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Transcript of Patrick McDaniel, Ph.D.

Date: June 4, 2024

Case: Samsung Electronics -v- Headwater Research (PTAB)

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WORLDWIDE COURT REPORTING & LITIGATION TECHNOLOGY

1 UNITED STATES PATENT AND TRADEMARK OFFICE

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3
4 BEFORE THE PATENT TRIAL AND APPEAL BOARD
5

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7 SAMSUNG ELECTRONICS CO. LTD.,

8 Petitioner,

9 v.

10 HEADWATER RESEARCH LLC,

11 Patent Owner.
12

13 Case No. IPR2023-01250

14 U.S. Patent No.: 9,277,433

15 DEPOSITION OF

16 PATRICK McDANIEL, Ph.D.

17 Tuesday, June 4, 2024
18

19 Job No.: 540560

20 Pages: 1 - 125

21 Stenographically Reported By:

22 Alison C. Webster, CSR-6266, RPR, RMR, CRR, RDR

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Deposition of PATRICK McDANIEL, Ph.D.,
produced as a witness at the instance of the Defendant, and
duly sworn, was taken in the above-styled and numbered cause
on Tuesday, June 4, 2024, from 11:36 a.m. to 3:39 p.m.
Eastern Time, before Alison C. Webster, RPR, CRR, RMR, RDR,
CSR-6266 (Michigan); License No. 14559 (California); License
No. 084.004953 (Illinois); License No. 23001848
(Washington); CSR-12432 (Texas), reported by stenographic
method, via videoconference, pursuant to the Federal Rules
of Civil Procedure and the provisions stated on the record
or attached hereto.

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T A B L E O F C O N T E N T S

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1 DEPOSITION OF PATRICK McDANIEL, Ph.D.

2 Tuesday, June 4, 2024

3
4 STENOGRAPHER: The attorneys participating
5 in this deposition and the witness have verified that
6 he is Patrick McDaniel, Ph.D. In lieu of an oath
7 administered in person, the witness will visually
8 affirm his testimony in this matter is under penalty
9 of perjury.

10 The parties and their counsel consent to
11 this arrangement and waive any objections to this
12 manner of reporting or admissibility of the
13 transcript.

14 Would counsel please state their appearance
15 and any objections to proceeding in this manner,
16 starting with scheduling counsel.

17 MR. WANG: Thank you. This is Philip Wang
18 of the law firm Russ August Kabat on behalf of Patent
19 Owner Headwater Research LLC. No objection to
20 recording -- or the manner of this deposition.

21 MS. HUANG: Good morning, this is Jennifer
22 Huang, Fish & Richardson, representing Petitioner

1 Samsung, and we also have no objection to the manner
2 of this deposition.

3 STENOGRAPHER: Hearing no objections,
4 Professor McDaniel, would you please raise your right
5 hand.

6 Do you swear or affirm the testimony you
7 are about to give in this matter will be the truth,
8 the whole truth, and nothing but the truth?

9 DR. McDANIEL: I do.

10 STENOGRAPHER: Thank you.

11 You may proceed.

12 MR. WANG: Good morning, Dr. McDaniel.

13 THE WITNESS: Good morning.

14 MR. WANG: We met briefly off the record,
15 but my name is Philip Wang and I represent Patent
16 Owner Headwater Research LLC in this IPR proceeding.

17 PATRICK McDANIEL, Ph.D.,
18 was thereupon called as a witness herein, and after
19 having first been duly sworn to testify to the truth,
20 the whole truth and nothing but the truth, was
21 examined and testified as follows:

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EXAMINATION

BY MR. WANG:

Q. Do you understand that you are under oath today?

A. Yes.

Q. Have you testified under oath before?

A. Yes.

Q. How many times?

A. I think somewhere in the area of about 35
depositions, and in court at least four, five times.

Q. And were those testimonies all in patent cases?

A. No.

Q. About how many were in patent cases?

A. The vast majority.

Q. And how many of those were in IPR proceedings?

A. I'd probably say seven or eight. I'd have to count.

Q. Have you testified under oath via a Zoom or in a
deposition via Zoom before?

A. Yes, several times.

Q. About how many times?

A. Well, they began right around COVID, so I would
probably say six or seven.

Q. So do you understand that even though we're on Zoom

1 today, that the testimony that you give under oath is
2 subject to the same penalty of perjury as though you
3 were testifying in a court of law?

4 A. I do.

5 Q. And it sounds like you're well aware of the ground
6 rules, but I'll just trip over them quickly.

7 So I'm going to assume that you understand
8 the questions that I ask you unless you tell me that
9 you don't understand them; is that fair?

10 A. That's fair.

11 Q. If anything is unclear, please -- you will need to ask
12 me to clarify. Is there anything that would prevent
13 you, Dr. McDaniel, from thinking clearly and
14 testifying truthfully today?

15 A. No.

16 Q. From time to time your counsel may object, but unless
17 instructed, for example, because of attorney-client
18 privilege, you must answer my questions.

19 If at any time you need to take a break
20 during the deposition, just let me know. I only ask
21 that we don't take a break while a question is
22 pending. And we can try to take a break every hour or

1 so.

2 A. That's fine.

3 Q. Dr. McDaniel, you submitted an IPR declaration in this
4 case?

5 A. I did.

6 Q. Do you recall when that was, about?

7 A. I think it was sometime last fall, maybe a little
8 earlier.

9 Q. Dr. McDaniel, do you have any -- did you bring any
10 documents with you or do you have any documents upon
11 you?

12 A. Yeah, I have the full list of documents that were
13 associated with the IPR with me today.

14 Q. Okay. And what are you referring to? Can you tell me
15 what you have?

16 A. There is probably about 50 documents including, it
17 looks like, most of the court proceedings, the
18 patents, the prior art, the referenced materials from
19 the -- from the declaration, the institution
20 decision. I think that's what I see right here.

21 Q. Do you have any windows or communication applications
22 open on your screen?

1 A. I have -- I have an email program that I forgot to
2 shut that I just realized, but it's on a different
3 screen. I'm not actually looking at it.

4 Q. Okay. But then apart from Zoom, do you have any other
5 applications open?

6 A. I actually have the institution decision declaration
7 on my desktop right now. I can close those if you'd
8 like.

9 Q. Okay. You have those open.

10 A. I am closing them. They were just sort of -- I just
11 noticed on the corner of my screen.

12 Q. Oh, okay. All right. And you mentioned it was the
13 institution decision and your declaration --

14 A. Yeah.

15 Q. -- in this case. Okay. All right.

16 When were you first retained in this case?

17 A. You know, I'd have to go look back in my records. I
18 think it was probably early to mid-2023.

19 Q. And do you know approximately how many hours you spent
20 preparing your declaration in this case?

21 A. No, I couldn't hazard a guess. I could find out.

22 Q. Who wrote your declaration?

1 A. I wrote the declaration. These are my opinions. I
2 worked with the attorneys in the development of that,
3 but these are my opinions that I edited.

4 Q. Which attorneys did you work with on your declaration?

5 A. Jennifer Huang, and I don't believe David Kaminsky
6 was -- perhaps David Kaminsky. I would have to go
7 back and look at my email.

8 Q. And was a draft of your declaration provided or did
9 you write it from scratch?

10 A. So I -- the report -- the report was the result of an
11 initial analysis that I did of the prior art and the
12 claims, and then I developed theories. I wrote a
13 fair bit of text. Some of the text was supplied,
14 given to me. Mostly some of the basics of, you know,
15 legal theories and things like that which I edited
16 and adopted into the report.

17 Q. What did you do to prepare for this deposition?

18 A. For about the last ten days, I have been reviewing
19 documents. And then I met with counsel last Friday
20 and then again yesterday. And there were -- I think
21 that's it.

22 Q. So you said you have been preparing for about ten

1 days.

2 A. Yeah. In principle, since last Friday.

3 Q. What documents did you review to prepare for your
4 deposition?

5 A. Most of the documents that I mentioned before that I
6 have with me today.

7 Q. And on Friday, who did you meet with to prepare for
8 your deposition?

9 A. Jennifer Huang and David Kaminsky.

10 Q. Was that via Zoom or a phone call?

11 A. Zoom.

12 Q. And approximately how long was that meeting?

13 A. Friday, it was a little over an hour.

14 Q. And then you said you met again yesterday; is that
15 correct?

16 A. That's correct.

17 Q. And did you meet with the same people?

18 A. I had two meetings. One for a different deposition,
19 although Jennifer Huang was there and we discussed a
20 few of the issues relating to the '433 yesterday
21 morning. And then we had a direct meeting for about
22 half an hour yesterday afternoon.

1 Q. It was by Zoom as well?

2 A. It was.

3 Q. And it was with Ms. Huang and Mr. Kaminsky?

4 A. That's correct. In the morning, there was Sangki --
5 now I'm forgetting his last name.

6 MR. WANG: I'm going to introduce your
7 deposition -- I'm sorry, your declaration. And so I
8 would just send it by the -- by the Chat. And this is
9 already Exhibit 1003 in the IPR record, so I think we
10 can just keep that designation. So I'll send it by
11 Chat.

12 ENTERED INTO THE RECORD:

13 PREVIOUSLY MARKED EXHIBIT 1003

14 11:46 a.m.

15 BY MR. WANG:

16 Q. Could you download this to your computer,
17 Dr. McDaniel --

18 A. Sure.

19 Q. -- and open it?

20 A. Yes.

21 Okay, I have a file folder that contains
22 that exhibit.

1 Q. And do you see that this is Exhibit 1003, or it has
2 the Bates [sic] SAMSUNG 1003 in the bottom right
3 corner?

4 A. I see that.

5 Q. And do you see this is a 189-page document?

6 A. Yes.

7 Q. Does this appear -- and feel free to click through it,
8 but does this appear to be a true and correct version
9 of Exhibit 1003, the declaration that you submitted in
10 this case?

11 A. It does.

12 Q. And the end of it includes your CV. Correct?

13 A. That's correct.

14 Q. All right. As Appendix 1.

15 And could you turn to page 137 of the PDF?

16 A. Sure. I'm there.

17 Q. Does this appear to be a true and correct copy of the
18 first page of your CV?

19 A. It does.

20 Q. Okay. So we'll be discussing this declaration today,
21 but if you prefer to refer to a hard copy version that
22 you have I'm fine with that, but I assume that it will

1 be the same as this document that's Exhibit 1003.

2 A. That's correct. I have a printed out copy that's a
3 clean copy that is not marked up that I have brought
4 today.

5 Q. Okay. Very good.

6 So your declaration was submitted on
7 August 14th, 2023. Correct?

8 A. Yes.

9 Q. And that date is on the first page of your
10 declaration?

11 A. Yes, it appears to be on the cover page.

12 Q. Does your declaration contain a complete statement of
13 your opinions in this case?

14 A. It does.

15 Q. Sitting here, do you have any corrections to your
16 declaration?

17 A. Not that I'm aware of.

18 Q. Do you have any additional opinions to offer that are
19 not in your declaration?

20 A. No, I don't believe so.

21 Q. Okay. Can you turn to paragraph 21 of your
22 declaration?

1 A. Yes.

2 Q. And by the way, Dr. McDaniel, whenever I say "turn to"
3 something, whatever's easiest for you. If you want to
4 look at the PDF version on your screen or your hard
5 copy version, either is fine with me. Just so you
6 know.

7 A. I'll use the electronic version unless I need the
8 longer version.

9 Q. Okay. Do you see in paragraph 21, this is in the
10 Legal Principles section of your report. Right?

11 A. That's correct.

12 Q. And it's under a heading called Anticipation. Do you
13 see that?

14 A. That's correct.

15 Q. Were these principles provided to you from counsel?

16 A. Yes. We discussed all the legal principles and they
17 provided substantive text for these principles.

18 Q. And were -- do you have some understanding of them
19 from other cases or cases where you've been an expert?

20 A. I do.

21 Q. And are these the legal understandings or principles
22 that you applied in this case?

1 A. Yes. As I mentioned, I discussed, you know, anytime
2 there was a legal principle at play, I would discuss
3 with the lawyers. I viewed these as they were part
4 of that and they were consistent with those
5 instructions.

6 Q. Do you have any anticipation opinions in this case?

7 A. The anticipation -- hold on.

8 MS. HUANG: Objection. Form.

9 A. My opinions that I've expressed here are expressed
10 on -- based upon paragraph -- Section 3, Summary of
11 Conclusions formed. These are the -- these are the
12 conclusions that I have come to in the course of the
13 assignment I've had for this case.

14 BY MR. WANG:

15 Q. And what part of your declaration are you referring
16 to?

17 A. Section 3, where the -- I comment on, for each of the
18 grounds, that I have found them to be obvious in
19 light of the prior art.

20 Q. Okay. So ground -- yeah, let's turn to paragraph 16
21 of your declaration. That's where you are referring
22 to. Right?

1 A. That's correct.

2 Q. Okay. And then you list the grounds, which is 1A, 1B,
3 1C, 1D, and 1E. Correct?

4 A. That's what's in the report.

5 Q. And for each of those grounds, the last sentence, it
6 has -- it says "obvious in view of." Correct?

7 A. That's correct.

8 Q. So these are all obviousness grounds?

9 A. They are.

10 Q. So turning to paragraph 21, you state -- which is what
11 I asked you before -- it's under the heading
12 Anticipation. And then that includes the sentence, "I
13 understand that a prior art reference 'anticipates' an
14 asserted claim, and this renders the claim invalid, if
15 all limitations...are disclosed in that prior art
16 reference either explicitly or inherently (i.e.,
17 necessarily present)."

18 Do you have any anticipation opinions in
19 this case?

20 A. I have not expressed an anticipation argument in this
21 document for this exercise.

22 Q. And do you have any opinions about inherency?

1 A. Inherency. In what context?

2 Q. In the context that's written here in paragraph 21,
3 that something is inherently present.

4 A. I haven't -- I haven't offered inherency as a part of
5 an anticipation argument in this document.

6 Q. What about any inherency opinion?

7 MS. HUANG: Objection. Form.

8 A. I can't think of any as I'm sitting here right now.

9 BY MR. WANG:

10 Q. And did you run a keyword search in your declaration?

11 A. Yes, I did.

12 Q. And did you find any mention of "inherent" or
13 "inherency" after the Legal Standards section?

14 A. I did not.

15 Q. So the paragraph 21, the legal principle, do you apply
16 that in your opinions about anticipation?

17 MS. HUANG: Objection. Form. Vague.

18 Unclear.

19 A. Yeah, I haven't -- I haven't offered an anticipation
20 argument.

21 BY MR. WANG:

22 Q. And then after paragraph 21, you state your

1 understanding about obviousness. Do you see that?

2 A. Yes.

3 Q. And did you form this understanding from counsel or
4 were informed by?

5 A. That, and my previous experience, yes.

6 Q. And is that the legal understanding of obviousness
7 that you applied in this case?

8 A. I believe this is the standard, yes.

9 Q. Okay. Can you turn to paragraph 29 of your report?

10 A. Yes.

11 Q. And so here you have your materials considered for
12 your declaration. Correct?

13 A. That's correct.

14 Q. And it includes the exhibits. I see SAMSUNG 1001
15 through 1038. Correct?

16 A. Yes.

17 Q. Okay. So I understand that, but can you clarify what
18 other materials beyond those 38 exhibits that are part
19 of your materials considered for your declaration?

20 A. Oh, for my declaration?

21 Q. Yes.

22 A. Well, I considered all of these in forming my

1 opinions as well as my experience in the field of
2 that of a POSITA.

3 Q. But these were the only documents that you relied on?

4 MS. HUANG: Objection. Unclear. Vague.
5 Confusing.

6 A. Sorry, I think it's -- it begins in paragraph 30, "As
7 part of my independent analysis for this declaration,
8 I have considered the following: the background
9 knowledge/technologies that were commonly known to
10 persons of ordinary skill in this art during the time
11 before the earliest claimed priority date of the '433
12 patent; my [own] knowledge and experiences gained
13 from my work experience in the field of the '433
14 patent and related disciplines; and my experience
15 [in] working with others involved in this field."

16 So to the degree that that list contains
17 the patents-in-suit and the patent history -- and I'm
18 trying to look here, as well as all the materials that
19 are cited within the declaration, I believe that's a
20 complete list.

21 BY MR. WANG:

22 Q. Do you know if this list includes all of the documents

1 you cite within the declaration?

2 A. If it doesn't then it would be, I believe, an error
3 on my part. Anything that were cited would be a
4 material I considered.

5 Q. Can you turn to paragraph 41 of your declaration?

6 A. I'm there. May I have a moment?

7 Q. Yes.

8 A. I'm there.

9 Q. Do you see in this paragraph you discuss a "policy
10 decision point" and a "policy enforcement point"?

11 A. That's correct.

12 Q. What are these things?

13 A. Beyond the description that I lay here, just very
14 generally, they're broad concepts in computer science
15 and computer systems that talk about the way that a
16 policy, for example, that enforces a resource or
17 allocation, is identified and used. A policy
18 decision point is the point at which a policy is
19 decided on what course of action to take in a given
20 circumstance, and a policy enforcement point is the
21 point at which the place at which that is enforced.

22 Q. Okay. You say that these are broad concepts in

1 computer science and computer systems. Correct?

2 A. That's correct.

3 Q. And have these concepts been known or discussed since
4 the 1970s?

5 A. Yes.

6 Q. As you say in paragraph 40. Correct?

7 A. Yes.

8 Q. Are you familiar with the term "agent"?

9 A. In what context?

10 Q. In computer science.

11 A. Just in general in computer science? Yes.

12 Q. Yes. What's your understanding of that?

13 A. Well, I can give you broad strokes. The full scope
14 of the definition is something I would have to give
15 more thought to, but an agent is often a software or
16 hardware component that performs some action for a
17 larger system.

18 Q. And these concepts that you talk about in
19 paragraph 41, a policy decision point and policy
20 enforcement point, are they agents?

21 A. They certainly could be, but they're not necessarily
22 so.

1 Q. The policy decision point sounds like a location.
2 Right? Is that correct?

3 MS. HUANG: Objection. Calls for
4 speculation.

5 A. Yeah, so this policy decision point is a logical
6 construct. It's a piece of software or a piece of
7 hardware that is, you know, in some location that's
8 making a decision. Usually this is the -- we use the
9 term "points" in this context for policy decision,
10 policy enforcement when we're discussing things like
11 system architecture diagrams.

12 BY MR. WANG:

13 Q. What's the difference between making a policy decision
14 and enforcing a policy decision?

15 MS. HUANG: Objection. Scope.

16 A. Again, these are very broad concepts and it really
17 depends on the context, but a policy decision is
18 often determining what course of action; it's
19 evaluating an environment to figure out what the
20 conditions are and see if they're sufficient to
21 address a policy and deciding what to do. Whereas a
22 policy enforcement point is where you're actually

1 acting upon those things.

2 However, these, again, are very broad
3 concepts and the definitions get a little fuzzy around
4 the edges.

5 BY MR. WANG:

6 Q. Okay. So would it be fair to think of a policy
7 decision point as choosing between two or more
8 policies?

9 MS. HUANG: Objection. Calls for
10 speculation.

11 A. Yeah, can you tell me in what context?

12 BY MR. WANG:

13 Q. I'm trying to -- I understand that the definition --
14 so you have, in footnote 4, "A PDP is '[a] logical
15 entity that makes policy decisions for itself or for
16 other network elements that request such decisions."

17 And I'm trying to understand what a policy
18 decision is. Would picking between two or more
19 policies, selecting one of them, would that be a
20 policy decision?

21 MS. HUANG: Objection. Calls for
22 speculation.

1 A. I'm not sure what you mean by "selecting."

2 BY MR. WANG:

3 Q. Can you give me an example of making a policy
4 decision?

5 MS. HUANG: Objection. Scope.

6 A. In what context?

7 BY MR. WANG:

8 Q. In the context you have in footnote 4 and your
9 description of the PDP.

10 A. Okay. So a policy decision would say, don't go to
11 school if your temperature is 99 or above. So that's
12 a policy that's applied in the real world.

13 Q. And for that example, what would be enforcing that
14 policy decision?

15 A. Staying home from school.

16 Q. And does the enforcement, the decision, include making
17 the determination of your temperature?

18 MS. HUANG: Objection. Speculation.

19 A. I'm not sure I fully understand the question.

20 BY MR. WANG:

21 Q. All right. So the policy decision is, don't go to
22 school if your temperature is 99 or above, and then

1 you said that the enforcement of that policy is, don't
2 go to school. Correct?

3 A. That's correct.

4 Q. So the action taken is staying home, not going to
5 school.

6 MS. HUANG: Objection. Mischaracterizes
7 testimony.

8 A. Can you ask the question again?

9 BY MR. WANG:

10 Q. Yeah, so the action taken is staying home, for
11 example, and not going to school.

12 MS. HUANG: Objection. Mischaracterizes
13 testimony.

14 A. What action? The --

15 BY MR. WANG:

16 Q. The not going to school.

17 A. So not going to school would be acting upon the
18 policy.

19 Q. So in that example there's a decision made that your
20 temperature is greater than 99 degrees. Correct?

21 A. That would be -- yes.

22 Q. And is that part of enforcing the policy?

1 A. Is the act of deciding -- can you try that again?

2 I'm not sure I got that.

3 Q. So my -- I asked that there's a decision made that --
4 your decision or determination made that your
5 temperature is greater than 99 degrees, and we agreed
6 that that was made. Correct?

7 A. Yes.

8 Q. Okay. My question is, is that decision or
9 determination, is that part of enforcing the policy?

10 MS. HUANG: Objection. Form. Unclear.

11 A. Yeah, I mean, I feel like we're getting fairly mirky
12 here. There's not a clean division here between
13 policy enforcement points and policy decision points.
14 The act of assessing whether the policy should be
15 applied wouldn't generally be thought of as
16 enforcement.

17 BY MR. WANG:

18 Q. Would that be part of making the policy decision?

19 MS. HUANG: Objection. Form. Vague.
20 Unclear. Confusing.

21 A. Yeah, it is -- this is getting, again, very mirky for
22 me, but the -- assessing what somebody's temperature

1 would be would be an inpoint to the decision but not
2 necessarily part of the decision.

3 BY MR. WANG:

4 Q. In paragraph 41, and in the footnotes, you discuss a
5 PDP and a PEP. Correct?

6 A. That's correct.

7 Q. These are automatic systems, correct, performed by the
8 computer?

9 A. What do you mean by "automatic"?

10 Q. They make -- they automatically make the policy
11 decision and then they enforce the policy decision.

12 MS. HUANG: Objection. Compound.

13 A. So they can perform that function. Sometimes they'll
14 appeal to a user to determine whether or not to apply
15 the policy, for example. There could be other
16 elements that are participating in the policy
17 decision and when to apply it.

18 So, again, these are very general concepts,
19 and trying to nail it down to one particular set of
20 operations is -- one particular structure would be to
21 ignore the multitude of ways these things can be
22 implemented.

1 BY MR. WANG:

2 Q. What do you mean that "sometimes they'll appeal to a
3 user"?

4 A. Sometimes if a policy is found to be applied, you
5 could appeal to a user, for example, through a user
6 interface and say, should I -- you know, should I go
7 to school? Your temperature is above 99, do you wish
8 to go to school.

9 Q. And in that example the user would be applying the
10 policy. Right?

11 A. The user would be an -- it would be the one that's
12 assisting in the decision process.

13 Q. The one making the decision. Right? If the user can
14 hit yes or no?

15 MS. HUANG: Objection. Form. Confusing.

16 A. Unless the system decides to override the user's
17 wishes.

18 BY MR. WANG:

19 Q. Let's go to the next paragraph, yeah, 42.

20 And here you're talking about the '433
21 patent. Right? Or the '433 specification.

22 A. That's correct.

1 Q. Okay. Do you see you have the phrase "prioritizing,
2 delaying, or blocking application traffic"?

3 A. Yes, I see that.

4 Q. And here you cite to the '433 patent, which is
5 Exhibit 1001, at column 13, lines 21 to 25. Do you
6 see that?

7 A. I do. Could I have the '433 just so I can review
8 what I'm citing here so I can get some better
9 context?

10 Q. Sure. I will send it through the Chat, and feel free
11 to open it.

12 MR. WANG: And, again, I think we can
13 maintain the exhibit number because it's already been
14 introduced, so this is Exhibit 1001 in this IPR
15 proceeding.

16 ENTERED INTO THE RECORD:

17 PREVIOUSLY MARKED EXHIBIT 1001

18 12:14 p.m.

19 A. Found it. I'm just going to take a moment.

20 BY MR. WANG:

21 Q. And can I first ask you, Dr. McDaniel, does this
22 appear to be a true and correct copy of Exhibit 1001,

1 the '433 patent in this case?

2 A. It appears to be, yes.

3 Okay. I'm there. Thank you.

4 Q. Okay. So did you look at column 13, lines 21 through
5 25?

6 A. I did.

7 Q. And so returning to your declaration it doesn't appear
8 to be a quote, but it does cite to this spec for this
9 statement. Correct?

10 A. Yes.

11 Q. Okay. Do you agree that the three actions that you
12 mentioned here, "prioritizing, delaying, or blocking
13 application traffic," are different actions?

14 A. Well, for example, prioritizing can mean delaying.
15 Prioritizing with a priority zero could lead to
16 blocking. So they're three different concepts but
17 they're interrelated.

18 Q. All right. So you agree that they're different
19 concepts, but you believe that they can be
20 interrelated.

21 MS. HUANG: Objection. Misstates
22 testimony.

1 A. So prioritizing, delaying, and blocking are several
2 concepts that deal with application traffic in this
3 context.

4 BY MR. WANG:

5 Q. And you mentioned prioritizing with the number zero.
6 Did I hear you correctly?

7 A. That's one kind of prioritization in general, yes.

8 Q. And did you say that that would be blocking or that
9 would be similar?

10 A. If you have a prioritization that -- well, it would
11 depend on the prioritization scheme.

12 So in general, prioritizing, if you're
13 talking about queuing, can lead to different results.
14 One of the queuing results is zero.

15 Q. Okay. So when you say "queuing," do you mean
16 organizing data into queues and then assigning
17 priorities into the queues?

18 A. That is one way to achieve prioritization, yes.

19 Q. And if you assigned a priority of 1 to a queue, would
20 that be the highest priority?

21 A. Depends on the system.

22 Q. What's typical?

1 A. There is no typical because there's lots of --
2 queuing is a very general concept and there are many
3 ways to achieve queuing and many different queuing
4 levels.

5 Q. Okay. So in terms of assigning a priority, am I
6 understanding you correctly that it could be that the
7 lowest number is the highest priority or the highest
8 number is the highest priority?

9 A. It would depend on the system.

10 Q. And what would happen if you assigned a priority of
11 zero to a queue?

12 MS. HUANG: Objection. Calls for
13 speculation.

14 A. In what context?

15 BY MR. WANG:

16 Q. In the context of a priority queue or a queuing system
17 where you're assigning priorities to queues.

18 A. Absent of the proceedings here, in a queuing scheme
19 queueing value of zero generally means that you would
20 drop the traffic.

21 Q. And would the traffic be discarded?

22 A. Yes.

1 Q. Would there be a way to recover the traffic?

2 MS. HUANG: Objection. Calls for
3 speculation.

4 A. It would depend on the system.

5 BY MR. WANG:

6 Q. Are you aware of a system where, like you described,
7 you have a queue, you assign it to zero, and then the
8 queuing could be reassigned to priority so that it
9 does get transmitted?

10 MS. HUANG: Objection. Scope.

11 A. Yeah, I -- certainly those systems exist out in the
12 wild. I couldn't point to one as I'm sitting here
13 today without further thought.

14 BY MR. WANG:

15 Q. What's a policy engine?

16 A. A policy engine, you know -- and, again, this is a
17 very general concept. A policy engine is -- in the
18 broadest possible terms in computer sciences, is a
19 collection of elements that perform policy functions.
20 But there are many different definitions, and so I
21 don't -- I don't want to say that that covers the
22 full scope.

1 Q. And so policy engine is something that enforces
2 policy?

3 A. That's one thing that it does.

4 Q. And that's what you say in paragraph 42. Right?

5 A. That's correct.

6 Q. And would this be similar to what you described before
7 about the PEP, a logical entity that enforces policy
8 decisions?

9 A. A PEP could be part of a policy engine, yes.

10 Q. Could a PDP be part of a policy engine as well?

11 A. Again, in a broad sense, in the broadest definition
12 possible, yes.

13 Q. What's a policy request?

14 A. In what context?

15 Q. In the context that we're talking about. Have you
16 heard of a policy request?

17 MS. HUANG: Objection. Form.

18 A. Do you want to point me to something?

19 BY MR. WANG:

20 Q. Sure. Just give me one minute.

21 MR. WANG: I'm going to send Exhibit 1023,
22 which is in this proceeding. I'll send it by the

1 Chat.

2 A. Okay.

3 ENTERED INTO THE RECORD:

4 PREVIOUSLY MARKED EXHIBIT 1023

5 12:22 p.m.

6 BY MR. WANG:

7 Q. So I'm sending by this Chat SAMSUNG 1023. This is
8 entitled Network Working Group Request For Comments,
9 RFC, 3198; Terminology for Policy-based Management.

10 Does this appear to be a true and correct
11 copy of Exhibit 1023 that you relied on in your
12 declaration?

13 A. Yes.

14 Q. And is this the document that you cite in footnotes 4
15 and 5 of your declaration?

16 A. Yes.

17 Q. Okay. And, specifically, you cite to page 8.
18 Correct? If you could turn to that.

19 A. I am there.

20 Q. And then this has a definition of "Policy Decision
21 Point." Do you see that?

22 A. Yes.

1 Q. And on the same page is "policy enforcement" and
2 "Policy Enforcement Point"?

3 A. That's correct.

4 Q. And these are consistent with the definition you put
5 in your declaration. Right?

6 A. Yeah, if it's not a word-for-word copy, it's the
7 same.

8 Q. I think you put quotes, so it seems like you are
9 citing it.

10 A. You're correct.

11 Q. So then if you turn to page 9, the next page, it talks
12 about a different term of a "policy request." Do you
13 see that?

14 A. Yes.

15 Q. And so this says that "policy request" is "A message
16 requesting a policy-related service. This may refer
17 to a request to retrieve a specific set of policy
18 rules, to determine the actions to enforce, or other
19 policy requests."

20 Do you see that?

21 A. Yes.

22 Q. And it distinguishes it from the other terms of PEP

1 and PDP. Right?

2 A. Yes.

3 Q. Do you agree with this definition for "policy
4 request"?

5 A. Within the scope of this standard, yes.

6 Q. And then it says, also in the definition, "When sent
7 by PEP to a PDP, it is more accurately qualified as a
8 'policy decision request.'"

9 Do you see that?

10 A. I do.

11 Q. So it -- this describes it as something that can be
12 sent by a PEP to a PDP. Right?

13 A. Yes. As written.

14 Q. And you agree with that. You agree that that is what
15 a policy request is in this context, something that's
16 sent or can be sent by a PEP to a PDP?

17 A. Let's be careful. So there -- this can be many
18 different things. A policy request is any -- within
19 the context of this standard, a policy request is any
20 communication between or within the policy system.
21 And one case is a message sent from a PEP to a PDP.

22 Q. Okay. Can we turn back to your declaration?

1 A. Sure.

2 Q. And can you turn to paragraph 45, please?

3 A. I'm there. Let me read it.

4 Okay.

5 Q. And here you're talking about the '433 patent. Right?

6 A. Yes.

7 Q. And you say that "To enforce the controls, the device
8 includes 'a policy implementation driver/agent 1690."

9 Do you see that?

10 A. Yes, that's what it says.

11 Q. So this driver/agent is the component that's enforcing
12 the policies described by the patent?

13 MS. HUANG: Objection. Mischaracterizes
14 testimony.

15 A. Just a moment, please. I'm just reviewing the
16 patent.

17 Can you ask the question again?

18 BY MR. WANG:

19 Q. My question is, is the driver/agent the component that
20 is enforcing the policies described by the patent?

21 A. In this -- in this embodiment, yes.

22 Q. Does the driver/agent 1690 enforce the policies

1 automatically?

2 A. What do you mean by "automatically"?

3 Q. It acts by itself. It's a computer component that
4 executes and performs by itself.

5 A. I think in this embodiment, it does.

6 Q. Sitting here, are you aware of other embodiments where
7 it doesn't do that?

8 A. I can't think of any as I'm sitting here.

9 Q. Before, we were discussing the actions of prioritizing
10 delaying or blocking. Do you recall that?

11 A. Yes.

12 Q. If we talk about prioritizing first, does prioritizing
13 imply -- if you're prioritizing data, does
14 prioritizing imply that all of the data will -- strike
15 that.

16 Let's talk about the context of data
17 transmissions and pieces of data.

18 A. Outside of these facts.

19 Q. Sure.

20 A. Okay.

21 Q. And then let's talk about prioritizing the pieces of
22 data for a transmission. Are you with me so far?

1 A. Yeah.

2 Q. Does prioritizing imply that all of the pieces of data
3 will be transmitted?

4 MS. HUANG: Objection. Calls for
5 speculation.

6 A. It would depend on the system.

7 BY MR. WANG:

8 Q. What kind of prioritization would not meet that?

9 MS. HUANG: Objection. Calls for
10 speculation.

11 A. Yeah, I mean, there is -- you could have
12 prioritization systems that still heavily weigh
13 higher priorities that the lower priorities may
14 become starved, but, you know, that's one way to
15 implement a system like that.

16 BY MR. WANG:

17 Q. But in a prioritization system, if all of the
18 higher-priority pieces of data are transmitted, then
19 the remaining pieces of data will be transmitted.
20 Correct?

21 MS. HUANG: Objection. Calls for
22 speculation.

1 A. Again, in the broadest possible terms. It would
2 depend on the system. It would depend on the policy
3 and the cost of sending the lower-priority data and
4 whether that was worth it.

5 BY MR. WANG:

6 Q. Is there a prioritization system that prevents
7 lower-priority data from being transmitted entirely?

8 MS. HUANG: Objection. Calls for
9 speculation.

10 A. Again, you know, there are many prioritizations, so
11 I'm sure one of them does.

12 BY MR. WANG:

13 Q. Can you think of any, sitting here?

14 A. I believe under emergency circumstances things like
15 cellular networks actually block out parts of the
16 spectrum for emergency traffic preventing all other
17 communication, so that would be one.

18 MS. HUANG: Counsel, we've been going for
19 about an hour so far. I'm just wondering if there
20 might be a good time to take a break.

21 MR. WANG: Sure, sure. If I could just ask
22 a few more questions and then we can take a break

1 shortly.

2 BY MR. WANG:

3 Q. Just quickly, can you turn to the subsection C,
4 paragraph 47, of your declaration --

5 A. Sure.

6 Q. -- Dr. McDaniel?

7 A. 47, yes, I'm there.

8 Q. Do you see here at the bottom of the paragraph, you
9 say that "During prosecution, the Patent Office did
10 not consider any of Rao, Cole, Freund, Singh and
11 Montemurro"?

12 Do you see that?

13 A. Yes.

14 Q. And what is your basis for saying that?

15 A. I believe there was no direct discussion of those.

16 Q. Did you look for other references in the prosecution
17 history by the same inventors, even if it wasn't the
18 exact prior art reference that you relied on?

19 A. I don't remember.

20 Q. So you don't know whether or not there are related
21 patents or patent applications by Rao and Cole
22 discussed in the prosecution history?

1 A. I wasn't prepared for that today. That was not part
2 of my preparation. I believe there were some other
3 proceedings in which Rao was discussed. I don't know
4 the details off the top of my head.

5 Q. Okay. I just want to make sure. You did not compare
6 these references that you list, Rao, Cole, Freund,
7 Singh, Montemurro to other prior art cited in the
8 prosecution?

9 A. I'm not sure I understand the question.

10 Q. Let me try to rephrase as follows, which is that if
11 patent owner were to argue that there were
12 substantially similar Rao and Cole references
13 considered by the patent office, would you have any
14 reason to dispute that?

15 MS. HUANG: Objection. Calls for
16 speculation.

17 A. I have no idea.

18 BY MR. WANG:

19 Q. Okay.

20 MR. WANG: Let's go off the record.

21 (Off the record at 12:38 p.m.)

22 (Back on the record at 12:45 p.m.)

1 BY MR. WANG:

2 Q. Welcome back, Dr. McDaniel.

3 A. Thank you.

4 Q. Did you discuss anything with your counsel during the
5 break?

6 A. They just sent me an email to remind me to give her a
7 chance to answer questions [sic], and to read the
8 report.

9 Q. Can we look at the claims of the '433 patent you have
10 in your report in the same section we were looking
11 at --

12 A. I think it's in the section before, but...

13 Q. In paragraph 46.

14 A. Oh, you're right. Gotcha. I'm there.

15 Q. In here, you have the claim language for the
16 challenged claims. Correct?

17 A. That's correct.

18 Q. Claims 1 through 20?

19 A. Yes.

20 Q. Let's focus on Claim 1. Do you see, for Claim 1, you
21 have these various identifiers starting with 1.1
22 through 1.7?

1 A. Yes.

2 Q. These were -- these identifies were added by you.

3 Correct?

4 A. Yes.

5 Q. They don't appear in the claim as written.

6 A. No.

7 Q. Do you see Claim 1.6, the language corresponding to
8 that?

9 A. Yes.

10 Q. And throughout this deposition I may refer to claim
11 elements as, for example, Limitation 1.1 or Element
12 1.1 or Claim 1.1, but will you understand that this is
13 what I'm referring to, that -- I'll use the words
14 limitation, element, claim interchangeably?

15 A. Yeah, you're referring to the numbering system that
16 I've provided in my report.

17 Q. Thank you. So 1.6 begins with, "determine whether to
18 apply the one or more Internet activity access
19 controls."

20 Do you see that?

21 A. I do.

22 Q. What's your understanding of an Internet activity

1 access control?

2 A. So this isn't really a term of art. It's a very
3 general concept. It is the controls over a request
4 to use a network, specifically the Internet. But I
5 don't want to provide a tight definition because it's
6 a very broad concept.

7 Q. So you said is a control -- I'm sorry, can you say it
8 again?

9 A. I can try. So it's a very broad concept. So one
10 definition would be a control over a request to use
11 some data service such as would be available on the
12 Internet such as a website or email. But again, it's
13 a very broad concept.

14 Q. A control over a request, is what you said?

15 A. Or over an entire session, for example. Controlling
16 an entire session, not just the request.

17 Q. Returning to the claim language, do you understand
18 Claim 1.6 to be talking about a binary determination
19 of whether to apply the "one or more Internet activity
20 access controls"?

21 MS. HUANG: Objection. Form.

22 A. What do you mean by "binary"?

1 BY MR. WANG:

2 Q. You know what the word "binary" means. Right?

3 A. Yes.

4 Q. A binary yes or no determination about whether to
5 apply the one or more Internet activity actions
6 controls.

7 A. So within the scope of this, whether or not you're
8 going to apply some control is a determination of
9 whether to apply the control. So the -- you either
10 apply it or you don't. What that control is, is, you
11 know, up to the policy.

12 Q. So you said "you either apply it or you don't."

13 A. Yes.

14 Q. And you agree that, whether you apply it or you don't,
15 is a binary decision?

16 A. Logically, yes, whether you apply it or you don't,
17 which is true of policy. What that policy involves
18 and how you would apply it, whether you apply it, is
19 part of the determination step.

20 Q. And the determination step is performed by the one or
21 more processors. Right?

22 MS. HUANG: Objection. Form. Vague.

1 A. The processors are configured to support the
2 determination.

3 BY MR. WANG:

4 Q. Where are you getting the word "support"?

5 A. I'm interpreting "one or more processors configured
6 to," which I believe is 1.4, which is a governing
7 limitation over this particular limitation. It's
8 saying that the one or more processors are configured
9 to determine, in this case.

10 Q. And you stated that "the processors are configured to
11 support the determination." The claim doesn't say
12 "support." Right?

13 A. It does not say the word "support."

14 Q. So where were you getting the word "support"?

15 A. Because the processor is a general purpose hardware
16 component. The determination is software running on
17 the CPU. So the configuration is going to be
18 performed generally unless it's in silico, unless the
19 actual implementation is in silicon.

20 But it's configured to, in my -- in that
21 case, to support termination. It's gonna run, for
22 example, a piece of software that's gonna be

1 performing a determination.

2 Q. All right. So when you're analyzing the claim are you
3 reading Limitation 1.4 to read, configure to support?

4 A. I'm describing -- you asked me what my interpretation
5 of the claim was and I'm providing that context, but
6 I read the claim as written.

7 Q. So you read the claim as written. Are you
8 interpreting it to mean or include one or more
9 processors configured to support?

10 A. I'm -- it's configured to -- as written, it's
11 configured to determine whether I add support as a
12 way of describing how a POSITA would interpret the
13 claim.

14 Q. Do you see on the Limitation 1.7, it begins with "when
15 the one or more Internet activity access controls are
16 to be applied"?

17 Do you see that language?

18 A. That's correct. I see it. Yes, I see it.

19 Q. All right. And that's referring to the determination
20 step in 1.6. Right?

21 MS. HUANG: Objection. Unclear.

22 A. What do you mean -- can you rephrase that question?

1 I'm not sure I've got the intent of what you're
2 asking.

3 BY MR. WANG:

4 Q. We talked about how 1.6 describes a determination.
5 Right? At least I called it a binary determination.
6 Do you follow me so far?

7 A. Yes.

8 Q. All right. And my question is, for Claim 1.7, it
9 begins with "when the one or more Internet activity
10 access controls are to be applied."

11 Do you agree that that is referring to the
12 determination step in 1.6?

13 MS. HUANG: Vague. Unclear.

14 A. So the degree I can understand what you're asking, I
15 would say that the determination to whether apply
16 would lead to a determination to apply the policy,
17 and that's where 1.7 begins.

18 Where it has been determined that one or
19 more activity access control are to be applied, in
20 that sense, that's what 1.6 is determining whether or
21 not that's true.

22 BY MR. WANG:

1 Q. All right. Your opinion is that the determination to
2 whether to apply the one or more Internet access --
3 strike that.

4 Your opinion is that the determination of
5 whether to apply the "one or more Internet activity
6 access controls" would lead to a determination to
7 apply the policy?

8 MS. HUANG: Objection. Misstates
9 testimony.

10 A. Yeah, I'm -- there were -- I didn't follow that
11 question.

12 BY MR. WANG:

13 Q. Okay. You stated that, quote, "I would say that the
14 determination to whether [to] apply would lead to a
15 determination to apply the policy, and that's where
16 1.7 begins."

17 A. I believe that was my testimony.

18 Q. And then when you said "determination to whether [to]
19 apply," is that referring to Limitation 1.6?

20 A. Those are literally the first words of 1.6, yes.

21 Q. And then you would say that that would lead to a
22 determination to apply the policy. Correct?

1 A. It could.

2 Q. And would that be reflected in 1.6 as well?

3 A. The determination, yes. 1.6 talks about the
4 determination of "whether to apply [the] one or more
5 Internet activity access controls."

6 Q. And does 1.6 lead to a determination to apply the
7 policy?

8 A. It can.

9 MS. HUANG: Objection.

10 THE WITNESS: Sorry.

11 MS. HUANG: Yeah, objection. Form.

12 BY MR. WANG:

13 Q. And then you say that -- you used the phrase "that's
14 where 1.7 begins." Do you recall that?

15 A. Yes.

16 Q. What do you mean by that?

17 A. So when the determination of 1.6 is complete and it's
18 determined in the affirmative to apply policy, that's
19 when -- moving on to 1.7 -- when the "one or more
20 Internet activity access controls" are to be applied.
21 That's what I mean.

22 Q. And then everything in 1.7 occurs when that happens.

1 MS. HUANG: Objection. Form.

2 A. So, you know, going to the first sentence, "when
3 [the] one or more Internet activity access controls
4 are to be applied," then what remains in Claim 7 is
5 practiced.

6 BY MR. WANG:

7 Q. And 1.7 talks about aggregation. Correct?

8 A. That's correct.

9 Q. All right. Specifically, aggregating a "network
10 activity for the first Internet access request with
11 network activity for one or more other data
12 communication requests..."

13 A. Yes.

14 Q. And if I use the phrase like "the claimed
15 aggregation," will you understand that that's what I'm
16 referring to, the aggregation as claimed in 1.7?

17 A. Yes, I understand.

18 Q. Do you agree that the claim always performs the
19 claimed aggregation when the "one or more Internet
20 activity access controls" are to be applied?

21 MS. HUANG: Objection. Form.

22 A. I'm not sure I logically understood -- are you

1 asking, when they -- when the claim is applied, the
2 claim is applied? It seems like a topology to me.

3 BY MR. WANG:

4 Q. I don't think I used the word "applied." I said
5 "performed."

6 But do you understand that the aggregation
7 as recited in Claim 1.7 is performed every time,
8 always, "when the one or more Internet activity access
9 controls" are to be applied?

10 MS. HUANG: Objection. Form. Vague.
11 Unclear. Confusing.

12 A. In what context?

13 BY MR. WANG:

14 Q. In the context of the claim.

15 A. So if you're asking me that whenever "one or more
16 Internet activity access controls" are to be applied
17 aggregation must happen as a consequence, then the
18 answer is no. Sometimes there's aggregation and
19 perhaps sometimes there's not.

20 Q. And what you just stated is how you read Claim 1.7?

21 MS. HUANG: Objection. Misstates
22 testimony. Mischaracterizes testimony.

1 A. You're asking -- you were asking me a hypothetical
2 that is -- is there a consequence that whenever one
3 applies Internet access, control aggregation must
4 happen in all cases. So that's a question that isn't
5 really what reads on the claim, it's a question in
6 general.

7 So if you're asking me how I interpret the
8 claim language I can answer questions in that nature,
9 but I don't -- I don't think you're -- I don't think
10 you're -- I don't think I understand your question.
11 Maybe I'll just let you ask it again.

12 BY MR. WANG:

13 Q. So I'm asking you about the claim, and I'll use
14 your -- the terminology of your answer. So Claim 1.7,
15 it states that "when the one or more Internet activity
16 access controls are to be applied."

17 Then do you understand that, as a
18 consequence, aggregation must occur?

19 A. To apply to the claim?

20 Q. Yes.

21 A. So if there was no aggregation. Is that what you're
22 asking? If there was no aggregation, would it still

1 read on a claim?

2 Q. No, no. You used the phrase "as a consequence," and
3 so I want to stick with that. You said -- my question
4 is, when the one or more Internet activity access
5 controllers are to -- are to be applied, as a
6 consequence of that, aggregation must be performed.

7 A. Again, not talking about what's infringing -- or what
8 would infringe on this claim, you can definitely
9 apply Internet activity access controls such as those
10 defined within the scope of this claim and not
11 perform aggregation. That's clear. Right? It's not
12 a consequence of applying those controls. It would
13 depend on the environment whether aggregation
14 happens.

15 Q. Okay. So you don't read Claim 1.7 to be stating a
16 consequence.

17 A. The consequence was the question you were asking me.

18 Q. Let me ask the question a different way. So earlier
19 you testified that, quote, "if you're asking me that
20 whenever one or more Internet activity access controls
21 are to be applied aggregation must happen as a
22 consequence, then the answer is no. Sometimes there's

1 aggregation and [perhaps] sometimes there's not."

2 Do you recall that?

3 A. Yes, as a general rule of applying Internet activity
4 access controls.

5 Q. Does the answer that you gave, that I quoted, does
6 that apply to 1.7?

7 MS. HUANG: Objection. Form. Unclear.
8 Vague. Confusing.

9 A. What do you mean, apply to 1.7?

10 BY MR. WANG:

11 Q. Is the statement or concept that you described, is
12 that a statement or concept about 1.7?

13 MS. HUANG: Objection. Form. Confusing.

14 A. So naturally when -- so the consequence of an
15 Internet activity access control being applied can
16 lead to aggregation sometimes and sometimes not.

17 If aggregation is not performed, then it's
18 not exercising aggregating network activity. But
19 that -- there are many cases where, when you do apply
20 Internet activity access controls, you do perform
21 aggregation.

22 BY MR. WANG:

1 Q. Okay. Is it your opinion that Claim 1.7 can be met
2 when "one or more Internet activity access controls"
3 are to be applied, but the aggregation is performed
4 sometimes?

5 MS. HUANG: Objection. Compound.

6 A. It can be exercised when aggregation is performed.

7 BY MR. WANG:

8 Q. And if aggregation is not performed, that would not be
9 inconsistent with Claim 1.7?

10 A. That -- what do you mean, not inconsistent?

11 Q. Would that be consistent with 1.7?

12 A. Are you saying if you don't perform aggregation of
13 network activity, that it would read on Claim 7?

14 Q. I mean -- sure.

15 A. So, no, if you're not practicing what the claim
16 requires, then you're not -- then it won't read.

17 Q. Okay. Does 1.7 require aggregation to be performed or
18 not?

19 A. The claim says, "one or more Internet activity access
20 controls to aggregate network activity for the first
21 Internet access request with" activity -- "with
22 network activity for one or more other data

1 communication requests."

2 If that is not performed, then it doesn't
3 read on the claim.

4 Q. Are you able to answer whether Claim 1.7 requires
5 aggregation or not?

6 A. I believe I just did.

7 Q. We'll come back to this.

8 Let me ask you about Rao. Can you turn to
9 paragraph 50?

10 A. Sure.

11 Q. Do you see how you discuss in Figure 1A of Rao --

12 A. Can I have one moment, please?

13 Q. Sure.

14 A. I'm just not there yet.

15 Okay. I'm there.

16 Q. Do you see how you discuss Figure 1A of Rao, and also
17 Figure 1C, in paragraph 53?

18 A. I do.

19 Q. And then in paragraph 56, you show a Figure 5A of Rao.
20 Do you see that?

21 A. Yes.

22 Q. What's the difference between Figures 5A and 1C of

1 Rao?

2 MS. HUANG: Counsel, can you provide the
3 exhibit to Dr. McDaniel?

4 MR. WANG: Sure. I will go ahead and send
5 the Rao reference. This is already premarked in this
6 proceeding as Exhibit 1005.

7 MS. HUANG: Thank you.

8 ENTERED INTO THE RECORD:

9 PREVIOUSLY MARKED EXHIBIT 1005

10 1:11 p.m.

11 A. 5A provides a little bit more detail. It actually
12 shows multiple applications and queuing and provides
13 a little bit more information about policies, it
14 would appear.

15 BY MR. WANG:

16 Q. Are these different embodiments?

17 A. I am -- there are a lot of embodiments that are sort
18 of weaved together. I would have to go back and look
19 at it a little bit more carefully, but off the top of
20 my head, I believe 1C is a generalization for 5A.
21 But I would have to go look a little bit further.

22 Q. Do you discuss whether there are separate embodiments

1 for the same embodiment in your declaration?

2 A. Can you point me to something? Maybe I just missed
3 it. I'm just reading this quickly.

4 Q. No, I'm asking if you recall offering opinions about
5 that.

6 A. So I'm just reading the brief description of the
7 drawings. Figure 1C is a block diagram depicting an
8 embodiment of remote access client of the present
9 invention for network communications. And 5A is a
10 block diagram depicting an environment of a client
11 providing client-side application prioritization
12 techniques.

13 So it would -- it would appear that 1C --
14 again, as I said earlier, it's a generalization. I
15 don't see anywhere where I make a distinction between
16 these being different embodiments.

17 Q. All right. Let's turn back to your declaration. Do
18 you see that you start discussing the Cole reference
19 in section B, paragraph 58?

20 A. Yes.

21 Q. Do you recall if the Cole reference discusses a,
22 quote, policy or policies?

1 A. Can I have the reference, please?

2 Q. Sure. I will send and introduce already an exhibit in
3 this proceeding, 1006.

4 ENTERED INTO THE RECORD:

5 PREVIOUSLY MARKED EXHIBIT 1006

6 1:19 p.m.

7 BY MR. WANG:

8 Q. And did you get 1005, Dr. McDaniel, that I sent
9 before?

10 A. Yeah, I was looking at it.

11 Q. And can you confirm that Exhibit 1005 appears to be a
12 true and correct copy of the Rao reference that you
13 relied on?

14 A. Yes, I believe it was.

15 Q. And once you open Exhibit 1006, if you could confirm
16 that it appears to be a true and correct copy of the
17 Cole reference that you relied on.

18 A. It appears so.

19 MS. HUANG: Counsel, is there a question
20 pending?

21 BY MR. WANG:

22 Q. Yes. My question was, do you -- let me read it back.

1 My question is, do you recall if the Cole
2 reference discusses a, quote, "policy," end quote, or,
3 quote, "policies," end quote?

4 A. It does.

5 Q. Where?

6 A. All of the places where it's describing how to change
7 configurations of -- based on network and other
8 information, for example, in Figures 5 and 6 and 6A,
9 6B, 6E. They're all different ways of configuration
10 based on network and device state conditions and how
11 to change the configuration based on those conditions
12 which somebody skilled in the art would understand as
13 a policy.

14 Q. Okay. Do you know if it uses the word "policy" or
15 "policies"?

16 A. I don't remember. And unfortunately my search is
17 broken, sadly, so I can't search for it. But
18 somebody skilled in the art would obviously look at
19 these change in configurations based on network
20 conditions as policy.

21 Q. Let's jump ahead. Can you turn to paragraph 97 of
22 your declaration?

1 A. Sure.

2 Q. And then if it helps you can look at the claim that
3 this appears in, and that's 1.3 right above
4 paragraph 95.

5 A. I'm just -- I'm reading 97 right now.

6 Okay. And you're looking for Claim 1.3?

7 Q. Yeah. I just wanted to provide context. If you
8 wanted to look at Claim 1.3 as well, the language of
9 the limitation, it's above paragraph 95.

10 A. Yes.

11 Q. Okay. My question is, what in Rao do you contend is
12 the network service activity control policy set?

13 A. It's as described in paragraph 97. For example,
14 "'the remote access client 120 may have one or more
15 policies [520 for] specifying client-side
16 prioritization of network communications related to
17 applications."

18 Q. And then you have "policies 520" in bold. Right?

19 A. That's correct.

20 Q. All right. So is that what you are contending is the
21 network service activity control policy set?

22 A. That's one disclosure.

1 Q. And would your opinion be that the policies 520
2 constitutes a network service activity control policy
3 set?

4 MS. HUANG: Objection. Form.

5 A. I believe that is one example, yes.

6 BY MR. WANG:

7 Q. And then in paragraph 98, do you provide another
8 example?

9 A. Yes.

10 Q. And in this example, what would the network service
11 activity control policy set be?

12 A. In that case, the policy is the filtering table.

13 Q. The filtering table would be the network service
14 activity control policy set?

15 A. That is one example where the -- that was in the
16 configurations in the filtering table, yes.

17 Q. Okay. Do you see that for Limitation 1.3, your
18 opinions are in paragraphs 95 through 100?

19 A. Yes.

20 Q. And then it goes on to Limitation 1.4. Right?

21 A. That's correct.

22 Q. So in those paragraphs, 95 through 100, you only

1 mentioned Cole in paragraph 98. Correct?

2 A. That appears to be the only place I mentioned it.

3 Correct.

4 Q. And then you say, in paragraph 98, that "Cole also
5 teaches policies such as when the 'connection manager
6 260 identifies the load on the WWAN modem 230 and asks
7 the user to find a better connection.'"

8 Do you see that?

9 A. As written.

10 Q. And this is your only reliance on Cole for
11 Element 1.3. Correct?

12 A. For the purposes of this exercise, yes.

13 Q. And in this sentence of Cole, what would be the
14 network service activity control policy set?

15 A. It would be the list of policies that are used to
16 govern the different networks.

17 Q. The list of policies of Cole that is used to govern
18 different networks?

19 A. In Cole, that's correct.

20 Q. But, specifically, the example you give is when the
21 connection manager 260 identifies the load on the WWAN
22 modem and asks to find a better connection.

1 A. That's the exemplar that Cole identifies.

2 Q. Is it your opinion that Cole, by itself, discloses a
3 network service activity control policy set?

4 A. What I opine on here is the combination of the
5 Rao/Cole device, and I would say that the last
6 sentence of paragraph 98 is clear on our position. A
7 POSITA would have recognized that the policies of Rao
8 and Cole form the policies used to govern operation
9 of the RCD.

10 Q. Can you turn to Limitation 1.5?

11 A. Sure. Paragraph 103?

12 Q. Yes.

13 A. Yes.

14 Q. And here you're discussing the claim limitation of
15 "access the network service activity control policy
16 set." Correct?

17 A. Yes. That's what claim -- the 1.5 says.

18 Q. In paragraph 104, you say that "It would have been
19 obvious to a POSITA that the RCD's processor would be
20 used to access and execute the various types of
21 policies."

22 A. That's correct.

1 Q. Do you see that? So in your opinion, the processor on
2 the device is accessing and executing the policy set?

3 MS. HUANG: Objection. Form.

4 A. It's accessing the service -- it's accessing it and
5 then using that policy set to enforce policy.

6 BY MR. WANG:

7 Q. As you say here, it "would be used to access and
8 execute the various types of" --

9 A. Okay. Well, let's -- maybe I'll restate.

10 1.5, we're talking about accessing the
11 policy control set. And so in order to act upon
12 policy, to be able to perform the functions of the
13 RCD device, the role call device, one would have to
14 access the policy set in order to evaluate and
15 enforce it as necessary.

16 Maybe I'll just stop there.

17 Q. So the -- yeah, the claim limitation just says
18 "access," but I'm trying to explore why you're saying
19 it would be used to access and execute.

20 Are you saying because it's executing it,
21 it would have to access it in order to execute it?

22 MS. HUANG: Objection. Form.

1 A. A policy must be accessed in order to act on.

2 BY MR. WANG:

3 Q. And your opinion based on the RCD device is that the
4 processor would be used to both access and execute the
5 various types of policies.

6 A. In what context? Are we talking about 1 point --

7 Q. Of your opinion in 104.

8 A. In 104? I'm -- so I'm only referring to the
9 accessing port in 104. There is a justification for
10 why it would be obvious to a POSITA, and that is that
11 in order to have accessing be meaningful, it must be
12 acted upon.

13 Q. Okay. And your opinion also in 104 is that a
14 processor is the only component capable of executing
15 logic to access memory and implement logic for the
16 policy. Correct?

17 A. As written in my report, yes.

18 Q. Let's turn to Limitation 1.6. Can you first take a
19 look at the claim language that's below paragraph 104?

20 A. Yes.

21 Q. And we looked at it before too. Do you see this?

22 A. Yes, I see this.

1 Q. And we talked about this being the determining step.
2 Do you recall that?

3 A. That's correct.

4 Q. All right. Can you please turn to paragraph 109?

5 A. I'm there.

6 Q. I'll just begin by asking you about the first part of
7 it. Do you see how you start with, "To the extent
8 that Rao alone does not render this element obvious,
9 Rao in combination with Cole does"?

10 A. I see that.

11 Q. And so this sentence suggests that your prior
12 paragraphs were about Rao alone rendering this element
13 obvious. Do you agree with that?

14 A. I believe that's true, yes.

15 Q. So then it -- in this paragraph, is it fair to say
16 that you give an alternative opinion based on Cole?

17 A. To the degree that's not a legal term, yes. Yeah.
18 It is -- the combination discloses at least Rao, but
19 also Rao and Cole.

20 Q. Okay. And then after this first sentence, "To the
21 extent that Rao alone does not render this
22 [limitation] obvious, Rao in combination with Cole

1 does," do you see that you have several sentences
2 after that first one?

3 A. Yes.

4 Q. In paragraph 109.

5 A. Yes.

6 Q. You don't mention Rao in those sentences. Right?
7 After the first.

8 A. I don't appear to, no.

9 Q. You don't even mention RCD.

10 A. It would appear so, yes.

11 Q. So is it your opinion that Cole teaches Element 1.6?

12 A. What do you mean?

13 Q. Is it your opinion that Cole discloses Limitation 1.6?

14 A. My opinion is, is that the RCD device, the
15 combination, discloses 1.6.

16 Q. Okay. I want to focus on your opinions after the
17 first sentence when you're talking about Cole, and I'm
18 trying to understand if these opinions are saying that
19 Cole discloses 1.6 or that it renders it obvious.

20 MS. HUANG: Objection. Asked and answered.

21 A. My opinion is that, the RCD device, I'm not rendering
22 an opinion on whether Cole by itself discloses 1.6,

1 I'm merely saying the RCD device. I would have to
2 look a little bit more carefully to answer that
3 question.

4 BY MR. WANG:

5 Q. So you don't have an opinion on whether or not Cole
6 discloses 1.6?

7 A. That is not an opinion that I have rendered in this
8 report. My opinion is that the RCD device discloses
9 1.6.

10 Q. Do you have an opinion that Cole renders 1.6 obvious?

11 A. By itself? Renders single reference obviousness, is
12 that what you mean?

13 Q. I'm asking about Cole -- I'm asking about your
14 discussion with Cole for Limitation 1.6. Do you have
15 the opinion that Cole, yeah, by itself, renders 1.6
16 obvious?

17 A. My opinion is the RCD renders 1.6 obvious. I have
18 not rendered an opinion about Cole by itself
19 rendering it obvious.

20 MR. WANG: Let's go off the record. Now is
21 probably a good time for a break. I'm about to move
22 on.

1 (Off the record at 1:42 p.m.)

2 (Back on the record at 1:59 p.m.)

3 BY MR. WANG:

4 Q. Welcome back, Dr. McDaniel.

5 A. Thank you.

6 Q. Did you discuss the substance of your testimony
7 during -- with counsel during the break?

8 A. No.

9 Q. Let's go back to paragraph 109 that we were discussing
10 before the break. Could you turn to that, please?

11 A. Yes.

12 Q. Do you see that in paragraph 109 -- and it's a long
13 paragraph -- you give two examples from Cole?

14 MS. HUANG: Objection. Form.

15 A. I believe that's true.

16 BY MR. WANG:

17 Q. So in the third sentence it starts, "In one example,"
18 and it cites to Exhibit 1006 which is Cole in
19 paragraph 88.

20 A. Yes.

21 Q. And then further down on that page you say, "In
22 addition, Cole teaches," and then you cite to

1 Exhibit 1006 in paragraph 77 of Cole. Do you see
2 that?

3 A. Yes, I do.

4 Q. Okay. And then you also cite to paragraph 78 on -- at
5 the end of the paragraph, on the next page.

6 A. Yes.

7 Q. And those are the two examples that you mentioned?

8 A. Yes, those are what I mentioned here.

9 Q. The references to Cole at paragraph 88, in one hand,
10 and then in paragraph 77 and 78 on the other hand, are
11 those different embodiments of Cole?

12 MS. HUANG: Objection. Form.

13 A. I don't -- I don't -- I can't see that they're
14 actually referencing two different embodiments, but I
15 would have to look a little bit closer to confirm.

16 BY MR. WANG:

17 Q. Do you recall giving any opinions about separate
18 embodiments -- strike that.

19 Do you recall giving any opinion that these
20 are either separate embodiments or the same embodiment
21 in your declaration?

22 A. I don't -- I don't believe I have.

1 Q. Let's start with the first example. It's on page 77
2 in paragraph 109.

3 A. Yes.

4 Q. Yeah. And you say that, "Thus, Cole teaches applying
5 Internet access controls (asking the user to find a
6 better connection) on behalf of the first end-user
7 application (file download)."

8 Do you see that?

9 A. As written.

10 Q. Okay. And so the aspect that you are mapping to the
11 first end-user application, that's a claim
12 requirement. Right? The first -- that's a claim
13 term, "first end-user application"?

14 A. It is a claim term, yes.

15 Q. And where you're pointing to as the first end-user
16 application is a file download application?

17 A. In this example that's what they use as an exemplar,
18 yes.

19 Q. And there's also -- you use a phrase, "applying
20 Internet access controls."

21 Do you see that?

22 A. Yes.

1 Q. Okay. And where you're contending to be applying
2 Internet access controls is the Cole system asking the
3 user to find a better connection?

4 A. That's correct.

5 Q. I want to turn to the second example when you start
6 talking about "in addition," comma. Do you see that?

7 A. Yes.

8 Q. And for this sentence, you cite to paragraph 77.

9 A. That's correct.

10 Q. And then it continues on the next page.

11 What is the first end-user application in
12 this example?

13 A. It would be whatever application is exceeding the
14 monitor load capacity.

15 Q. So you're talking about the application running on the
16 device that's causing the monitor load exceeding a
17 capacity?

18 A. Right. The Rao/Cole combination would be applying
19 this policy, would observe an application which is
20 using too much bandwidth, and then apply this policy.

21 Q. What if multiple applications are causing the capacity
22 threshold to be exceeded?

1 A. I don't understand the question.

2 Q. Well, you -- that's common for a device to run more
3 than one application. Correct?

4 A. Sure.

5 Q. Okay. And if there's multiple applications that are
6 using capacity, how do you identify the one that's
7 causing the monitor load to exceed the capacity
8 threshold?

9 MS. HUANG: Objection. Calls for
10 speculation.

11 A. So, you know, you're asking me about a hypothetical
12 system where you have multiple systems. In this
13 hypothetical system, a -- you would look at the
14 bandwidth counters that are inside, say, the kernel
15 to determine which application because you can map
16 the process ID of the application to the bandwidth
17 used and so you would figure out when a particular
18 application was exceeding its threshold.

19 BY MR. WANG:

20 Q. Okay. So you're talking about the threshold for the
21 application or for the overall connection?

22 A. Well, in this case for the first application you

1 would be applying, you know, a threshold for an
2 application.

3 Q. Okay. Do you state that in your declaration? Do you
4 have that opinion?

5 A. Not explicitly. Does not look like that I made that.
6 It seemed clear as I wrote it.

7 Q. And what you're saying now is that the first
8 application would be an application that's exceeding
9 the application's own threshold?

10 A. Right. So Rao/Cole combination, Rao is supplying
11 policies to applications and the policy of Cole would
12 be used in conjunction to regulate an individual
13 application.

14 Because 1.6 is talking about regulating or
15 applying Internet activity access control with
16 respect to a first Internet access request by -- on
17 behalf of the first end-user application, in this
18 case.

19 The combination is Rao is going to use
20 that threshold policy on an application.

21 Q. And Cole does not talk about using the threshold
22 policy on an application. Correct?

1 A. I'd have to -- I'd have to look. I don't believe so.

2 Q. And then you talk about Cole "'attempt to establish a
3 connection with a higher bandwidth'" such as "'a
4 visible or invisible network 120 having a higher
5 capacity.'"

6 Do you see that? And then you cite to
7 paragraph 77.

8 A. Yes.

9 Q. So is that where you're mapping to applying an
10 Internet access control?

11 A. That's one example.

12 Q. What other example do you have in your report?

13 A. And that's in the previous -- in the previous part of
14 that paragraph we talked about how asking the user to
15 find a better connection is one example.

16 Q. Right, right. We talked about that before. But
17 then -- I'm talking about, you know, your opinions
18 being with in addition, and then you cite to
19 paragraph 77.

20 A. Right. So the -- all of the policies that we
21 discussed that are application relevant are
22 applicable.

1 Q. Okay. My question is about your opinion beginning
2 with, "In addition, Cole teaches," and I'm trying to
3 understand if, here, you are mapping attempting to
4 establish a connection with a higher bandwidth as
5 applying Internet access controls.

6 A. That's one example, yes.

7 Q. Is there any other example?

8 A. The other example that I've mentioned in 109.

9 Q. All right. Anything else in this paragraph?

10 A. Nothing else in this paragraph.

11 Q. Can we turn to Limitation 1.7, please? This begins on
12 paragraph 110.

13 A. I'm there.

14 Q. And the -- and so the claim language is right above
15 110, and that was something we looked at before. Do
16 you recall that?

17 A. Yes.

18 Q. And then your opinions for Element 1.7 span from
19 paragraphs 110 through 115. Correct?

20 A. Yes.

21 Q. And 115 is a long paragraph spanning multiple pages.

22 A. Yeah. That's correct.

1 Q. Okay. And then your substantive opinions for
2 Limitation 1.7 begin in paragraph 112. Right?

3 MS. HUANG: Objection. Form.

4 A. So all of my opinions are 110 through 115. I'm not
5 really sure what you mean by "substantive," but...

6 BY MR. WANG:

7 Q. Okay. Let's talk about paragraph 111. You say that,
8 "As described in reference to Limitation 1.6, RCD
9 renders obvious determining whether to apply Internet
10 access controls based on which wireless network type
11 is providing data communication."

12 Do you see that?

13 A. I do.

14 Q. And then you refer back to Element 1.6.

15 A. That's correct.

16 Q. So -- and then you say, "When such access controls are
17 applied, RCD renders obvious aggregating network
18 activity for the first Internet access request with
19 network activity for one or more other data
20 communication requests from a second, unrelated
21 application."

22 Do you see that?

1 A. Yes.

2 Q. And is that a paraphrase of the claim language?

3 A. I believe so, yes.

4 Q. Of the claim language of 1.7.

5 A. Yes, I believe so.

6 Q. Okay. So you agree that when the determination in
7 Claim 1.6 is made to apply Internet access controls,
8 that 1.7 then requires this language after
9 aggregating? Aggregating network activity...

10 MS. HUANG: Objection. Asked and answered.

11 A. Yeah, I -- in order to perform the claim it has to
12 execute or it has to perform all of the -- all of the
13 limitations including 1.7.

14 BY MR. WANG:

15 Q. If it is determined in Element 1.6 that Internet
16 access controls are to applied -- are to be applied,
17 do you agree that Limitation 1.7 requires aggregating
18 "network activity for the first Internet access
19 request with network activity for one or more other
20 data communication requests" from a second unrelated
21 application?

22 MS. HUANG: Objection. Asked and answered.

1 A. So to a degree -- it got a little muddled on my side.
2 To the degree you just read claim language, in order
3 to practice the claim you have to perform the
4 functions of the limitation.

5 BY MR. WANG:

6 Q. Okay. And then in paragraphs 112 to 115, you discuss
7 Rao. Correct?

8 A. I do.

9 Q. In those paragraphs is there any mention of Cole?

10 A. I do not believe so.

11 Q. In those paragraphs is there any mention of RCD?

12 A. I do not believe so. Actually -- well, certainly RCD
13 is mentioned in 110 and 111 which sets up the context
14 to interpret 112 through 115.

15 Q. I want to ask you about weighted fair queuing. I know
16 you were probably excited all day to be asked about
17 that.

18 A. You're not wrong.

19 Q. So first can you describe what weighted fair queuing
20 is?

21 A. Yes. Weighted fair queuing is an approach to queuing
22 resources or queuing requests for resources that

1 tries to apply policy to achieve fairness, sometimes
2 prioritized fairness amongst a number of requesters.

3 Q. Okay. Suppose you had pieces of data that were going
4 to be transmitted and they were organized into two
5 queues. Are you with me so far?

6 A. Yes.

7 Q. And we can call the first queue high priority and the
8 second queue low priority. So would -- under a
9 typical queuing priority system, would it transmit all
10 of the pieces of data from the high priority queue
11 first and then move onto the lower-priority queue?

12 MS. HUANG: Objection. Form. Compound.
13 Calls for speculation.

14 A. So just to make sure I understand the scope, we're
15 talking broadly about weighted fair queuing in
16 general networking. Correct?

17 BY MR. WANG:

18 Q. Yes.

19 A. So in the general case, you would almost always want
20 to preserve a small bit of the bandwidth. How much,
21 is really up to the person who's configuring the
22 system for the low priority so that you don't

1 completely starve the low priority in deference.

2 However, you can set a priority system
3 where it does all of the high priority and then
4 what's -- and then you -- and then it serves the low
5 priority when it can, when there's no more high
6 priority. That's called best effort.

7 Q. Excuse me, what was called best effort?

8 A. If you have a configuration where you send all of the
9 traffic for high priority before ever sending
10 anything low priority. The high priority queue has
11 to be empty in order to send anything on the low
12 priority. It's also -- it's also got a second name
13 called "as available."

14 Q. Okay. And would that be the default for a priority
15 queuing system, if there is one?

16 A. That's a very difficult question to answer. There is
17 no default. In general, for most applications you
18 want to preserve some for low priority, so, you know,
19 there is no general. But in the average case that
20 I've seen you almost always preserve at least a
21 little bandwidth for the low priority.

22 Q. And would you say that preserving some bandwidth for

1 lower priority is weighted fair queuing?

2 A. Weighted fair queuing is how you actually implement
3 queuing. It's a technique. Weighted fair queuing
4 could implement that. There is a lot of technical
5 details, things called leaky buckets and a lot of
6 other techniques, but it boils down to weighted fair
7 queuing is -- it really depends on what your weighted
8 fair queueing approach is.

9 Q. Right. And I'm trying to get the terminology
10 straight. So if you just talk about a queuing
11 algorithm then, to me, it doesn't include, you know,
12 the concept of fair, and if we distinguish that from a
13 fair queuing algorithm which would have that concept.
14 So what does, in the abstract, a "queuing algorithm"
15 refer to?

16 MS. HUANG: Objection. Form.

17 A. Yeah, a queuing algorithm is simply a resource
18 scheduling technique for things like bandwidth, disk
19 bandwidth, network bandwidth, memory bandwidth. So,
20 yeah, I'll just answer that question.

21 MR. WANG: I'm going to introduce an
22 exhibit which is premarked as 1013.

1 ENTERED INTO THE RECORD:
2 PREVIOUSLY MARKED EXHIBIT 1013
3 2:26 p.m.
4 BY MR. WANG:
5 Q. And after you've had a chance to open it, can you
6 confirm if this appears to be a true and correct copy
7 of Exhibit 1013 which is a Computer Networks textbook
8 you rely on in your declaration?
9 A. Yes. I see it. It's correct.
10 Q. Okay. Can you turn to page 5 of the exhibit?
11 A. I'm there.
12 Q. So at the bottom of this page it starts discussing the
13 fair queuing algorithm. Correct?
14 A. I think I'm on the wrong page.
15 Yes.
16 Q. So is this describing, you know, multiple senders, and
17 then it's taking one packet from each, in order, and
18 then starting over?
19 A. Yes. This is the round-robin queuing, yes.
20 Q. Is round-robin queuing a form of priority queuing?
21 A. I would not say it's a kind of priority queuing, no.
22 Q. Is it a fair queuing algorithm?

1 A. For one definition of "fair," yes.

2 Q. And what would it be called if, in this example, you
3 took all of the packets from the first sender and then
4 you moved on -- when that first sender was done, and
5 then you moved onto the second one and then did all of
6 the second sender's packets and then the third one,
7 what would that be called?

8 MS. HUANG: Objection. Form.

9 A. Yeah, I don't know that it has -- it has a specific
10 technical name. I think it would be -- in that case,
11 it would be an as available.

12 BY MR. WANG:

13 Q. That would not be round-robin, what I just described?

14 A. No.

15 Q. All right. Let's go to the next page, Figure 536. Do
16 you see that?

17 A. Uh-huh. I see it, yes.

18 Q. Can you explain to me what this is describing and how
19 this works?

20 A. Which paragraph are you talking about?

21 Q. The -- I'm sorry, the figure on Exhibit 1013, the
22 Figure 536.

1 MS. HUANG: Page 6 of Exhibit 1013.

2 THE WITNESS: Yeah, I'm just reading.

3 MS. HUANG: Okay.

4 A. Yeah, so this is a packet link sensitive round-robin
5 solution.

6 BY MR. WANG:

7 Q. You said this is a packet link sensitive round-robin
8 solution?

9 A. Yeah. It's a packet -- a packet -- a packet size
10 aware implementation of round-robin.

11 Q. Okay. And is this a fair queuing algorithm as well?

12 A. For some definition of fair queuing, yes.

13 Q. And can you explain to me how this works or how -- or
14 what this figure shows?

15 A. Sure. So this is a very simple -- this is -- the
16 diagram makes it look more complicated than it is.
17 So each A, B, C, D, and E of this figure, you can
18 think of those as programs inside of an application
19 or inside of a device.

20 And so they're sending packets which are --
21 you know, in networking they're just blocks of data,
22 and the block size changes depending on the

1 application. Sometimes they're small, sometimes
2 they're large.

3 And so what happens in this queuing is that
4 some packets are very large, and so you do the
5 first -- you could do round-robin and you say, well,
6 I'm going to send a packet for A, the first one, and
7 it's going to send it out and it's a very large
8 packet. Say it's -- in this case we'll take the last
9 one, 20, and then they'll go to the second one and
10 send the second one, but it will remember that A sent
11 20 bytes.

12 And so A won't get to transmit again until
13 all of the other endpoints have transmitted at least
14 20 bytes. And so what it's simulating is a
15 byte-for-byte fairness queuing algorithm.

16 Q. And so the -- in this example, what would be the order
17 that the packets are transmitted in?

18 A. That would take a couple minutes to figure out. I
19 would -- I would think we would probably -- and I'm
20 just off the top of my head -- yeah, so it's already
21 actually sorted. There's not enough information here
22 to know because it doesn't actually show the packet

1 sizes.

2 So you know what would happen is you would
3 do 1 through 20, and these are not actually packet
4 sizes, it looks like. Those are actually the
5 finishing times of those actual packets.

6 And so I can't really -- I can't really say
7 without more information. It's just -- it's just
8 demonstrating that they would come, you know -- yeah,
9 this actually -- so what -- okay. I see what -- I see
10 what's happening. I didn't quite read it carefully
11 enough.

12 So what happens is, at each time sync it
13 will find -- it will look at all of the queues, the
14 next packet for all of the queues for A, B, C, D, and
15 E, and it will look at the packet which has the
16 shortest end time, which means the shortest amount of
17 time before it's finishing transmitting. And so what
18 happens is that it then transmits that and then it
19 scans again looking for what's remaining, who has the
20 shortest.

21 And so what that does is it simulates a
22 fairness at a byte-by-byte level.

1 Q. Okay. So the way this would work is it would transmit
2 in the order of C, B, D, E, A?

3 A. I would have to -- yes, actually, so there you go.
4 So those are the first -- oh, I see. Yeah. Yes.
5 The finishing time, it would go C, B, D, E, A. Yes,
6 correct.

7 Q. So I guess I'm not understanding how this is like a
8 fair queuing algorithm. It just seems to be sorting
9 them in priority of the smallest packet or the
10 quickest finishing time.

11 A. Right, that's what it does, but what you have to
12 remember is, that's the first set of packets. There
13 would be a second set of packets that come in behind
14 them and set the order for the second round.

15 So let's say for the argument a packet of
16 size 1, as you -- C had two packets, and the second
17 one was one packet large, then you would get the
18 transmission time would be C, and then C again, and
19 then B, D, E, A. Because C, even after it transmitted
20 the first two, would still have the shortest time to
21 completion.

22 Q. So what -- why is this a fair algorithm or --

1 A. Because you're guaranteed that beyond a certain, you
2 know, packet length that you will always -- yours
3 will always be transmitted when it becomes the
4 shortest. The shortest finish time.

5 And so as you move forward in time, it's
6 almost as if -- in terms of analyzing, after the
7 first packet, after C is sent, you can just cut
8 everything to the left of, say, 11 on A, and just
9 move those two over. And so at that time the
10 shortest one, again, in round-robin, would be B
11 because it's two, D, and E, because they would be
12 two, and then you would shift those over and then you
13 would only have C left. Okay? So that would empty
14 the queue.

15 But what's happening in reality is that
16 there are packets sliding in behind them. So then if
17 you had, say, a packet length of five for C, as these
18 things were sliding over, it would -- it would be the
19 long one. Because it would be the two plus the five.

20 Q. And so this is not a weighted fair queuing algorithm.
21 Correct?

22 A. This is just a fair queuing algorithm.

1 Q. And then it goes on to mention, but does not show,
2 weighted fair queuing on this page. Right? In bold.
3 It says, "This modified algorithm is called weighted
4 fair queuing."

5 A. So the -- yes, it discusses what a weighted fair
6 queuing algorithm is after this.

7 Q. Okay. And then it doesn't really show it, but it kind
8 of references and it references some other papers.
9 Right?

10 A. Well, it actually describes it. It says, you know --
11 it describes what the weights are.

12 So weights are something we use in computer
13 science all the time. Right? And it just says, if
14 you read into the paragraph, one problem for this
15 algorithm where you see the highlighting for fair
16 queuing, it describes how weighted fair queuing works
17 and it assumes the user already knows how to assign
18 weight.

19 Q. Okay. Turning back to your opinions in your
20 declaration. So I think that we've kind of described
21 a few different algorithms. Right? So there's the
22 round-robin. There is what was shown in the figure

1 which --

2 A. A version.

3 Q. Huh?

4 A. A version, yes.

5 Q. What name would you give to what is shown in the
6 figure to refer to it?

7 A. Yeah, I think they call it a byte-by-byte
8 round-robin. I think is Tanenbaum, is the guy who
9 wrote this book.

10 Q. Byte-by-byte round-robin.

11 A. Yeah.

12 Q. There's round-robin by packets, byte-by-byte
13 round-robin, and then the third thing it alludes to is
14 weighted fair queuing. Right?

15 A. Right.

16 Q. So your theory for Limitation 1.7 in Rao, is it the
17 third one, weighted fair queuing?

18 A. Rao talks about a lot of queuing. Weighted fair
19 queuing is one of them, yes.

20 Q. Is your theory based on a round-robin per packet?

21 MS. HUANG: Objection to form.

22 A. It's -- my theory is based on the disclosures of

1 queuing, priority queuing done by Rao.

2 BY MR. WANG:

3 Q. I will ask a better question.

4 Okay. So in -- on page 82, you say that
5 "Since, in Weighted Fair Queuing, higher-priority
6 traffic is allocated a [higher] share of the
7 bandwidth, the packets" --

8 A. I'm sorry, where are you? I lost you here.

9 Q. I'm sorry. Paragraph 115, but on page 82.

10 A. All the way to the bottom. Got it.

11 Q. And so in this paragraph, kind of near the top, you
12 say, "Since, in Weighted Fair Queuing, higher-priority
13 traffic is allocated a larger share of the bandwidth,
14 the packets are communicated consistent with assigned
15 priorities (as taught by Rao), while still allocating
16 some bandwidth to lower-priority packets, avoiding
17 starvation."

18 Do you see that?

19 A. As written.

20 Q. Yeah. And then you say, "Therefore, a POSITA would
21 have found it desirable to implement RCD" -- that's
22 the Rao/Cole device -- "with nonstarvation."

1 Do you see that?

2 A. Yes.

3 Q. So I'm just trying to understand this implementation
4 that you're talking about. Is it a round-robin
5 implementation, a byte-by-byte round-robin, or
6 weighted fair queuing implementation?

7 A. Well, what I'm referring to here in this paragraph,
8 really begins again, one such means that a POSITA
9 would have at their fingertips would be weighted fair
10 queuing, which would implement the priorities as
11 taught by Rao.

12 So the other kinds of queuing, to the
13 degree that they would be, you know, known by a POSITA
14 and would achieve the assigning priorities by Rao, I
15 haven't really thought about that. Weighted fair
16 queuing would be the obvious thing to a POSITA to use,
17 and that at the time, at the critical date, that's
18 what everyone used for implementing these.

19 So are there -- that's an example that a
20 POSITA would know, so they would not have practiced
21 Rao.

22 Q. So you give an example of -- you call this "a second,

1 lower-priority application," and you say, "(e.g.,
2 email or chat)." Right?

3 Do you see that?

4 A. Yes.

5 Q. And then you also say, "a first, higher-priority
6 application (e.g., VoIP)" or voiceover IP. Right?

7 A. That's correct.

8 Q. So let's imagine that there is -- and tell me if this
9 is consistent with your opinion, but there is one
10 queue for the second lower-priority application, and
11 can we say that it has ten packets in it?

12 A. Sure.

13 Q. Okay. And then would there be a second queue
14 associated with the first higher-priority application,
15 and can we say it would have ten packets as well?

16 A. Sure.

17 Q. So we have ten, ten. So can we refer to them -- the
18 lower-priority one is -- do you want to call it A or
19 B?

20 A. Let's just call it low and high. How is that?

21 Q. Okay. Low and high. Okay.

22 So can you give me -- based on those

1 parameters, can you give me an example of your
2 opinions on how the packets would be transmitted?

3 MS. HUANG: Objection. Calls for
4 speculation.

5 A. So I can tell you in general how you can set up a
6 weighted fair queuing system. You could set WFQ --
7 is what people call it -- a queue, and give the high
8 .75 and the low .25, and then the queue would
9 transmit packets from the high, unless it's empty
10 75 percent of the time, and 25 percent of the time it
11 would send the low priority packets.

12 BY MR. WANG:

13 Q. Okay. So then would it transmit high, high, high,
14 low; high, high, high, low; high, high, high, low, and
15 so forth?

16 A. Assuming the size of the packets was uniform, that
17 would be one example, yes.

18 Q. Let's assume that the packets are uniform -- I mean,
19 do your opinions depend or account for packets of
20 different sizes?

21 A. Yes. Most of the time when you're implementing
22 weighted fair queuing you're allocating based on the

1 bytes sent, not number of packets sent.

2 Q. In your opinion -- okay. So let's go back to the
3 claim. The claim says "network activity for the first
4 Internet access request."

5 Do you see that?

6 A. Yes.

7 Q. All right. And are you reading that to be a packet?

8 A. That's what you're controlling, yes, the packets that
9 you're sending over the wire in general.

10 Q. Okay. So returning to our example of the data stream
11 that begins with high, high, high, low; high, high,
12 high, low, what is being aggregated?

13 A. Well, the aggregation would be where you would have
14 multiple applications feeding one of those queues.

15 Q. Multiple applications feeding -- so our example had
16 two queues. Right?

17 A. Uh-huh.

18 Q. A high priority and a low priority.

19 A. Right.

20 Q. And so you are saying that there would need to be
21 multiple applications feeding the low priority queue
22 and high priority queue? Can you explain that more?

1 MS. HUANG: Objection. Misstates
2 testimony.

3 A. So any -- when there are -- there are multiple
4 streams that are being aggregated and put together
5 and allocated in a network that creates aggregation.
6 One kind of aggregation is where multiple
7 applications are filling one queue.

8 BY MR. WANG:

9 Q. Is that your theory for the aggregation --

10 A. The aggregation is where you're having multiple --
11 multiple applications which are being put together in
12 a queuing system.

13 STENOGRAPHER: Excuse me, Mr. Wang, your
14 question got spoken over and I didn't get the full
15 question.

16 MR. WANG: Thank you. I will repeat the
17 question.

18 BY MR. WANG:

19 Q. My question was, is that your theory for the
20 aggregation required by Claim 1.7?

21 A. That multiple applications are being -- traffic is
22 being queued as aggregation, yes.

1 Q. So in our example, high priority queue and a low
2 priority queue. Do you recall that?

3 A. Yes.

4 Q. So your theory is that when there is multiple
5 applications feeding into one of the queues, either
6 the high priority or low priority queue?

7 A. That's one kind of aggregation, yes.

8 Q. And that the two applications into one of those queues
9 would be the claimed aggregation in Limitation 1.7?

10 A. That's one kind of aggregation, yes.

11 Q. What other kind of --

12 A. Well, you could have an application sending into each
13 queue and they're being aggregated together. So you
14 could have one application sending into -- where
15 there's two applications, where they're being queued
16 or being aggregated over the network.

17 Q. Okay. So in your example we talked about the high
18 priority queue and the low priority queue. Correct?

19 A. Yes.

20 Q. And could we say that the high priority one, there's
21 an application of voiceover IP going into that one?

22 A. Okay.

1 Q. And that's the only application. Okay?

2 A. Okay.

3 Q. And then the lower-priority queue, we have email going
4 into that one, and that's the only application.

5 A. That's correct.

6 Q. Okay. So how would -- how would the claimed
7 aggregation be met into that case?

8 MS. HUANG: Objection. Form. Speculation.

9 A. So one way the aggregation can happen is if they're
10 both being queued and they're both being delivered
11 into the network intermixed. They're being
12 aggregated together, they're just being done so in a
13 prioritized fashion.

14 BY MR. WANG:

15 Q. They are being done so in what fashion?

16 A. Into a prioritized fashion.

17 Q. Prioritized. Okay. They would not be aggregated
18 within the queues. Correct?

19 A. If the -- can you explain what you mean?

20 Q. So, yeah, we have an example -- I won't repeat it --
21 but the high priority queue and the low priority queue
22 and there's one application to each. Right? I'm

1 asking you that, while the packets are in the queues,
2 they would not be aggregated.

3 MS. HUANG: Objection. Form.

4 A. I'm not sure I've really thought of that.

5 BY MR. WANG:

6 Q. Okay. Do you think that data or data packets into two
7 separate queues would be considered aggregated?

8 A. In what context?

9 Q. In this context that we're talking about, transmitting
10 data or transmitting data packets.

11 A. Yeah, it would depend on the context and what you're
12 defining "aggregation." But if they were in separate
13 queues and they were not -- if they were being
14 treated together, they were being processed together,
15 there's the aggregation of deciding what goes next,
16 that's one kind of aggregation, yes.

17 Q. And so in our example when would aggregation occur,
18 when the packets are transmitted?

19 A. That's one kind of aggregation, yeah.

20 Q. Any other kind you can think of?

21 A. Yeah, when they're all -- when they're all queued up,
22 it's big -- you know, inside the queuing system

1 they're all aggregated together, the system is making
2 decisions. It's aggregated at that point and then
3 it's aggregated [ph] -- or aggregated as they're
4 serially delivered over the network.

5 Q. Okay. So what we're talking about is the formation of
6 the data stream, if you will?

7 A. In one case, yes.

8 Q. And the data stream will have a specific sequence of
9 packets, right, 1 through 100, for example.

10 A. That's true, yes.

11 Q. And it could be, like, after they're transmitted, I
12 don't know, through some port or as they're being
13 formed right before they go through the port. Right?

14 A. That's -- those are both kinds. These are both
15 things that will happen, yes.

16 Q. So in that example would you say that the first packet
17 is aggregated with a second packet?

18 A. I've lost the thread here. In what example?

19 Q. In the example of 100 packets being transmitted in a
20 data stream.

21 A. So are they -- are they being aggregated over the
22 network? Yes.

1 Q. And so would you say that any sequence of packets in
2 that data stream could be considered aggregated
3 together?

4 MS. HUANG: Objection. Calls for
5 speculation.

6 A. Yeah, it would depend on where the source was if they
7 were being aggregated from multiple sources, yes.

8 BY MR. WANG:

9 Q. What if they were from one source?

10 A. Is one source being aggregated? Yeah, I don't -- I
11 don't think aggregation of one is aggregation.
12 Aggregation means there's multiple.

13 Q. Okay. So in the example of a hundred data packets in
14 a data stream, would you say that any continuous
15 sequence of packets would be considered an
16 aggregation?

17 MS. HUANG: Objection. Calls for
18 speculation.

19 A. Yeah, I don't -- I mean -- I feel like it's too
20 abstract now unless you know more information.

21 BY MR. WANG:

22 Q. Let's imagine a stream of 100 packets that's formed

1 from our two queues that we talked about, the high and
2 the low. Do you recall that?

3 A. Yes.

4 Q. Okay. And we recalled that the weighting would be
5 that the high would transmit three packets of the same
6 length and then the low would transmit one. Right?

7 A. Yes.

8 Q. And so in our data stream it would basically go high,
9 high, high, low; high, high, high, but be a length of
10 100. Do you follow me?

11 A. Yeah.

12 Q. And of that hundred packets there would be 75 that are
13 high and 25 that are low. Right?

14 A. Yes.

15 Q. So let's look at that data stream. Can you tell me
16 what's aggregated in that stream?

17 MS. HUANG: Objection. Calls for
18 speculation.

19 A. Yeah, I -- to the degree I'm following your
20 hypothetical here, the -- what's being aggregated are
21 the packets, they are being sent from the different
22 streams. And, you know, assuming they were from

1 different sources, that would be what's aggregated.

2 BY MR. WANG:

3 Q. Would you be able to look at the data stream and tell
4 from the data stream what's being aggregated?

5 MS. HUANG: Objection. Calls for
6 speculation.

7 A. Yeah, perhaps.

8 BY MR. WANG:

9 Q. I'm just trying to understand. If we were to write
10 out, like, those hundred packets and I asked you to,
11 like, I don't know, draw circles around what's being
12 aggregated, I mean, what would you -- what would you
13 identify as aggregated?

14 A. I would circle the whole data stream because it's the
15 data coming from multiple sources, multiple
16 applications into the queues and aggregated on the
17 network. That's one kind of aggregation.

18 Q. All right. Any other aggregation?

19 A. As data is being sent to the queues, you know,
20 everything that's in the queuing system, they're all
21 being aggregated and treated as one bunch of data.
22 They're aggregated in memory as they're being

1 processed and aggregated as they're sitting on the
2 network.

3 Q. So every packet, as it's transmitted, would be
4 aggregated?

5 A. Assuming there are multiple sources sending, yes.

6 Q. So in my example you could consider every packet. You
7 could call -- say that it's aggregated with one or
8 more other packets.

9 MS. HUANG: Objection. Calls for
10 speculation.

11 A. Again, absent of the context of this -- you know,
12 when you have something like TCPI connection and you
13 have multiple applications that are sending over
14 that, they are aggregating that data.

15 BY MR. WANG:

16 Q. And so is the answer to my question, yes, that you
17 could consider every packet to be aggregated?

18 MS. HUANG: Objection. Calls for
19 speculation.

20 A. When you're having multiple sources -- and, again,
21 absent of the claim language, when we're talking
22 about sending over a network, one kind of aggregation

1 is sending multiple sources over the same access
2 link, that that is a kind of network aggregation.
3 One kind of aggregation.

4 MS. HUANG: Counsel, we've been going for
5 about an hour, so I'm just giving you a heads-up, if
6 we could take a break at some point.

7 MR. WANG: Let's go off the record.

8 (Off the record at 2:59 p.m.)

9 (Back on the record at 3:21 p.m.)

10 BY MR. WANG:

11 Q. Welcome back, Dr. McDaniel. Did you have a good quick
12 lunch?

13 A. I always have the same lunch, a quesadilla. That's
14 it. Nice and light. I did. Thank you.

15 Q. Where are you located, again, Dr. McDaniel?

16 A. Madison, Wisconsin.

17 Q. All right.

18 (Discussion off the record at 3:22 p.m.)

19 (Back on the record at 3:22 p.m.)

20 BY MR. WANG:

21 Q. Can you turn back to the claim language in
22 paragraph 46 of your declaration, page 28?

1 A. Sure. I see it.

2 Q. Did you have any discussions with your counsel during
3 the break, Dr. McDaniel?

4 A. She just sent me an email saying that she got the
5 wasp.

6 Q. Good. Glad to hear that.

7 A. So I'm there.

8 Q. Thank you.

9 Could you look at Claim 10?

10 A. Claim 10. I'm looking at it, yes.

11 Q. And Claim 10 is a dependent claim. Right?

12 A. That's correct.

13 Q. And it refers back to Claim 1, and it says, "wherein
14 the one or more processors are further configured..."

15 A. That's correct, yes.

16 Q. And so when it says the "one or more processors," do
17 you understand it to be referring to the one or more
18 processors claimed in Claim 1?

19 A. That's correct.

20 Q. What about the term, the "first differential traffic
21 control policy element," do you recall that from
22 Claim 1?

1 A. Yes.

2 Q. And where was that in Claim 1?

3 A. Not seeing "element" here.

4 Q. I think it's in 1.3.

5 A. Oh, I was looking at the wrong place.

6 Yes.

7 Q. Okay. So Claim 10 talks about selecting "the first
8 differential traffic control policy element from the
9 network service activity control policy set."

10 Do you see that?

11 A. Yes. I'm just -- I'm going to my report real quick.
12 Can I have a moment, please?

13 Okay. I'm there.

14 Q. Okay. So in paragraph 132 of your report on page 94,
15 so it's the end of the paragraph, you say that "the
16 remote access client 120 necessarily selects the
17 appropriate traffic control policy element" --

18 A. Yes.

19 Q. -- when it applies any priority-based policies.

20 Do you see that? And is that your opinion
21 that when a system applies a policy, it necessarily
22 selects the policy?

1 A. Well, the selection is based on a plurality of
2 network wireless -- a plurality of wireless network
3 types. So in this claim, the selection is -- it's
4 saying that you're selecting a policy based on the
5 plurality of network or wireless network types.

6 Q. Right. I was asking about your opinion where you're
7 talking about -- it's in the context of Rao, but
8 you're saying, when it applies any priority-based
9 policies "the remote access client [120] necessarily
10 selects the appropriate traffic control policy
11 element."

12 Do you see that?

13 A. What paragraph are you on?

14 Q. It's the same paragraph 132, but the part of it that's
15 on page 94.

16 A. Yes.

17 Q. And I'm just checking if that's your opinion that if a
18 system applies a priority based policy, that that
19 means that it "necessarily selects the appropriate
20 traffic control policy."

21 A. Yes, that's what the -- that's what I'm saying here.

22 Q. Okay. Can we go back to the claim -- so the Claim 10,

1 and that's -- we were looking at paragraph 46 of your
2 report, but you can refer to elsewhere too.

3 So Claim 10 says that the selection is
4 "based at least in part on which of the plurality of
5 wireless network types is to provide data
6 communication for Internet access requests." Correct?

7 A. Correct.

8 Q. What's your understanding of "based at least in part"
9 on?

10 A. What that means is, is that it can be selected either
11 wholly based on the network, plurality of network
12 types, or that can be one element of, perhaps, a
13 policy that says, of a particular network type. And
14 it's roaming, for example, in Cole.

15 Q. And the selection must consider which of the plurality
16 of wireless network types is to provide data
17 communications?

18 A. Your word, "consider." It's -- the policy is based
19 on -- you know, selecting a policy to apply is based
20 on a network, a wireless network type.

21 Q. Okay. I'll ask you about Claim 13. It's also in
22 paragraph 46.

1 A. Yes.

2 Q. So Claim 13, it's another dependent claim, it refers
3 to Claim 1. Right?

4 A. That's correct.

5 Q. It says, "wherein the one or more processors are
6 further configured to dynamically change the
7 determination of whether to apply the one or more
8 Internet activity access controls based on a power
9 state of the device."

10 Do you see that?

11 A. Yep.

12 Q. What's your understanding of "dynamically change"?

13 A. That the -- you have to read it in context. That
14 "one or more processors are further configured to
15 dynamically change the determination of whether to
16 apply the policy."

17 That is -- it's part of the determination
18 process and it happens as conditions change. That's
19 the dynamic piece.

20 Q. Okay. Do you read this as a separate determination or
21 the same determination that's recited in Element 1.6?

22 A. It's all one determination as far as I can tell, but

1 I would have to give that a little bit more thought.

2 Q. Okay. So is your interpretation of Claim 13 that it's
3 saying that the determining step in Element 1.6 is
4 also based on a power state of the device?

5 MS. HUANG: Objection. Form.

6 A. Can you ask that question again?

7 BY MR. WANG:

8 Q. Yes. My question is, is your interpretation of
9 Claim 13 that it's saying the determining step in
10 Element 1.6 is also based on a power state of the
11 device?

12 MS. HUANG: Objection. Form.

13 A. So what I interpret here is that the determination
14 can be influenced by the power state of the device.

15 BY MR. WANG:

16 Q. Thank you, Dr. McDaniel. Are you finished with your
17 answer?

18 A. Yes.

19 Q. Okay. That's interesting. When you say it's
20 "influenced by," what do you mean by that?

21 A. The power state of the device can be used in part of
22 the determination of the -- whether to apply the

1 policy.

2 From a -- let me -- let me...

3 So as I said, when a power state is
4 detected, it can change the policy that's being
5 applied.

6 Q. And were you referring to your opinions for Claim 13?

7 A. Yes, 141 and 142.

8 Q. So in these paragraphs you seem to be talking about,
9 you know, determining whether it applied, and then the
10 determination changing and --

11 MS. HUANG: Objection. Sorry.

12 BY MR. WANG:

13 Q. Is that correct?

14 A. So there is -- 141 applies to -- well, the connection
15 manager changed the configuration of the
16 communications functions in direct response to the
17 power state and it's determining whether to change
18 that state based on policy.

19 But Cole further, in 142, goes on to
20 disclose applying access controls more directly on
21 the power state. You know, it's a little bit more
22 clear, where -- I'll just leave the rest of the

1 paragraph as written.

2 Q. And then in -- for Claim 13, for paragraphs 141 and
3 142, you rely on Cole. Correct?

4 A. I rely on RCD. The combination of RCD, of which Cole
5 is a part.

6 Q. Do you mean Rao other than that being part of RCD?

7 A. Not here.

8 Q. And then Claim 14, it recites the same limitation as
9 Claim 13 except it's based on a device usage state; is
10 that correct?

11 A. That's correct.

12 Q. What's the difference between a device usage state and
13 a power control state or a power state?

14 MS. HUANG: Objection. Form.

15 A. Yeah, I'm not -- I can't provide an exact definition,
16 but generally the difference is the power state is
17 the state of the power system. Generally when you're
18 talking about a mobile device it's got a battery
19 that's draining and then a resource draw on that.

20 A device usage state, which is whether it's
21 being used or not -- for example, it could be any
22 number of factors relating to what it's currently

1 performing. I think this is spelled out in my -- in,
2 for example, paragraph 144.

3 BY MR. WANG:

4 Q. Is your paragraph in 145 that a network congestion
5 state is a device usage state?

6 A. As the first sentence of 145 says, yes.

7 Q. How would that be a state of the device usage as
8 opposed to a state of the -- a network?

9 A. Because it's the state in which the device needs to
10 be able to react to it. In fact, the internal state
11 in any computer system is that it includes the state
12 of the network it's connected to because it has to be
13 responsive to that.

14 MR. WANG: That's all the questions I had.
15 Thank you, Dr. McDaniel. I will pass the
16 witness.

17 MS. HUANG: Petitioner has no questions for
18 the witness.

19 (Proceedings concluded at 3:39 p.m.)
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22

CERTIFICATE OF NOTARY

STATE OF MICHIGAN)

) SS

COUNTY OF OAKLAND)

I, ALISON WEBSTER, Certified Reporter and
Notary Public within and for the State of MICHIGAN
do hereby certify:

That PATRICK McDANIEL, Ph.D., the witness whose
deposition is hereinbefore set forth, was duly sworn
by me before the commencement of such deposition and
that such deposition was taken before me and is a true
record of the testimony given by such witness.

I further certify that the adverse party, PETITIONER,
was represented by counsel at the deposition.

I further certify that the deposition of
PATRICK McDANIEL, Ph.D., occurred via videoconference
on Tuesday, June 4, 2024, from 11:36 a.m. to 3:39 p.m.

I further certify that I am not related to any of the
parties to this action by blood or marriage, I am not
employed by or an attorney to any of the parties to this
action, and that I am in no way interested, financially
or otherwise, in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my
hand this 11th day of June, 2024.

Alison C. Webster

ALISON C. WEBSTER, CSR-6266, RPR, RMR, CRR, RDR

Notary Public, Oakland County, Michigan

My commission expires: May 1, 2029

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ACKNOWLEDGMENT OF DEPONENT

I, PATRICK McDANIEL, Ph.D., do hereby
acknowledge that I have read and examined the
foregoing testimony and the same is a true, correct,
and complete transcription of the testimony given by
me and any corrections appear on the attached errata
sheet signed by me.

(SIGNATURE)

(DATE)

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