

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

CISCO SYSTEMS, INC.,

IPR2024-00505

Petitioner,

v.

U.S. PATENT NO.

PORTSMOUTH NETWORK CORP.,

6,917,986

Patent Owner.

REMOTE VIDEOTAPED DEPOSITION OF JAMES L. OLIVIER

DATE: February 14, 2025

TIME: 11:14 a.m. EST

PAGES: 1-125

JOB NO.: 56672

REPORTED BY: Jonathan Wonnell, RMR

Henderson Legal Services

202-220-4158

www.hendersonlegalservices.com

IPR2024-00505

Cisco Systems, Inc. v. Portsmouth Network Corp.

Cisco's Exhibit 1018

EX1018 Page 1

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

2 (All appeared remotely via videoconference)

3

4 ON BEHALF OF THE PETITIONER:

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8

9 ON BEHALF OF THE RESPONDENT:

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15

16 ALSO PRESENT:

17 DeShawn White, Legal Videographer

18

19

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21

22

1 C O N T E N T S

2 WITNESS PAGE

3 JAMES L. OLIVIER, PH.D.

4 By Ms. Owens: 5

5

6 Reporter's cert page 125

7

8 E X H I B I T S R E F E R R E D T O

9 LABEL PAGE

10 Exhibit 1001 - U.S. Patent No. 6,917,986 B2 32
11 (Mor et al.)12 Exhibit 1003 - Declaration of Henry H. Houh, 24
13 Ph.D.14 Exhibit 1005 - U.S. Patent No. 6,032,194 (Gai 33
15 et al.)16 Exhibit 1006 - U.S. Patent No. 7,848,264 (Gai 52
17 et al.)

18 Exhibit 2001 - Declaration of James L. Olivier 19

19 Exhibit 2003 - Curriculum vitae Dr. James L. 11
20 Olivier21 REPORTER'S NOTE: All quotations from exhibits are
22 reflected in the manner in which they were read into
the record and do not necessarily reflect exact
quotes from the source documents nor necessarily
match punctuation.

1 P R O C E E D I N G S

2 THE VIDEOGRAPHER: Here begins video 1 in
3 the video deposition of Dr. James Olivier taken in
4 the matter of Cisco Systems versus Portsmouth Network
5 in the United States Patent and Trademark Office
6 before the Patent Trial and Appeal Board, Case Number
7 IPR2024-00505.

8 Today's date is February 14th, 2025 and
9 the time is 11:14 a.m. Eastern time. This deposition
10 is being held by Zoom video remote conferencing. The
11 court reporter is Jonathan Wonnell is and the
12 videographer is DeShawn White. Both are presenting
13 on behalf of Henderson Legal Services.

14 Will counsel and others please introduce
15 themselves and state whom they represent followed by
16 the court reporter administering the oath?

17 MS. OWENS: Jordan Owens from
18 Desmarais LLP on behalf of Cisco Systems, Inc.

19 MS. CAPPAERT: Kate Cappaert from Steptoe
20 on behalf of the patent owner.

21

22

1 * * * * *

2 Whereupon,

3 JAMES L. OLIVIER, PH.D.,

4 called as a Witness, was duly sworn by

5 Jonathan Wonnell, a Notary Public in and

6 for the State of Minnesota, and was

7 examined and testified as follows.

8 * * * * *

9 EXAMINATION BY COUNSEL FOR THE PETITIONER

10 BY MS. OWENS:

11 Q Good morning. Can you please state your
12 name for the record?

13 A **James Lawrence Olivier.**

14 Q And, Dr. Olivier, where do you live?

15 A **Dallas, Texas.**

16 Q Where are you taking this deposition from?

17 A **In my office.**

18 Q Is your office in Dallas, Texas?

19 A **Yes.**

20 Q Is there anyone else in the room with you
21 today?

22 A **Nope.**

1 Q Do you have any materials or documents in
2 front of you today?

3 A **Nope.**

4 Q Do you have any windows open on your
5 computer other than Zoom?

6 A **Yes.**

7 Q What other windows do you have open on
8 your computer?

9 A **I have Henderson Legal Services, an email
10 and a calendar.**

11 Q Does the email or the calendar have any
12 information relating to today's deposition?

13 A **Yes.**

14 Q And what is that information?

15 A **I got an email from Kate about how to log
16 into Henderson Legal Services. I will shut the email
17 down if you would like that, but no one can send me
18 email then.**

19 Q Sure. Now, Dr. Olivier, you've been
20 deposed before, correct?

21 A **Correct.**

22 Q How many times would you say?

1 **A I stopped counting after about 20.**

2 Q So more than 20 times?

3 **A Correct.**

4 Q And have you been deposed in connection
5 with your work in IPR proceedings before?

6 **A Yes.**

7 Q And how many times would you say you've
8 been deposed in those proceedings?

9 **A More than ten times.**

10 Q You're aware that today's deposition
11 relates to IPR 2024-00505?

12 **A Yes.**

13 Q And IPR 2024-00505 challenges the validity
14 of U.S. Patent Number 6,917,986, right?

15 **A I don't have all those memorized, but that
16 sound correct.**

17 Q You'll understand more colloquially if I
18 refer to U.S. Patent Number 6,917,986 as the '986
19 patent today, fair?

20 **A Yes.**

21 Q And in this IPR proceeding the petitioner
22 is Cisco Systems, Inc., and the patent owner is

1 Portsmouth Network Corporation, true?

2 **A Yes. I believe so. If I had my**
3 **declaration it would be easier for me to verify your**
4 **statements.**

5 Q Sure. We can get to that and readdress.
6 Have you been deposed in connection with the District
7 Court litigation between Cisco and Portsmouth, right?

8 **A Yes.**

9 Q And that deposition related to claim
10 construction opinions you provided?

11 **A Yes.**

12 Q And those claim construction opinions
13 included opinions pertaining to the '986 patent,
14 right?

15 **A I believe so, yes. I don't recall**
16 **everything that happened in that deposition as I sit**
17 **here.**

18 Q Are you working on behalf of Portsmouth on
19 any other IPRs?

20 **A On any other IPRs. I don't think so.**

21 Q Have you drafted or submitted any other
22 declarations in connection with any other Portsmouth

1 IPRs?

2 **A** **I think I have. I think I have. I don't**
3 **recall off the top of my head which it was. I think**
4 **recently I submitted one, but I don't remember which**
5 **patent it relates to.**

6 **Q** **Have you been deposed in connection with**
7 **any of those IPRs?**

8 **A** **Yes. I have been deposed in connection**
9 **with IPRs in the Portsmouth matters.**

10 **Q** **Do you recall which patents those related**
11 **to?**

12 **A** **No.**

13 **Q** **Dr. Olivier, do you understand that you're**
14 **under oath today?**

15 **A** **Yes.**

16 **Q** **And you understand that the oath requires**
17 **you to tell the truth is if as if you were testifying**
18 **in court, right?**

19 **A** **Absolutely.**

20 **Q** **There's a court reporter today taking down**
21 **everything we say so it's important that we give**
22 **verbal answers instead of any gestures. Is that**

1 fair?

2 **A Sure. I'll do my best.**

3 **Q** It's also important given that this is a
4 remote proceeding that we do not talk over each
5 other, so I will do my best to let you finish an
6 answer before starting my next question and will you
7 also try to let me finish my question before
8 beginning to answer it?

9 **A I'll do my best.**

10 **Q** If at any point you don't understand my
11 question will you please let me know?

12 **A I will endeavor to do that.**

13 **Q** Now, counsel may object to certain
14 questions that I ask, but you should still answer
15 those questions unless privilege is at issue. Do you
16 understand that?

17 **A Well, I don't understand exactly what**
18 **privilege is, but I will endeavor to answer your**
19 **questions unless instructed not to.**

20 **Q** Let me know if you need to take a break at
21 any time. I just ask that we finish the answer to
22 the previous question before we take that break. Is

1 that fair?

2 **A Sure.**

3 Q And we're going to be talking about some
4 documents during the deposition today. And now that
5 we have the exhibit link ready to go I will be
6 uploading exhibits to the folder that you now have
7 access to. Okay?

8 **A Okay.**

9 Q Is there any reason why you can't provide
10 complete, accurate and truthful testimony today?

11 **A Not that I'm aware of.**

12 Q Okay. So I'm going to upload to the
13 public folder Exhibit 2003 which is copy of your CV.

14 (Previously marked Exhibit 2003 was
15 introduced.)

16 BY MS. OWENS:

17 Q Can you please let me know when you see
18 it? You might need to refresh the page.

19 **A Okay. I see it.**

20 Q And can you please open Exhibit 2003?

21 **A Okay. It showed up opened, so...**

22 Q Is this an accurate copy of your CV?

1 **A Well, it's more than my CV, so it's CV and**
2 **cases worked over the last several years.**

3 **Q So is this an accurate copy of your CV and**
4 **cases worked over five years?**

5 **A I think so.**

6 **Q Do you have any updates or corrections to**
7 **make to this document?**

8 **A So I'm not quite sure I'm going to**
9 **continue to teach next semester, so I guess still**
10 **currently I am an adjunct professor. It looks pretty**
11 **good.**

12 **Q Okay. So let's turn to page 3 and at the**
13 **top of page 3 do you see 2003 to present Olivier**
14 **Consulting Dallas, Texas?**

15 **A Yes.**

16 **Q And what is Olivier Consulting?**

17 **A It's a consulting company I own.**

18 **Q And what kind of work do you do at Olivier**
19 **Consulting?**

20 **A I do research and help out on intellectual**
21 **property matters.**

22 **Q Does anyone else work with you at Olivier**

1 Consulting?

2 **A No. My wife helps out sometimes on**
3 **billing and things like that, but she doesn't really**
4 **work with me.**

5 **Q And what kind of consulting services do**
6 **you provide?**

7 **A Consulting services in network design,**
8 **network product design, security, things of that**
9 **nature.**

10 **Q And does your consulting services include**
11 **being hired as an expert in litigations?**

12 **A Yes.**

13 **Q Now, if we turn to page 8 the top of the**
14 **page says "cases worked past five years." Do you see**
15 **that?**

16 **A Yes, I do.**

17 **Q To the best of your knowledge is this a**
18 **complete list of all the cases that you've been**
19 **retained as an expert for from the past five hours?**

20 **A It is, though it's at the time when I**
21 **filed the declaration.**

22 **Q Do you have any updates to make to the**

1 cases worked in the last five years?

2 **A Not as I recall it.**

3 Q And does this list include both District
4 Court cases and matters before the Patent and
5 Trademark Office that you've participated in?

6 **A I think so. I endeavor to keep it up to**
7 **date.**

8 Q You've worked as a consultant on a number
9 of IPRs over the past five years; is that right?

10 **A Correct.**

11 Q And so you're familiar with the IPR
12 process, correct?

13 **A I'm familiar with my portion of the IPR**
14 **process.**

15 Q And what is your portion of the IPR
16 process?

17 **A Where I analyze patents, develop an**
18 **opinion, write a declaration and then get deposed on**
19 **that opinions in my declaration.**

20 Q Have you mostly done work on behalf of
21 patent owners or petitioners?

22 **A I'd say it's 50/50.**

1 Q Have you ever consulted for Cisco before?

2 A Consulted for Cisco before? No, I've
3 never consulted for Cisco as long as I understand
4 that.

5 Q Have you ever consulted for a party
6 adverse to Cisco before?

7 A Yes, I have.

8 Q And what party was that?

9 A Over 20 years I don't remember hardly any
10 of them off the top of my head. But I do remember
11 one time where Cisco sued Arista in several different
12 matters that I helped or was an expert for Arista.

13 Q Now, if we turn to page 10 of
14 Exhibit 2003 --

15 A Got you.

16 Q -- and the second entry on the page where
17 the case name says Corrigent Corporation v. Cisco
18 Systems, Dell and Arista Networks. Do you see that?

19 A Yes, I do.

20 Q Is that the case that you're referring to?

21 A No. It wasn't, because I was thinking of
22 cases outside of this matter that we're talking about

1 **here, but it was a different one.**

2 Q And for this matter the second entry on
3 page 10, you provided expert consulting on behalf of
4 Corrigent Corporation; is that correct?

5 A **Correct.**

6 Q And what type of work did that entail?

7 A **I don't recall as I sit here.**

8 Q Under services provided it says "wrote
9 declarations." Do you recall what those declarations
10 were for?

11 A **No, I do not.**

12 Q Are you aware of the corporation
13 relationship between Corrigent and the patent owner
14 in this case, Portsmouth?

15 A **Not at all.**

16 Q Were you ever deposed from the Corrigent
17 litigation?

18 A **I don't recall.**

19 Q Did you testify at trial in the Corrigent
20 litigation?

21 A **I don't recall going to trial in the**
22 **Corrigent litigation, no.**

1 Q When did you begin performing work on
2 behalf of the Portsmouth?

3 A Portsmouth? Within the last year I think
4 is the first time I became aware of the name
5 Portsmouth. Maybe a year and a half. I don't
6 actually recall.

7 Q And when did you begin performing work
8 relating to this IPR?

9 A This IPR?

10 Q Correct.

11 A I'd have to go back and look at my
12 records. I think it was filed in, what, November, so
13 maybe a couple months prior to that.

14 Q So you're saying you worked around two
15 months on your work for this IPR?

16 A I'm just speculating. I'd have to go back
17 through my billing records to see when I started
18 working on it. I'm just guessing off the top of my
19 head.

20 Q You're being paid by Portsmouth for your
21 work relating to this IPR, true?

22 A Correct.

1 Q And how much is your hourly rate?

2 A **It's in my declaration. I think it's 685.**

3 Q And how many hours approximately have you
4 billed for your work relating to this IPR so far?

5 A **No idea.**

6 Q Is it potentially 20 hours?

7 A **No idea.**

8 Q What did you do to prepare for this
9 deposition today?

10 A **I reviewed my declaration. I reviewed the**
11 **Gai patent -- I hope I'm pronouncing that correctly.**
12 **I had a phone call with attorneys from Steptoe. I**
13 **think they're call Steptoe.**

14 Q And who were the attorneys that you spoke
15 with at Steptoe?

16 A **It was Kate -- I hope I pronounce your**
17 **name right -- Cappaert, and Ben, and I don't remember**
18 **Ben's last name.**

19 Q Would it be Ben Ho?

20 A **It could be.**

21 Q And how long did that conversation last?

22 A **Around an hour.**

1 Q Did you talk with anyone at Portsmouth?

2 A I'm sorry. What was your question?

3 Q Did you talk to anyone at Portsmouth?

4 A At Portsmouth. No.

5 Q Did you review any other documents besides
6 your declaration and the Gai patent to prepare?

7 A I probably reviewed Dr. Ho's declaration
8 also. I probably reviewed the '986 patent.

9 Q Anything else?

10 A That's all I recall.

11 Q Okay. I'm going to upload your
12 declaration regarding this IPR. Which we've marked
13 as Exhibit 2001.

14 A Okay.

15 Q Let me know when you're able to see it.

16 (Previously marked Exhibit 2001 was
17 introduced.)

18 THE WITNESS: So it went away. I have to
19 relog in again. Okay. I can see it now.

20 BY MS. OWENS:

21 Q Is this the declaration that you provided
22 relating to the IPR of the '986 patent on behalf of

1 Portsmouth Network Corporation?

2 **A Hold on one sec. I'm opening it up. Yes,**
3 **it appears so.**

4 **Q And Exhibit 2001 includes all of your IPR**
5 **opinions in this case, true?**

6 **A My opinions in this case are within this**
7 **declaration.**

8 **Q So it would be accurate to say that all of**
9 **your IPR opinions in this case are contained in your**
10 **declaration which is Exhibit 2001, right?**

11 MS. CAPPAERT: Object to form.

12 **A Yes. I can't quite understand your**
13 **question. Could you repeat it?**

14 BY MS. OWENS:

15 **Q It's accurate to say that your IPR**
16 **opinions in this case relating to the '986 patent are**
17 **contained in this declaration which is Exhibit 2001,**
18 **true?**

19 **A What do you mean by IPR opinions? I'm not**
20 **familiar with that term.**

21 **Q I'm referring to the opinions that you**
22 **provided relating to the IPR of the '986 patent.**

1 **A So my opinions relating to the '986 patent**
2 **are contained within this declaration.**

3 **Q Okay. Do you have any updates or**
4 **supplements to the opinions you provided in this**
5 **declaration?**

6 **A If I -- I can't recall as I sit here. If**
7 **I see some I'll let you know.**

8 **Q Did you write your entire declaration?**

9 **A Absolutely.**

10 **Q What would be the percentage you would**
11 **assign to the amount that you drafted?**

12 **A A hundred percent.**

13 **Q Did you read your entire declaration?**

14 **A Many times. So I'm responsible for all**
15 **typos and extra spaces and stuff also.**

16 **Q And how much time approximately did you**
17 **spend working on your declaration?**

18 **A No idea.**

19 **Q Did you review the IPR petition that Cisco**
20 **filed relating to the '986 patent?**

21 **A I reviewed it briefly. I spent most of my**
22 **time reviewing Dr. Houh's declaration which I think**

1 **the Cisco IPR relies on.**

2 Q I'm going to upload Cisco's IPR petition
3 for the '986 patent which was held on January 30th,
4 2024. And let me know when you can see it.

5 A **Okay. I can see it.**

6 Q Is this an accurate copy of Cisco's IPR
7 petition for the '986 patent that you looked at?

8 MS. CAPPAERT: Object to form.

9 A **You're the one providing it. So I'm**
10 **assuming it's accurate.**

11 BY MS. OWENS:

12 Q Does the IPR petition in front of you look
13 like the one that you reviewed?

14 A **Hold on a second. It's been a while. Let**
15 **me look at it. (Reviewing document.) Yes. It looks**
16 **familiar. It looks very, very, very similar to**
17 **Dr. Houh's declaration right down to the figures and**
18 **the color.**

19 Q Now, if you go to the top of page 1 which
20 is page 9 of the PDF under introduction you could see
21 that claims 1 through 2, 4 through 7, 9 through 14,
22 18 through 19 and 21 through 24 are the challenged

1 claims of the '986 patent. Correct?

2 **A That's what it says.**

3 Q And you're aware that Cisco introduced two
4 obviousness grounds under 35 U.S.C. § 103 that it
5 claims invalidates the challenged claims of the '986
6 patent, right?

7 **A Well, yeah. It's a little confusing in**
8 **that they're using the same art to say they have two**
9 **different grounds. I'm not familiar with that, but**
10 **Cisco broke it up that way.**

11 Q And you're familiar that the reference to
12 in grounds 1A and 1B is U.S. Patent Number 6,032,194?

13 **A I think that's the Gai patent.**

14 Q And so you'll understand if we refer to
15 U.S. Patent Number 6,032,194 as Gai, correct?

16 **A Correct.**

17 Q Have you reviewed the Gai patent?

18 **A Yes. I've runner said that.**

19 Q And you're also aware that Dr. Houh
20 submitted a declaration in support of the Cisco IPR
21 petition for the '986 patent, correct?

22 **A Correct.**

1 Q I'm uploading Dr. Houh's expert
2 declaration in the folder. This is Exhibit 1003.

3 (PPreviously marked Exhibit 1003 was
4 introduced.)

5 BY MS. OWENS:

6 Q Let me know when you have that open.

7 A **Okay. I have it open.**

8 Q Is this the declaration of Dr. Houh that
9 you've reviewed?

10 A **I believe so.**

11 Q And when did you last review Dr. Houh's
12 declaration?

13 A **Like I told you earlier, yesterday.**

14 Q Have you reviewed the board's decision to
15 institute the '986 patent IPR petition?

16 A **A while ago, yes. Not recently.**

17 Q I'm uploading to the exhibit folder the
18 board's petition decision for the '986 patent dated
19 August 6th, 2024. Let me know when you have that
20 open.

21 A **Oh, wait. What am I supposed to be**
22 **getting? I think I got the -- ah, there it is. No.**

1 **Hold on a sec. Okay. Yes. I have it open.**

2 Q Is this an accurate copy of the board's
3 institution decision that you reviewed?

4 A **I mean, you're asking me to remember**
5 **something that happened several months ago, but I'll**
6 **look through it. (Reviewing document.) Yes. This**
7 **looks like the decision I reviewed several months**
8 **ago.**

9 Q All right. Now, if you turn to page 2 the
10 last sentence of the second paragraph the
11 introduction, the board writes "For the reasons that
12 follow we institute an inter partes review as to
13 claims 1, 2, 4 through 7, 9 through 14, 16 through 19
14 and 21 through 24 of the '986 patent on all grounds
15 of unpatentability asserted in the petition." Do you
16 see that?

17 A **Yes, I do.**

18 Q And so that means that the board
19 instituted review for all of the challenged claims
20 that Cisco raised in its petition, correct?

21 MS. CAPPAERT: Object to form.

22 A **I think that's what it means. Like I said**

1 **earlier, I'm not familiar with the IPR process in its**
2 **entirety.**

3 BY MS. OWENS:

4 Q Have you reviewed the patent owner's
5 response Portsmouth filed in this case?

6 A **Yeah. I think I did.**

7 Q I'm just going to upload to the exhibit
8 folder Portsmouth's patent owner's response filed on
9 November 12th, 2024. Please let me know when you
10 have it open.

11 A **Okay. I have it open.**

12 Q Is this an accurate copy of Portsmouth's
13 patent owner's response that you reviewed?

14 A **I think it is. I'll look through it real**
15 **quick. (Reviewing document.) Okay. What was your**
16 **question?**

17 Q Is this an accurate copy of Portsmouth's
18 patent owner's response that you reviewed?

19 A **I mean, I can't state the absolutely**
20 **accuracy of it, but it looks similar to what I**
21 **reviewed.**

22 Q And the declaration you submitted in this

1 case which is Exhibit 2001, that was attached as an
2 exhibit to Portsmouth's patent owner's response,
3 correct?

4 **A Heck if I know.**

5 MS. CAPPAERT: Object to form.

6 BY MS. OWENS:

7 Q Did you assist Portsmouth in drafting this
8 patent owner response?

9 MS. CAPPAERT: Object to form.

10 **A Did I assist in drafting it? We had a lot**
11 **of discussions about my declaration and what was**
12 **going into it. I imagine that assisted them in**
13 **drafting this response.**

14 BY MS. OWENS:

15 Q So you did not write any of the words in
16 this patent owner's response yourself?

17 **A I mean, they may have used my words in**
18 **here, but I don't recall writing any document that**
19 **said patent owner's response, typing anything into a**
20 **document that said patent owner's response.**

21 Q Will you turn to the bottom of page 7 of
22 the patent owner's response which is page 11 of the

1 PDF?

2 **A Got you.**

3 Q Do you see section E titled institution
4 decision?

5 **A Yes. Yes, I do.**

6 Q And Portsmouth writes "The invitation
7 decision preliminarily determined that petitioner's
8 showing was adequate based on the then-current record
9 for the purposes of institution. See paper 7 at 66."

10 And so -- do you see that statement in the
11 patent owner's response?

12 **A Yes, I do.**

13 Q And so Portsmouth acknowledges that
14 petitioner's challenged claims were instituted by the
15 board, correct?

16 MS. CAPPAERT: Object to form, scope.

17 **A I mean, the sentence says what it says.**
18 **As I said earlier, I'm not an expert in the IPR**
19 **process, so I don't know what the patent owner is**
20 **admitting or not admitting. If you want me to read**
21 **the sentence I will read the sentence and say it's in**
22 **there.**

1 BY MS. OWENS:

2 Q No. That's fine.

3 MS. OWENS: How about we take a
4 five-minute break?

5 THE WITNESS: Okay.

6 MS. CAPPAERT: Okay.

7 MS. OWENS: Let's go off the record.

8 THE VIDEOGRAPHER: The time is 11:54 a.m.
9 We are now off the record.

10 (Recess from 11:54 a.m. to 12:01 p.m.
11 EST.)

12 THE VIDEOGRAPHER: The time is 12:01 p.m.
13 We are now on the record.

14 BY MS. OWENS:

15 Q Dr. Olivier, I want to turn back to the
16 patent owner's response that's in your exhibit
17 folder.

18 A Okay.

19 Q Please let me know when you have it open.

20 A It's open.

21 Q Now, if you could please turn to page 8
22 which is page 12 of the PDF.

1 **A Okay.**

2 Q Have you seen that section A at the top of
3 this page says "Gai and the invention of the '986
4 patent are fundamentally different"?

5 **A Yes.**

6 Q And you already mentioned this, but you've
7 reviewed the '986 patent, correct?

8 **A Correct.**

9 Q And you've reviewed Gai, correct?

10 **A Correct.**

11 Q Now, in your declaration you also describe
12 how the '986 patent characterizes Gai, right?

13 **A If you can point me --**

14 MS. CAPPAERT: Objection.

15 **A -- in my declaration to the section you're**
16 **talking about.**

17 MS. CAPPAERT: And I'll just object to
18 form.

19 BY MS. OWENS:

20 Q If you open your declaration which is
21 Exhibit 2001 and the paragraph 44 of your
22 declaration?

1 **A So what was your question?**

2 **Q In your declaration you describe how the**
3 **'986 patent characterizes Gai, correct?**

4 **A Yes.**

5 **Q And you state in your declaration that the**
6 **'986 patent distinguished Gai from the claimed**
7 **invention. True?**

8 **A Yes.**

9 **Q In your declaration you never state that**
10 **the '986 patent and Gai are fundamentally different;**
11 **isn't that right?**

12 **A I never state that it's fundamentally**
13 **different? I don't remember whether I say they're**
14 **fundamentally different. They're definitely**
15 **distinguished from each other in the -- by the '986.**
16 **If you want to call that distinguishing fundamental,**
17 **I guess you can.**

18 **Q But it's true that in your declaration you**
19 **don't use the words "fundamentally different" to**
20 **describe the '986 patent and Gai?**

21 **A I'll have to look through and see. I**
22 **don't see that I used the word "fundamentally**

1 **different," but I do say "a POSITA would understand**
2 **the techniques presented in Gai differ from the**
3 **techniques disclosed in the '986 patent."**

4 Q Okay. So you would agree that you did not
5 use the words "fundamentally different" in your
6 declaration?

7 A **I do not recall using the words**
8 **"fundamentally different," those two words. As I**
9 **said, I say that they're different techniques and a**
10 **POSITA would understand that these techniques differ.**

11 Q I'm going to upload Exhibit 1001, which is
12 the '986 patent, to the exhibit folder.

13 (Previously marked Exhibit 1001 was
14 introduced.)

15 BY MS. OWENS:

16 Q So let me know when you've got that open.

17 A **So this when I refresh it it logs me out**
18 **occasionally.**

19 Q Are you able to log back in?

20 A **It says please try again. They even put**
21 **"remember me" on here. Okay. I'm back in.**

22 Q And do you have Exhibit 1001, which is the

1 '986 patent open?

2 **A Yes, I do.**

3 Q And is this the same '986 patent that you
4 reviewed previously?

5 **A It sure looks like it.**

6 Q I am also going to upload to the exhibit
7 folder Exhibit 1005 which is the Gai patent.

8 (Previously marked Exhibit 1005 was
9 introduced.)

10 BY MS. OWENS:

11 Q Let me know when you have that open.

12 **A Okay. I have the Gai patent open.**

13 Q And is this the same Gai patent that you
14 reviewed previously?

15 MS. CAPPAERT: Object to form.

16 **A It looks like the '194 patent I reviewed**
17 **previously.**

18 BY MS. OWENS:

19 Q And the '194 patent is Gai, correct?

20 **A As I recall there's several Gai patents,**
21 **but this is the '194.**

22 Q We discussed previously that for purposes

1 of the deposition we'll refer to the '194 patent as
2 Gai. Do you recall?

3 **A Sure. Right.**

4 Q Both the '986 patent and Gai relate to
5 proper configuration of networks; is that right?

6 **A (Reviewing document.) Yes.**

7 Q Both the '986 patent and Gai discuss using
8 redundant links, correct?

9 **A Yes.**

10 Q And both the '986 patent and Gai discuss
11 loops as a potential risk of using redundant links,
12 right?

13 **A Correct.**

14 Q Both the '986 patent and Gai discuss using
15 fanning tree protocol or FTP to avoid the formation
16 of loops, correct?

17 **A Correct. That's well known in computer
18 networking.**

19 Q And both the '986 patent and Gai discuss
20 placing one redundant port in a forwarding state and
21 a second redundant port in a blocking state, correct?

22 **A That's part of the spanning tree protocol.**

1 Q Right. And in implementing the spanning
2 tree protocol both the '986 patent and Gai discuss
3 placing one redundant port in the forwarding state
4 and one redundant port in blocking state, right?

5 A Well, placing one port in the forwarding
6 state and one port in a blocked state is part of the
7 spanning tree protocol. And both of them discuss the
8 spanning tree protocol.

9 Q Both the '986 patent and Gai discuss the
10 timing limitations of FTP, correct?

11 A What do you mean by timing limitation of
12 STP?

13 Q In other words both the '986 patent and
14 Gai discuss that a limitation of STP is the slow
15 adaptation to topology changes, right?

16 A Yes.

17 Q And both the '986 patent and Gai focus on
18 solving that slowness of STP when in yours
19 reconfigure their topologies, right?

20 A Right. They present two different
21 solutions of how to overcome that problem.

22 Q And both the '986 patent and Gai discuss

1 using dummy messages to address that problem, right?

2 **A Correct.**

3 Q And both the '986 patent and Gai discuss
4 using redundant messages to update forwarding cable
5 and network devices, correct?

6 **A I'm sorry. You cut out there. Your**
7 **microphone did.**

8 Q Sorry about that.

9 **A Could you repeat it?**

10 Q Sure. Both the '986 patent and Gai
11 discuss using the dummy messages to update forwarding
12 tables and network devices, correct?

13 MS. CAPPAERT: Object to form.

14 **A Yeah. The dummy messages. I mean, they**
15 **talk about using dummy messages to update forwarding**
16 **tables in switches.**

17 BY MS. OWENS:

18 Q The '986 patent incorporates Gai by
19 reference, right?

20 **A Correct.**

21 Q And in its discussion of Gai the '986
22 patent describes that the main difference between the

1 '986 patent and Gai is that in the '986 patent dummy
2 messages are sent downstream and in Gai dummy
3 messages are sent upstream; is that correct?

4 **A That's what -- they do talk about Gai**
5 **passing the dummy multicast messages towards the root**
6 **upstream through the newly activated trunk port.**

7 Q Now, in your declaration you also
8 distinguish the '986 patent and Gai based on the
9 direction the dummy messages are sent, correct?

10 **A That's one of them, yes.**

11 Q And it was known at the time of the '986
12 patent that network traffic could be sent downstream,
13 right?

14 **A Sure. It's known that you can send**
15 **network traffic in any direction.**

16 Q So you would agree that it was also known
17 that network traffic could be sent upstream, right?

18 **A True. We're talking about particular**
19 **types of network traffic, the dummy multicast**
20 **messages, but you can send network traffic upstream**
21 **and downstream. Yes, that was well known at the**
22 **time.**

1 Q It would be desirable to have a network
2 configured to send network traffic both upstream and
3 downstream, right?

4 MS. CAPPAERT: Object to form.

5 A **Yes. You would want your network to**
6 **typically pass network traffic both ways. As I say,**
7 **we're talking about something different than network**
8 **traffic, but yes.**

9 BY MS. OWENS:

10 Q And so you could say it would be desirable
11 to be able to send dummy traffic in upstream and
12 downstream directions as well, correct?

13 A **No.**

14 Q And why not?

15 A **Because you could fool the system by**
16 **sending dummy traffic unless it's done for a**
17 **particular purpose in a particular direction.**

18 Q Is there a benefit for having dummy
19 traffic sent in only one direction?

20 A **Yes.**

21 Q And what is that?

22 A **That you get -- you can understand what**

1 **you're forwarding databases will discover.**

2 Q And can you elaborate on that a little bit
3 more with that?

4 A **Can I elaborate? Which part was**
5 **confusing?**

6 Q You can understand what your forwarding
7 databases will discover, what does that mean?

8 A **It means the forwarding databases -- based**
9 **on whether you're sending upstream or downstream,**
10 **dummy traffic determines which forwarding databases**
11 **learn of the information within your dummy traffic.**

12 Q Is sending dummy traffic upstream more
13 beneficial than sending dummy traffic downstream?

14 A **No. You can send -- it depends what**
15 **you're trying to accomplish as to whether you send it**
16 **upstream or downstream. So I wouldn't say one is**
17 **more beneficial than the other.**

18 Q Now, turning back to Gai specifically the
19 sending of dummy messages in Gai is implemented using
20 the enable uplink fast command; is that right?

21 A **I'm sorry. What was your question?**

22 Q In Gai the sending of dummy messages is

1 implemented using enable uplink fast command, right?

2 **A Can you point to me in Gai what you're**
3 **talking about?**

4 Q Sure. So in Gai if you turn to
5 column 9 --

6 **A Mm-hmm.**

7 Q -- beginning at line 63 it says "The
8 enable uplink fast command 330 at block 338 also
9 configures rapid reconfiguration entity 234 to
10 rapidly transition to a blocked port to the
11 forwarding state and to generate and transmit dummy
12 multicast messages as described below."

13 Do you see that?

14 **A Yes, I do.**

15 Q And so would you agree that in Gai this
16 enable uplink fast command is implemented to
17 transmit -- to generate and transmit the dummy
18 multicast messages?

19 **A It's to enable the generation and**
20 **transmission of those. It doesn't cause the**
21 **generation and transmission of those.**

22 Q So you would agree that the enable uplink

1 fast command in Gai enables the generation and
2 transmission of the dummy multicast messages?

3 **A It enables the ability of the switch to**
4 **send these -- to generate and transmit the dummy**
5 **multicast messages under the conditions that's**
6 **described in column 10.**

7 Q So as the enable uplink fast command
8 enables the ability of the switch to send dummy
9 multicast messages in Gai, is it your opinion that
10 the enable uplink fast command is different than the
11 use of dummy messages in the '986 patent?

12 **A I don't understand your question. Sorry.**

13 Q Based on your understanding of the enable
14 uplink fast command in Gai, is it your opinion that
15 the sending of dummy multicast messages in Gai which
16 is enabled by this command is different than the use
17 of dummy messages in the '986 patent?

18 MS. CAPPAERT: Object to form.

19 **A Yeah. That didn't help. I still don't**
20 **understand your question.**

21 BY MS. OWENS:

22 Q It's your opinion that the use of dummy

1 messages in Gai and the '986 patent are different; is
2 that right?

3 **A How they're used, yes. As the '986**
4 **describes the '194 patent teaches sending them**
5 **upstream and not downstream.**

6 **Q And in Gai the enable uplink fast command**
7 **is responsible for enabling the generation and**
8 **transmission of these dummy multicast messages,**
9 **correct?**

10 **A Let's see. So the enable uplink fast**
11 **command does a lot of things. It increases the**
12 **respective switch IDs in each of the access switches**
13 **that essentially prevents access switches from**
14 **becoming root switches. It has a lot of**
15 **functionality. One of the functionality it does**
16 **allow is after you set up all the specific parameters**
17 **in the enable uplink fast command is because of that**
18 **setting up the parameters you can rapidly transition**
19 **a blocked port to a forwarding port by generating**
20 **these dummy multicast messages.**

21 **Q Okay. Now, setting Gai aside for a bit,**
22 **let's turn back to the patent owner's response.**

1 **A Okay.**

2 Q Just one second. I'm having technical
3 difficulties. Here we go.

4 Now, if you turn to page 5 of the patent
5 owner's response which is on page 9 of the PDF --

6 **A Okay.**

7 Q -- do you see at the top section B says
8 "claim construction"?

9 **A Yes, I do.**

10 Q And you provided opinions on claim
11 construction on behalf of Portsmouth in the District
12 Court litigation, correct?

13 **A Correct.**

14 Q Now, if you look at last sentence on
15 page 5 of the patent owner response, the patent owner
16 says "In its petition, however, patent owner has
17 failed to address these constructions or explain how
18 Gai discloses or renders obvious the challenged
19 claims under these constructions." Do you see that?

20 **A Yes, I do.**

21 Q Now, in the chart on page 5 of the patent
22 owner's response and from your previous work the

1 District Court litigation, you'll recall that the two
2 terms that Cisco proposed for construction for the
3 '986 patent are a switch and access switch. Do you
4 see that?

5 **A Yes, I do.**

6 Q And in the chart on page 5 you'll see for
7 edge switch petitioner's District Court proposed
8 construction is "core switch that is directly
9 connected to an access switch." Do you see that?

10 **A Yes.**

11 Q And from your reading of the '986 patent
12 you'll recall that the '986 patent describes edge
13 switches as port switches that are directly connected
14 to access switches, right?

15 MS. CAPPAERT: Object to form.

16 **A I think they have a sentence in there to**
17 **that effect.**

18 BY MS. OWENS:

19 Q And turning to the next term, access
20 switch, petitioner in the District Court litigation
21 proposed that access switch be construed as "switch
22 with ports that connect to LANs and/or to other

1 network endpoints." Do you see that?

2 **A Yes.**

3 **Q** And the '986 patent describes that an
4 access switch has ports that connect to LANs and/or
5 to other network endpoints such as user computer
6 systems, right?

7 MS. CAPPAERT: Object to form.

8 **A Yes. It says other endpoints such as**
9 **computer systems.**

10 BY MS. OWENS:

11 **Q** So Cisco's proposed construction in the
12 District Court litigation came directly from the '986
13 patent specification, correct?

14 **A It took sentences out of the '986 patent**
15 **specification and said that's the proper**
16 **construction.**

17 **Q** And Cisco's proposed constructions from
18 the '986 patent specification are consistent with the
19 meaning of those terms applied in its petition; is
20 that right?

21 **A Heck if I know. I didn't study their**
22 **petition to see if that was true or not.**

1 Q And you reviewed the board's institution
2 decision to institute the '986 patent IPR, right?

3 A **I'm sorry. You broke up there.**

4 Q You previously said that you had looked at
5 the board's institution decision for the '986 IPR,
6 right?

7 A **Correct.**

8 Q And Cisco's proposed construction from the
9 '986 patent specification are consistent with what
10 was used by the board in its decision, correct?

11 MS. CAPPAERT: Object to form.

12 A **Yeah. Like I said, I didn't perform that**
13 **particular analysis. If you could show me where I**
14 **said that in my declaration, maybe that will refresh**
15 **my memory.**

16 BY MS. OWENS:

17 Q Sure. So let's go back to your
18 declaration. And if you could go to paragraph 80 of
19 your declaration. And let me know when you're there.

20 A **I'm there.**

21 Q And in paragraph 80 of your declaration
22 you write that "The '986 patent discloses that an

1 access switch has ports that connect to LANs and/or
2 to other network endpoints." Do you see that?

3 A Yes, I do.

4 Q And the next sentence is "The '986 patent
5 also discloses that edge switches are core switches
6 that are directly connected to access switches." Do
7 you see that?

8 A Yes, I do.

9 Q Now, if we turn to the board's decision
10 granting the '986 IPR --

11 A Okay. I've got to go get it. Decision.
12 Got it. Okay.

13 Q If you open that exhibit and go to page
14 25 --

15 A Okay.

16 Q -- now, if you go to footnote 9 on page 25
17 of the institution decision, the first sentence of
18 footnote 9 says "Because the '986 patent claims
19 categorize switches as being access, core and edge
20 types, it is helpful to apply the definitions for
21 each type from that patent discussed above to the
22 switches shown in figure 1 of Gai."

1 Do you see that?

2 **A Yes, I do.**

3 **Q** And so is it your understanding from this
4 sentence that the board applied these statements from
5 the '986 patent to Gai journalism?

6 MS. CAPPAERT: Object to form.

7 **A See, I don't quite understand your**
8 **question. When you said these statements, the**
9 **footnote says what it says. So I guess I didn't**
10 **understand your question.**

11 BY MS. OWENS:

12 **Q** Let me reask. Is it fair to say from this
13 first sentence of footnote 9 that the board applied
14 the meaning of access port and edge switches from the
15 '986 patent to Gai?

16 MS. CAPPAERT: Object to form.

17 **A (Reviewing document.) So yeah. They**
18 **applied some characterizations of the '986 patent to**
19 **switches in Gai.**

20 BY MS. OWENS:

21 **Q** Okay. Now, moving towards the middle of
22 this footnote there's a sentence that says "Backbone

1 switches 122 through 125 are also edge switches
2 because they have core switches that are directly
3 connected to access switches 114 through 116." Do
4 you see that?

5 **A Yes, I do.**

6 Q And so here the board is saying that the
7 backbone switches discussed in Gai can also be
8 considered edge switches as discussed in the '986
9 patent, correct?

10 **A Yeah. That the switches 122 through 125**
11 **could be considered edge switches.**

12 Q And now we'll move to the last sentence of
13 footnote 9, the board write "Note that switch 120 in
14 addition to being a core and backbone switch is also
15 an access switch because it is directly connected to
16 server 112B." Do you see that?

17 **A Yes, I do.**

18 Q And so here the board recognized that
19 switch 120 in Gai can be both a core or backbone
20 switch as well as an access switch, correct?

21 **A Correct.**

22 Q Okay. So you can set aside the board's

1 decision exhibit.

2 Dr. Olivier, are you familiar with
3 continuation patents?

4 A Vaguely. I know there's a continuation
5 and continuation in part in patent prosecution, I
6 think.

7 Q A continuation patent must have the same
8 disclosure as the parent patent or application,
9 right?

10 A Yeah. I don't know.

11 Q A continuation patent cannot claim things
12 that are not covered by the disclosure of the parent
13 patent, right?

14 A They shouldn't. I don't know if they --
15 whether or not that's -- sometimes people say claims
16 aren't -- what does it say? Enabled in the
17 specification?

18 Q So you would agree that a continuation
19 patent shouldn't claim things that are not covered by
20 the disclosure of the parent patent, right?

21 A They should endeavor not to.

22 Q Now, in Dr. Houh's declaration he

1 identified a continuation patent of Gai, right?

2 **A I think he did, yeah.**

3 **Q So why don't we turn to Dr. Houh's**
4 **declaration?**

5 **A Okay.**

6 **Q Exhibit 1003.**

7 **A Okay. I got it.**

8 **Q And if you go to paragraph 107, okay?**

9 **A Okay.**

10 **Q Now, the paragraph 107 from Dr. Houh's**
11 **declaration says "That Gai discloses downstream**
12 **transmission of dummy messages is also evidenced by**
13 **the claims of U.S. Patent Number 7,848,264 or**
14 **Exhibit 1006." Do you see that?**

15 **A Yes, I do.**

16 **Q And then it continues, "Exhibit 1006 is a**
17 **continuation application of Gai, which is**
18 **Exhibit 1005, and shares identical specifications**
19 **with Gai." Do you see that?**

20 **A Yes, I do.**

21 **Q Did you review the Exhibit 1006 which is**
22 **the continuation application of Gai?**

1 **A The continuation application or the patent**
2 **that they looked at?**

3 Q Apologies. Did you review the
4 Exhibit 1006 which is the continuation patent of Gai?

5 **A I think I looked at it, yeah. Since the**
6 **specification was the same I didn't have to study it**
7 **in any detail as I had studied the Gai specification**
8 **in detail.**

9 Q So I'm just going to upload Exhibit 1006
10 which is the continuation patent from Gai.

11 (Previously marked Exhibit 1006 was
12 introduced.)

13 THE WITNESS: I'm locked out again. Okay.
14 I'm back in again. What are we looking at?

15 BY MS. OWENS:

16 Q Do you see the continuation patent of Gai
17 which is Exhibit 1006?

18 **A Yes, I do.**

19 Q And as you just said, the specification of
20 Exhibit 1006, the continuation, is identical to the
21 Gai specification, Exhibit 1005, right?

22 **A Correct.**

1 Q Now, if we turn to column 17 of
2 Exhibit 1006, do you see that the claims start on the
3 bottom of column 1?

4 A **Yes, I do.**

5 Q Now, do you see that claim 1 begins "a
6 method for operating a router comprising" and then a
7 series of claim limitations?

8 A **Yes.**

9 Q And now if you go to the last claim
10 limitation of claim 1, on column 18 beginning at
11 line 8 it says "Transmitting by the backup designated
12 port, one or more messages, the messages to tell
13 devices downstream in the spanning tree that the
14 router has a new designated port." Do you see that?

15 A **Yes.**

16 Q And so here claim 1 of the continuation
17 patent is claiming sending message downstream in the
18 spanning tree to inform devices of the new designated
19 port, right?

20 A **Correct.**

21 Q Now, because the continuation patent was
22 allowed to cover the sending of downstream messages

1 to inform devices of a new designated port, sending
2 downstream messages to inform the devices of a new
3 designated port must have been disclosed in the
4 continuation patent specification, right?

5 MS. CAPPAERT: Object to form.

6 A Are you telling -- I don't believe that's
7 true. I never saw in the specification that they
8 discuss sending downstream messages. And it's a
9 little confusing that these aren't the dummy
10 multicast messages. They're just messages. So I
11 don't think it's because they got a patent it's
12 inherent that that was enabled by the specification.

13 BY MS. OWENS:

14 Q You would agree that an allowed patent is
15 presumably valid?

16 MS. CAPPAERT: Object to form, scope.

17 A I guess Cisco doesn't think that because
18 they're filing this IPR. But in general they're
19 supposed to be assumed valid, yes.

20 BY MS. OWENS:

21 Q So assuming that the continuation patent,
22 Exhibit 1006, is valid, then the claim limitation

1 covering sending downstream messages would be covered
2 in the specification of this patent, right?

3 **A I never saw it covered in the**
4 **specification as the patent.**

5 Q If sending downstream messages was covered
6 in the disclosure of the continuation patent, it
7 would say also be covered in the disclosure of Gai
8 because they have the same specification, correct?

9 MS. CAPPAERT: Object to form.

10 **A I guess that's a hypothetical. And like I**
11 **say, in my analysis of sending there is no sending --**
12 **in, as we're calling, Gai sending these multicast**
13 **dummy messages downstream.**

14 BY MS. OWENS:

15 Q Setting aside the dummy multicast messages
16 and focusing on the messages contained in the
17 continuation patent, would you agree that the last
18 limitation of claim 1 in the continuation patent
19 covering sending messages downstream in the spanning
20 tree protocol is covered by the continuation patent
21 specification?

22 MS. CAPPAERT: Object to form.

1 **A Yeah. I don't understand your question.**
2 **I think I've been pretty clear that I don't believe**
3 **the sending of the downstream, the dummy multicast**
4 **messages downstream, is covered in the specification.**
5 **So what exactly are you asking?**

6 BY MS. OWENS:

7 Q Is your belief that sending dummy cast --
8 sorry -- strike that.

9 You would agree that claim 1 of the
10 continuation patent did not cover dummy -- or does
11 not claim specifically dummy multicast messages,
12 correct?

13 **A Claim 1 does not use the term "dummy**
14 **multicast messages" in this '264 patent, let's call**
15 **it.**

16 Q And so it's possible that the messages
17 claimed in claim 1 of the continuation patent or the
18 '264 patent is covered in the specification, right?

19 **A Not that I'm aware of, no, because the**
20 **only messages I was looking at were the dummy**
21 **multicast messages in regards to the Gai patent that**
22 **Cisco was saying invalidated the Portsmouth patent.**

1 Q And just to reiterate, do you agree that
2 the specification for the Gai patent and the
3 specification for the '264 patent or the continuation
4 patent that we're discussing are the same?

5 A That's what they say. I didn't do a
6 word-by-word analysis, but it says it's a
7 continuation of the 08/998,412 filed on December
8 24th, 1997 which is now the 6,032,194 patent.

9 Q And so are you taking -- sorry. Where are
10 you reading that from?

11 A The face page of the '264 patent.

12 Q Okay. So taking the face of the '264
13 patent at face value you would agree that Gai and the
14 '264 continuation patent have the same specification,
15 right?

16 A Yeah. I think that's what it says there
17 on the face page.

18 Q Okay.

19 A I didn't do a word-by-word comparison or
20 anything like that, so I'm just taking at face value
21 what they have on the face page.

22 Q Got it. Now, setting this aside, Cisco's

1 IPR petition and Dr. Houh's declaration describe one
2 of the grounds for invalidation which is dubbed the
3 downstream embodiment; is that right?

4 **A Yeah. You cut out just for a second**
5 **there. I lost one word. But I think you said that**
6 **they both discuss a downstream embodiment in Gai.**

7 Q Yeah. Let me rephrase.

8 **A Okay.**

9 Q You're aware that in Cisco's IPR petition
10 for the '986 patent as well as Dr. Houh's declaration
11 that one of the grounds Cisco raises is ground 1A
12 which is described as the downstream embodiment,
13 right?

14 **A Correct.**

15 Q And the phrase "downstream embodiment"
16 refers to the sending of dummy traffic downstream to
17 update network devices in the event of a link or port
18 failure, right?

19 **A I mean, the downstream talks about sending**
20 **messages downstream which is towards the user.**

21 Q In the '986 patent and Gai the sending of
22 dummy messages follows a failure in a link or a port

1 on a network device, correct?

2 **A Correct.**

3 **Q** And in general a failure at a link or a
4 port could happen at any device in a particular
5 network, right?

6 **A Yes. You can't assume something will not**
7 **fail.**

8 **Q** And you would agree that Gai discloses an
9 embodiment with a failure that occurs at switch 114,
10 right?

11 MS. CAPPAERT: Object to form.

12 **A Now, I've got to go back and get Gai.**
13 **That's the problem with using this. I can only get**
14 **one thing open. And that's what you were talking**
15 **about, Gai? You were talking about Gai, right?**

16 BY MS. OWENS:

17 **Q** Right. So Gai discloses an embodiment
18 with a failure that occurs at switch 114.

19 **A I just don't have the switches numbering**
20 **memorized, so... I believe it did, yes.**

21 **Q** Okay. So just to clarify the record, you
22 agree that Gai discloses an embodiment with a failure

1 that occurs at switch 114, right?

2 **A Correct.**

3 **Q And that embodiment with the failure that**
4 **occurs eight switch 114 in Gai is just one embodiment**
5 **that could occur as described in Gai, right?**

6 **MS. CAPPAERT: Object to form.**

7 **A Yeah. What do you mean one embodiment**
8 **that could occur? I mean, did they describe -- I**
9 **guess I don't understand that could occur. The**
10 **patent describes the embodiments, not all possible**
11 **things that can occur. So I don't understand your**
12 **question.**

13 **BY MS. OWENS:**

14 **Q Okay. So let me rephrase. The embodiment**
15 **with a failure that occurs at switch 114 in Gai --**

16 **A Mm-hmm.**

17 **Q -- is just one of many embodiments that**
18 **Gai describes?**

19 **A Embodiment of switch failures?**

20 **Q Correct.**

21 **A Let's see. (Reviewing document.) So when**
22 **I read Gai I see everything talking in terms of**

1 **switch 114. Can you point me to where you're saying**
2 **they're talking about an embodiment that's not switch**
3 **114?**

4 Q Sure. So if you go to the bottom of
5 column 11 in Gai beginning line 64, "Accordingly
6 access switches 114 through 116 and backbone switches
7 120 through 125 detect failures much sooner since the
8 corresponding BPDU information times out sooner."

9 So you'd agree that failures can be
10 detected at access switches 114 through 116 and
11 backbone switches 120 through 125 in Gai?

12 A **It does talk about detecting failures**
13 **there.**

14 Q And so a person of ordinary skill in the
15 art could have understood that a failure could be
16 detected at switches 114 through 116 or 120 through
17 125 in Gai, right?

18 A **Yes.**

19 Q And so one possible example is that it's
20 possible that a failure could occur at switch 124,
21 for example, right?

22 A **It's possible that a failure could occur**

1 **at switch 124, yes.**

2 Q Now, going back to the embodiment where
3 there's a failure at switch 114, after the failure is
4 detected switch 114 would then send dummy messages to
5 update the other databases of the other devices in
6 Gai, right?

7 A **Yes. It'll send the dummy multicast**
8 **messages upstream.**

9 Q Now, if we go to column 12, line 62, in
10 Gai it says "Switch 114, via rapid reconfiguration
11 entity 2334, preferably informs the other devices of
12 its new forwarding port by transmitting dummy
13 multicast packets through the new port as indicated
14 at block 348." Do you see that?

15 A **Yes, I do.**

16 Q This sentence doesn't identify any
17 specific other devices, correct? It doesn't identify
18 any devices by number?

19 MS. CAPPAERT: Object to form.

20 A **So, yeah. I don't understand your**
21 **question.**

22

1 BY MS. OWENS:

2 Q Let me strike that question. This
3 sentence in Gai at column 12, lines 62 to 66, does
4 not use the word upstream, correct?

5 A Correct. But up above it's talking
6 about -- we're talking about port number 4 which is
7 where they're sending the traffic out and not sending
8 the traffic upstream. So that particular sentence
9 doesn't use the word upstream, but if you take it
10 into context at a paragraph they're talking about
11 sending messages upstream.

12 Q So if we're looking above that sentence at
13 column 12, lines 59, the sentence begins "Thus the
14 identity of the new root port (e.g. port number 4)
15 must be propagated to the other devices such as
16 access switches 115 through 116 and backbone switches
17 120 through 125, to prevent messages from being lost
18 or misdirected."

19 Do you see that?

20 A Yes.

21 Q And so if we look at figure 1 of Gai,
22 switch 114 would be sending dummy multicast messages

1 to every other network device in the network shown in
2 figure 1, right?

3 A No. It says in column 13 "multicast
4 messages 400 having address of server loaded into the
5 field and then forwarded through the new port,
6 port 4." So the messages are being sent out the new
7 port which is what they teach in Gai, port 4.

8 Q I think we're speaking past each other.

9 A Okay.

10 Q My question is looking at figure 1 and
11 referring back to that previous sentence at column
12 12, line 59, switch 114 propagates the new forwarding
13 port information to switches 115, 116 and 120 through
14 125, correct?

15 A I'm sorry. What paragraph are you on?
16 What column and line number in Gai?

17 Q So we just read the sentence in Gai at
18 column 12, line 59.

19 A Uh-huh. Line 59.

20 Q And so the sentence at column 12, line 59,
21 says "Thus the identity of the new port, which is
22 port number 4, must be propagated to the other

1 devices such as access switches 115 through 116 and
2 backbone switches 120 through 125 to prevent messages
3 from being lost or misdirected." Do you see that?

4 **A Yes, I do.**

5 Q And so switches 115, 116 and backbone
6 switches 120 through 125 are all of the remaining
7 network devices, the network switches in figure 1,
8 right?

9 **A All the remaining network -- I think we**
10 **could cut this really quick. Port 4 only talks to**
11 **switch 124. So it could only send messages to switch**
12 **124. Yes, the other switches need to learn about it**
13 **but they're not learning it from switch 114. Port 4**
14 **only talks to switch 124.**

15 Q I think we're not -- that's not really my
16 question about --

17 **A Yeah. I get you're taking stuff out of**
18 **context and trying to say it says something. I'm**
19 **just telling you what it says within the context of**
20 **the patent.**

21 Q I'm just asking you a yes or no question,
22 whether the new root port information is propagated

1 to all the other devices in the network once there is
2 a failure at switch 114.

3 MS. CAPPAERT: Object to form.

4 A So I just realized I'm in the wrong
5 patent. I'm not in the '194. Let me get the '194.
6 There's the '194.

7 Okay. Now I've got '194. Sorry. You
8 were in column 13?

9 BY MS. OWENS:

10 Q So looking at Gai which is the '194
11 patent, at column 12 --

12 A 12. Got you.

13 Q Starting in line 59. It says "Thus the
14 identity of the new root port, e.g. port number 4,
15 must be propagated to the other devices such as
16 access switches 115 through 116 and backbone switches
17 120 through 125 to prevent messages from being lost
18 or misdirected." Do you see that?

19 A Yes, I do.

20 Q And so that means that the identity of the
21 new root port at switch 114 needs to be propagated to
22 the other switches in the network, correct?

1 **A And it says that, it says, by transmitting**
2 **dummy multicast messages through the new port,**
3 **port 4.**

4 **Q Correct. Okay.**

5 **A And port 4 only connects to device 124.**

6 **Q Yes. That's not -- I'm not asking**
7 **about --**

8 **A I was just giving you a clear answer.**

9 **Q And so earlier we discussed how failures**
10 **could occur at other devices in a network and we**
11 **discussed that one example of a device that could**
12 **have a failure at a link or a port is switch 124,**
13 **right?**

14 **A Correct.**

15 **Q And so if a failure occurred at switch 124**
16 **switch 124 would then send dummy multicast messages**
17 **through the new port to update the other network**
18 **devices, right?**

19 **MS. CAPPAERT: Object to form.**

20 **A Yeah. Well, what's the new port you're**
21 **talking about? I don't understand -- I guess --**
22

1 BY MS. OWENS:

2 Q Let's take a step back. So in Gai and the
3 '986 patent when a link or a port fails at a
4 particular switch the failed port which was the
5 previous forwarding port will transition to a
6 blocking state and another backup port will
7 transition to a forwarding port, correct?

8 A Well, I think Gai teaches that -- a
9 particular way that that's happening where we're
10 talking about the blocked and transmitting ports that
11 are going to the root. And so I don't think they're
12 talking what's taught in Gai is generally applicable
13 in the situation you're talking about. Gai teaches
14 one specific thing which is how to handle traffic on
15 these particular ports, these trunk ports, that are
16 going towards the root and how to recover from that
17 situation.

18 Q Okay. So let's go to column 5 in Gai.
19 And column 5 in Gai starting at line 54, it says
20 "Upon transition to the new forwarding port the
21 device begins transmitting dummy multicast messages
22 through the new port." Do you see that?

1 **A Yes.**

2 **Q And so --**

3 **A And it goes on to say those are devices**
4 **through the new active port, which is what we were**
5 **talking about, port 4.**

6 **Q So setting aside port 4 because that was**
7 **in relation to switch 114, we're talking about**
8 **another example where there might be a failure at any**
9 **other switch in the network. Right?**

10 **A Okay. It's a hypothetical?**

11 **Q Correct.**

12 **A So which port on 124 is in the blocking**
13 **and which one is in the forwarding state in this**
14 **hypothetical?**

15 **Q We could just refer generally to one**
16 **particular port that's in the forwarding state and**
17 **the other ports are in backup ports in the blocking**
18 **state that's described in Gai, right? So when a**
19 **failure occurs at the port that's in the forwarding**
20 **state a backup port then transitions to the**
21 **forwarding state to take its place, right?**

22 **MS. CAPPAERT: Object to form.**

1 **A** I mean, if you are going to make a
2 hypothetical you've got to give me all the
3 information for the hypothetical. So which port on
4 124 is in the forwarding state, which is in the
5 blocking state, what's the failure? Otherwise I
6 don't understand your question.

7 BY MS. OWENS:

8 **Q** Okay. So let's say we have a failure at
9 switch 124, the failure was for the forwarding port,
10 which is the port that is connecting 124 to port 115
11 in figure 1 of Gai.

12 **A** Okay. What is the situation?

13 **Q** 114 in figure 1 of Gai.

14 **A** Uh-huh.

15 **Q** Switch 124 is connected to switch 115. Do
16 you see that?

17 **A** Yes.

18 **Q** So let's assume that the port on
19 switch 124 connecting it to switch 115 is originally
20 in the forwarding state. Right?

21 **A** How did it get to the forwarding state?
22 Where is the root?

1 Q We could assume that the root port is the
2 port connecting switch 124 to switch 121. Do you see
3 that?

4 A **Okay. 124 to 121 is the root port.**

5 Q Let's say the forwarding port that's
6 connecting switch 124 to switch 115. Okay?

7 A **Uh-huh.**

8 Q And let's say that it switch -- the
9 port -- strike that.

10 Let's say that this port on switch 124
11 connecting switch 124 to switch 116 is in the
12 blocking state. Okay?

13 A **It wouldn't be in the blocking state.**

14 Q Is and why is that?

15 A **Because of the teachings of Gai.**

16 Q And what teachings of Gai are you
17 referring to?

18 A **The teachings of Gai about how they set
19 up -- that command you talked about earlier, enable
20 fast uplink, and the other commands, they teach
21 that -- anyone of ordinary skill would know that the
22 ports for switch 116 and 115 and if 121 was the root**

1 port both those would be active and you would cut the
2 LAN link 107 because of the cost functions. It's
3 simply what Gai teaches.

4 Q Gai doesn't -- Gai does not require that
5 the root ports must be selected based on the lowest
6 path cost, right?

7 A Sure it does. It gives an example -- most
8 of Gai is set up teaching about how you set up the
9 cost functions in the network so that you don't get
10 impractical or non-efficient network partitions. So
11 Gai does teach that you do it in this particular way.

12 Q Setting aside whether we're efficient Gai
13 does not explicit state that root ports are required
14 to be the lowest cost port, right?

15 A Gai teaches how to set up the whole
16 network so that you have a cost function that allows
17 for the network to operate in a proper manner and not
18 one with a large diameter of passing messages
19 through. So did you say that Gai doesn't
20 specifically say you can't do that? Well, you've got
21 to take the teachings of Gai and try to understand
22 what it's teaching one of ordinary skill. In your

1 **hypothetical like I said it's not possible in Gai**
2 **within the teachings of Gai.**

3 Q Let's turn to your declaration.

4 MS. CAPPAERT: Counsel, I don't want to
5 stop you mid questioning, but we've been going for
6 over an hour if you want to take a break at some
7 point. It doesn't have to be now. You can finish
8 your line of questioning, but just want to throw that
9 out there.

10 MS. OWENS: I have a few more questions
11 and maybe in five or ten minutes we could take a
12 lunch break?

13 THE WITNESS: Could we keep going? How
14 much longer do you have?

15 MS. OWENS: We'll definitely need to take
16 another break. So we can do that after we finish
17 this line of questioning.

18 THE WITNESS: Okay.

19 BY MS. OWENS:

20 Q So let's turn to your declaration and I
21 believe that the teachings of Gai that you're
22 referring to are included in your declaration from

1 paragraphs 63 to 70, if I'm correct.

2 **A Correct.**

3 Q And this explanation you provide in your
4 declaration specifically requires that the root port
5 of switch 116 be the port that connects switch 116 to
6 switch 124, correct?

7 **A What it says is if you use the teachings**
8 **of Gai, including the command that allows for the**
9 **dummy multicast messages that you brought up earlier,**
10 **that you're forced to have that link be the uplink**
11 **port.**

12 Q Okay. So let's look at the modified
13 version of figure 1 in your declaration on page 29
14 which is page 31 of the PDF.

15 **A I'm sorry. You dropped out again.**

16 Q Sorry. Let's turn to the modified version
17 of Gai in your declaration on page 29 which is page
18 31 of the PDF.

19 **A Got you. Okay. I'm there.**

20 Q And you would agree that the green dot on
21 switch 116, which is the port on 116 connecting it to
22 switch 124, is the root port according to your

1 understanding of the teachings of Gai, right?

2 **A Correct.**

3 Q Now, if you go down to paragraph 69 of
4 your declaration that goes from page 31 into page 32,
5 at the beginning of page 32 you cite a passage from
6 Gai which is Exhibit 1005, from column 10 line 65
7 through column 11 line 7. Do you see that?

8 **A Yes.**

9 Q Now, towards the end of this passage that
10 you cite it says "Furthermore, unless the port at
11 access switch 116 coupled to LAN 109 represents the
12 root port for switch 116, it will be placed in the
13 blocked state." Do you see that?

14 **A Yes.**

15 Q So this means that it is possible that the
16 port connecting access switch 116 to switch 125,
17 which would be link LAN 109, could also be a root
18 port as disclosed in Gai, right?

19 **A There's no disclosure about how you got**
20 **there. I would think this thing is going to be**
21 **blocked unless -- I don't know how you could get to**
22 **that point where it would open because it increased**

1 the path cost to 3000 when you're in that enable
2 uplink command. But maybe if every other connection
3 was severed it would have to use that. Otherwise --
4 so are we talking about multiple failures on switch
5 116?

6 Q No. We are just looking at what Gai
7 discloses and that based on this excerpt from Gai --

8 A I'm sorry. You completely broke up there.
9 Can you hear me?

10 Q Yes. Can you hear me?

11 A Hello. Yeah. Yeah. Sorry.

12 Q Looking at this excerpt from Gai, Gai
13 contemplates that the root port for switch 116 could
14 be a different one than the one you prescribed in
15 your modified version of figure 1, correct?

16 A It says I guess hypothetically under a
17 whole bunch of failures that would be possible. But,
18 yeah, they're saying hypothetically this could be
19 possible. So you've got to take the teachings of Gai
20 as a whole and not take little sentences out and say
21 that's another embodiment. Gai is teaching you
22 exactly what I describe up above when he's talking

1 **about all those commands.**

2 Q So -- but taking the teachings of Gai we
3 also have to take the hypotheticals that Gai
4 contemplates which also accounts for different
5 designated root ports for switch 116 based on this
6 passage?

7 MS. CAPPAERT: Object to form.

8 A **It doesn't teach any embodiment or how you**
9 **got there or how this works. It just -- I think it's**
10 **just contemplating that if there were a huge number**
11 **of failures in the network perhaps it would converge**
12 **to this, but that's not the teachings of Gai. Like I**
13 **said, you're just pulling one clause out of it and**
14 **saying it's teaching another embodiment, but that's**
15 **not what one of ordinary skill would take away.**

16 BY MS. OWENS:

17 Q So you would agree that under certain
18 circumstances described in Gai before this particular
19 sentence, Gai contemplates that access switch 116
20 coupled to switch 120 --

21 A **I'm sorry. You went completely away**
22 **again. Sorry. Can you hear me?**

1 Q Yes.

2 A Okay.

3 Q Let me reask the question. You would
4 agree that under certain circumstances described in
5 Gai there is a situation where the port at access
6 switch 116 coupled to LAN 109 could be the root port
7 for switch 116, right?

8 A No.

9 Q There's no explanation in Gai of how it
10 got to that point, so I wouldn't even say certain
11 circumstances. It's just a statement in there that I
12 think they're talking about maybe a dramatic failure,
13 but I don't even know how it would get there. So I
14 would say it's described in Gai.

15 Q The sentence appears in Gai, correct?

16 A **Correct. It does. But like I say, you**
17 **have to take Gai as a whole. You can't just take a**
18 **portion a part of a sentence and say Gai is**
19 **describing that as an embodiment.**

20 Q I never said that Gai was describing it as
21 embodiment. I'm asking you whether --

22 A **Oh. Dr. Houh did. Dr. Houh said these**

1 **are different embodiments in Gai.**

2 Q Just one more question and then we'll take
3 our break. In your modified version of figure 1 of
4 Gai on page 31 of your declaration you show the root
5 ports in green and the designated ports in yellow,
6 correct?

7 A **Correct. And I guess I would have to**
8 **dispute whether you say modified. I added the dots**
9 **for clarification. I didn't modify anything. I just**
10 **ran the algorithm that's taught in Gai if 121 was the**
11 **root switch.**

12 BY MS. OWENS:

13 Q Okay. So let's look at paragraph 68 of
14 your declaration. Do you see it?

15 A **Yes.**

16 Q You write in paragraph 68 of your
17 declaration "Therefore, based on the teaching of Gai
18 and under Dr. Houh's hypothetical where switch 121 is
19 the root switch, the state of the ports on switches
20 124, 115 and 116 would be as shown below in modified
21 figure 1 of Exhibit 1005." Do you see that?

22 A **Finish the sentence too. "Where the root**

1 **ports are marked in green and the designated ports**
2 **are marked in yellow." That's the modification we're**
3 **talking about.**

4 Q Correct. So --

5 A **The modification is adding the colored**
6 **dots, as I said.**

7 Q Right. So just to clarify, you modified
8 figure 1 of Gai to add green ports which represents
9 the root ports and yellow ports which represent the
10 designated ports, correct?

11 A **Correct.**

12 Q And switch 115 and 116 are connected by
13 LAN 107, right?

14 A **Correct.**

15 Q And so with LAN 107 connecting switches
16 115 and 116, a loop would be formed between switches
17 115, 116 and 124; isn't that right?

18 A **Correct.**

19 Q So with your modifications to figure 1 in
20 Gai, a loop would be formed which is what Gai was
21 trying to avoid, right?

22 A **No. There's no loop formed. I only**

1 showed you the root ports and the designated ports.
2 I didn't show you the blocked ports. I didn't try to
3 simplify the drawing. But no, there would be no loop
4 formed. One of ordinary skill would understand that.
5 It would either be blocked at 116 or 115. I didn't
6 finish that analysis because it wasn't germane to it,
7 but it could either be blocked at 116 or 115 based on
8 the algorithm taught in Gai. Claim 107 would be
9 blocked on either one side or the other.

10 Q Sorry. Can you be more specific about
11 which ports would be blocked?

12 A Okay. LAN 107, one side would be blocked
13 either at the 116 port or at the 115 port. I think
14 in that case it's kind of a tie, so it would kind of
15 depend on the port number because both switch 115 and
16 116 are basically at the same cost and LAN 107 has
17 been given a cost of 3000. So typically it would
18 be -- whichever one of those ports in switch 116 or
19 115 which had the lowest port number would be the
20 side that would be blocked.

21 MS. OWENS: Okay. I think this is a good
22 place to take a break, so let's go off the record.

1 MS. CAPPAERT: Okay.

2 THE VIDEOGRAPHER: The time is 1:29 p.m.

3 We are now off the record.

4 (Lunch recess from 1:29 p.m to 1:41 p.m.
5 EST.)

6 THE VIDEOGRAPHER: The time is 1:41 p.m.

7 We are now on the record.

8 BY MS. OWENS:

9 Q Welcome back, Dr. Olivier.

10 A **Welcome back.**

11 Q I want to move on to ground 1B that Cisco
12 offers in its petition and Dr. Houh also describes in
13 his declaration. The ground B describes what's
14 called an upstream embodiment in Gai, right?

15 A **Yes. That's how Cisco and Dr. Houh**
16 **characterized it.**

17 Q And sending traffic upstream of relative
18 to the root switch means that messages are sent
19 towards the root switch, right?

20 A **Correct.**

21 Q And conversely sending traffic downstream
22 means that messages are being sent away from the root

1 switch, correct?

2 **A Correct.**

3 Q Gai teaches that the network depicted in
4 figure 1 is just one example from the disclosed
5 invention and can be modified in accordance with the
6 disclosure, right?

7 **A I don't see where it says the figure can**
8 **be modified, but they do talk about slight**
9 **modifications to the figure, I think.**

10 Q All right. So let's go to Gai which is
11 Exhibit 1005. And if we go to column 7 beginning at
12 line 41 it says "It should be understood that the
13 network 100 of figure 1 is meant for illustrative
14 purposes only and that the present invention will
15 operate with other network designs having possibly
16 far more complex topologies."

17 Do you see that?

18 **A Yes, I do.**

19 Q So you'd agree that figure 1 is just one
20 example of the invention described in Gai?

21 **A Well, figure 1 is the main embodiment of**
22 **Gai. That the invention could be applied to other**

1 network designs having far more complex topologies is
2 discussed, but they don't go into any detail about
3 what these are. They just say that the invention
4 could be applied for other topologies.

5 Q And so ground 1B in Cisco's IPR petition
6 and also in Dr. Houh's declaration is based on Gai's
7 disclosure contemplating the addition of an access
8 switch to figure 1, right?

9 A Correct.

10 Q And specifically Petitioner Cisco and
11 Dr. Houh depicted this disclosure from Gai by adding
12 switch 117 at port number 7 of switch 114, right?

13 A Yes.

14 Q And as we discussed earlier the '986
15 patent describes that an access switch has ports that
16 connect to LAN and/or to other network endpoints such
17 as user computer systems, right?

18 A Right.

19 Q So under the '986 patent's definition
20 switch 117 here would be considered an access switch,
21 correct?

22 A I was looking for the figure in

1 **Dr. Houh's --**

2 Q I'll represent that Dr. Houh's declaration
3 at page 98 is where you'll find --

4 A **Okay. 98. Okay. Got it. So you're**
5 **talking about 117 would be an access switch?**

6 Q Correct. So under the '986 patent's
7 definition switch 117 would be considered an access
8 switch?

9 A **Yes.**

10 Q And under that same definition of access
11 switch from the '986 patent switch 120 would also be
12 considered an access switch, right?

13 A **Yes. Switch 120 can be considered a lot**
14 **of things depending how you define access switch,**
15 **because it's also -- it looks like a core switch the**
16 **way it's set up in the network, but because it has**
17 **this connection over to 112B then it's a core switch**
18 **that's also an access switch that's also -- you know,**
19 **could be an edge switch if you count that WAN being a**
20 **network. So it's a lot of different things based on**
21 **taking the petitioner's claim construction and**
22 **applying it.**

1 Q So just to simplify that, you would agree
2 that switch 120 could be a core switch and it could
3 also be an access switch, right?

4 A **And an edge switch.**

5 Q So switch 120 can be a core switch, an
6 access switch and an edge switch, right?

7 A **Yeah.**

8 Q And now we discussed the '986 patent's
9 definition for edge switch as core switches that are
10 directly connected to access switches, right?

11 A **That's how they describe it in the '986**
12 **patent, yes. I wouldn't say they -- that's their**
13 **description of it, yes.**

14 Q And so in this figure 1 in the petition
15 and Dr. Houh's declaration with the depiction of
16 switch 117, here switch 114 would be considered an
17 edge switch under that definition, right?

18 A **And an access switch because it sits over**
19 **here in box 112A.**

20 Q So in this depiction in figure 1 you would
21 agree that switch 114 would be an access switch and
22 an edge switch, right?

1 A Yeah. That's what -- those definitions
2 are somewhat confusing. But I think it's pretty
3 consistent that they're talking about -- since 114 is
4 talking of LANs and talking to 112, that it's the Gai
5 patent.

6 Q I'm sorry. You cut out for me. Could you
7 repeat that?

8 A Yeah. I think because you can see 114 is
9 connected to LANs which describe it as an access
10 switch and 112 which make it an access switch, that
11 generally Gai is teaching that 114 is an access
12 switch.

13 Q In this modified figure 1 where switch 117
14 is added and is considered an access switch, switch
15 114 could also be considered an edge switch, right?

16 A More an access switch because look at all
17 the LANs that are connected to it. Look at the 112A
18 that's connected to it. It's kind of like an access
19 switch connected to another access switch. I mean,
20 the definition in the '196 was connected to a LAN or
21 any other endpoints network and you can see -- I
22 can't see if you've got a figure in it, but LAN 102,

1 **network endpoint 112A, that's LAN 104 to the right.**
2 **LAN 103, 102, 104 and network endpoint server -- I**
3 **think that's a server -- 112A.**

4 Q So let's go to paragraph 86 of your
5 declaration.

6 A **Yes.**

7 Q And the second sentence of paragraph 86
8 says "Even though figure 1 had been modified by
9 coupling access switch 114 to an additional switch
10 and server 112E via port number 7, so that switch 114
11 could be considered an access (sic) switch, it is my
12 opinion that the modified figure still fails to
13 disclose sending traffic to an access switch because
14 switch 120 is still a backbone switch."

15 Do you see that?

16 A **Yeah.**

17 Q And so in the sentence you state that
18 switch 114 could be considered an edge switch based
19 on its connection to the additional access switch 117
20 and server 112E, right?

21 A **Yeah. I think that was what Dr. Houh was**
22 **imagining, that he considered it to be an edge**

1 **switch.**

2 Q And here in your own declaration you also
3 agree that based on the description of edge switch in
4 the '986 patent switch 114 could be considered an
5 edge switch, right?

6 A **I didn't say it was. I just thought, you**
7 **know, in some interpretations that could be**
8 **considered an edge switch by some people.**

9 Q What's the difference between an access
10 switch and an edge switch?

11 A **In what I teach in class?**

12 Q In the --

13 A **Access would be something that's part of**
14 **an access network and an edge switch would be**
15 **something that connect two networks together.**
16 **Something going from an access network to a core**
17 **network or an aggregation network, I mean, we teach**
18 **access networks or I teach access networks and core**
19 **networks in my class. The '986 makes some statements**
20 **about those that in some ways are not what one of**
21 **ordinary skill in the art would do. So I was just**
22 **applying the broadest possible meaning to them.**

1 Q Would you agree that in general an access
2 switch and an edge switch have the same hardware?

3 MS. CAPPAERT: Object to form.

4 A No, I would not, because they're built for
5 two different purposes. Access switches are
6 basically built for aggregation. Aggregation means I
7 might have a bunch of slow speed links that are going
8 to be going into a high speed link. And edge
9 switches are generally going between one edge of a
10 network to another network, so they're generally --
11 their hardware and structure is more balanced in
12 terms of link speeds and also they would use much
13 greater powerful network processors in them because
14 of that difference in what the two networks do.

15 I worked in designing access switches at
16 Marconi for years, so that was the idea of the
17 differences between the two designs in hardware.

18 BY MS. OWENS:

19 Q In the context of the '986 patent's
20 descriptions of access switch and edge switch, the
21 '986 patent distinguishes the two based on how the
22 particular switch is set up in the network, right?

1 **A It has a particular network design and it**
2 **characterizes them based on that particular network**
3 **design.**

4 Q Now, Gai teaches that an access switch can
5 be the root, fair?

6 MS. CAPPAERT: Object to form.

7 **A Gai teaches an access switch can be a**
8 **root. I think it teaches a way an access switch can**
9 **be a root.**

10 BY MS. OWENS:

11 Q Let's go back to Gai which is
12 Exhibit 1005.

13 **A Okay.**

14 Q If we turn to column 10 line 29, it says
15 "The conventional spanning tree algorithm, however,
16 simply selects the switch having the lowest ID to
17 become the root regardless of where in the network
18 100 the switch is located. As a result an access
19 switch is often elected to be the root causing
20 messages to travel a much higher average distance
21 than if a backbone switch had been elected the root
22 for many network configurations such as partially

1 meshed distributed networks."

2 Do you see that?

3 A Yes, I do.

4 Q And so here Gai is saying that based on
5 the switch having the lowest ID an access switch is
6 often elected to be the root, right?

7 A No. What it's saying -- it's trying --
8 Gai is trying to solve this problem of a conventional
9 spanning tree algorithm in which it's possible if an
10 access switch had the lowest ID it could become the
11 root and then it describes how many problems happen
12 in the network. And then Gai describes a way of
13 preventing that from happening.

14 That's talking about in regards to the
15 conventionals. It couldn't be -- I mean, the
16 conventional spanning tree algorithm was known. So
17 Gai is teaching you how to prevent an access switch
18 from becoming a root.

19 Q So Gai is describing that in the
20 conventional spanning tree algorithm an access switch
21 can be elected as the root?

22 A Correct. And then it describes a way of

1 **solving that problem.**

2 Q And even if it may be inefficient Gai's
3 disclosure still considers that, right?

4 A **Gai discloses a problem in the prior art**
5 **which is an access switch becoming a root and then**
6 **describes a solution of how to prevent through all**
7 **these commands that we talked back earlier including**
8 **the one, the enable uplink one, which prevent the**
9 **access switches from becoming a root because of the**
10 **problems associated in the prior art of the**
11 **conventional spanning tree algorithm.**

12 Q The modified version of figure 1 with the
13 addition of switch 117, switch 117 could be
14 designated as the root if it had the lowest ID,
15 right?

16 A **Well, Gai never teaches that -- it**
17 **actually teaches away from 117 being a root. And the**
18 **way 117 is drawn there where it has only one**
19 **connection to the network through port 118, I don't**
20 **even know if hypothetically or theoretically that**
21 **could become a root because you only have one port**
22 **in. It would have to go in and out the same port and**

1 **that's impossible in 802.1D bridges.**

2 **So just simply saying I could make that or**
3 **force it to be it by setting it to the lowest ID, I**
4 **don't know if that's even theoretically possible that**
5 **the spanning tree protocol would converge to that.**
6 **And Dr. Houh doesn't present any analysis of how that**
7 **could become the root either.**

8 Q Moving back to the board's institution
9 decision --

10 A **I'm sorry. What? I understand the**
11 **question.**

12 Q Sorry. Let's turn back to the board's
13 institution decision.

14 A **Okay. You're cutting out a wee bit.**
15 **Okay. I got it.**

16 Q So let's turn to the bottom of page 47.

17 A **Okay.**

18 Q And here the last paragraph begins -- the
19 board says "Patent owner cites to several passages in
20 Gai to assert that it teaches away from designating
21 switch 117 as the root, specifically," and then it
22 goes into a large paragraph that comes from patent

1 owner's preliminary response. Do you see that?

2 **A Yes, I do.**

3 Q And then the board goes on to say "Based
4 on the current record we are not persuaded by patent
5 owner's argument. Gai teaches that it is possible
6 that any switch can be designated as root switch but
7 cautions that designating an access switch as a root
8 may be inefficient 'depending on the configuration'
9 and gives reasons why that may be the case."

10 Do you see that?

11 **A Yes, I do.**

12 Q And so here despite cautions against
13 designating a particular switch as the root, the
14 board finds that any switch including an access
15 switch can be designated as the root, right?

16 MS. CAPPAERT: Object to form.

17 **A That's what the board wrote here.**

18 BY MS. OWENS:

19 Q And so the board's reasoning here would
20 apply that access switch 117 in the modified figure 1
21 could be the root, fair?

22 MS. CAPPAERT: Object to form.

1 A No. I don't think the board -- I don't
2 think the board said that and I don't think they
3 analyzed it and I don't see them saying that in this
4 passage. And I think if you look at it in general
5 you can see the problem is it's only got one link
6 going into it, going into port 7, and the other links
7 going to 112E. So one of ordinary skill would not
8 look at that and think that that could be a root
9 switch.

10 BY MS. OWENS:

11 Q So let's focus our attention back on
12 switch 114 in this figure 1. So Gai teaches that if
13 a failure occurs at switch 114 that switch 114 would
14 then send dummy traffic to other devices to update
15 them on the new forwarding port; isn't that right?

16 A I think it teaches it sends traffic out
17 port 4 towards switch 124.

18 Q Okay. So --

19 A So I do think it contemplated also sending
20 it out port two depending on which one was selected.
21 It can only be one port going towards the root, so it
22 has to be one or the other of those two.

1 Q So let's take the example where the new
2 forwarding port is port number 4. You would agree
3 that switch 114 would then send dummy messages out of
4 port number 4 towards switch 124, right?

5 A **Correct.**

6 Q And sending some traffic from switch 114
7 to switch 124 would be sending dummy traffic away
8 from switch 117, right?

9 A **Yes. It is sending traffic away from**
10 **switch 117.**

11 Q And so if switch 117 was considered the
12 root, the dummy traffic sent from switch 114 to
13 switch 124 would be sent downstream or away from the
14 root, right?

15 A **I disagree with their hypothetical that**
16 **117 could be the root based on the teachings of Gai.**

17 Q Even considering if 117 could be the
18 root --

19 A **It can't be the root.**
20 **I'm sorry. Can you hear me?**

21 Q Yes, I can.

22 A **Oh, okay.**

1 Q Outside the teachings of Gai an access
2 switch can be selected as the root, correct?

3 MS. CAPPAERT: Object to form, scope.

4 A **Hypothetically depending on the network a**
5 **switch connected directly to a user could be the**
6 **root, especially in very simple networks. I'm**
7 **thinking like the ones we teach in class where every**
8 **switch is connected to a user in addition to other**
9 **switches and we have redundant switches. So in that**
10 **situation we'd select one root switch out of all what**
11 **you would call access switches.**

12 BY MS. OWENS:

13 Q Okay. So now I want to turn to the '986
14 patent which is Exhibit 1001.

15 A **Okay.**

16 Q And let's turn to column 11.

17 A **Okay.**

18 Q And I'm pointing you to claim 5 of the
19 '986 patent which reads "A method according to
20 claim 4 wherein updating the database comprises
21 changes the entries in the database to point to the
22 second port before receiving the communication

1 traffic from the one or more access switches on the
2 second port."

3 Do you see that?

4 **A Yes.**

5 Q And claim 5 is a dependent claim that
6 depends on claim 4, right?

7 **A Right.**

8 Q And if we go to column 12 and down to
9 claim 17, claim 1 reads "A device according to claim
10 16 wherein the protocol processor is adapted to
11 update the entries in the database to point to the
12 second access port before receiving the communication
13 traffic from the one or more access switches on the
14 second port." Do you see that?

15 **A Mm-hmm.**

16 Q And here claim 17 depends on claim 16,
17 right?

18 **A Right.**

19 Q And both claims 5 and 17 essentially
20 require updating the entries in the database to point
21 to the second port before receiving the communication
22 traffic from the one or more access switches on the

1 second portal, right?

2 **A Yes. It says updating before.**

3 Q And the database claimed in claims 5 and
4 17 when we look back at claims 4 and 16 respectively,
5 the database that they're talking about is the
6 database of the edge switch, right?

7 **A Yes.**

8 Q And in claims 5 and 17 the second port
9 that is being claimed when we look back at claims 4
10 and 16 respectively, the second port is the new port
11 that was placed in the active state, right?

12 **A Right.**

13 Q So just to clarify, claims 5 and 17 are
14 claiming that the edge switches database --

15 **A I completely lost you there.**

16 Q So just to --

17 **A Claim what?**

18 Q Sorry. Let's start again.

19 In claims 5 and 17 the edge switches
20 databases need to be updated to the new active port
21 before receiving communication traffic from the
22 access switches on that new active port, right?

1 **A Yeah. I don't know. I didn't analyze --**
2 **I know in method claims things can be a little**
3 **tricky, but that's not something I analyzed in my**
4 **report. If you could show me where I did it maybe**
5 **would refresh my memory.**

6 **Q It's discussed in the -- in the board's**
7 **decision as well as Dr. Houh's declaration, which I**
8 **understand you reviewed both.**

9 **A Correct. But I didn't -- I don't have any**
10 **opinion on them unless, like I told you earlier, it's**
11 **in my report.**

12 **Q So taking a step more generally, Gai is**
13 **focused on rapidly reconfiguring computer networks,**
14 **right, general?**

15 **MS. CAPPAERT: Object to form.**

16 **A You dropped again.**

17 **BY MS. OWENS:**

18 **Q So taking a step more generally, Gai is**
19 **focused on rapidly reconfiguring networks after a**
20 **link or a port failure, right?**

21 **A Well, I think Gai was targeted toward what**
22 **they described as a problem in a spanning tree**

1 **protocol which is sometimes access switches could**
2 **become root switches and how to prevent that from**
3 **happening in the reconfiguration of -- under a**
4 **spanning tree protocol, a failure of a link in a**
5 **spanning tree protocol, in a network that's running a**
6 **spanning tree protocol, STP.**

7 Q Just to clarify, Gai addresses the
8 limitations of spanning tree protocol by coming up
9 with a solution that rapidly reconfigures a network,
10 right?

11 A **That rapidly reconfigures a network in**
12 **such a way that the access switches don't become root**
13 **switches.**

14 Q Let's go back to Gai then which is
15 Exhibit 1006. Sorry. Strike that.

16 Let's go back to Gai which is
17 Exhibit 1005.

18 A **Okay.**

19 Q Now, if you look at the face of the patent
20 the title is method or apparatus for rapidly
21 reconfiguring computer networks. Do you see that?

22 A **Yes, I do.**

1 Q So you would agree that at a high level
2 Gai is aimed at rapidly reconfiguring computer
3 networks, right?

4 A **The title of Gai is what you said it was.**

5 Q And a goal of rapidly reconfiguring a
6 network is to prevent the loss of network traffic
7 after a link with a port fails; would you agree with
8 that?

9 MS. CAPPAERT: Object to form.

10 A **Yes.**

11 BY MS. OWENS:

12 Q And so network traffic could be lost if it
13 was sent or from a failed port, right?

14 A **Pretty hard to be from a failed port, but
15 you send network -- what happens is the network --
16 it's possible for the network traffic to be dropped
17 because you overflowed a buffer on a link if the link
18 is failed for too long of a time.**

19 Q But let's say -- strike that.

20 Network traffic would be lost if it was
21 sent to a failed port; would you agree with that?

22 A **It can be, yes, depending on the size of**

1 your buffers and how long it takes the link to either
2 reconverge, you know, if we have a reconvergence time
3 in spanning tree protocols, if we have reconvergence
4 time in LSPF or ISIS and how long it take to
5 reconverge. The reconvergence time is something that
6 affects the possibility of packet loss.

7 Q Now, to avoid the potential packet loss in
8 the context of Gai it is beneficial that backup ports
9 are immediately transitioned to the forwarding state
10 in the event of a failure in the original forwarding
11 port; would you agree with that?

12 A Yes. And we're talking about the
13 forwarding port, port towards the root, and so they
14 want to quickly reconfigure the port going towards
15 the root in Gai because Gai is something that's
16 trying to provide detection of a new repaired link,
17 then representing a better path to the root. So
18 they're trying to find a good path to the root in a
19 faster time than what can happen in the traditional
20 STP protocol.

21 Q And so when a switch has a failed port and
22 a backup port is transitioned into the forwarding

1 state, Gai teaches that dummy multicast messages are
2 sent to update the ore devices of the new forwarding
3 port, right?

4 **A It teaches sending the traffic out that**
5 **newly activated port towards the root.**

6 **Q And one -- strike that.**

7 The dummy traffic that is sent out of the
8 new forwarding port is then used to update other
9 devices' databases to use the new forwarding port,
10 right?

11 **A Well, it updates where it's sent it to, it**
12 **sent the multicast traffic upstream towards the root**
13 **traffic and then that information is passed around in**
14 **order to update other databases within the network.**

15 **Q And so it would be beneficial to update**
16 **the other devices' databases quickly to reduce the**
17 **risk of sending messages to the failed port, right?**

18 **MS. CAPPAERT: Object to form.**

19 **A Yeah. You cut out there. Sorry. You**
20 **said it would be beneficial to update quickly? Yes,**
21 **as I said earlier, when reconverging it's beneficial**
22 **to update quickly so that we don't drop -- we lower**

1 **the probability of dropped packets.**

2 BY MS. OWENS:

3 Q Before the switch that's affected by the
4 failure sends dummy messages out of the new
5 forwarding port, that switch needs to know which of
6 its ports is in the forwarding state, right?

7 A **I guess I didn't understand your question.**
8 **It's going to move from a blocked port into a**
9 **forwarding port?**

10 Q So let me reask.

11 A **So -- yes, please.**

12 Q You would agree that dummy messages from a
13 switch are sent through the new forwarding port,
14 right?

15 A **The backup port. It's whatever the backup**
16 **port selected as to when you're going to send the**
17 **dummy multicast messages through, which are going**
18 **towards the root.**

19 Q So let's take a step back. When there is
20 a failure in the original forwarding port the -- a
21 backup port then transitions into the forwarding
22 state and becomes the new forwarding port, right?

1 **A Right.**

2 Q And the switch then sends the dummy
3 multicast messages through that new forwarding port,
4 right?

5 **A Correct.**

6 Q And in order to send the dummy messages
7 out of that new forwarding port the switch needs to
8 update its own database to -- for the new forwarding
9 port information, right?

10 **A I guess what do you mean by update its**
11 **database?**

12 Q So each switch has a forwarding or a
13 filtering database, right?

14 **A Right.**

15 Q And the active or forwarding port for a
16 particular switch is stored in that database, right?

17 **A Yes. That database would contain the**
18 **information.**

19 Q So a switch that is then sending dummy
20 multicast messages out of its new forwarding port
21 would first need to update its database to reflect
22 the new forwarding port, right?

1 **A** Well, it needs to update the information
2 to use it. The -- I don't recall in the '914 patent
3 how they described how that works, where that
4 database or how that's kept. I think it's in there,
5 though. I remember reading it.

6 **Q** So let's go to the Gai patent which is
7 Exhibit 1005. You do of the.

8 **Q** If you go to column 6 beginning at line 42
9 it says "Upon failure of the current root port this
10 command," which is referring to enable uplink fast,
11 "additionally configures the access switch to
12 immediately transition one of its blocked trunk ports
13 to the forwarding state and to also begin
14 transmitting dummy multicast messages through the new
15 port as mentioned above."

16 Do you see that?

17 **A** Yes.

18 **Q** So like we were discussing before, a
19 backup port transitions into the forwarding state
20 upon the failures and dummy multicast messages are
21 then transmitting through the new port, right?

22 **A** Right.

1 Q And so the switch transmitting the
2 multicast -- sorry. Strike that.

3 The switch that sends the dummy multicast
4 messages has to update its own database to reflect
5 the new forwarding port, right?

6 A **It has to update memory. I guess I'm a**
7 **little confused when you say database. What are you**
8 **referring to?**

9 Q I'm referring to the information stored in
10 a particular switch that provides the information on
11 how and where to send messages.

12 A **So a piece of memory I guess. Yeah. Some**
13 **piece of memory has to know that this is the one**
14 **that's been selected to be the port towards the root**
15 **and to start sending dummy multicast messages out**
16 **that.**

17 Q Correct. Would you agree with that
18 statement?

19 A **Yes. It doesn't have to be tied to a**
20 **particular type of database or that it's a forwarding**
21 **database. It just needs to be memory.**

22 Q Just to tie this up, some information

1 storage needs to know that the new forwarding port
2 has been selected in order to begin transmitting the
3 dummy multicast messages out of that port, right?

4 **A Correct.**

5 Q And so you would agree that Gai teaches
6 that once these switches receive the dummy multicast
7 messages they then update their own databases to
8 reflect the new forwarding port, right?

9 MS. CAPPAERT: Object to form.

10 **A Yeah. Sorry. When they receive multicast**
11 **messages?**

12 BY MS. OWENS:

13 Q Let me repeat it.

14 **A Okay.**

15 Q The switches that receive the dummy
16 multicast messages use them to update their own
17 databases to reflect the new forwarding port, right?

18 **A Correct.**

19 Q And then once the databases are updated to
20 reflect the new forwarding port, switches can then
21 send regular network traffic towards the new
22 forwarding port, right?

1 **A Yeah. It's not remembering forwarding**
2 **ports as it is remembering what the source addresses**
3 **it received on that particular port and how to send**
4 **if he has a destination packet with the destination**
5 **address equal to that source address to send it out**
6 **that port.**

7 **Q Once the databases are updated to reflect**
8 **the new forwarding port based on the dummy multicast**
9 **messages that it has received, the switch can then**
10 **resume network -- can then resume the sending of**
11 **network traffic without the risk of messages being**
12 **lost, right?**

13 **A Yeah. I don't understand that question.**
14 **Which switch, who's resuming sending network traffic?**
15 **I'm sorry. Can you break it down a little bit?**

16 **Q Sure. Once the switch that receives the**
17 **dummy multicast message updates its own database to**
18 **reflect the new forwarding port, it can then send**
19 **network traffic with a destination of the new**
20 **forwarding port?**

21 **MS. CAPPAERT: Object to form.**

22 **A That made less sense. Sorry.**

1 BY MS. OWENS:

2 Q One of the reasons that dummy multicast
3 messages are sent is to avoid the loss of network
4 messages that are sent that are directed towards a
5 failed port, right?

6 A They're to notify -- in Gai they're to
7 notify the -- let's say the backbone switch to use --
8 in their example to use port 4 as opposed to -- what
9 was it using? Port 3 before? -- to send the traffic
10 towards that port if you had a destination address of
11 traffic that it received as a source address in the
12 dummy multicast messages.

13 It's updating its entry in the database,
14 if we look at what port 4 was connected to -- switch
15 124. So 124 would learn every source address that it
16 received the dummy multicast messages, when it
17 received a destination address matching that it would
18 update its database, use port 4 to send the traffic
19 out that port and set up another port.

20 Q Okay. So once a particular switch
21 received the dummy multicast messages that are used
22 to update its database to reflect the new forwarding

1 port -- let's say port 4 -- when that switch then
2 sends out network traffic it will use port 4, the new
3 forwarding port, not the old failed port, right?

4 **A Well, the old failed port was going to a**
5 **different switch in Gai. So that's why your question**
6 **kind of confuses me.**

7 **Q On the switch that experienced the failure**
8 **and transitions a backup port to a new forwarding**
9 **port, you would agree that it would be beneficial**
10 **that network traffic is directed to the new**
11 **forwarding port and not the port that failed, right?**

12 **A Yeah. If we look at Gai, for example, we**
13 **send the dummy multicast traffic out from 114 to 124**
14 **and that updates 124 so that when he receives**
15 **information that's, let's say, these LANs down here,**
16 **103 or 102, or server 112, to send it out port 4.**
17 **But 124 wasn't directing it towards port 3 anyway.**
18 **It's more like we have to reconverge to a new path to**
19 **the root and that's something we're working on with**
20 **the sending out of that multicast messages.**

21 **But what happens is it essentially -- when**
22 **the system converges under this protocol of Gai, that**

114

1 **it's no longer sending traffic between I think in the**
2 **example 122 and port 3 of 114.**

3 Q So going off of what you just said, it's
4 important that -- switch 122 when it sends network
5 traffic directed to switch 114, it's important that
6 switch 122 knows to use the new forwarding port on
7 switch 114 which is port 4 based on updates to its
8 database reflecting the new forwarding port?

9 MS. CAPPAERT: Object to form.

10 A **Yeah. 122 doesn't connect to port 4 so it**
11 **can't update its database to send to port 4. So --**

12 BY MS. OWENS:

13 Q Switch 122 had a packet that needed to get
14 to switch 114.

15 A **Right.**

16 Q The original path through port 3 is now
17 blocked. So switch 122 can go -- can send packets
18 through switch 120 to then 121 to 124 to the new
19 forwarding port or new active port on 114, right?

20 A **I mean, the packet that's there when the**
21 **port blocked is dead because it doesn't have any**
22 **information about how to get there. But a subsequent**

1 packet coming in destined for LAN 103 after the
2 databases above converge will end up in the right
3 place probably not even going to switch 122, if that
4 makes sense.

5 So I guess in this example it could learn
6 about port 2 in a subsequent packet if it needed to
7 keep the same diameter and send it out port 2 from
8 when it received the subsequent packet to send it out
9 port 2 to go to switch 114 if like, say, it was going
10 to LAN 103.

11 Q Can switch 114 receive network traffic
12 over the new forwarding port which is port 4?

13 A Yeah. It'll receive network traffic from
14 people below on the root such as LAN 103 or LAN 102
15 and send it out on port 4 towards switch 124.

16 Q If switch 124 were to send network traffic
17 to switch 114, it would need to know that the new
18 forwarding port is port 4, correct?

19 MS. CAPPAERT: Object to form.

20 A If it was to send traffic that had a
21 destination address of, let's say, LAN 103, and it
22 receives that traffic with that destination address,

1 it would have to know to send that traffic out
2 port 4 -- I'm sorry -- out of its port that's
3 connected to port 4 on switch 114 if that was the
4 shortest-cost path through whatever subsequent the
5 network converged to.

6 It's more in general that it's the
7 lower-level guys that -- you know, we're trying to
8 send traffic towards the root. So it's more like 103
9 is trying to send it towards the designated root in
10 this and that's what it -- 124 is learning about
11 what's going on on LAN 103 by the dummy multicast
12 messages being sent out port 4 on switch 114.

13 BY MS. OWENS:

14 Q Let me try to ask this in a simpler way.
15 Can switch 114 receive network traffic?

16 A And what does that mean, network traffic?

17 MS. CAPPAERT: Object to form.

18 THE WITNESS: Sorry.

19 BY MS. OWENS:

20 Q Can network traffic have a destination
21 of -- strike that.

22 MS. OWENS: Why don't we take a quick

1 five-minute break and return to just finish up
2 quickly.

3 THE WITNESS: Okay.

4 MS. CAPPAERT: Okay.

5 THE VIDEOGRAPHER: The time is 2:46 p.m.
6 We are now off the record.

7 (Recess from 2:46 p.m. to 2:53 p.m. EST.)

8 THE VIDEOGRAPHER: The time is 2:53 p.m.
9 We are now on the record.

10 BY MS. OWENS:

11 Q So, Dr. Olivier, before we took our break
12 we were discussing one embodiment discussed in Gai
13 where there's a failure on a forwarding port on
14 switch 114, right?

15 A Correct.

16 Q And so once the backup port is
17 transitioned into the forwarding state on switch 114,
18 switch 114 then sends out dummy multicast messages to
19 inform other devices such as switch 124 of the new
20 forwarding port, right?

21 A Yes.

22 Q And so as an example the new forwarding

1 port on switch 114 might be port 4, right?

2 **A Yes. In the embodiment of Gai that's**
3 **what's taught.**

4 Q So if we turn to Gai in column 13 in
5 Exhibit 1005 --

6 **A Yes.**

7 Q -- if you go to column 13 beginning line
8 34, the passage reads "Since the multicast message
9 400 having the source address of server 112A was
10 received by backbone switch 124 at a new source port,
11 this new location information is entered by backbone
12 switch 124 into its filtering database, replacing the
13 previous information that was stored therein."

14 Do you see that?

15 **A Yes.**

16 Q And so that's referring to switch 124
17 updating its filtering database to reflect the new
18 forwarding port 4 and getting rid of information
19 relating to the failed port 3, right?

20 MS. CAPPAERT: Object to form.

21 **A It's getting rid of information of which**
22 **port it would have to send a packet coming to it that**

1 **was destined for server 112A.**

2 BY MS. OWENS:

3 Q So after receiving the dummy multicast
4 message at switch 124, switch 124 updates its
5 filtering database to reflect which port it now needs
6 to use to get to server 112A?

7 A **Yes.**

8 Q Now, the next sentence in column 13,
9 starting line 38, reads "Thereafter if backbone
10 switch 124 receives a message intended for server
11 112A, it will use this new destination port and the
12 message will be received at port number 4 of switch
13 114 which is now capable of receiving and forwarding
14 messages."

15 Do you see that?

16 A **Yes.**

17 BY MS. OWENS:

18 Q So after switch 124 updates its filtering
19 database if it receives a message intended for server
20 112A it will now use the new forwarding port which is
21 port 4 on switch 114, right?

22 A **It'll use that port that's connected to**

1 port 4, yes. It doesn't know anything that it is
2 port 4. It just knows that its port attached to it
3 is a port. I'm going to send traffic that's destined
4 for 112A, I'm going to send out whatever number that
5 is port on switch 124.

6 Q So just to clarify, if switch 124 receives
7 a message intend for server 112A, it will use
8 whatever the new destination port it updated its
9 filtering database to reflect on switch 114?

10 A Yeah. The dummy multicast message will
11 come in to a particular port on switch 124. Let's
12 call it port A. It'll update its database. Should
13 it receive a message that's destined for 112A, it'll
14 use port A to send it out of. That's the update in
15 the database made in switch 124 as a result of the
16 dummy multicast message being received on port A.

17 Q Okay. Now the next sentence, column 13 of
18 Gai, starting line 43, reads "Accordingly the dummy
19 multicast message 400 effectively apprizes backbone
20 switch 124 of the change in forwarding ports that
21 occurred at access switch 114." Do you see that?

22 A Yes.

1 Q And so the dummy multicast message sent
2 from switch 114 to 124 informs switch 124 of the
3 change in the forwarding port at switch 114, right?

4 A **It doesn't inform it of a change of the**
5 **forwarding port. It informs it of a change in the**
6 **network.**

7 Q So let's look back at this sentence that
8 we just read. So line 13 of Gai -- column 13 of Gai,
9 line 43. "Accordingly the dummy multicast message
10 effectively apprizes backbone switch 124 of the
11 change in forwarding ports that occurred at access
12 switch 114," right?

13 A **That's what it says. And what it's**
14 **learned is a new -- another way -- a way to get to**
15 **server 112A is through whatever port it received on.**
16 **It has no knowledge of that it's labeled number 4 on**
17 **switch 114 and it has no knowledge of port 3 going to**
18 **122. But it is aware that there's been a change in**
19 **the network topology. And that's what be it's being**
20 **apprized of because it says effectively apprizes of**
21 **the change in it.**

22 Q So once backbone switch 124 receives a

1 dummy multicast message, it is apprized of a change
2 in the new forwarding port at switch 114?

3 **A It has no idea what the new forwarding**
4 **port at switch 114 is at all. It just knows to send**
5 **it to switch host 112A to use whatever port he's on**
6 **his particular box that's connected to port 4.**
7 **There's no messages going back and forth that say,**
8 **hey, I'm port 4 or something like that. That never**
9 **happens. So that's why I'm confused with your**
10 **question or the way you're framing it.**

11 **Q I'm just reading what Gai is teaching.**
12 **And we don't have to use the nomenclature of port 4**
13 **or port 3. That was just for simplicity. I'm just**
14 **trying to get clarity on what is updated in the**
15 **filtering database once a switch receives a dummy**
16 **multicast message reflecting a new forwarding port at**
17 **switch 114.**

18 **A Sure. And like I said, it's going to**
19 **update its forwarding database to say whatever port I**
20 **receive that dummy multicast message on I look at the**
21 **source address of that dummy multicast message, I**
22 **take that source address and I tie it to whatever**

1 port he received on switch 124 that dummy multicast
2 message. That's the update that occurs. That's
3 basic switching from 802.1D, basic learning.

4 Q Just to clarify again, once a switch
5 receives a dummy multicast message it updates its
6 filtering database by looking at the source address
7 of that dummy multicast message and it ties it to the
8 port that it received the dummy multicast message on?

9 A Correct. That's described in the
10 paragraph below.

11 MS. OWENS: Okay. I have no further
12 questions.

13 MS. CAPPAERT: I don't have any questions.

14 MS. OWENS: Okay. I think we can go off
15 the record.

16 THE VIDEOGRAPHER: Counsel, does this
17 conclude for today's deposition?

18 MS. OWENS: Yes, it does.

19 MS. CAPPAERT: I reserve the right to read
20 and sign.

21 THE VIDEOGRAPHER: Okay. This concludes
22 for today's deposition. The date is February 14th,

1 2025. The time is 3:04 p.m. We are now off the
2 record.

3 (Reading and signing reserved.)

4 (Whereupon, at 3:04 p.m. EST the remote
5 videotaped deposition concluded.)

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1 REPORTER'S CERTIFICATE

2 STATE OF MINNESOTA)
3 COUNTY OF HENNEPIN)

4 SS.

5 I hereby certify that I reported the
6 remote deposition of JAMES L. OLIVIER, Ph.D. on
7 February 14, 2025, in Bloomington, Minnesota, via
8 Veritext Virtual Videoconference, and that the
9 witness was by me first duly sworn to tell the whole
10 truth;

11 That the testimony was transcribed by me
12 and that this transcript is a true record of the
13 testimony of the witness;

14 That the cost of the original has been
15 charged to the party who noticed the deposition, and
16 that all parties who ordered copies have been charged
17 at the same rate for such copies;

18 That I am not a relative or employee or
19 attorney or counsel of any of the parties, or a
20 relative or employee of such attorney or counsel;

21 That I am not financially interested in
22 the action and have no contract with the parties,
attorneys, or persons with an interest in the action
that affects or has a substantial tendency to affect
my impartiality.

That the right to read and sign the
deposition by the witness was requested.

WITNESS MY HAND AND SEAL THIS 17th day of
February, 2025.

20 
21 JONATHAN WONNELI

22 Notary Public, Hennepin County, Minnesota
My Commission expires January 31, 2027

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