that?

15 A. Yes. Yes, it is. I see that, yeah.

16 Q. And do you see that paragraph 7 is
17 part of the background of the invention of Holmberg?

18 A. Paragraph 7 is within that section of
19 the background of Holmberg. That is in that
20 section.

21 Q. Now, Holmberg was filed -- if we look
22 at the cover, Holmberg was filed in December of

1 2008. And it claims priority to an application that
2 was filed in December 2007, which is shown in the
3 top right.

4 Do you see that?

5 A. Yes, I see that. It was filed on
6 December 11, 2008. And the provisional application
7 was filed in December 11, 2007.

8 Q. Do you have an opinion on whether the
9 figure -- Figure 2's fiber optic network -- if we
10 could look at Figure 2.

11 Do you have an opinion on whether the
12 fiber optic network shown in Figure 2 was known at
13 the time Holmberg was filed?

14 MR. HART: Object to form.

15 THE WITNESS: You mean if Figure 2 was
16 a prior art to Holmberg or not? Is that what
17 your question is?

18 BY MR. SULLIVAN:

19 Q. Well, that's -- that wasn't my
20 question, but I'll ask a different question.

21 If we go to paragraph 7 of Holmberg,
22 the first sentence says, Fiber optic networks can

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1 extend to multi-dwelling units such as apartment
2 buildings and condominiums. Figure 2 shows a fiber
3 optic network including a cable 150 routed into a
4 multi-dwelling unit 152.

5 Do you see that?

6 A. Yes, I do.

7 Q. And then it says, Within the
8 multi-dwelling unit 152, branch cables/fibers are
9 optically coupled to the fibers of the cable
10 152 [sic] at optical coupling locations (for
11 example, fusion splices, mechanical splices or
12 connectorized optical couplings).

13 Do you see that?

14 A. Yes, I do. Yes.

15 Q. And then it goes on to describe
16 optical coupling locations that can be include --
17 enclosed within one or more wall boxes.

18 Do you see that?

19 A. Yes, I do.

20 Q. And then it says, The wall boxes are
21 typically provided at different floors of the
22 multi-dwelling unit.

1 Do you see that?

2 A. Yes, sir.

3 Q. Now, this paragraph, which is in the
4 "Background" section of Holmberg, do you have an
5 opinion as to whether that particular network that's
6 described in paragraph 7 was known at the time
7 Holmberg was filed in the 2007-2008 time frame?

8 A. It doesn't describe that. It could
9 have been, yeah. I don't see why not. That --
10 that's the general description of discussing the
11 network that extends to multi-dwelling. And it
12 provides that branch cables are optically coupled to
13 the fibers of the cable 150, and that the wall boxes
14 are typically provided at different floors of the
15 multi-dwelling units, each box having optical
16 coupling locations corresponding to a plurality of
17 different subscribers. Yeah, that could have been
18 there. Yeah, I don't argue against that.

19 Q. Going back to paragraph 6 of Holmberg.
20 And in particular the bottom part of the left-hand
21 column.

22 MR. SULLIVAN: Perfect.

1 BY MR. SULLIVAN:

2 Q. It says -- we looked at it before. It
3 introduces the drop terminals 104.

4 Do you see that?

5 A. Yes, I see that.

6 Q. And you testified earlier that this is
7 a description of a prior art network configuration;
8 correct?

9 A. As stated in the patent and the
10 figure, it is the prior art discusses in there.

11 Q. Now, in your declaration, you refer to
12 drop interface boxes, as well as -- and then you --
13 the acronym is DIB for a drop interface box;
14 correct?

15 A. That is correct, yes.

16 Q. The drop terminal 104 that's described
17 in paragraph 6 of Holmberg, that's a drop interface
18 box; correct?

19 A. Within the prior art, at this specific
20 configuration it shows in Figure 1, that can be.
21 But, again, for this particular Figure 1 in the
22 prior art, as we're focusing on paragraph 6.

1 But that box is not the same box as
2 200 that is shown later on in the invention of
3 Holmberg, which I discuss multiple locations in my
4 supplemental declaration.

5 Q. Sticking with paragraph 6 of Holmberg,
6 this description of the prior art, the drop
7 terminals 104, those are described as "connector
8 interfaces with facilitating coupling the fibers of
9 the branch cables to a plurality of different
10 subscriber locations."

11 Do you see that?

12 A. Yes, I see that in paragraph 6, yes.

13 Q. So Holmberg describes drop terminals
14 104 in the prior art as being the devices in that
15 Figure 1 configuration that connect to subscriber
16 locations; correct?

17 A. That specific box that he shows in
18 Figure 1, prior art 104, is the box that is the drop
19 terminal 104, which is the coupling of the fiber to
20 a plurality of subscriber locations, specifically on
21 that Figure 1.

22 But, again, I want to emphasize the

1 fact that we're talking about the prior art in that
2 paragraph that it's discussing. And later on, as I
3 also show in paragraph 7 of my declaration, that
4 drop interface box is not the same as what is shown
5 in what Holmberg discusses later on.

6 Q. If we can go to paragraph 34 of
7 Holmberg, which you also cite in paragraph 6 of your
8 declaration and you also referenced in your
9 testimony earlier today. I'm going to -- I'm going
10 to read the beginning part of paragraph 34 into the
11 record.

12 It says, "The present disclosure
13 relates to wall boxes configured to be easily
14 mounted at mid-span locations along the length of a
15 fiber optic telecommunications cable. It is
16 preferred for wall boxes in accordance with the
17 principles of the present disclosure to be used for
18 indoor applications such as multi-dwelling units or
19 commercial buildings where a plurality of
20 subscribers is located."

21 Do you see that?

22 A. Yes, I do. Yes.

1 Q. And in your declaration and in your
2 testimony, you were emphasizing multi-dwelling
3 units.

4 Do you see that?

5 A. Yes, sir, I do.

6 Q. Now, other than -- you pointed out
7 paragraph 7 before, but other than paragraph 7,
8 which is in the background of the invention, is
9 there any disclosure in Holmberg that discusses
10 using wall box 200 on multiple floors?

11 It's your testimony that it's -- you
12 pointed to paragraph 7, but other than paragraph 7
13 that's in the background, do you agree with me that
14 there's no disclosure in Holmberg of using wall box
15 200 on multiple floors?

16 MR. HART: Object to form.

17 THE WITNESS: The fact that it does
18 discuss multi-dwelling unit or commercial
19 buildings, and the fact that it discusses the
20 200 box and the details of it, as I have also
21 discussed in paragraph 7 of my declaration --
22 supplemental declaration, the person skilled

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1 in the art would have understood that this
2 multi-dwelling units box that it's
3 discussing -- and it says that, "However, it
4 will be appreciated that the wall boxes in
5 accordance with the principles of the present
6 disclosure can be used for either indoor or
7 outdoor applications."

8 However, it is desired to easily mount
9 at enclosures at the mid-span locations of
10 the telecommunication cable. And then it
11 describes the details of it.

12 In paragraph 34, it makes it very
13 clear what that unit is. It is -- it talks
14 about what -- and later on in the paragraph,
15 it discusses the details of the box, as well
16 as it talks about it in paragraph 34, for
17 example, where the box 200 is located at the
18 mid-span locations, et cetera, et cetera.

19 So I think that is very clear in there
20 that that's what it's used for, similar to
21 what '483 patent also talks about in terms of
22 the multi-dwelling unit.

1 BY MR. SULLIVAN:

2 Q. Holmberg doesn't expressly disclose
3 using wall box 200 on multiple floors of a
4 multi-dwelling unit; correct?

5 MR. HART: Object to form.

6 BY MR. SULLIVAN:

7 Q. And if it does, please point me to
8 where it does.

9 A. As I said, the POSITA would understand
10 that these -- these are synonymous, and that it
11 talks about -- in paragraph 34, it talks about --
12 Holmberg discusses it as being used for indoor, in
13 line 1.

14 In line 5 of paragraph 34, it
15 specifically talks about that in accordance with the
16 principles of the present disclosure to be used for
17 indoor applications such as multi-dwelling units, or
18 commercial buildings where a plurality of
19 subscribers is located.

20 Q. Let's go to your declaration,
21 paragraph 7.

22 A. Yes, I'm there.

1 Q. If we go to the second page of that
2 paragraph.

3 In the middle of that paragraph, you
4 say, "For example, a DIB may be dedicated to each
5 floor - as Holmberg expressly describes."

6 Do you see that?

7 A. Yes, sir, I do.

8 Q. And at the latter part of that
9 paragraph, at the bottom, it says, In sum, as
10 depicted in the figure below, Holmberg's wall box
11 setup (on the left) and the '483 Patent's drop
12 interface box setup (on the right) serve the same
13 type of buildings and subscribers, but they
14 accomplish this using different cable arrangements.

15 Do you see that?

16 A. Yes, I see it down on the page, yes.

17 Q. And if we could turn over to the next
18 page, where you have a diagram.

19 Now, that diagram, which shows --
20 well, tell me what that diagram shows, just
21 generally. Are those two buildings? What are you
22 trying to show in that diagram? What structure are

1 you trying to show?

2 A. So what I'm talking about there is
3 the -- in the same paragraph 7 of my declaration, a
4 few lines up in the middle, back to the same place
5 you started with the sentence "For example," I talk
6 about, for example, a drop-in box, or DIB, may be
7 dedicated to each floor, as Holmberg easily --
8 expressly described.

9 "The main distinction between
10 Holmberg's wall box and the '483 patent DIB is that
11 only Holmberg's box can pass through fibers such
12 that multiple boxes can be mounted on the same cable
13 and distribute fiber service from the same cable --
14 from that single cable, from that single cable.
15 This is the point of Holmberg's mid-span access
16 arrangement - to terminate some fibers while passing
17 through others. The '483 Patent's DIB, on the other
18 hand, cannot pass through fibers. It requires a
19 separate dropbox for each box. In sum, as depicted
20 in the figure below, Holmberg's wall box setup
21 (left) and the '483 Patent's drop interface box
22 setup (right) serve the same type of buildings and

1 subscribers, but they accomplish this using
2 different cable arrangements."

3 So they -- on the left is Holmberg's
4 mid-span box, which is providing optical fibers to
5 the subscribers in each floor. But as you can see,
6 there's a line that comes in, which is the fiber
7 line passing through each one of these mid-span
8 boxes and going to the next ones, et cetera.

9 Whereas, in the case of the drop-in
10 box of '483 patent, there is no passthrough fiber
11 optical lines going through to the next boxes, and
12 each one of those have their own -- the optical
13 signal coming to them. They terminate at that
14 drop-in box, and they terminate from the -- they
15 connect to the subscribers and users, and they do
16 not go to the next drop-in boxes.

17 That's the main difference between
18 them. But both of them, as I mentioned above in the
19 paragraph 7, is the fact that they provide optical
20 lines to the subscribers and users.

21 Q. So on the diagram to the right, which
22 is what you indicate is the '483 patent setup, you

1 specifically show a red main cable and multiple drop
2 cables.

3 Do you see that?

4 A. That's correct, yes.

5 Q. And the multiple drop cables come off
6 of the main cable, and they go -- there's four of
7 them -- and they go one each to its own DIB;
8 correct?

9 A. That is correct.

10 Q. What do you mean by main cable -- and
11 eventually we're going to look at the Holmberg
12 patent. What is the main cable in terms of the
13 networks shown in the Holmberg patent? Is that the
14 feeder cable? Is it some other cable?

15 MR. HART: Object to form.

16 THE WITNESS: In that figure, my
17 objection is if there is a cable, which is
18 providing optical signals to the two
19 buildings, those are the cables, the lines
20 coming in.

21 And then those lines distribute the
22 optical signals to each one of the drop-in

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1 boxes on the right for the '483. And in the
2 case of Holmberg, the one example I showed is
3 that there's -- since the line goes
4 through -- the optical line goes through the
5 mid-span boxes, there's a need for having
6 that one providing the main optical signals,
7 and then each one of the mid-span boxes is
8 then spliced and sent to each one of the end
9 users.

10 So the main thing I'm showing you
11 there is the difference between the drop-in
12 box -- the commonality as well as the
13 difference between the drop-in box of '483
14 and Holmberg. And as I mentioned earlier,
15 the commonality is the fact that the drop-in
16 box of '483 provides the signal for
17 subscribers and end users.

18 And it does not have a passthrough
19 line going through that. Whereas, on the
20 left, the commonality is that it has the --
21 also provides the optical signal to the end
22 users and subscribers, but also it has the

1 feed-through line that goes through the --
2 the boxes.

3 BY MR. SULLIVAN:

4 Q. I don't think you answered my
5 question. The main cable that you show in red for
6 the right part of the diagram, that then has four
7 drop cables coming off of it, what is that main
8 cable?

9 MR. HART: Object to form.

10 BY MR. SULLIVAN:

11 Q. What did you mean by main cable?

12 A. It's an optical signal coming in from
13 the previous stages of the network. However, that
14 configurations could be, I'm not discussing the
15 details of that. I'm mostly talking about the
16 optical cable coming from the previous stage in that
17 optical configurations to that building.

18 That's really where the focus is here
19 is on the differences of the drop-in box and
20 mid-span box. That's really what I'm discussing
21 there.

22 Q. Okay. You don't show a main cable for

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1 the left building, which is the Holmberg example,
2 according to your testimony.

3 Is that intentional? Is there no main
4 cable in your Holmberg example in that diagram?

5 MR. HART: Object to form.

6 THE WITNESS: That is also an
7 optical -- optical fiber line coming in to
8 that building. It could be -- you know, I'm
9 not discussing what is the differentiation or
10 the previous stages of the signal, how it's
11 coming to them.

12 The main thing is that in the building
13 on the left, because really one line is used
14 for providing the -- as an example, this is
15 just an example, providing the optical
16 signals to all the floors via the mid-span
17 boxes. That line is used in there.

18 On the right is the optical signal
19 coming in, which goes into four lines, each
20 one for different drop-in boxes.

21 BY MR. SULLIVAN:

22 Q. In your diagram to the right, you

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1 referred to drop cables. How are drop cables
2 different than the main cable that you show in your
3 own diagram?

4 A. Again, the main cable doesn't -- this
5 figure is primarily used for showing that for a
6 cable coming to a building on the right, it would
7 require the four -- specific example here, it would
8 require the four lines coming to the drop-in box.
9 So there will be -- those will be splitting off that
10 main cable, red. That's what it is. So that's what
11 the reason for that -- I call that the main cable.

12 And on the left, we really need one
13 line. And I don't show what's outside of the box of
14 that figure. That one line could also be coming
15 from the main cable, for example, and then it split
16 off and have one line going to the other apartment
17 complex.

18 Q. The example you show on the left, the
19 fiber optic telecommunications cable that's shown
20 routed to four different Holmberg boxes, is that a
21 drop cable or the main cable?

22 MR. HART: Object to form.

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1 THE WITNESS: I don't see that -- I
2 think that the main difference between them
3 is the fact that I don't see them being --
4 they could potentially be the same, just the
5 fact that on the right, from the cable, which
6 I call main cable, red, there are four lines
7 that split off from that going to the
8 apartment complex.

9 On the right side -- sorry, on the
10 right, the main cable splits off four lines
11 that goes to the building. And on the left,
12 it's an optical signal cable coming in and
13 going to the same four floors.

14 It could potentially be the same and
15 split off one line versus split off four
16 lines. That's not the point of this figure.
17 The point of this figure is the fact that I'm
18 focusing on the mid-span boxes providing the
19 signal to the end users, and then the line
20 that feeds to that for the Holmberg versus on
21 the right, the signals coming in from the
22 cable -- from drop cables four lines coming

1 in.

2 The focus is really showing the
3 difference between the drop-in box and the
4 mid-span boxes of Holmberg versus '483.

5 BY MR. SULLIVAN:

6 Q. You keep telling me what the purpose
7 of the figure is and I appreciate that, but that's
8 not my question.

9 My question is, what that cable that
10 you're showing to the left in the Holmberg example,
11 is that a main cable or a drop cable or a different
12 cable?

13 And if you don't know, that's okay.
14 But that's my question, and I'm going to keep asking
15 it.

16 MR. HART: Object to form, asked and
17 answered.

18 THE WITNESS: I already answered that
19 question, yes, I mean, that could be the main
20 cable. That could also be the main cable on
21 the left that's split off, one line in there
22 versus the right.

1 The focus is not about that, and
2 how -- the main reason I show it that way is
3 that on the left, you really need to split
4 off only one line, which could potentially be
5 the main cable.

6 On the right, again, what we have is
7 an optical line coming in, and there are four
8 cables that are split off of that that goes
9 up.

10 Again, you're emphasizing on the fact
11 that my testimony, as well as what I have in
12 my supplemental declaration, is the fact that
13 it was -- that they provide -- the mid-span
14 box and drop-in box, they provide the signals
15 to the apartment buildings to the end users.

16 And the optical configurations of how
17 the signals arrive and they split up in the
18 drop-in box and mid-span box is different.
19 That's what I'm emphasizing on there.

20 I don't discuss and show all the other
21 hypothetical cases of the lines coming in to
22 the buildings on the left or the right. As

1 long as those lines provide enough optical
2 bandwidth, they could be potentially the
3 same, hypothetically.

4 BY MR. SULLIVAN:

5 Q. Could be the same as what?

6 A. They could be the same cable lines.

7 One is providing a line for what splits up one line
8 going up, and one is splitting up four lines going
9 up. What happens when lines comes into the building
10 and before that is not the point of this figure.

11 Q. I'm trying to understand the figure,
12 and I'm -- in the same figure you have three
13 different labels for cables. You have main cable,
14 you have drop cables, and you have fiber optic
15 telecommunications cable.

16 I'm trying to understand what the
17 cable on the left is. Is it a main cable, yes or
18 no?

19 MR. HART: Object to form.

20 THE WITNESS: I do not show the line
21 coming to the building on the left, and what
22 is outside of the orange line, which I called

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1 it a fiber optic telecommunication cable. I
2 only show that line coming in. That line
3 could be coming in from a main cable, I'm
4 talking about the left, and that splits off
5 that one line that comes in. So that's
6 outside of this figure that that's showing.

7 On the right -- on the right, given
8 that -- on the right, given that we need to
9 split out four lines in there, I am showing
10 that splitter that is providing the signal
11 and the line cables for those four lines.

12 BY MR. SULLIVAN:

13 Q. Focusing on the left diagram, which is
14 the Holmberg example, according to your testimony,
15 the example that you just described where it could
16 be a single line coming off the main cable, would
17 that line be a drop cable or a different cable?

18 A. I did not say that exactly. I think
19 what I said was that it could be a line splitting
20 off of a main cable. It could be a drop cable that
21 is splitting off the main cable.

22 It could be -- the person skilled in

1 the art would understand that given that you only
2 need one line going to that dwelling because of the
3 configuration of the mid-span box, that line could
4 be coming from the main cable after it splits off to
5 the drop cable that comes to this building, it could
6 be coming in in different configurations based on
7 the network implementations, and the person skilled
8 in the art would understand that.

9 My focus here is primarily to show,
10 and the reason I have it that way is to show that
11 the one on the left, you really need only one line
12 coming in; and on the right, you need to have it
13 split off multiple lines going to the drop-in box.
14 That's the difference in them.

15 Q. The cable --

16 A. So I -- I've explained this in a
17 couple of different ways to do that. So I've
18 already answered it.

19 Q. Could the cable on the left that you
20 show as the fiber optic telecommunications cable,
21 could that cable be a main cable that you show in
22 red in the other diagram, or is it something

1 different than the main cable?

2 MR. HART: Object to form.

3 THE WITNESS: It depends on the
4 configuration. I need to know more about the
5 configuration. What I can say is that that
6 cable is splitting off another cable, and
7 depending on the configuration, that other
8 cable could be -- could have different
9 configurations, and there could be different
10 types of things -- signals -- cables coming
11 in. So I've already answered that.

12 BY MR. SULLIVAN:

13 Q. The Holmberg -- do you understand the
14 Holmberg wall box is a passthrough box, it passes a
15 cable through?

16 Do you understand that?

17 A. Yes, I do. That's why I have this
18 figure. The passthrough is shown on the left
19 building -- on the right side of the left building,
20 that orange line coming through is a passthrough.

21 Q. In the Holmberg patent, and you have
22 the Holmberg patent in front of you, what type of

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1 cable is passed through the box in that example?

2 And if you want to look at a diagram
3 in your own declaration, maybe we can go to your
4 declaration, paragraph 32. You show a diagram of an
5 orange cable passing through the wall box.

6 What type of cable is that? I know
7 it's a fiber optic cable, but is that a main cable?
8 Is that a drop cable? Is that some other cable that
9 is a -- is the passthrough cable in the Holmberg
10 box?

11 A. I've already answered that. I think
12 that as I said also in my declaration, and the
13 patent also is clear, which is that the --

14 Q. You didn't answer it. You didn't
15 answer it. So I'll ask it again.

16 You did not answer that. That's a new
17 question. We're looking at your declaration,
18 paragraph 31. You have a diagram in there that
19 shows an orange cable that passes through the box;
20 correct?

21 MR. HART: Hey, Denis, let's be a
22 little less argumentative. He was in the

1 middle of an answer there. I understand
2 you're not getting exactly what you want, but
3 you need to let the witness finish.

4 MR. SULLIVAN: Fair enough.

5 BY MR. SULLIVAN:

6 Q. Do you see Figure 4 -- do you see
7 Figure 4?

8 A. I see Figure 4, yes.

9 Q. Okay. Do you see the orange cable
10 that's passed --

11 (Cross talk.)

12 THE WITNESS: In my supplemental
13 declaration on page 27, right by paragraph --
14 paragraph 31, yes, I see that. Paragraph 32
15 describe this.

16 BY MR. SULLIVAN:

17 Q. And that orange cable, you see that
18 it's passing through the Holmberg wall box?

19 A. Yes, I see that.

20 Q. What type of cable is that? Is that a
21 main cable? Is that a drop cable? Is it some other
22 cable that's passing through the Holmberg wall box?

1 A. That's an optical cable that's coming
2 down from the network, providing optical signals to
3 that box.

4 Q. Is it a main cable, yes or no?

5 MR. HART: Object to form.

6 THE WITNESS: I've already answered
7 that. It could be, or it could not be.
8 Hypothetically, it depends on the
9 configurations of the system. Depends on --
10 it's not a yes-or-no answer because the whole
11 discussion of this here we have is the fact
12 that we're distributing optical lines from
13 the central office to the subscribers.

14 Depending on the configurations and
15 depending on the bandwidth of the cables,
16 depending on data that's required, depending
17 on what is the -- et cetera, et cetera, that
18 cable orange is coming from the network and
19 up in the network, uplink, meaning that from
20 the subscriber unit up to the central office,
21 the person skilled in the art would know that
22 configuring -- based on all of these

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1 different configurations of the bandwidth and
2 the speed, et cetera, et cetera, those lines
3 could be from different types of an optical
4 cable lines coming in from the central
5 office.

6 BY MR. SULLIVAN:

7 Q. It could be a main cable, the
8 passthrough cable could be a main cable; correct?

9 A. This is a hypothetical question. And
10 if you have the specifics and you can show me the
11 uplink -- from the subscriber units to uplink what
12 it is, the person skilled in the art would be able
13 to analyze that and say that.

14 These cables could be a drop-in box,
15 drop-in cables. It could be split off at different
16 locations around the fiber optics coming in from the
17 central office. It could be many different
18 configurations in there. You can't just label it as
19 one thing or being another.

20 A person skilled in the art would
21 understand that based on the bandwidth and
22 requirements of what the building's requirements

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1 are, what type of services are provided to the
2 subscribers, what are the configurations of the
3 splitters and drop-in cables and all other things
4 going on uplink, that cable could be coming from
5 different configurations and is splitting from the
6 main office. It really depends on -- it depends on
7 what's happening.

8 MR. HART: Could we take a quick bio
9 break?

10 MR. SULLIVAN: Just give me a couple
11 of more questions.

12 BY MR. SULLIVAN:

13 Q. If we go back to your diagram, you
14 referenced hypothetical. The diagram that you have
15 in paragraph 7 of your declaration, those two
16 buildings and in particular the Holmberg example on
17 the left, does that example identify the particular
18 cable, whether it's a main cable or a drop cable,
19 that is routed through the four boxes?

20 MR. HART: Object to form.

21 BY MR. SULLIVAN:

22 Q. And I'm looking at your declaration,

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1 Exhibit 1033, paragraph 7, left portion of the
2 diagram.

3 MR. HART: Same objection.

4 THE WITNESS: It is a fiber optic
5 telecom cable. It's a fiber cable coming in
6 to those -- to that building on the left.
7 That's my answer, and that is my final
8 answer.

9 It's a hypothetical question, and you
10 want me to label it whatever. I have labeled
11 it as a fiber optic telecommunication cable,
12 and that's a correct one.

13 MR. SULLIVAN: We can take a break.

14 THE REPORTER: Okay. We're off the
15 record.

16 (Recess from the record.)

17 THE REPORTER: We're back on the
18 record.

19 BY MR. SULLIVAN:

20 Q. If we could go in your declaration to
21 the diagram that you have after paragraph 34 on
22 page 30 of your declaration.

1 Do you see that?

2 A. I'm there, yes.

3 Q. What's shown in that Figure 6, which
4 is annotated, is the incoming fiber is stripped and
5 spooled within the Holmberg wall box before passing
6 through the box; correct?

7 A. That's correct, yes.

8 Q. And then if we go ahead to the next
9 page, at the top, right after paragraph 35, there's
10 another diagram.

11 This shows, in Holmberg, a terminated
12 fiber is cut and then spooled around the spool
13 that's on the back of the splice tray, which is
14 shown superimposed on the base of the cover;
15 correct?

16 A. That is correct, yes.

17 Q. And then eventually, if we go to
18 page 32, at the bottom of paragraph 37, there's
19 another annotated diagram from Holmberg, Figure 4.
20 This shows an annotated version of Figure 4 that
21 shows terminated fibers that are spliced to these
22 blue-tealed output fibers.

1 Do you see that?

2 A. Yes, I do.

3 Q. Okay. So that -- what we just looked
4 at, that is kind of a high-level description of the
5 splicing of fibers in the Holmberg wall box;
6 correct?

7 A. Those, along with the paragraphs
8 describing them from paragraph 33, 34, onward to
9 paragraph 38, are the steps that are described in
10 paragraphs 37 to 40 in the process of routing and
11 splicing steps.

12 Q. If we could go back in your
13 declaration to paragraph 8.

14 In paragraph 8, you say, "A POSITA
15 would have understood that because Holmberg's wall
16 box services the same type of subscribers in the
17 same 'terminating' setup as the '483 Patent,
18 Holmberg's wall box would have required an ability
19 to easily disconnect and reconnect new subscribers."

20 Do you see that?

21 A. Yes, sir, I do.

22 Q. And then in paragraph 9, on the next

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1 page, you say, "A POSITA would have further
2 understood that accessing Holmberg's splice tray 230
3 would have been required to add, remove, fix, or
4 otherwise reconfigure end subscriber connections."

5 Do you see that?

6 A. Yes, I do. Yes.

7 Q. And before the break, we had looked at
8 the figure that you had created at the top of
9 page 12 of your declaration of those two dwelling
10 units. If we could go back to that.

11 Do you have that in front of you on
12 page 12, right before paragraph 8?

13 A. Yes, I do have that. Yes.

14 Q. Okay. So I want to focus on your
15 testimony about using the Holmberg wall box to -- to
16 disconnect or remove a subscriber. Okay?

17 A. Okay.

18 Q. So in the Holmberg box, in your
19 example, how would a technician remove a subscriber?

20 A. How would a technician remove a
21 subscriber which already has a line coming to that
22 subscriber?

1 Q. That's correct.

2 A. It depends. Depends on the -- depends
3 on several factors in terms of how they would want
4 to do that.

5 Q. What are those factors?

6 A. As I show in Figure 4, for example, on
7 paragraph 32 -- after paragraph 32, on page 27, I
8 discuss the steps for having the lines -- the teal
9 lines going up to the subscribers. And then I also
10 describe the splicing mechanism that occurs in the
11 Figure 4, going from orange line to the teal lines.

12 It depends really on the teleco or the
13 company that's providing the optical lines. If they
14 are having all the lines go to the customer
15 premises, they could easily -- if the customer was
16 being disconnected, they could -- they have to open
17 the door of the box and, based on that, make changes
18 in that box 200, which is the wall in box. Or it
19 could be done at the customer premises. So
20 depending on what's downlink, as well.

21 Q. If the Holmberg box -- if the changes
22 were made to the Holmberg box to remove or

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1 disconnect a subscriber, what would a technician
2 need to do to remove that subscriber?

3 A. Again, depends on the configuration of
4 the box. If you're focusing on Figure 4, it depends
5 on the technician's and the teleco's or the optical
6 company's policies on how they do that. One could
7 be potentially at the splice box or other locations
8 within that box that allow that -- at the splicer.

9 Q. An example where something happens at,
10 I think you said, the splicer, how would that work
11 in the Holmberg box?

12 And we're looking at Figure 4
13 annotated on page 27 of your declaration.

14 A. Again, depends on the specifics of
15 the -- how the teleco is handling that and how they
16 want -- whether they want to have the line or not
17 going still, which would require removing the lines,
18 or it could be disconnections at the --
19 disconnecting at the splicer in the middle of that
20 Figure 4.

21 Q. The Holmberg box, one way to
22 disconnect a subscriber would be to disconnect the

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1 splice that's on the front side of splice panel 230;
2 correct?

3 A. Hypothetically and potentially, that
4 could be one of the ways, to be able to access
5 within that box and be able to perform that
6 operation.

7 Q. In the Holmberg box, and in particular
8 in the -- as you've shown it in the example of the
9 building that we've been looking at, how would a
10 subscriber be added to a floor?

11 A. It depends, again, on how the service
12 provider is handling that. I put an example in
13 paragraph 14 of a -- one of the examples is -- that
14 I described in paragraph 14 is from a prior art,
15 Bradea, which is looking at, you know, depending on
16 how the company's providing that, the service
17 provider, is handling, let's say, 30 percent.
18 Therefore, it could have lines going up to that
19 30 percent number, and then later on it could have
20 additional lines for going up to 50 percent,
21 et cetera. So it really depends on the service
22 provider and how they do that, but the key is

1 that --

2 Q. You reference in --

3 A. But the key is that the technicians
4 need to have an access to the box to be able to make
5 changes, whether there is disruption, damages,
6 adding a line, taking a line out, and so on. And
7 also the company service provider's policies of what
8 they think is the potential number of lines they
9 would need, et cetera. So...

10 Q. Now, the particular example in
11 Holmberg Figure 4, and we're looking at the
12 annotated figure in your declaration, how would you
13 add a subscriber to that box?

14 A. Again, it depends. It's hypothetical.
15 It depends whether there is an existing line already
16 coming out of the box or not which needs to be
17 connected; or if there's not an existing line, then
18 you need to add an additional line within that box
19 adding to the splicers from orange to teal.

20 So it depends on the configuration,
21 really. It depends on the box. There's not one
22 solution per every different configuration. That's

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1 why technicians are trained to handle different ways
2 of doing that, and also they need to have the
3 accessibility of being able to get in the box and
4 perform the addition, testing, figure mechanism, and
5 so on.

6 Q. If we go back to -- if we go back to
7 the diagram we looked at on -- actually, if we move
8 ahead to, after paragraph 35 on page 31, the diagram
9 of the terminated fiber.

10 Do you remember looking at that?

11 A. Yes, sir, I do.

12 Q. So for each subscriber location in the
13 Holmberg box, a fiber from the passthrough cable
14 would need to be terminated from that passthrough
15 cable; correct?

16 A. There has to be a connection to the
17 subscriber. And based on, again, the policies of
18 the company, if it's looking at 30 percent or
19 50 percent or 70 percent occupation or whatever, if
20 there is a specific line -- if there are lines that
21 are going to the customer premises and they need to
22 connect them, yes, the passthrough lines, as I

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1 discuss that in paragraph 36 -- sorry, in
2 paragraph 35, I say, Next, as shown in PPC's
3 annotated figure below, selected fibers are cut and
4 spooled around the spool structure 298 on the back
5 side of the spool.

6 But based on their policies of, you
7 know, starting with certain number of users and they
8 predict that, hey, in six months or in one year, we
9 may have more users, so they would put in adequate
10 extra lines in there as needed. So -- but those are
11 the lines that are cut and spliced to go to the teal
12 lines to the customer premises.

13 Q. You keep referring to an example where
14 there are extra lines that are cut and spliced to
15 allow for future growth; correct?

16 A. That's a hypothetical example.

17 Q. In that example where the passthrough
18 fiber has already been terminated and already
19 spliced to an outgoing fiber, to add a subscriber,
20 no additional splicing needs to be done; correct?

21 MR. HART: Object to form.

22 THE WITNESS: Again, this is a

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1 hypothetical question, because it depends on,
2 again, all the factors I talked about. It
3 may be a policy of the service provider
4 company that all the lines that you cut from
5 fiber optics, do it this way and that way,
6 and so on. Those are company specifics and
7 configuration specifics.

8 BY MR. SULLIVAN:

9 Q. The example where you had to terminate
10 an additional fiber in order to accommodate a new
11 subscriber in the Holmberg box, how would that work?
12 How would a technician accomplish that?

13 A. Again, it depends on the company and
14 their policy and what they want to do. Again, the
15 same answer as before I've given. It depends on how
16 they like to handle that. Whether they want to
17 leave the orange lines in the back and after it's
18 cut and they splice it later or they splice it and
19 then connect it to the teal lines later.

20 It really depends on the company
21 specifics. So I can't answer that. There are many
22 different potential configurations that could happen

1 here. It depends on the service provider.

2 Q. Let's go back to your diagram before
3 paragraph 8 of the two buildings. And in particular
4 the left side of your Holmberg diagram.

5 Now, in that diagram, you've chosen to
6 show four different Holmberg boxes, one on each
7 floor?

8 A. That's correct.

9 Q. Isn't it possible to have a single
10 Holmberg box on the first floor, and that box
11 servicing subscribers on all four floors?

12 MR. HART: Object to form.

13 THE WITNESS: Again, it depends. It
14 depends on many factors. So I need some
15 specifics. As I discussed earlier, it
16 depends on the end customer's use. It
17 depends on the optical connection and optical
18 lines bandwidth.

19 It depends on the data rate and data
20 error rate. It depends on the customer
21 usage. It depends on the -- on the policy of
22 the company in terms of the different data

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1 rates they provide, et cetera, et cetera. So

2 I need more specifics to answer that.

3 BY MR. SULLIVAN:

4 Q. You acknowledge that it is possible to

5 have a single Holmberg box on the first floor

6 servicing all of the subscribers on each of the

7 floors; correct?

8 MR. HART: Object to form.

9 THE WITNESS: That's a hypothetical.

10 I've not acknowledged that, because really

11 the whole -- there's a lot more involved in

12 there than just -- than just saying that. It

13 depends on many aspects of the signaling, as

14 I mentioned already. So...

15 BY MR. SULLIVAN:

16 Q. Explain that to me. Why does it

17 depend on many aspects of the signaling? Why is

18 that so hypothetical, but your example showing one

19 box on each floor is not? How are they different?

20 How would the signaling matter? I don't understand

21 that.

22 A. Again, this is an example that I've

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1 shown. I have not discussed any of the details.

2 That's outside of the scope -- well, that's not --

3 I've not discussed those.

4 If you'd like me to go over the
5 communication aspects, the bit error rate, the
6 bandwidth and all that stuff, depends all of these
7 things. And these are the things that we teach in
8 our -- I think it's 454 undergraduate course here in
9 terms of communication signals, senior course.

10 So it really depends on each line has
11 a certain bandwidth, meaning that it can handle so
12 many data. And the boxes that they -- and when it
13 goes to the customer premises, the service provider
14 has to provide certain bit error rate, depending on
15 the customer usage, and guaranteeing what that needs
16 to be, so on and so forth.

17 So sharing or not sharing the box and
18 how many lines are going in just from one box going
19 to many different premises and so on, depends on
20 many other factors in there. So what I've shown
21 here is a mid-span box that each one of the teal
22 lines are going to a floor, and each one of them

1 going to a separate subscriber unit.

2 So that configuration may change.

3 It's a hypothetical. The apartment building could
4 have one room, or it could have a hundred different
5 apartments in there and so on. So...

6 BY MR. SULLIVAN:

7 Q. And when you did your analysis, you
8 said it was limited in scope. You didn't discuss
9 how subscribers would be added or how subscribers
10 would be removed; correct?

11 A. Well, that's why I have the person of
12 skill in the art in there, so they would be able to
13 understand those issues. Otherwise, in my 45-page
14 declaration would end up to be a very long book on
15 discussing all these aspects.

16 The person of skill in the art would
17 understand different configurations and be able to
18 understand the data aspects and communication
19 aspects I already discussed.

20 Q. If you could go in your declaration to
21 paragraph 22.

22 A. Yes, I'm there.

1 Q. Now, this section of your declaration,
2 there's a subheading that says, "PPC admits
3 Holmberg's fasteners are removable."

4 Do you see that?

5 A. Yes, sir.

6 Q. And then towards the end of that
7 paragraph, about four or five lines up, you say, "A
8 POSITA would have understood that Holmberg's easily
9 removable screws indicated that Holmberg did not
10 intend to limit or restrict access to the splice
11 tray (including the rear side or cables behind the
12 splice tray). Holmberg's easily removable fasteners
13 were simply a chosen mechanism to hold splice tray
14 230 in place and to permit easy removal when
15 needed."

16 Do you see that?

17 A. Yes, sir, I see that. Yeah.

18 Q. So it's your opinion that Holmberg's
19 screws are easily removable; correct?

20 A. Yeah, it's my opinion that the person
21 of skill in the art would understand that Holmberg's
22 screws are easily removable, yes.

1 Q. Is it your opinion that Holmberg's
2 splice tray 230 that is held by the removable
3 screws, is it your opinion that that splice tray is
4 easily removable?

5 MR. HART: Object to form.

6 THE WITNESS: Well, that's a -- that
7 depends on what you mean "the splice tray is
8 easily removable." That depends on the
9 consequences of removing that. Of course,
10 somebody can unscrew those and yank it out
11 there and cutting all the lines or breaking
12 them.

13 And physically, yes, you can yank them
14 out and pull them out, but then you'll have
15 all the lines disrupted. But I don't think
16 that's what you want to do as a technician.

17 BY MR. SULLIVAN:

18 Q. If we look at Figure -- if we go to
19 Holmberg, Figure 4. And Holmberg is Exhibit 1004.

20 Do you have that in front of you?

21 A. Yes, sir, I do.

22 Q. Now, it's shown in open configuration

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1 in Figure 4, but do you understand that the --
2 actually, if we can go to Figure 3 for a moment.

3 Figure 3 shows the Holmberg box with
4 the cover closed; correct?

5 A. Cover 220 is closed, yes.

6 Q. And with the cover closed, a
7 technician couldn't access the splice tray, correct,
8 with it closed? You'd have to open the cover to
9 access the splice tray; correct?

10 A. The front of the splice tray and given
11 that they have the right tool and the -- yes, they
12 need to open the 220 to access the front side of the
13 splice tray.

14 Q. If we go back to Figure 4, once the
15 cover is open, a technician could access the front
16 of the splice tray without having to remove the
17 screws; correct?

18 A. They can see that -- yeah, I mean,
19 they can -- they can see the splice tray front, as
20 shown in Figure 4, and access that, yes.

21 Q. But in order to access the rear of
22 splice tray 230, a technician -- it's your testimony

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1 a technician would have to remove the four fasteners
2 or the four screws; correct?

3 A. That is -- in order to access the back
4 of that or in order to -- yes, they have to unscrew
5 those four screws to access the back.

6 Q. If we could turn ahead to -- if we go
7 to paragraph 33.

8 A. I'm there.

9 Q. Okay. This section of your
10 declaration, you talk about -- and we'll go through
11 the details -- you talk about how the splice tray
12 would have to be held or manipulated during the
13 splicing procedure.

14 Do you recall that?

15 A. Yes, sir, I do.

16 Q. Now, if we can go ahead to
17 paragraph 39, in this section.

18 In the middle of that paragraph, you
19 make reference to a fusion splicing machine that
20 there's a fusing -- excuse me, a fusion splicing
21 process requiring the cleaving of the ends of both
22 fibers and placing those ends in a fusing splicing

1 machine.

2 Do you see that?

3 A. Yes, I do.

4 Q. Did you have a particular -- now, this
5 is -- let me start that again.

6 The Holmberg patent, as we talked
7 about earlier, was filed in the 2007-2008 time
8 frame.

9 Do you have a sense of what fusion
10 splicing machines were available in that time frame?

11 A. Going back to that time period, I
12 believe there were, yes. Yeah, there were. Because
13 optical lines were available. We were performing
14 splicing machines way before that, and so on and so
15 forth, yes.

16 Q. Can you tell me what -- you know, just
17 at that time frame -- and I'll ask maybe what they
18 look like today, but at that time frame, how big
19 were those machines? Like, how would a technician
20 use one of those machines? Were they sitting on a
21 table? How were they used?

22 A. They -- I'll have to go -- I don't

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1 recall. I mean, they were not necessarily small
2 that sit on the palm of your hand. They were bigger
3 in area than those. Definitely required that you
4 hold it -- depending on where they -- I don't know
5 what your question is. Maybe I -- please repeat
6 your question. How big they were, you mean?

7 Q. Yes, you make reference to a fusion
8 splicing machine in your declaration. So I want to
9 know more about that machine that you were thinking
10 of, and in particular, I want to know about the
11 machine in that Holmberg time frame.

12 And the first question is: How big is
13 it?

14 A. It really depends on -- it was not a
15 single unit that I would say that it was this way or
16 that way. You know, some could have possibly fit on
17 the palm. Some maybe required a -- you know,
18 holding it with both hands versus one hand and so
19 on. From what I recall, it was not a
20 straightforward just putting two wires together. It
21 was more complex than that.

22 Q. Is it your sworn testimony that there

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1 were fusion splicing machines available in the 2007
2 and 2008 time frame that, I think you said, could
3 fit in the palm of your hand?

4 MR. HART: Object to form.

5 THE WITNESS: I said I don't recall
6 exactly at that time frame. Sorry, I don't
7 recall how they were. But it was not -- all
8 I can say, it was not a straightforward
9 process of just putting two wires and
10 twisting them. It was more involved than
11 that.

12 BY MR. SULLIVAN:

13 Q. Well, what was the process?

14 A. Well, you have to bring in the two
15 optical lines that are coming together and fuse them
16 together. I mean, there's no -- you know, it
17 depends on the equipment, depends on the
18 technicians, depends on what equipments they have.
19 So I can't -- you know, I can't talk about what the
20 specifics were there. So...

21 Q. This is your declaration, and you're
22 talking about fusion splicing process and a fusion

1 splicing machine. So I'm slightly confused.

2 You don't know what the fusion
3 splicing machine is?

4 MR. HART: Object to form.

5 Object, lack of foundation, lack of
6 relevance.

7 MR. SULLIVAN: Counselor, if you could
8 stick to objection, form, and avoid the
9 speaking objections, I'd appreciate it.

10 MR. HART: The trial practice guide
11 sets forth three types of deposition
12 objections that are proper, including form,
13 relevance, and foundation. Those are the
14 three objections that I entered into the
15 record.

16 MR. SULLIVAN: But not asked and
17 answered; correct?

18 THE WITNESS: Please repeat your
19 question. I got lost between that. So if
20 you don't mind --

21 BY MR. SULLIVAN:

22 Q. Sure. I'm asking you questions about

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1 the fusion splicing machine that you reference in
2 your declaration. And what I'm not -- you seem to
3 not understand what the machine is. So I'm asking
4 you, what machine were you thinking of? And then I
5 asked you some specifics, and you don't know.

6 So were you thinking of a particular
7 fusion splicing machine when you wrote this
8 declaration?

9 A. First, to answer your first part of
10 your question, that was two questions, the statement
11 that I don't know, that is incorrect. We have used
12 fusion splicing. And I've also used them both at
13 Arizona State, as well as in Motorola. There are
14 different mechanisms for splicing; mechanical
15 splicing, fusion splicing, and so on and so forth.

16 And what I said was -- I think you
17 misrepresented what I said. What I said was you
18 want to be able to -- in the fiber optic splicing,
19 you need to make sure that the lines are aligned.
20 You need to make sure that the two ends are
21 connected precisely. You need to be able to make
22 sure that you reduce any potential losses in the

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1 line in terms of bad connectivity and so on and so
2 forth.

3 My answer was it depends on the
4 equipment and the users, what they have, and it
5 depends on what the company uses. There are a
6 number of providers that provide the fusion
7 splicing. A number of -- that were used in the
8 field. And each company's methodology, they train
9 their technicians to be able to use that. So it
10 really depends on many factors.

11 It depends on how they're able to make
12 sure that the two splices that they, the two optical
13 lines are aligned together, and other being able to
14 connect together via whether it's heat or electrical
15 arc or many other factors.

16 So that's not the case. Your
17 statement about not knowing, that is -- actually, I
18 have -- we have a lab that -- actually, at Arizona
19 State that we use that quite a lot. So...

20 Q. How big is the fusion splicer that
21 you've used at Arizona State? How heavy is it?

22 A. Well, our budget is not the same as a

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1 company's. So ours is not the petite version.

2 So -- but there are versions that are smaller. Ours
3 is tabletop, probably -- I'm just kind of thinking
4 about it. It's an older one, but probably, I don't
5 know, at least 5 to 7 pounds or something. It's
6 about (indicating). That's all I can say. So...

7 Q. And in your paragraph 39, you said, a
8 POSITA would understand that the splicing procedure
9 would typically (if not always) require two hands.

10 Why would it require two hands?

11 A. That's correct, actually. Because you
12 need to align the two optical lines coming in
13 correctly, and you need to make sure that the
14 alignment is done -- and sometimes, actually, they
15 use a camera or some sort of zooming techniques to
16 make sure they're aligned before you apply the
17 electric arc or heating procedures and so on.

18 So it's not a -- it definitely -- it's
19 not a single-hand thing. When I talked about
20 wiring, like the wire, you just don't twist them
21 together. It's a lot more involved than that.
22 Because the smallest error would change the

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1 mechanical and optical connections and would degrade
2 the data rate significantly.

3 Q. We looked earlier at --

4 A. Actually, before I finish that, let me
5 say that our graduate students, we don't let them
6 touch that until we train them properly. So to get
7 into those lines and being able to perform fusions
8 and splicing, because of the accuracy and the cost
9 and also other issues, we make sure that we train
10 the graduate students before they have put their
11 hands on that machine. So...

12 Q. If we can go back to paragraph 35 of
13 your declaration, right before that paragraph, we
14 looked at the Figure 6 annotated in Holmberg.

15 This shows the passthrough cable
16 before it's terminated; correct?

17 A. Yes, sir. That is correct, yes.

18 Q. And then we looked -- if you go to the
19 next page, we looked at the annotated Figure 6,
20 showing a single fiber terminated; correct?

21 A. That is correct, yes.

22 Q. And then at the bottom of page 36,

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1 there's an annotated -- excuse me, after
2 paragraph 36, excuse me, there's an annotated figure
3 showing the splice sleeve holders.

4 Do you see that?

5 A. Yes, I do.

6 Q. And then on the next page, there's an
7 annotated Figure 4 showing the splicing of the
8 terminated fibers to the teal outbound fibers.

9 Do you see that?

10 A. Yes, I do.

11 Q. Okay. So can you describe to me how a
12 POSITA, in reading Holmberg, would understand how --
13 would understand the process that would be used to
14 terminate the -- excuse me, to splice the terminated
15 orange fiber to the outbound teal fiber?

16 And I'll start with -- if we can go
17 back again to the starting point of the diagram or
18 the figure right before paragraph 36. Starting at
19 that point, what happens -- what happens next?

20 Actually, strike that.

21 What happens after the fiber is
22 terminated?

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1 MR. HART: Object to form.

2 THE WITNESS: I assume you mean what
3 happens after the fiber in Figure 6 above
4 paragraph 36 is -- which is the lines spooled
5 around the back of the spool tray is
6 terminated?

7 Is that the correct question?

8 BY MR. SULLIVAN:

9 Q. Yes. Not necessarily -- I'm actually
10 talking about the point in time before it's ever
11 spooled. So there's -- there's about 4 feet of
12 fiber that's been stripped and exposed, and one of
13 the fibers is cut or terminated.

14 What happens next in the process,
15 where eventually that fiber -- that terminated fiber
16 will be spliced?

17 A. So I'm going to start with
18 paragraph 35, because it is the annotated figure
19 that PPC has shown, which is the fibers that are
20 spooled around the back of that. Then they are cut
21 and -- selected fibers are cut and spooled around a
22 spool structure 298, as I show in Figure 6, right

1 below paragraph 35.

2 Then as I also discuss it in
3 paragraph 36, the fibers that are cut and they're
4 ready to be spliced, they go through the opening.
5 So you have to be able to access the openings of the
6 splice tray 236. So you have to be able to have
7 access to the splice tray 230.

8 And through that, those fibers that
9 are cut and they're going to be spliced are then
10 going to the opening 296. And then those, they go
11 through the -- they're spliced together, and they go
12 through the splice sleeve holder, which is holding
13 them.

14 And then -- then that goes to -- from
15 there, then, as I discuss it also in paragraph 37,
16 all the cut fibers have been spliced, and their
17 splices are secured in the splice sleeve holder,
18 which is a teal color. They're wrapped around the
19 storage fingers, which is of the splice tray 230.

20 And then those are -- those are then
21 sent to the subscribers. And then I discuss some of
22 the more details of it also, specifics, in

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1 paragraph 37. But these are the high level -- at
2 high level what happens.

3 Q. I want to go back to paragraph 35 that
4 you started your answer with.

5 And paragraph 35 says, "Next, as shown
6 in PPC's annotated figure below, selected fibers are
7 cut and spooled around spool structure 298 on the
8 back side of splice tray 230."

9 Do you see that?

10 A. Yes, sir.

11 Q. And that figure is shown on the next
12 page.

13 Is it your testimony that the
14 terminated fiber is spooled on the back of the
15 splice tray before the splicing is done?

16 A. Yes, I mean, that splice -- that spool
17 that is in the back of the splice tray 230 is meant
18 for putting the cut spliced fiber lines that then go
19 to 296 to the front of the splice tray 230.

20 Q. So it's your testimony that -- well,
21 let's start with, before you do any of this, a
22 technician would have to remove the splice tray 230

1 by removing the fasteners; correct?

2 MR. HART: Object to form.

3 THE WITNESS: Well --

4 BY MR. SULLIVAN:

5 Q. I'll start again. In order to
6 terminate or cut the fiber to access it, at that
7 point, the splice tray has been removed, as shown in
8 Figure 6; correct?

9 MR. HART: Object to form.

10 THE WITNESS: Has been opened is the
11 correct word I would use. They -- based on
12 the -- what I have in my declaration, and
13 there's a hinge, so the splice tray is
14 opened, and a technician has access to the
15 back of the tray, 230.

16 BY MR. SULLIVAN:

17 Q. Well, Figure 6 in Holmberg, there is
18 no hinge. You're saying the hinge would be obvious,
19 but I'm talking about Holmberg, Figure 6, that shows
20 the splice tray removed; correct?

21 A. The key is that the technician has to
22 have access to the back of the splice tray 230 by

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1 opening that to be able to spool the cut fiber
2 around the spooling mechanism.

3 Q. And it's your testimony that the
4 terminated or cut fiber, a POSITA would understand
5 that it's spooled before any splicing is done? Is
6 that your testimony?

7 MR. HART: Object to form.

8 THE WITNESS: Your spooling mechanism
9 is there for spooling the cut fibers around
10 it before the splicing is done. Whether it's
11 done -- once the splicing is done and then
12 wrapped around it or not depends on the
13 technician and depends on the specifics of
14 what they can access and what they can do.

15 So it really depends -- this is a --
16 it depends on the box, depends on the
17 company, depends on how the technician is
18 going to be able to handle that, but a
19 technician who's trained in there will
20 determine the steps on when they do that.
21 So...

22

1 BY MR. SULLIVAN:

2 Q. The example that you gave in your
3 declaration in paragraph 35, you indicated that
4 selected fibers are cut and spooled around spool
5 structure 298 on the back side of the splice tray
6 230.

7 And that would be done before
8 splicing; correct?

9 MR. HART: Object to form.

10 THE WITNESS: It is an example. It
11 depends on -- again, depends on the length of
12 the cable. Depends on many factors in there.
13 I mean, it's not -- a technician would be
14 able to understand that and handle that. You
15 know, it's not -- so I already answered that.

16 BY MR. SULLIVAN:

17 Q. In that example, the splicing would
18 have to take place close to the splice tray;
19 correct?

20 MR. HART: Object to form.

21 BY MR. SULLIVAN:

22 Q. Where if the technician had spooled

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1 the terminated fiber around the spool on the back of
2 the splice tray, the splicing would actually have to
3 take place very close to the splice tray; correct?

4 A. Not correct. Depends on many factors.

5 MR. HART: Object to form.

6 THE WITNESS: Depends on the splicer,
7 depends on the access to the splicer, depends
8 on the splicer's distance from the box,
9 depends on where the box is located, depends
10 on how much of a spool -- how much of the cut
11 fiber you have. It depends on many of these
12 other things.

13 I mean, that's why you have a
14 technician who's trained to do that. That's
15 why we train our graduate students to handle
16 these issues. So it depends on the call they
17 make at the time. So, you know, it depends
18 on many of these factors. So this is just
19 one example that I talked about, but that's
20 not the only possible configuration.

21 MR. SULLIVAN: We've been going for
22 about an hour. So we can take a break.

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1 THE REPORTER: We're off the record.

2 (Recess from the record.)

3 THE REPORTER: We're back on the
4 record.

5 BY MR. SULLIVAN:

6 Q. Before the break, we were looking at
7 Holmberg and discussing the process of splicing a
8 terminated fiber. I want to go back to that. And
9 if we could go in your declaration, Exhibit 1033, to
10 the figure right before paragraph 36.

11 Now, in your testimony, you indicated
12 that there would be different ways to do this, and
13 one of the ways that you indicate in your report was
14 to spool the terminated fiber before splicing;
15 correct? That's one example?

16 A. Yes, that is one example, possibly.

17 Q. And another example would be to spool
18 the terminated fiber after splicing; correct?

19 MR. HART: Object to form.

20 THE WITNESS: One option is the one I
21 discuss in the paragraph 35, which is the
22 spooling and some of the cable around the

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1 spool structure and -- and your -- your
2 question is that the second option is spool
3 it after the splicing; correct?

4 BY MR. SULLIVAN:

5 Q. That wasn't my question.

6 Is that -- is that an option?

7 A. Depends on the -- depends on the case.
8 Depends on the length of the fiber needed for the
9 spooling mechanism, but -- and also the fact that
10 once it is spliced, it has to be -- or before that,
11 it has to be able to go from the back side of the
12 spooling mechanism to the front through the opening
13 296.

14 So all of that depends on the options
15 that are available at the hands of technician.

16 Q. You mentioned the length.
17 Paragraph 52 of Holmberg talks about 4 feet being
18 stripped away. So presumably the terminated fiber
19 could be about 4 feet long; correct?

20 A. Paragraph 52, you said?

21 Q. Of Holmberg, yes. It talks about
22 stripping away about 4 feet of outer jacket.

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1 A. This is about the outer jacket
2 requirements, not the -- it's not talking about
3 the -- it's talking about the outer jacket, not
4 necessarily the spooling mechanism. So...

5 Q. What other jacket?

6 A. The outer jacket. The outer jacket of
7 the -- it's talking about the -- okay, let me read
8 paragraph 52 carefully, just to answer you. So...

9 (Document review.)

10 THE WITNESS: So what it's talking
11 about in paragraph 52, it's talking about in
12 order to mount the wall box at the
13 corresponding mid-span location of a cable,
14 the cable is initially prepared by stripping
15 away the outer jacket of the cable for a
16 desired length at the mid-span location. In
17 one embodiment, about 4 feet of outer jacket
18 is stripped.

19 So this one is talking about the
20 stripping, going back to Figure 6 in my
21 declaration after paragraph 35, is the
22 approximately cutting the outer jacket, which

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1 is the solid orange cable -- fiber cable
2 protector that is -- that's the outer jacket.
3 So that is stripped away.

4 It's talking about 4 feet of that
5 going around the spooling, around those four
6 mechanism on the main body 2 -- I think it's
7 264. So that's what it's talking about.

8 BY MR. SULLIVAN:

9 Q. And wouldn't a POSITA understand that
10 if 4 feet of jacket was stripped away, when you
11 terminated one of the fibers that were exposed by
12 stripping away the jacket, you would have access to
13 approximately 4 feet of the terminated fiber;
14 correct?

15 A. Possibly. It depends on -- yeah,
16 you'll have access on it depending on how much of it
17 you're spooling around 264 and how much of it you're
18 spooling around that spool behind the opening.
19 So...

20 Q. So in the example where the terminated
21 fiber was not spooled around 298 and was also not
22 spooled around 264 or 260, you could have as much as

1 4 feet of the terminated fiber available; correct?

2 MR. HART: Object to form.

3 THE WITNESS: It really depends on how
4 much is stripped. The outer jacket is
5 stripped, which is the outer jacket of the --
6 protected outer jacket of the cable lines.
7 It depends on how much of it is spooled
8 around 264 and how much of it is spooled
9 behind the tray box.

10 You could have some length available,
11 depending on what is the -- it's really -- it
12 depends on the many different configurations
13 there, and it depends on what the technician
14 is doing. But possibly, yeah, you can have
15 up to 4 feet or whatever feet the technician
16 is -- has it stripped away.

17 BY MR. SULLIVAN:

18 Q. That terminated fiber could be routed
19 through the splice tray by going through the opening
20 at 296; correct?

21 A. It has to go through 296 before it
22 sits on the splice sleeve holders, as is shown below

1 the paragraph 36.

2 Q. And then once it's through the opening
3 296, the terminated fiber could be spliced at that
4 point; correct?

5 A. Yes, after opening 296, opening there,
6 it comes out, then it's spliced to the -- excuse me,
7 spliced to the teal lines going up. So...

8 Q. So, for example, if you had
9 approximately 3 or 4 feet of terminated fiber, and
10 you inserted it through 296 so that it was
11 accessible on the front side of the splice tray, you
12 could take that terminated fiber, and you would have
13 to insert it into a splicing machine in order to
14 perform the splice; correct?

15 MR. HART: Object to form.

16 THE WITNESS: That's a hypothetical
17 case you're building. I mean, really it
18 depends on the factors -- remember that
19 you're dealing with optical lines. So you
20 have to also -- a technician would know
21 that -- to be delicate in that situation in
22 terms of how much of that is done before

1 or -- how much of the spooling is done,
2 et cetera.

3 So that's one hypothetical case you're
4 building, but really it depends on the
5 specifics that the technician is dealing
6 with.

7 BY MR. SULLIVAN:

8 Q. So in the case that you set forth in
9 your declaration, where the terminated fiber is
10 spooled before splicing, how would the splicing take
11 place with the fusion splicer? Would it be -- where
12 would the fusion splicer be located?

13 A. That goes back to the question we had
14 before. It depends on the portability and the
15 weight and many of these other factors in the fusion
16 process. You would require two hands to perform the
17 fusion process in terms of aligning the fibers and
18 then fusing the fibers.

19 So, you know, you need to make sure
20 that also when you're cutting the fibers, you have a
21 very precise perpendicular cut. Because then you
22 would get a reflective signal coming back and many

1 other factors that's involved in there.

2 So really I can't answer that question
3 unless you have any specifics of the tool that is
4 going to be used for the splicing. So -- but I can
5 say that the splicing is a very precise mechanism
6 that requires a clean cut to be perpendicular, as
7 well as requires making sure that you're aligning
8 the fibers and then performing the fusion after
9 that.

10 Q. When you say a technician needs two
11 hands to perform the fusion, are the two hands being
12 occupied by handling the two fibers?

13 A. Potentially, yeah. I mean, it depends
14 on what we have in there. Yes. Potentially, yes.

15 That or doing other tasks and so on.
16 So, you know, as I said also in my declaration, in
17 paragraph 39, I specifically discuss this, and even
18 Dr. Eldering also agreed to it, that -- I say at the
19 end of paragraph 39, "A POSITA would have understood
20 that the splicing procedure would typically (if not
21 always) require two hands."

22 Even Dr. Eldering admitted that the

1 splicing procedure is much easier to perform with
2 two hands.

3 Q. If you go to your declaration,
4 paragraph 38.

5 At the bottom of paragraph 38, you
6 have a -- right after it, I should say, you have an
7 annotated figure.

8 Do you see that?

9 A. Yes. The one with the hand, yes.

10 Q. Yes.

11 Now, in the paragraph leading into
12 that, you talk about what Dr. Eldering testified.
13 You say, "Dr. Eldering speculated, a 'technician
14 [might] use one hand to hold the splice tray' while
15 routing fibers."

16 Do you see that?

17 A. In the same paragraph?

18 Q. Yes, in the middle of paragraph 38.

19 Do you see that?

20 A. Yes, I do see that. Yes, yes.

21 Q. Now, the annotated figure that you
22 show there is after the splices have been completed;

1 correct?

2 A. In that figure, yes.

3 Q. So that -- that's in time, in terms of
4 the process, what you've shown, annotated Figure 6
5 with the hand, that's not showing routing the
6 fibers; correct?

7 MR. HART: Object to form.

8 MR. SULLIVAN: Well, let me ask a
9 better question.

10 BY MR. SULLIVAN:

11 Q. What is the stage of the process
12 that's shown in Figure 6?

13 In your declaration, you say it's with
14 all of the fibers and splices in place prior to
15 placing it against the back wall of the enclosure.

16 Do you see that?

17 A. Yes. Yes, I do.

18 Q. So that time frame is after all of the
19 splices have been completed; correct?

20 A. Yes. Is there a question, or that was
21 it?

22 Q. That was the question.

1 MR. SULLIVAN: I want to turn to -- if
2 we could introduce a new exhibit,
3 Exhibit 1006, which is the Blackenship
4 patent.

5 (Exhibit 1006, No Bates Numbers,
6 Blankenship Reference, received and marked.)

7 BY MR. SULLIVAN:

8 Q. And if you need it, you should also
9 have a hard copy of Blackenship in the materials
10 that I sent you.

11 A. Yes, I just saw the Blackenship, also.
12 So I'm downloading it.

13 Okay. I have it open, sir.

14 Q. Okay. And if you go to Figure 6 of
15 Blackenship.

16 A. Yes, I'm there.

17 Q. In your -- in your first declaration,
18 and we can look at that in a moment, but you're
19 looking towards or relying upon the adapter
20 bracket 66 in Blackenship.

21 Do you recognize Figure 6 and the
22 adapter number 66?

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1 A. Yes, I do. Yes.

2 Q. Okay. And if you want to reference
3 it, your discussion of Blackenship in your first
4 declaration -- and this is with respect to Claim 2
5 of the '483 patent, but your discussion in your
6 first declaration, which is Exhibit 1003, which is
7 also in your materials -- it starts at
8 paragraph 115.

9 A. Is that uploaded, or you want me to
10 look at a hard copy?

11 Q. It is uploaded, or will be
12 momentarily. And it's also in hard copy, if you
13 want to look at your hard copy.

14 (Exhibit 1003, No Bates Numbers,
15 Declaration of Dr. Sayfe Kiaei in Support of
16 Petition for Inter Partes Review of U.S.
17 Patent No. 9,008,483, received and marked.)

18 THE HOTSEATER: If you could refresh
19 the Box, you should see it there.

20 THE WITNESS: Okay.

21 BY MR. SULLIVAN:

22 Q. So you have your first declaration.

1 You have Blackenship; correct?

2 A. Yes, I do. Yeah.

3 Q. So in looking at Blackenship Figure 6,
4 and we'll look at the text of the patent in a
5 moment.

6 At the top of the figure, do you see
7 number 64? Towards the middle, do you see 64?

8 A. Yes, I do. Yeah.

9 Q. Okay. And we'll look at it in the
10 description, but that's the -- what's referred to as
11 the splice tray or the stacked splice tray.

12 And maybe we can go in Blackenship to
13 Column 5, Line 30.

14 A. Yes, I'm there. Yeah.

15 Q. Great.

16 So 5, line 30 to about line 38, it
17 says, At least one connection tray 64 is positioned
18 on the platform 62 adjacent the side wall 22 of the
19 base 12 opposite the entry ports 26. The connection
20 tray 64 may be any known device for joining optical
21 fibers, for example a splice tray, a coupler tray,
22 an adapter tray, a splice organizer, a splice

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1 holder, or the like. As shown, connection tray 64
2 is a splice holder -- excuse me, is a conventional
3 splice tray and a plurality of the connection trays
4 64 are secured on the platform 62 in stacked
5 relationship.

6 Do you see that?

7 A. Yes.

8 Q. So 64 in Blackenship is a splice tray;
9 correct?

10 MR. HART: Object to form.

11 THE WITNESS: Give me a second to read
12 that paragraph again. It's been a while.

13 BY MR. SULLIVAN:

14 Q. Sure.

15 A. I read that paragraph. So --

16 MR. HART: Denis, while Dr. Kiaei is
17 doing that, I'm going to give you some leeway
18 to get back to the supplemental declaration.
19 I assume that's where you're headed, but I'm
20 not going to -- you know, we can't retread
21 ground that could have been covered in the
22 first deposition, based on the original

1 declaration.

2 MR. SULLIVAN: That's fair. I'm --
3 yep.

4 THE WITNESS: All right. Please go
5 ahead with your question.

6 BY MR. SULLIVAN:

7 Q. The component labeled 64 in
8 Blackenship, as shown in Figure 6, that is a splice
9 tray; correct?

10 A. Well, it calls it a connection tray
11 which is for joining optical fibers, and it
12 discusses that at the conventional splice tray, a
13 plurality of connection trays are secured on that
14 platform 64 and are stacked in relationship to that.

15 So here, it calls it the connection
16 tray, and it says the connection tray is a
17 conventional splice tray.

18 Q. If we turn ahead to Column 6 at
19 line 57.

20 A. I'm there.

21 Q. So you can read it to yourself.
22 Column 6, line 57, to Column 7, line 16. And let me

1 know when you've read that.

2 A. Sure.

3 (Document review.)

4 BY MR. SULLIVAN:

5 Q. Let me know when you finish reading
6 that.

7 A. Yes, I will. Yeah.

8 (Document review.)

9 THE WITNESS: Okay, I am -- I read
10 that paragraph.

11 BY MR. SULLIVAN:

12 Q. So we just looked at -- you just read
13 Blackenship, Column 6, line 57, through Column 7,
14 line 16.

15 Now, in that paragraph, at about
16 line 60, it says, "Inside the connection tray 64,
17 the optical fibers of the feeder cable 70 are joined
18 to corresponding first connectors 76 in a
19 conventional manner."

20 Do you see that?

21 A. Yes, I do.

22 Q. So looking at Figure 6, the feeder

1 cable is coming into the box on the left-hand side.

2 It is routed around eventually through 74, which is
3 a transport to, and then goes into the connection
4 tray 64; right?

5 A. Yes, I see that. Yes.

6 Q. In that connection tray 64, the fibers
7 of the feeder cable are joined to what's referred to
8 as first connectors 76.

9 And you see 76 coming out of the lower
10 left-hand corner of the splice tray; correct?

11 A. Yes, it talks about it in that
12 paragraph. Yeah.

13 Q. And if we look at what 76 is, this
14 first connector in Column 7, around line 8, it says,
15 "First connector 76 may be any type of fiber optic
16 connector that permits the optical fiber of the
17 feeder cable 70 to be optically joined to an optical
18 fiber of the distribution cable 80 quickly,
19 accurately, and conveniently, such as a jumper, a
20 pigtail, or the like."

21 Do you see that?

22 A. Yes, I see that. Yeah.

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1 Q. And then the end of that pigtail 76

2 has a -- has an adapter on it that then connects to

3 the adapter on the adapter bracket 66; correct?

4 MR. HART: Object to form.

5 THE WITNESS: I don't see a 66 in that

6 paragraph. Can you elaborate more?

7 BY MR. SULLIVAN:

8 Q. Sure.

9 If we could call up Column 7, lines 1

10 through 16. Because it does have 66 in there.

11 Let's just look at it again.

12 A. Oh, the adapter bracket 66, I see now.

13 Okay.

14 Q. So --

15 (Cross talk.)

16 BY MR. SULLIVAN:

17 Q. Yeah, it says -- starting Column 7,

18 line 2, "The first connectors 76," which is the

19 pigtail, "exit at the lower left-hand corner of the

20 connection tray 64, as indicated by 77, and are

21 mated to a corresponding adapter 67 on adapter

22 bracket 66."

1 Do you see that?

2 A. Yes, I see that. Yeah.

3 Q. So Blackenship has an adapter bracket
4 66, as well as a splice tray 64; correct?

5 MR. HART: Object to form.

6 THE WITNESS: So what it says is that
7 the connection tray 64 may be any known
8 device for joining fiber -- optical fibers.
9 In line 61 [sic], As previously mentioned,
10 connection tray may be any of known devices
11 for joining optical fibers, for example a
12 splice tray, a coupler tray, an adapter tray,
13 a splice organizer, a splice holder, or the
14 like.

15 And then it talks about it that, As
16 shown, the connector [sic] 64 is a splice
17 tray and fiber optic -- optical fibers are
18 joined to the first connectors 76 inside of
19 the splice tray by well known mechanical
20 mechanism -- or mechanical, sorry, splice or
21 fusion splice techniques.

22 So in here it's talking about the

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1 splicing mechanism here. That line talks
2 about the fact that the first connectors 76
3 exits at the lower left-hand corner of the
4 connection tray 64, as indicated by 77.

5 So what is your question again, sorry?

6 BY MR. SULLIVAN:

7 Q. The question was: Blackenship,
8 Figure 6, the box, has both a splice tray or
9 connection tray 64 and an adapter bracket 66;
10 correct?

11 A. It shows those in the diagram, but not
12 necessarily discusses using both of them. In
13 Column 7, line 7, it says, First connector 76 may be
14 of any type of fiber optic connectors that permits
15 optical fibers of the feeder cable to be optically
16 joined to the optical fiber of a distribution cable
17 quickly, accurately, and conveniently, such as
18 jumper, pigtail, or whatever. It talks about, or
19 the like.

20 And then it says, Preferably, however,
21 the first connector 76 is a pigtail connector having
22 an optical fiber for splicing to an optical fiber of

1 the feeder line 70 at one end and plug-and-play
2 duplex SC style connector at the other end.

3 Reading this right now, I don't think
4 that it's necessarily talking about using both of
5 them. These are different mechanism that it has.
6 One is on the 64, and one is on -- one is talking
7 about the first connector 76 could be any type of
8 fiber connector that permits the optical fiber of
9 the feeder cable 70 to be optically joined to the
10 optical fiber of a distribution cable 80.

11 And then it talks about, Preferably,
12 however, the first connector 76 is a pigtail
13 connector having an optical fiber for splicing to an
14 optical fiber of the feeder cable.

15 So it has those two mechanisms
16 available, but not necessarily it's talking about
17 having both of those. It's not clear from that
18 paragraph. For me, it's not.

19 Q. What about to a POSITA, is it your
20 sworn testimony that a POSITA would look at Figure 6
21 and read that section of Blackenship and understand
22 that both the connector tray 64 and the adapter

1 bracket 66 are being used in Blackenship?

2 MR. HART: Object to form.

3 THE WITNESS: Reading the two
4 sentences, again, I just read, is that
5 it's -- it's not necessarily saying that both
6 of those should be actively working together.
7 It says, specifically in line 11 -- line 12,
8 it says that, Preferably, however, the first
9 connector 76 is a pigtail connector.

10 And then up above, three lines above,
11 it says, First connector 76 may be any fiber
12 optic connector that permits the optical
13 fiber of the feeder cable to be optically
14 joined.

15 And then, again, in the paragraph that
16 you were talking about in Column 5, line 32,
17 it talks about the connection tray may be any
18 known devices for joining optical fibers, for
19 example, splice tray, a coupler tray, an
20 adapter tray, and so forth.

21 So it's leaving it open based on the
22 design and based on how the person skilled in

1 the art would be using it and what they need
2 to do there. So...

3 BY MR. SULLIVAN:

4 Q. I don't understand your answer.

5 My question is: Figure 6 of
6 Blackenship and the portion that we read shows that
7 connection tray 64 and adapter bracket 66 are both
8 used; correct?

9 MR. HART: Object to form.

10 THE WITNESS: I don't agree with that.

11 I don't agree with that statement. The
12 patent that -- the specification of the
13 patent leaves it open to POSITA to choose
14 a -- the different connections as needed.

15 BY MR. SULLIVAN:

16 Q. So looking at Figure 6, and if you can
17 follow, from the left-hand side, isn't it true that
18 the fiber of the feeder cable 70 comes into
19 Blackenship's box, goes to connection tray 64, and
20 is optically joined to first connector 76. Which
21 then terminates in an adapter that's connected to
22 adapter bracket 66; correct?

1 A. I don't agree with that. My statement
2 is the same. It depends on the configuration. And,
3 actually, if I look at the configuration here,
4 that's not what it's showing. So -- and, also, the
5 description of the specification leaves it open. It
6 doesn't -- ignores that it has to be both.

7 It says that first connector 76,
8 Column 7, line 7, may be of any type of fiber optic
9 connectors. And then it goes on to line 12, it's
10 again, talking about the first connector again.

11 It says, Preferably, however, the
12 first connector is a pigtail type connector. And
13 then in Column 6, line 61, it says that the fiber
14 optics -- optical fibers of the feeder 70 are joined
15 to the corresponding first connector 76 in a
16 conventional manner.

17 And it says, As previously mentioned,
18 conventional tray may be of any known device for
19 joining fiber optics. And it talks about the
20 examples of this. So I don't see that it says that
21 they both have to be there.

22 Q. I asked a new question, but we'll take

1 it step by step and we'll take as long as it takes
2 to get there.

3 The fiber that comes in as part of
4 feeder cable 70, it is optically joined to first
5 connector 76 using the connection tray 64; correct?

6 A. That is correct, yes.

7 Q. And one example that's disclosed in
8 doing that is to use a mechanical splice or a fusion
9 splice; correct?

10 A. And, also, it talks about, as well, it
11 could be an adapter tray, too. A coupler tray and
12 adapter tray, allowing those two.

13 Q. Where do you see that?

14 A. I see that right above in Column 6,
15 line 61.

16 The optical fibers of feeder cable 70
17 are joined to a corresponding first connector 76 in
18 a conventional manner. As previously mentioned,
19 connector cable 64 may be known of any device for
20 joining the fibers, for example splice tray, a
21 coupler tray, an adapter tray, splice organizer, and
22 a splice holder, or the like.

1 So it leaves all of these options
2 open. It's not --

3 Q. A particular example -- sorry?

4 A. It's not only saying -- it's not
5 excluding adapter over coupler trays. It's
6 including all of those together.

7 Q. And the example -- the specific
8 example they give, which you read a bunch of times,
9 is that the first connector could be a pigtail;
10 correct?

11 A. Preferably, it could be, but not --
12 it's not saying that both of the pigtails and the
13 optical fiber connection has to be together.

14 Q. My question was whether there's a
15 connection tray 64. The connection tray can be a
16 number of different things, but the connection tray
17 is always there; correct?

18 MR. HART: Object to form.

19 THE WITNESS: The connection cable is
20 there, but not necessarily -- is going to
21 make the connection. So it's talking about
22 the first connector 76 later on, as well.

1 So -- and then it also has the adapter 66
2 you're talking about.

3 BY MR. SULLIVAN:

4 Q. But 76 --

5 A. Physically, connection cable 64 is
6 there. And physically, the adapter 66 is there.
7 Both of those are physically there.

8 Q. And when 76 is a pigtail, it is
9 spliced in the connection tray on one end; correct?

10 A. I don't see that. I don't see that
11 the -- where that is. So...

12 Q. Okay. Well, let's go to Column 7,
13 line 11.

14 "Preferably, however, the first
15 connector is a pigtail type connector having an
16 optical fiber for splicing to an optical fiber of
17 the feeder cable 70 at one end."

18 Do you disagree with that statement?

19 A. No, I don't. No, that's an option.
20 And it says, Preferably, however, the first
21 connector cable -- connector 76 is a pigtail
22 connector.

1 Q. And that connector or pigtail is
2 spliced to the feeder cable coming into the
3 connection tray 64; correct?

4 A. It does not talk about 64 in that
5 sentence. It's talking about connector 76 is a
6 pigtail connector for having an optical fiber -- for
7 splicing into an optical fiber of the feeder
8 line 70. So...

9 Q. My question is not restricted to that
10 sentence. My question is: A POSITA reading
11 Blackenship, including Figure 6 and this portion of
12 the specification, or any part of the specification,
13 would understand that the pigtail 76, first
14 connector 76, is spliced to an optical fiber of the
15 feeder cable 70 in the connection tray 64; correct?

16 A. I disagree, as I said before. It
17 doesn't restrict it only for a splice going through
18 the splice cable. It says that -- going back again
19 to Column 6, line 61 or 62, it says that the feeder
20 cable 70 are joined to corresponding first connector
21 76 in a conventional manner. As previously
22 mentioned, connection tray 64 may be of any known

1 optical -- any known device for joining optical
2 fibers.

3 So it leaves it open in terms of these
4 different types of splice tray, coupler tray,
5 adapter tray, et cetera.

6 Q. Go to Column 6, line 57. I'm going to
7 read this into the record.

8 "The optical fiber pairs to be used
9 initially are directed into one or more protective
10 transport tubes 74, and each transport tube 74 is
11 routed to a connection tray 64 in fiber connecting
12 area 60. Inside the connection tray 64, the optical
13 fibers of the feeder cable 70 are joined to
14 corresponding first connectors 76 in a conventional
15 manner."

16 Do you see that?

17 A. Yes, sir, I do.

18 Q. Blackenship discloses that the
19 incoming feeder cable fibers are optically joined to
20 first connector 76 in the connection tray 64;
21 correct?

22 A. What it says is that inside the

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1 connection tray 64, the optical fibers of the feeder
2 cable 70 are joined to the corresponding first
3 connector 76 in a conventional manner.

4 Q. And then the first connector 76 goes
5 from the connection tray 64 on one end to the
6 adapter bracket 66 on the other end of the first
7 connector 76; correct?

8 A. You're talking about the adapter 66?

9 Q. Yes, adapter bracket 66.

10 A. I'm reading 66 more in detail to see
11 what it is and what's going on. So I can't answer
12 it until I read that carefully. So...

13 (Document review.)

14 THE WITNESS: Okay. I have not opined
15 on this issue in my -- in my -- I have to
16 look at my declaration for -- the first
17 declaration, if I talked about this
18 adapter 66. So reading -- reading
19 Blackenship patent, '484 -- let's step back
20 for a few minutes. Let's go look at
21 Column 5.

22

1 BY MR. SULLIVAN:

2 Q. Can you make sure you're still
3 answering the correct question? Because there was
4 about an eight minute pause there.

5 The question you're answering is:
6 Does the first connector 76 go from the connection
7 tray 64 on one end to the adapter bracket 66 on the
8 other end of the first connector 76? That's the
9 question you're answering.

10 A. Yes, I am. So let's look at Column 7,
11 line 44, going down.

12 In line 44, it says, Inside the
13 connection tray 64, the optical fibers of the
14 distribution cable are joined to corresponding
15 second connector 86 in a conventional manner.

16 And it says, in line 53, The second
17 connector 86 exit at the lower right-hand corner of
18 the connection tray 64, as indicated by 87, and are
19 routed to the corresponding adapter on the --
20 adapter bracket 66, which is then connected to
21 66 adapter.

22 So what it's discussing here is a

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1 second connector that is coming out of 64 that is
2 going through an adapter. And it discusses the 66
3 up above in the Column 5, line -- starting with
4 line 64. And, more specifically, in Column 6, it
5 talks about it in line 5.

6 It says that the adapter 66 comprises
7 two vertical columns of six duplex adaptors for
8 receiving conventional plug-and-play duplex SC style
9 connectors. Plug-and-play adapters permit the field
10 service technician to install a testing device,
11 et cetera.

12 So looking at this, what I see is in
13 64, it has a second connection, which is coming to
14 the adapter and is going through these adapter 66
15 for testing, et cetera. That's what's going on
16 there.

17 Q. That answer didn't address first
18 connector 76, which is at the top of that column.

19 Is there a reason why you didn't
20 address that after all that time?

21 A. That I answered that. There's
22 actually -- specifically, it talks about it in

1 line 8.

2 It says, "First connector 76 may be of
3 any type of fiber optic connector that permits the
4 optical fiber of the feeder cable 70 to be optically
5 joined to an optical fiber of a distribution cable
6 80." So that is already answered. That is
7 connecting the 76 to the distribution cable 80.

8 And as I discussed above, 66 and the
9 adapters are used for field testing for the
10 technicians, et cetera, which is the second
11 connector that is in the -- that the patent
12 discusses.

13 Q. That is the first --

14 (Cross talk.)

15 A. [inaudible] 76 is connecting 280 via
16 within the 64 via to connect any other conventional
17 methods it discusses.

18 MR. SULLIVAN: Okay. I'm going to
19 have more on that. So we can take a short
20 break, if the witness wants one.

21 THE WITNESS: Yeah, please. Yeah,
22 let's take a five-minute -- ten-minute break

1 is probably perfect. Thank you.

2 THE REPORTER: We're off the record.

3 (Recess from the record.)

4 THE REPORTER: We are back on the
5 record.

6 BY MR. SULLIVAN:

7 Q. Can we please go to your second
8 declaration, Exhibit 1033, and go to paragraph 49?

9 Do you have that?

10 A. Yes, I do. All right. 49, I'm there.

11 Q. And I want to go ahead to the next
12 page where 49 continues. About four lines down, you
13 say, Blackenship's adapter bracket would have been
14 utilized to replace Holmberg's splicing (replace
15 splice sleeve holder 294) such that splicing would
16 not have been necessary on splice tray 230.

17 Do you see that?

18 A. Yes, I do.

19 Q. Now, if we could -- in the same
20 declaration, if we go to paragraph -- we go to
21 paragraph 36, there's a figure of the splice
22 holders.

1 When you say, in the paragraph we just
2 looked at, that the adapter bracket would replace
3 Holmberg's splice holders, you're referring to the
4 294, the splice holder shown in that figure after
5 paragraph 36; correct?

6 A. Let me look at paragraph 49 again
7 before I can answer that. So...

8 (Document review.)

9 THE WITNESS: What I'm talking about
10 in paragraph 49 is that Blackenship's adapter
11 could be used to replace Holmberg's splicing,
12 which is the sleeve holder 294 in Figure --
13 right below paragraph 36.

14 BY MR. SULLIVAN:

15 Q. Before the break, we spent some time
16 looking at Blackenship's adapter bracket 66. Now, I
17 want to understand your testimony in paragraph 49,
18 where you say that splicing would not have been
19 necessary on splice tray 230.

20 What did you mean by that? If the
21 adapter bracket 66 was used instead of splice
22 holders 294, what did you mean by splicing would not

1 be necessary on the splice tray?

2 A. What I mean by that is that the
3 splicer -- the sleeve holder 294, in the combination
4 that I discussed in Blackenship in my first
5 declaration, would be replacing that, and splicing
6 is not needed because that adapter bracket will
7 perform a connection of the fiber lines.

8 Q. So if we go back to the top of page --
9 of that page right before paragraph 36, and we look
10 at that figure with the terminated fiber. We talked
11 earlier about how that fiber would be spliced in
12 Holmberg.

13 Do you recall that?

14 A. Yes, sir.

15 Q. And that in Holmberg, the splicing is
16 done using the splice holders 294; correct?

17 A. Yes, sir.

18 Q. Now, if the adapter bracket were used
19 on the splice tray instead of the splice holders,
20 would the terminated fiber be spliced anywhere
21 before it was attached to the adapter?

22 A. Not necessarily. Because the adapter

1 would provide the connectivity from the distribution
2 to the customer premises, so connecting the lines
3 orange and teal together.

4 Q. So in that example, there would be an
5 adapter attached to the end of the terminated fiber?

6 A. You mean terminated fiber orange?

7 Q. Yes.

8 A. Instead of having the splice sleeve
9 holder and splicing them, the adapter will be placed
10 there and the orange terminated fiber will be
11 inserted into the adapter and the other side of it
12 will be the teal line going to the customer
13 premises, which is going to be connected.

14 Q. How is the terminated fiber inserted
15 into the adapter without splicing?

16 A. I mean, these are two different
17 mechanism. Splicing is -- fusion splicing is by
18 connecting the two cables together. And in here,
19 based on what I discuss and based on what also the
20 person of skill in the art with understanding of
21 Blackenship would be to use some sort of a pigtail
22 type of connection.

1 There is no -- splicing is when you
2 connect them, the two together. In here, we are
3 cutting it, and the cut line orange is going to go
4 into the adapter in lieu of the splicing mechanism.

5 Q. You mentioned pigtails. So in the
6 example where the adapter bracket is used instead of
7 the splice holders, the terminated fiber is
8 connected to a pigtail, and then the connector of
9 the pigtail is inserted into the adapter; correct?

10 MR. HART: Object to form.

11 THE WITNESS: That's all part of
12 adapter configuration. These are all -- the
13 adapter consists of the -- connecting the two
14 lines, orange and teal, together. Using that
15 adapter and the insertion, for example, could
16 be a -- for example, a pigtail.

17 BY MR. SULLIVAN:

18 Q. In a typical pigtail, one end of the
19 pigtail has a connector or adapter on it, and the
20 other end of the pigtail is just the fiber; correct?

21 A. Can you repeat the question, please?

22 Q. Sure.

1 We're talking about -- we're talking
2 about pigtails. And a pigtail would typically
3 have -- one end would be the fiber that would be
4 connected to the terminated fiber, the orange one.
5 And then the other end would have a connector on it
6 that would attach to the adapter plate; correct?

7 A. Depends on the adapter and how it's
8 done as designed. That's one possible
9 configuration, that the fiber is inserted on one end
10 of the adapter, which has the pigtail fiber
11 connection. And then that goes into the other end
12 of the adapter connecting it together to connect to
13 66. That's just one configuration. There are many
14 different ways you can do, connecting them together.

15 Q. What's another example besides the
16 pigtail, which is the only one you mentioned?

17 A. There could be a mechanical
18 connection. There are different types of fiber
19 connections. So it could be an adapter that has a
20 mechanical connection, and so on. So...

21 Q. When you say, it could be a mechanical
22 connection, what do you mean?

1 A. It could be simply a mechanical
2 connection of the two connecting together. There's
3 many adapter types. I can't -- you know, there are
4 many different methods for a mechanical connection.
5 So...

6 Q. If we could turn ahead in your
7 declaration to paragraph 50.

8 A. Paragraph -- I have too many PDFs open
9 here.

10 All right. Paragraph 50, all right,
11 I'm there.

12 Q. Okay. In paragraph 50, you're talking
13 about Claim 10, and you're talking about Cowen's
14 clips. And towards the latter part of paragraph 50
15 which goes all the way over to the top of page 44,
16 you reference your first declaration, paragraphs 152
17 to 155.

18 Do you see that?

19 A. One -- yes, sir, I do, yeah.

20 Q. Okay. We'll look at that in a moment,
21 but before we do, if we could go back to the
22 previous page.

1 At the bottom after showing the
2 annotated figure, the last sentence at the bottom
3 says, "As I discussed in my original declaration, a
4 POSITA would have been motivated to modify Holmberg
5 with Cowen's clips that fully encompass the retained
6 fibers, improving the security of the fiber
7 retention." And then you cite your earlier
8 declaration.

9 Do you see that?

10 A. Yes, I do. Yeah.

11 Q. So that sentence -- and we'll look at
12 your first declaration. That sentence you're
13 talking about a motivation to use clips that fully
14 encompass the retained fibers.

15 Do you see that?

16 A. To improve the security of the fiber
17 retention, yes, I see that sentence.

18 Q. What do you mean by "fully encompass"?

19 A. What I mean by that is that to be able
20 to -- as I've shown also in the blue, I think that
21 figure is a pretty good representation of that.
22 What it is is that -- the opposing -- alternating

1 and opposing fingers, as shown in the figure right
2 below paragraph 50, is what I've shown as
3 encompassing that to add security for the lines that
4 are -- provide a wrap around a tray holder. That, I
5 think is -- that figure is a good description of
6 that.

7 Q. If we go to your declaration to
8 paragraph -- your first declaration, excuse me,
9 Exhibit 1003. And if we go to -- if we go to the
10 figures -- if I go to paragraph 150 and the -- yep.

11 If we go to the next page, page 121,
12 the clips that are shown in that figure, those are
13 the Cowen clips that you're relying upon? Those are
14 the ones that you say are fully encompassing or
15 fully encircled; correct?

16 A. I mean, these are the teachings of
17 Cowen, which is discussing those clips outlined in
18 blue in the configuration. So those are also shown
19 in Figure 26 point -- 26C of Cowen, and the review
20 of that.

21 And so what I show really is the
22 discussions more around -- what I have in there is

1 that Figure 6 annotated, right about
2 paragraph 150 -- 153, where I talk about in lines --
3 in the paragraph in page 124, I start discussing
4 these clips.

5 And I say that, for example, replacing
6 cable management members with clips located would
7 have improved the cable management and routing
8 compared to existing cable management 260 by fully
9 encompassing the fiber being routed. Similarly,
10 supplemental cable management 260 by adding storage
11 clips at distance away from the cable management
12 member 260 or between the members 260 would have
13 added additional routing locations for Holmberg's
14 drop cable.

15 So I'm using these different teachings
16 of Holmberg as examples that a person of skill in
17 the art would be able to understand where the
18 storage and the securing of the cable could be done.

19 Q. The clips in Cowen that you're
20 proposing to use in Cowen, the clips are 292, as
21 shown in Cowen; right?

22 MR. HART: Object to form.

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1 THE WITNESS: Those are examples that
2 I show here. Again, what I'm saying is that
3 the person of skill in the art would be
4 motivated to learn from Cowen and use those
5 for the configurations that I show right
6 above paragraph 153 of my original -- or
7 first IPR declaration, or based on the
8 configuration I show in an annotated way in,
9 excuse me, Holmberg, figure right at
10 paragraph 50.

11 A person of skill in the art would be
12 able to look at those and have a trade-off in
13 terms of how easy it would be to store, how
14 easy it would be to manage them in terms of
15 security of the lines that are being stored,
16 et cetera.

17 So those are questions and decisions
18 that the person of skill in the art could
19 learn from that and implement it.

20 MR. SULLIVAN: No further questions.

21 THE WITNESS: Thank you.

22 MR. HART: I think we spoke at the

1 same time.

2 No redirect from Petitioner.

3 THE REPORTER: All right. We are off
4 the record. This concludes the deposition.

5 The time is 3:04 p.m.

6 (Off the record at 3:04 p.m.)

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1 STATE OF NEW YORK)

ss:

2 COUNTY OF WESTCHESTER)

I, EILEEN MULVENNA, CSR/RMR/CRR, a
3 Certified Court Reporter, Registered Merit Reporter,
Certified Realtime Reporter, and Notary Public in
4 and for the State of New York, do hereby certify:

That I reported the taking of the
5 deposition of the witness, DR. SAYFE KIAEI,
commencing on the 25th day of September, 2024, at
6 the hour of 11:00 a.m.

That prior to being examined, the witness
7 was duly sworn by me to testify to the truth, the
whole truth, and nothing but the truth.

8 That I thereafter transcribed my said
shorthand notes into typewriting and that the
9 typewritten transcript of said deposition is a
complete, true and accurate transcription of my
10 said shorthand notes taken down at said time, and
that a request has been made to review the
11 transcript.

I further certify that I am not a relative
12 or employee of an attorney or counsel of any of the
13 parties, nor a relative or employee of any attorney
14 or counsel involved in said action, nor a person
15 financially interested in the action.

16 IN WITNESS WHEREOF, I have hereunto
17 set my signature this 29th day of September, 2024.

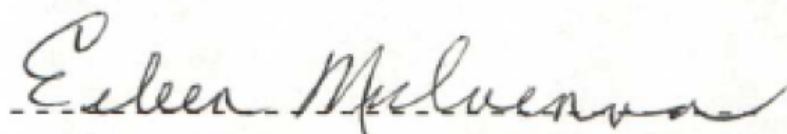
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EILEEN MULVENNA, CSR/RMR/CRR/RDR

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1 Dr. Sayfe Kiaei, Vol II, c/o
Erise LLP

2 717 17th Street, Suite 1400
3 Denver, Colorado 80202

Case: Amphenol Corp. v. PPC Broadband, Inc.

4 Date of deposition: September 25, 2024

Deponent: Dr. Sayfe Kiaei, Vol II

5

6 Please be advised that the transcript in the above
referenced matter is now complete and ready for signature.

7 The deponent may come to this office to sign the transcript,
8 a copy may be purchased for the witness to review and sign,
9 or the deponent and/or counsel may waive the option of
10 signing. Please advise us of the option selected.

11 Please forward the errata sheet and the original signed
12 signature page to counsel noticing the deposition, noting the
13 applicable time period allowed for such by the governing
14 Rules of Procedure. If you have any questions, please do
15 not hesitate to call our office at (202)-232-0646.

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10 complete transcription of the answers given by
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 10 Deposition Date: September 25, 2024

11 Page No. Line No. Change

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Signature

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