

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CASE IPR2024-00893

PATENT 6,917,986

- - - - - x

JUNIPER NETWORKS, INC.,

Petitioner,

- v. -

PORTSMOUTH NETWORK CORP.,

Patent Owner.

- - - - - x

ZOOM VIDEOCONFERENCE DEPOSITION OF

BRUCE McNAIR

February 27, 2025

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1 ZOOM VIDEOCONFERENCE ORAL DEPOSITION OF
2 BRUCE McNAIR, pursuant to Notice, commencing
3 February 27, 2025, at 9:35 o'clock a.m., on the
4 above date, before Catherine M. Donahue, a
5 Certified Court Reporter and Notary Public in the
6 State of New Jersey.

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8 Magna Job No. 1282304

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

2 (All parties present via Zoom Remote)

3

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I N D E X

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Witness:

Page

BRUCE McNAIR

Examination by Ms. Cappaert..... 7

February 27, 2025



1 E X H I B I T S

2 Exhibit Name Description Page No.

3

4 1 Notice of Deposition of Bruce 10
McNair

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11 (Exhibit retained by counsel.)

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1 DEPOSITION SUPPORT INDEX

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3 Instruction To Witness Not To Answer

4 PAGE LINE

5 None Marked

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7 Request for Production of Documents

8 PAGE LINE

9 None Marked

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11 Marked Text

12 PAGE LINE

13 None Marked

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1 (The witness is sworn by the
2 court reporter.)

3 B R U C E M c N A I R, called as a witness by
4 (Patent Owner), having been first duly
5 sworn by Catherine M. Donahue, a Notary
6 Public within and for the State of New
7 Jersey, was examined and testified as
8 follows:

9 EXAMINATION BY MS. CAPPAERT:

10 Q. Good morning, Mr. McNair.

11 How are you doing today?

12 A. Good.

13 Q. Do you understand that you're here
14 today to be deposed?

15 A. Yes.

16 Q. And that that means that you'll tell
17 the truth?

18 A. Yes.

19 Q. Where are you taking today's
20 deposition from?

21 A. I am at home in my home office.

22 Q. Do you have anyone else in the room
23 with you today?

24 A. No.

25 Q. Do you have any materials or



1 documents in front of you today?

2 A. Counsel for the petitioner sent me a
3 binder which is the clean and unmarked copies of
4 the petition, the '986 patent, the Gai patent,
5 the IEEE conference papers, the Jain patent, my
6 declaration, my CV and the patent owner's
7 preliminary response. That's it.

8 Q. Okay.

9 And all of those, I believe you just
10 said, are unmarked, correct?

11 A. Yes. They are as filed, as I
12 understand.

13 Q. Okay.

14 Have you ever been deposed before,
15 Mr. McNair?

16 A. Yes, I have.

17 Q. About how many times?

18 A. I think 26 or 27 times.

19 Q. Okay.

20 Have you ever been to a virtual
21 deposition before?

22 A. Yes.

23 Q. About how many times?

24 A. Oh, I think probably, probably five
25 or six of them were virtual.



1 Q. Well, you have been deposed several
2 times before, so I won't go through all of the
3 deposition rules with you.

4 But, in general, let's just try not
5 to speak over each other because of the virtual
6 nature of the deposition and so that the court
7 reporter gets an accurate transcript.

8 Does that sound good?

9 A. Fine.

10 Q. I'll try to take a break every hour
11 or so. But if you need a break before then,
12 just let me know.

13 A. Well, here is my measure. When I
14 run out of water, I have to take a break.

15 Q. Sounds good.

16 A. And that's about an hour.

17 Q. Is there any reason you can't
18 testify truthfully and accurately today?

19 A. No.

20 Q. And you're aware that today's
21 deposition relates to IPR2024-00893, correct?

22 A. Correct.

23 Q. And that's the case between Juniper
24 Networks, Inc. and Portsmouth Network Corp.?

25 A. Yes.



1 Q. And it relates to U.S. Patent
2 No. 6,917,986, correct?

3 A. Right.

4 Q. If I refer to the patent as the '986
5 patent, will you understand what I'm talking
6 about?

7 A. Yes.

8 MS. CAPPAERT: So I'm going to
9 just -- I'll upload a few things in a
10 moment, but I'm going to upload
11 Exhibit 2001.

12 Give me a second.

13 BY MS. CAPPAERT:

14 Q. Let me know when you see it.

15 A. I see it. I guess it is marked as
16 document 1 on what I'm seeing. That's notice of
17 my deposition.

18 Q. Okay.

19 (Notice of Deposition of
20 Bruce McNair was marked as Exhibit 1
21 for identification, as of this
22 date.)

23 BY MS. CAPPAERT:

24 Q. And this deposition notice, have you
25 seen it before?



1 A. No, I don't think I have. No.

2 Q. Did you prepare for today's
3 deposition?

4 A. Yes.

5 Q. About how much time did you spend
6 preparing?

7 A. Oh, probably on the order of 10
8 hours, plus or minus.

9 Q. Did you meet with anyone to prepare
10 for today's deposition?

11 A. I spoke to counsel for the
12 petitioner on Zoom calls.

13 Q. About how many hours would you
14 estimate you have spent working on this case to
15 date?

16 A. It is hard to say. You know, it has
17 been over a year since I started this, or it has
18 been about a year since I started it. Well,
19 certainly more than 10 and less than 100.

20 Q. I'm going to upload now a document
21 that has previously been marked as Exhibit 1004.

22 Let me know when you see that.

23 A. I see it.

24 Q. And is Exhibit 1004 your CV?

25 A. Yes.



1 Q. Is this a true and accurate copy of
2 your CV?

3 A. If it is the same as what was filed,
4 what I have here in the binder, yes, it looks
5 like it is.

6 Q. Have there been any updates to your
7 CV since this version was filed?

8 A. Oh, I update continuously as there's
9 new material. So this is -- let's see. I
10 always put the date. This is dated 2/24. So
11 this was a year ago.

12 So there have been, you know, minor
13 updates, things that -- new pieces of
14 information that I think are relevant or new
15 developments or new cases that I have worked on.
16 Things like that, but nothing substantive.

17 Q. How many new cases would you say
18 that you have started working on since you
19 submitted this declaration in this case?

20 A. Oh, I don't remember exactly.
21 Probably, probably eight or so, plus or minus.

22 Q. And in this case, you were retained
23 on behalf of Juniper Networks, correct?

24 A. Correct.

25 Q. Have you been retained by Juniper



1 Networks before?

2 A. Prior to, prior to this time period,
3 no.

4 Q. Have you been retained by Juniper
5 Networks in any other matters?

6 A. I'm trying to think if there were
7 any other. There were a couple of other
8 projects, and I'm trying to separate exactly
9 what they were and whether anything was filed on
10 those.

11 But I may have been -- subsequent to
12 this, I may have been involved in another case,
13 but I don't think anything was filed.

14 Q. Okay.

15 And are you still a distinguished
16 service professor of electrical and computer
17 engineering at Stevens Institute of Technology?

18 A. Yes. Yes, I am.

19 Q. It says on your CV that you retired
20 in December of 2017. But are you still a
21 professor?

22 A. Yes. In 2002, I joined Stevens as a
23 full-time faculty member in August. And a short
24 time after that, probably December of that year
25 or the beginning of the next year, I also began



1 teaching in their online program, their online
2 graduate program in the ECE department.

3 I retired from full-time teaching in
4 2017, but I have continued to teach the same
5 courses that I taught online since 2002, 2003
6 time frame.

7 And, you know, those courses, I have
8 taught on campus, online and on customer sites.

9 Q. And you're currently the CTO of
10 Novidesic Communications, right?

11 A. Correct.

12 Q. And what do you do as CTO of
13 Novidesic Communications?

14 A. Well, I started Novidesic
15 Communications when I retired from AT&T in 2002.
16 And I have been involved in various consulting
17 activities with small companies, large
18 companies.

19 The bulk of the work has been as
20 expert witness work, working for various law
21 firms and clients.

22 But I have also done consulting as
23 part of this for government. I've consulted for
24 AT&T. I've consulted for Lockheed, you know,
25 and other companies in nonintellectual property



1 activities.

2 Q. Do you work with anyone else at
3 Novidesic?

4 A. I do all of the technical work.

5 Q. Are there any other Novidesic
6 employees?

7 A. Not employees, but I've had
8 partners. My wife was a partner in the LLC
9 until she passed, and now my two sons are
10 partners in the LLC.

11 Q. Looking at page 14 of your CV.

12 A. Okay.

13 Q. Let me know when you are there.

14 A. Yes.

15 Q. It says Expert Witness Patent
16 Consulting Experience.

17 Do you see that?

18 A. Yes.

19 Q. And then there are several bullet
20 points next to it?

21 A. Right.

22 Q. And the different bullet points list
23 different types of technology, correct?

24 A. Correct.

25 Q. Are these all of the types of



1 technology on which you have provided expert
2 testimony?

3 A. There may, there may be some others
4 that may be refinements of these, but they cover
5 pretty much all of the broad areas.

6 I think it is -- this probably
7 covers 95 percent of the activities that I have
8 been involved with.

9 Q. What would you say the other five
10 percent relate to?

11 A. Oh, I would have to go through my
12 case list and see because this is part of what I
13 update. I try to keep this as broad reference
14 to the things that I have done as I can to just
15 talk about the breadth of the technology.

16 As I sit here, there's nothing that
17 I can think of that's not listed here. But
18 there may be one or two things that I haven't
19 listed.

20 Q. And then going to page 15, you have
21 law firms supported.

22 Do you see that?

23 A. Yes, including I noticed, Steptoe &
24 Johnson, including somebody by the name of Kate
25 Cappaert.



1 Q. Yes, I do recall that we worked
2 together maybe about --

3 A. Five or six years ago, yes.

4 Q. Yes.

5 So I don't see Wolf Greenfield
6 listed here, though, right. I just wanted to
7 ask why they were not included.

8 A. Because I generated this probably
9 before I started working with them and haven't
10 updated it since. It is probably on my current
11 updated copy.

12 But if they're not on my updated
13 copy, they will be this afternoon or tonight.

14 Q. Sounds good.

15 In terms of -- I think you said you
16 have been deposed about 26, 27 times before.

17 How many of those related to IPR
18 proceedings?

19 A. Let's see. Oh, IPR, probably about
20 18 to 20 of those.

21 Q. And --

22 A. Oh, wait a minute. No, no, that's
23 incorrect. Maybe about half. Probably about
24 half IPR. There's been so many, and it is over
25 such a period of time. I'm not really sure.



1 But I do have -- I maintain a case
2 list just to be able to answer that question,
3 but I don't have it in front of me.

4 Q. Okay.

5 Do you know about how many times in
6 IPRs you have been testifying on behalf of a
7 petitioner?

8 A. It is generally on behalf of the
9 petitioner. Probably about 70 to 80 percent.

10 Q. I'm going to enter another exhibit
11 which was previously marked as Exhibit 1003. It
12 should be document 3.

13 A. Okay, I've got it.

14 Q. And Exhibit 1003 is your declaration
15 in this case, correct?

16 A. Correct.

17 Q. And if you turn to the last page,
18 which is 135, is that your signature on the last
19 page?

20 A. Yes.

21 Q. Do you have any reason to believe
22 that this is not a true and accurate copy of
23 your declaration?

24 A. I don't expect that it is. I would
25 have to compare 135 pages, but it is probably



1 accurate.

2 Q. I will represent that this is the
3 version that was submitted in this case.

4 Who wrote your declaration?

5 A. I drafted the initial material that
6 went into this, and then we tossed it back and
7 forth multiple times as we edited various
8 sections of it, myself and, you know, counsel
9 for the petitioner.

10 But everything that's reflected here
11 is my opinion, and I have reviewed every word
12 several times.

13 Q. About how much time would you say
14 you spent working on your declaration in this
15 case?

16 A. Again, I'm not really sure. But,
17 you know, you asked about how much time I had
18 spent on the case. The majority of the time
19 spent on the case was writing the declaration
20 and reviewing the declaration.

21 So, again, certainly more than 10
22 and less than a hundred. Probably toward the
23 high end of that estimate; closer to a hundred
24 than 10. I don't know what the total amount is.

25 Q. Okay.



1 And then if you go back to the
2 beginning of your declaration, or on page 1,
3 you'll see there's paragraph 2.

4 Let me know when you see that.

5 A. Yes.

6 Q. And it says that you're being
7 compensated for your services at your standard
8 rate of 650 an hour.

9 Do you see that?

10 A. Yes, I do.

11 Q. And then it says plus actual
12 expenses.

13 Do you see that?

14 A. Yes.

15 Q. What do you mean by actual expenses?

16 A. Well, if I incurred any travel
17 expenses, any, any -- if there were any copying
18 expenses, if I had to obtain any materials, like
19 if I had to download something that I had to pay
20 for.

21 I don't think there were any actual
22 expenses. I think it was all time in this
23 particular matter.

24 Q. As part of your work on this case,
25 you reviewed the '986 patent, correct?



1 A. Correct.

2 Q. What does the term upstream mean to
3 you in terms of the '986 patent?

4 A. Okay.

5 Well, the '986 patent describes tree
6 networks which are used in communications to
7 interconnect a series of nodes in the network
8 which are often in this terminology referred to
9 as switches or bridges or whatever.

10 But getting back to graph theory,
11 which this all stems from, a tree is basically a
12 structure that allows interconnection
13 efficiently of a large number of nodes without
14 any loops within the structure.

15 And when we describe trees in this,
16 in graph theory and computer science, it is
17 inverted compared to a tree that grows in
18 nature.

19 So in nature, the root is at the
20 bottom of the tree. But as we draw a tree in a
21 network, we put the root at the top and
22 everything descends down from the root.

23 So upstream means communications
24 which is directed toward the top of the tree,
25 toward the root of the tree.



1 And similarly, downstream is
2 communications that's flowing away from the root
3 towards the leaves of the tree, which are again
4 at the bottom.

5 Q. Okay.

6 So I just want to make sure I
7 understand. So upstream is communications that
8 are going or directed towards the top of the
9 tree, towards the root; is that correct?

10 A. Right.

11 And, of course, you know, they may
12 be directed to nodes that are closer to the root
13 than the node that is sending it.

14 But generally it is in the general
15 direction of the root compared to the node
16 that's doing the transmission.

17 Q. Okay.

18 And then downstream is sending
19 transmissions away from the root, correct?

20 A. That's correct, towards the leaves
21 of the tree or the specific -- it would be the
22 specific leaves that are connected to a
23 particular node.

24 So, you know, if I have a node at
25 one spot in the tree, then the leaves below that



1 particular node have one connection to that
2 node. But we wouldn't be referring to nodes in
3 other sections of the tree that require
4 connection through the root.

5 So downstream is the leaves that are
6 connected below the specific node that's
7 transmitting them.

8 Q. Okay.

9 I'm going to enter now what was
10 previously marked as Exhibit 1001.

11 Let me know when you see that.

12 A. Okay, I see that.

13 Q. And Exhibit 1001 is the '986 patent,
14 correct?

15 A. Correct.

16 Q. Were you familiar with the '986
17 patent before this proceeding?

18 A. No.

19 Q. When is the last time you reviewed
20 the '986 patent?

21 A. Either late last night or early this
22 morning.

23 Q. If you go to Column 3 of the '986
24 patent, it is on page 7 of the pdf.

25 A. Okay.



1 Q. You'll see around line 15, the '986
2 patent states "U.S. Patent No. 6,032,194, whose
3 disclosure is incorporated herein by reference,
4 describes a method for rapidly reconfiguring a
5 computer network based on certain modifications
6 to the standard STP."

7 Do you see that?

8 A. I see that.

9 Q. And the patent number that's
10 referenced, 6,032,194, is also known as the Gai
11 patent; is that correct?

12 A. That's correct.

13 Q. And the Gai patent is one of the
14 prior art references that you reference in your
15 declaration, correct?

16 A. Correct.

17 Q. In your declaration, you assert that
18 the challenged claims of the '986 patent are
19 invalid in view of Gai and then IEEE 1999; is
20 that correct?

21 A. Oh, that's true for 20 of the 24
22 claims. For four of the claims, there's another
23 reference, Jain that's necessary.

24 Q. Okay.

25 So for 20 of the 24 claims, you



1 assert that they're invalid in view of Gai and
2 IEEE 1999. And then for four of the claims, you
3 assert they're invalid in view of Gai IEEE 1999
4 in Jain, correct?

5 A. Correct.

6 Q. And the '986 patent discusses Gai in
7 its specification, correct?

8 A. Yes.

9 Q. And if you look, the '986 patent
10 around Column 3, Line 18, states "The method
11 assumes that the switches in the network,
12 including both core and access switches, have
13 multiple trunk ports providing connectivity to
14 the STP root via trunk switches."

15 Do you see that?

16 A. Yes.

17 Q. And then in a parenthetical it
18 states "These trunk switches are comparable to
19 the core switches and edge switches defined
20 above, and the trunk ports are on the upstream
21 side of each switch, i.e., the side leading
22 toward the root."

23 Do you see that?

24 A. Yes.

25 Q. So in the '986 patent, it is



1 discussing Gai's trunk ports as being on the
2 upstream side of each switch, correct?

3 A. Yes.

4 Q. And the '986 patent is referring to
5 the upstream side of each switch as the side
6 leading toward the root, correct?

7 A. Correct.

8 Q. And then the '986 patent continues.
9 Let me get the -- around Column 3, Line 29, says
10 "The switch then transmits dummy multicast
11 messages toward the root (upstream) through the
12 newly-active trunk port, each containing the
13 source address of a network entity that is
14 coupled to the switch itself or is downstream of
15 the switch."

16 Do you see that?

17 A. Yes.

18 Q. So, here Gai is discussing sending
19 dummy multicast messages upstream, correct?

20 A. That's correct.

21 MR. RADER: Objection to form.

22 But you can answer.

23 A. That's correct.

24 BY MS. CAPPAERT:

25 Q. The portion that I just read does



1 not discuss Gai sending -- strike that.

2 The portion I just read does not
3 discuss Gai transmitting dummy multicast
4 messages downstream, correct?

5 A. That's correct.

6 Q. Okay.

7 And then in the '986 patent, around
8 Column 3, Line 35, the '986 patent states "In
9 order to implement this rapid reconfiguration
10 method, special commands, not a part of the
11 802.1D standard, are used to modify the STP
12 parameters of both the core switches and the
13 access switches in the network."

14 Do you see that?

15 A. Yes.

16 Q. So Gai -- the '986 patent is further
17 disclosing that special commands need to be used
18 to implement Gai's methods into switches on the
19 networks, correct?

20 MR. RADER: Objection to form.

21 But you can answer.

22 A. The patent is describing the fact
23 that Gai has added something to STP. That is
24 the 802.1D standard.

25 And what it is doing is it is giving



1 the network operator a way to designate certain
2 switches in the network, giving them an
3 advantage for reconfiguration in the case of
4 failure.

5 BY MS. CAPPAERT:

6 Q. So the '986 patent is explaining
7 that to implement the rapid reconfiguration
8 method of Gai, special commands that are not in
9 the 802.1D standard --

10 A. I just had an audio failure. You
11 froze.

12 Q. I'm sorry, I'll repeat the question.

13 A. Can you hear me?

14 MR. RADER: Mr. McNair, you're
15 frozen now. So maybe we should give it
16 a minute.

17 A. Are we back?

18 Q. Yes.

19 A. Okay.

20 You froze in the middle of that
21 question.

22 Q. Okay.

23 I can start from the beginning.

24 So the '986 patent is discussing
25 that to implement the rapid reconfiguration



1 method of Gai, special commands that are not
2 part of the 802.1D standard are used to modify
3 the STP parameters of the core and access
4 switches in the network, correct?

5 A. That's correct.

6 Q. I want to look to the claims of the
7 '986 patent. So going to claim 12, and let's
8 look at the last limitation of claim 12, which
9 is at the top of Column 12.

10 Are you there?

11 A. Yes.

12 Q. The last limitation states "Sending
13 dummy traffic from the first bridge over the
14 second link downstream to the second bridge, so
15 as to cause the second bridge to modify its
16 database responsive to the second port being in
17 the active state."

18 Do you see that?

19 A. I see that.

20 Q. So for at least claim 12, there is a
21 claim limitation requiring the dummy traffic is
22 sent downstream, correct?

23 A. That's correct.

24 Q. And then for claim 24, which starts
25 on Column 13 and goes on to Column 14, claim 24



1 states in part, "first and second downstream
2 ports, adapted to be coupled via first and
3 second redundant links to a further bridge
4 device located downstream in the network
5 relative to the spanning tree root," correct?

6 A. Yes.

7 Q. And later in the claim, claim 24
8 states "A protocol processor, which is adapted
9 to place the first downstream port in an active
10 state, while placing the second downstream port
11 in a blocking state, so that communication
12 traffic is conveyed over the first downstream
13 link while the first port is in the active
14 state."

15 Do you see that?

16 A. Yes.

17 Q. So for at least claim 24, there's
18 also a requirement that traffic be conveyed
19 downstream over the first downstream link,
20 correct?

21 A. Correct.

22 Q. And in claim 24, there's also a
23 requirement that dummy traffic is sent over the
24 second link downstream to a bridge device,
25 correct?



1 A. Correct.

2 Q. Okay.

3 I want to go back to your
4 declaration for a minute which was previously
5 marked as 1003 and document 3 in today's
6 deposition.

7 A. Okay.

8 Q. And in your declaration, you have
9 two obviousness grounds, correct?

10 A. Yes.

11 Q. I would like to turn to page 94 of
12 your declaration which is -- give me a minute
13 and I'll get you the actual pdf number. It is
14 page 103 of the pdf.

15 A. Okay.

16 Q. Let me know when you're there.

17 A. Okay.

18 Q. And on page 94 of Exhibit 1003, your
19 declaration, you are discussing claim limitation
20 1E of the '986 patent, correct?

21 A. Correct.

22 Q. And you're discussing that -- this
23 is in the context of your first obviousness
24 ground, right?

25 A. Correct.



1 Q. And in paragraph 165, you state "The
2 '986 patent admits that Gai discloses sending
3 dummy multicast messages (i.e., dummy traffic)
4 upstream using a root port after detection of a
5 link failure."

6 Do you see that?

7 A. Yes.

8 Q. And then in paragraph 172 of your
9 declaration, which is on page 98 of the
10 declaration itself, you also begin that
11 paragraph stating "Gai discloses sending dummy
12 multicast messages to upstream devices after a
13 link failure."

14 Do you see that?

15 A. Yes.

16 Q. And paragraph 172 is followed by an
17 annotated version of Gai, correct?

18 A. Yes.

19 Q. Who annotated this figure of Gai?

20 A. Well, the counsel for plaintiff are
21 the ones who actually produced this, this
22 illustration. But it was after we had
23 discussions about what the meaning of the
24 interconnections of the network were.

25 So I had input to it, but, you know,



1 they're the ones who actually drew it.

2 Q. Okay.

3 And in this figure, there is access
4 switch 114, correct?

5 A. Yes.

6 Q. And that's colored in a blue teal
7 color?

8 A. Correct.

9 Q. And there's server 112a, which is
10 colored in purple, correct?

11 A. Right.

12 Q. And then backbone switch 124, which
13 is orange, right?

14 A. Correct.

15 Q. And annotated Figure 1 of Gai as
16 shown in your declaration shows dummy multicast
17 messages being transmitted from port 4 of access
18 switch 114 towards backbone switch 124, correct?

19 A. That's correct.

20 Q. So in this annotated figure, dummy
21 traffic is being transmitted upstream from
22 access switch 114, correct?

23 A. That's correct.

24 Q. Does this annotated figure reflect
25 your understanding that Gai transmits dummy



1 traffic upstream?

2 A. Yes.

3 Q. And then in the following paragraph
4 you discuss downstream directionality, correct?

5 A. Correct.

6 Q. So in paragraph 173, you state "It
7 would have been obvious to POSAs to send dummy
8 multicast messages both upstream, as explained
9 above, as well as downstream."

10 Do you see that?

11 A. Yes, I do.

12 Q. And you do not cite in paragraph 173
13 to any portion of Gai in support of your
14 statement, correct?

15 A. In support of the downstream
16 transmission, no, I don't depend on Gai for
17 downstream transmission.

18 Q. Instead, you rely on a secondary
19 reference, IEEE 1999, correct?

20 A. Correct.

21 Q. And you rely on IEEE 1999 in your
22 obvious combination for downstream
23 transmissions, correct?

24 A. Well, I rely on IEEE 1999 for the
25 motivation to consider that it would be useful



1 to transmit information downstream and to modify
2 Gai using Gai's dummy traffic motivated by the
3 realization that IEEE 1999 is suggesting that
4 communications in both up and downstream
5 direction would be useful to accelerate the
6 recovery process or reconfiguration.

7 Q. Okay.

8 As part of your discussion in
9 paragraph 174 in your declaration, you note that
10 "Gai's backbone switches could send Gai's dummy
11 traffic both upstream and downstream when
12 modified with or in view of IEEE's
13 disclosure" -- strike that.

14 In paragraph 174 of your
15 declaration, you note that "Gai's backbone
16 switches to send Gai's dummy traffic upstream
17 and downstream when modified in view of IEEE
18 1999's disclosure that it was advantageous to
19 send self-healing messages both upstream and
20 downstream," correct?

21 A. Correct.

22 Q. And you state that doing so has the
23 known benefit of reducing the total link
24 recovery time since the failure notification is
25 propagated in all directions substantially



1 simultaneously, correct?

2 A. Correct.

3 Q. I'm going to enter Exhibit 1009,
4 what was previously marked as Exhibit 1009.

5 Do you see that?

6 A. Yes.

7 Q. And Exhibit 9 is what --
8 Exhibit 1009 is what you referred to as IEEE
9 1999, correct?

10 A. That's correct.

11 Q. And IEEE 1999 discusses the EtheReal
12 switch architecture, correct?

13 A. Yes.

14 Q. What is EtheReal?

15 A. Well, it is an experimental system
16 that was created by the authors of this paper
17 using standard off-the-shelf devices that could
18 be used as switches to basically simulate the
19 operation of an IEEE 802.1D type of network.

20 Q. The title of this paper is Automatic
21 Fault Detection and Recovery in Real Time
22 Switched Ethernet Networks, correct?

23 A. Yes.

24 Q. So is it fair to say that IEEE 1999
25 is fault detection and recovery?



1 A. That's the title. But, you know, to
2 me it is broader than that because, you know,
3 that's describing what might happen in the case
4 of failure.

5 But, you know, there's also -- it
6 would be recognized that there would be
7 reconfiguration situations.

8 So really any change in the network,
9 whether it is because of a link or node failure
10 or because somebody plugged in some new hardware
11 that is recognized, I think it would be
12 recognized by anybody familiar with 802 networks
13 that there are many reasons for reconfiguration.

14 But most frequently, you know, you
15 can't plan for a fault. So you need a way to
16 recover from a fault and recover from that
17 fault.

18 But it could also just as well be
19 because you are planning on making additions to
20 the network and you would like the network to be
21 able to recover from those as well.

22 So I wouldn't limit it to just fault
23 detection or recovery, but that's certainly the
24 motivation that they were moving towards to get
25 the maximum speed.



1 Q. So, in your view, you wouldn't limit
2 IEEE 1999 to fault recovery, but you recognize
3 that that was the motivation that the authors
4 were moving to; is that fair to say?

5 A. That's fair.

6 Q. If we go to the bottom of -- the
7 page is 167 of IEEE 1999. It is page 7 of the
8 pdf.

9 Let me know when you see it.

10 A. Yes.

11 Q. There is a section called 4.2 Fault
12 Recovery.

13 A. Right.

14 Q. And IEEE 1999 discusses three areas
15 that the fault recovery mechanism spends time
16 in; is that right?

17 A. Yes.

18 Q. The first is terminating connections
19 going through the faulty link/switch, correct?

20 A. Correct.

21 Q. The second is reconfiguring the
22 spanning tree, right?

23 A. Yes.

24 Q. And then the third is
25 re-establishing the connections that were torn

1 down, right?

2 A. Right.

3 Q. And as part of this process, which
4 is discussed further in the paragraph following
5 those three numbered areas, IEEE 1999 states
6 that a teardown message is sent to the
7 upstream/downstream sources of the outgoing
8 connections, correct?

9 A. Correct.

10 Q. And this teardown message is sent to
11 terminate the connections through a failed link,
12 correct?

13 A. That's correct.

14 Q. The teardown message is not sent to
15 reconfigure the spanning tree, correct?

16 A. Well, the -- no, the teardown
17 message is not sent to reconfigure the spanning
18 tree.

19 But the necessary step, once a
20 teardown message is sent, is that the spanning
21 tree will need to be reconfigured.

22 Q. But the teardown message is not sent
23 to reconfigure the spanning tree, correct?

24 A. No, that's not the intent of the
25 teardown message. It is to tear down. It is a



1 teardown message. It is to tear down a
2 connection.

3 Q. Okay.

4 And then looking in the next column
5 of IEEE 1999, still on page 167, there's
6 Table 1.

7 Do you see that?

8 A. Yes.

9 Q. And Table 1 splits the fault
10 recovery into three sections, correct?

11 A. Correct.

12 Q. And those are the three sections
13 that we were talking about previously.

14 The first is connection termination,
15 the second is spanning tree reconfiguration, and
16 the third is connection re-establishment, right?

17 A. Yes.

18 Q. So terminating the connection occurs
19 before the spanning tree reconfiguration, right?

20 A. That's correct.

21 Q. Okay.

22 I want to go back to your
23 declaration for a minute.

24 A. Okay.

25 Q. Specifically -- I'm just trying to



1 find the pdf page for you. Give me a minute.

2 It is paragraph 135 on page 77 of
3 your declaration, which is 86 of the pdf.

4 A. Okay.

5 MR. RADER: I'm sorry, could you
6 just repeat that number?

7 MS. CAPPAERT: Sure.

8 Paragraph 135 of the declaration.
9 It is page 77 of the declaration itself,
10 which is 86 of the pdf.

11 MR. RADER: Thank you.

12 BY MS. CAPPAERT:

13 Q. And the declaration states "POSAs
14 would have understood that a switch that
15 receives a teardown message updates its
16 filtering database such that the failed
17 connection is terminated."

18 Do you see that?

19 A. Yes.

20 Q. The teardown message itself is what
21 terminates the faulty connections, correct?

22 A. Let's see, you said the teardown
23 message itself is what terminates the
24 connection?

25 Q. Yes.



1 A. Is that what you said? That's what
2 IEEE 1999 is disclosing, correct.

3 Q. Okay.

4 And in IEEE 1999, the teardown
5 message is sent as part of the connection
6 termination step, correct?

7 A. Yes.

8 Q. It is not part of the
9 reconfiguration step, correct?

10 MR. RADER: Objection to form.

11 But you can answer.

12 A. Correct. Again, as I said before,
13 it is not part of the reconfiguration, but it is
14 what triggers the reconfiguration in IEEE 1999.
15 BY MS. CAPPAERT:

16 Q. And updating databases in each
17 switch is going to occur during the
18 reconfiguration of the spanning tree, correct?

19 A. During or subsequent to, yes.

20 Q. What do you mean by during or
21 subsequent to?

22 A. Well, I can imagine that there will
23 be a wide reconfiguration through a network, you
24 know, depending on where the failure occurs.

25 So there may be stages of



1 reconfiguration that I could imagine would exist
2 in a network as the spanning tree is recreated.

3 Q. All right.

4 MS. CAPPAERT: Why don't we take
5 a five-minute break?

6 THE WITNESS: Okay.

7 MS. CAPPAERT: Off the record.

8 (Whereupon, at 10:23 o'clock
9 a.m., a recess was taken until 10:30
10 o'clock a.m.)

11 MS. CAPPAERT: Back on the
12 record.

13 BY MS. CAPPAERT:

14 Q. Okay.

15 I'm going to enter what was marked
16 as Exhibit 1005 previously, and it is
17 document 6. Let me know if you see it.

18 Do you see Exhibit 1005?

19 Did we lose Mr. McNair?

20 A. Yes.

21 Q. I think your video went off.

22 A. Oops. Wait a minute, now my audio
23 went off.

24 Audio and video are back on.

25 Q. Great.



1 Do you see Exhibit 1005?

2 A. Yes.

3 Q. 1005 is the Gai reference, correct?

4 A. That's correct.

5 Q. I want to go to Column 5 of 1005,
6 which is on page 12 of the pdf.

7 A. Okay.

8 Q. And around Line 35, Column 5, Gai
9 states "Briefly, the invention relates to a
10 method and apparatus for rapidly reconfiguring a
11 computer network."

12 Do you see that?

13 A. Yes.

14 Q. And then a little bit further down
15 around Line 44 of Column 5, it states "Upon
16 detection of a failure at the active forwarding
17 port, the state of one of the back-up ports
18 immediately transitions from block to
19 forwarding, thereby becoming the new active port
20 for the device," correct?

21 A. Correct.

22 Q. And then, if you look at the
23 beginning of the next paragraph, which starts
24 around Line 54, it states "Upon transition to
25 the new forwarding port, the device begins



1 transmitting dummy multicast messages through
2 the new port."

3 Do you see that?

4 A. Yes.

5 Q. So in Gai, the dummy traffic begins
6 transmitting after transitioning to the new
7 forwarding port, correct?

8 A. That's correct.

9 MS. CAPPAERT: I have no further
10 questions at this time.

11 MR. RADER: The petitioner has no
12 questions.

13 Thank you.

14 We would like a copy.

15 MS. CAPPAERT: We can go off the
16 record.

17 Off the record.

18 (Whereupon, at 10:33 o'clock
19 a.m., the deposition was concluded.)
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INSTRUCTIONS TO WITNESS

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Read your deposition over carefully. It is your right to read your deposition and make changes in form or substance. You should assign a reason in the appropriate column on the errata sheet for any change made.

After making any change in the form or substance, and which have been noted on the following errata sheet, along with the reason for any change, sign your name on the errata sheet and date it.

Then sign your deposition at the end of your testimony in the space provided. You are signing it subject to the changes you have made in the errata sheet, which will be attached to the deposition before filing. You must sign it in front of a notary public. Any competent adult may witness your signature.

Return the original errata sheet to the court reporter promptly. Court rules require filing within 30 days after you receive deposition.



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SIGNATURE PAGE
OF
BRUCE McNAIR

I hereby acknowledge that I have read the foregoing deposition, dated February 27, 2025, and that the same is a true and correct transcription of the answers given by me to the questions propounded, except for the changes, if any, noted on the attached errata sheet.

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WITNESSED BY: _____

DATE: _____



1 C E R T I F I C A T E

2 STATE OF NEW JERSEY)

3) SS:

4 COUNTY OF MONMOUTH)

5

6 I, CATHERINE M. DONAHUE, a Certified Court
7 Reporter and Notary Public within and for the
8 State of New Jersey, do hereby certify:

9 That the witness whose deposition is
10 hereinbefore set forth was duly sworn by me and
11 that such deposition is a true record of the
12 testimony given by such witness.

13 I further certify that I am not related to
14 any of the parties to this action by blood or
15 marriage, and that I am in no way interested in
16 the outcome of this matter.

17 IN WITNESS WHEREOF, I have hereunto set my
18 hand this 5th day of March, 2025.

19

20

Catherine M. Donahue

CATHERINE M. DONAHUE, CCR

21

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