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Transcript of Patrick McDaniel, Ph.D.

Date: June 6, 2025

Case: Samsung Electronics Co., Ltd. -v- Headwater Research LLC (PTAB)

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WORLDWIDE COURT REPORTING & LITIGATION TECHNOLOGY

Headwater Research LLC

IPR2024-01337

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1 UNITED STATES PATENT AND TRADEMARK OFFICE

2
3 BEFORE THE PATENT TRIAL AND APPEAL BOARD

4
5 Samsung Electronics Co., Ltd.,
6 Petitioner,

7 v.

8 Headwater Research LLC
9 Patent Owner.

10 IPR2024-01337
11 US PATENT NO. 8,588,110

12 REMOTE DEPOSITION

13 DR. PATRICK MCDANIEL

14 FRIDAY, JUNE 6, 2025

15 9:03 A.M.

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24 PAGES 1 - 23
25 REPORTED BY MICHAEL CAGLIATA
CSR #14491, RPR

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Deposition of
DR. PATRICK MCDANIEL, held remotely:

Witness Location:
(NOT STATED ON THE RECORD.)

Pursuant to Notice, before Michael
Cagliata, Registered Professional Reporter, and
Certified Shorthand Reporter No. 14491 in and for the
State of California.

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A P P E A R A N C E S

For the Petitioner:

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

2 * * * *

3 (Oath given.)

4 MR. MILKEY: This is James Milkey, on
5 behalf of patent owner with the law firm of Russ
6 August and Kabat.

7 MS. HUANG: I'm Jenny Huang, on behalf of
8 petitioner Samsung with the law firm Fish and
9 Richardson.

10 EXAMINATION BY DR. MILKEY

11 Q. Good morning, Dr. McDaniel.

12 A. Good morning.

13 Q. So you understand that this is a proceeding
14 regarding the validity of U.S. patent number
15 8,588,110?

16 A. I do.

17 Q. Okay. And is it fair if we refer to that
18 patent as the '110 patent today?

19 A. Sure.

20 Q. Okay. You submitted a declaration in this
21 proceeding; correct?

22 A. That's correct.

23 Q. Okay. And do you have a copy of that
24 declaration available to you?

25 A. I do. I have all of the -- clean copies of

1 all of the filed materials, including all of the
2 exhibits.

3 Q. Perfect. I am for the benefit of the
4 reporter going to upload a clean copy of your
5 declaration into the chat. That is Exhibit 1003.

6 (Exhibit 1003 marked for identification.)

7 Q. Feel free to refer to any clean version
8 that you have available.

9 A. Excellent, thank you.

10 Q. Also, for the benefit of the reporter I'm
11 going to upload Exhibits 1006 and 1007.

12 (Exhibit 1006 marked for identification.)

13 (Exhibit 1007 marked for identification.)

14 Q. Those are the Jones and Rao references? So
15 Dr. McDaniel, did you do anything to prepare for
16 today's deposition?

17 A. I did.

18 Q. What did you do to prepare for today's
19 deposition?

20 A. I reviewed my declaration and other
21 materials in the proceedings, including the exhibits.
22 And I had several discussions with counsel.

23 Q. Okay. Approximately how long did you spend
24 preparing for your deposition today?

25 A. I probably started in earnest about two

1 weeks ago. Probably 30 some hours.

2 Q. Okay. Did you review the Jobs reference in
3 preparation for today's deposition?

4 A. I did.

5 Q. Did you review the Jones reference in
6 preparation for today's deposition?

7 A. I did.

8 Q. Is the same also true for the Rao
9 reference?

10 A. Yes.

11 Q. Did you meet with anyone to prepare for
12 today's deposition?

13 A. I did.

14 Q. What did you meet with?

15 A. Counsel.

16 Q. Anyone other than counsel?

17 A. I believe David Kaminsky was on several of
18 the meetings.

19 Q. And who is David Kaminsky?

20 A. He works with the Fish and Richardson firm
21 in support of this litigation.

22 Q. And are any of your opinions in this case
23 based on factual information that you learned from
24 David Kaminsky?

25 A. No.

1 Q. Okay. And outside of the context of
2 meetings with counsel, have you had any
3 communications with David Kaminsky?

4 A. In the relevant to this proceeding, no.

5 Q. Okay. Approximately how long did you spend
6 preparing the declaration that you submitted in this
7 proceeding?

8 A. Somewhere in the order of 100 hours I would
9 guess, but I would have to go back to my notes to
10 figure that out.

11 Q. Okay. If you could go to page 16 of your
12 declaration, and specifically paragraph 24. Let me
13 know when you're there.

14 A. Yes.

15 Q. And --

16 A. May I have a minute to review?

17 Q. Yes, absolutely.

18 A. I'm there.

19 Q. Okay. In paragraph 24 you set forth your
20 proposed level of ordinary skill in the art. Do you
21 see that?

22 A. I do.

23 Q. Okay. And do you have at least this level
24 of skill?

25 A. Yes, I do.

1 Q. Okay. And do you have greater than that
2 level of skill?

3 A. I mean, I certainly have more advanced
4 degrees than a bachelor's degree and more than two
5 years of industrial experience.

6 Q. Okay. If you could please turn to page 82
7 of your declaration. Let me know when you're there.

8 A. I'm there. Is there something you want me
9 to refer to?

10 Q. Yeah. So specifically in paragraph 151.
11 You can review surrounding context. I don't expect
12 to use the whole time today so we have plenty of time
13 to get through this. Take as much time as you need,
14 but I'm specifically going to be asking you about the
15 second sentence in paragraph 151, which discusses
16 examples of rules. So let me know when you've
17 reviewed the necessary context.

18 A. Okay. I'm there.

19 Q. Okay. So my question is, in the sentence
20 that begins, examples of rules include, what do you
21 mean by, "reducing the frequency of backup"?

22 A. So if you go to column 1, about line 60
23 through 63, it looks like, "Jones refers to, for
24 example, an enterprise data protection strategy may
25 prefer to adjust the frequency of data backups

1 according to the identity of the user, the type of
2 connection, and/or the bandwidth connection."

3 So in that, what it's doing is it's
4 changing how often you do it, based on those factors.

5 Q. Okay. So when the backup frequency is
6 reduced, does that reduce the number of times that
7 backup transmissions are attempted?

8 A. Under a particular -- within a fixed
9 window, if you do it less frequently there will be
10 fewer of them.

11 Q. Okay. Going back to the sentence that we
12 were talking about earlier in your declaration, and
13 I'll read it for the record. "Examples of rules
14 include prohibiting data transfer on a connection
15 type, e.g., GSM, reducing the frequency of a backup"
16 -- sorry. Strike that. So do you see that the
17 second sentence of paragraph 151 of your declaration
18 states, "examples of rules include prohibiting data
19 transfer on a connection type, e.g., GSM, reducing
20 the frequency of backup on a connection type, e.g.,
21 CDMA, and prohibit data transfer on another
22 connection type, e.g., wi-fi"?

23 A. Yes, as written.

24 Q. Okay. And what would be the reason to
25 implement a set of rules in which data transfer was

1 prohibited on GSM, backup frequency was reduced on
2 CDMA, and data transfer was permitted on wi-fi?

3 A. So those are three different kinds of
4 networks, GSM and CDMA, generally speaking, are
5 wireless commercial networks. In this case, just for
6 an example, the GSM might be an expensive network to
7 use. The CDMA may be a less expensive, and therefore
8 you want to just not use the expensive network. You
9 want to use the less expensive CDMA network less
10 frequently. Finally, wi-fi is something that's local
11 and has no additional cost, and you would use that in
12 an uninhibited way.

13 Q. Okay. When you refer to an expensive
14 network to use, what do you mean by that?

15 A. It certainly can be monetary. For example,
16 if you're having to pay overage fees in the GSM and
17 the CDMA, although they may be different costs.
18 There may be costs in terms of impact on other
19 applications that are running. For example, if they
20 have lesser bandwidth. The cost could be battery.
21 There are any number of reasons why one would want to
22 differentiate between different networks and use a
23 different backup strategy on each one.

24 Q. Okay. Are the bandwidth of the GSM, CDMA,
25 and wi-fi networks different?

1 A. They can be.

2 Q. Does the bandwidth of a -- strike that. In
3 general, what connection type has higher bandwidth
4 between GSM and CDMA?

5 A. It would depend on the network. It's
6 difficult to characterize. I kind of think of GSM as
7 having a higher bandwidth than CDMA, but there's by
8 no means a rule that it has to be this. It really
9 just depends on the environment, the underlying
10 technology, what the interference is. There's all
11 sorts of factors that would figure into those things.

12 Q. Okay. So even a device connecting to the
13 same network, the bandwidth might vary depending on
14 environmental factors; is that right?

15 A. Certainly.

16 Q. Okay. If you could open the Jones
17 reference. This is Exhibit 1006. I'm going to ask
18 you if you could turn to column 5 of that.

19 A. I'm there. Where should I read?

20 Q. Okay. At column 5, line 19, it states
21 that, for example --

22 A. May I have a moment to review, please?

23 Q. Yes.

24 A. Okay. I'm there.

25 Q. So do you see at column 5, line 19, Jones

1 states, "for example, a user may configure a modem
2 policy"?

3 A. Yes.

4 Q. What user is Jones referring to in this
5 sentence?

6 A. I think in this context it's any user that
7 would have -- want to be setting policy.

8 Q. Okay. And how -- sorry. Strike that. In
9 Jones, how does the user actually input what policy
10 they want to be applied?

11 A. If you go to column 6, starting line 38,
12 Jones says, "for example a user may be presented with
13 a graphical user interface, through which each policy
14 may be selected and configured in successive
15 operations."

16 Q. Okay. And so is that a user interface that
17 would be on the device that would be requesting the
18 backup operations?

19 A. Somebody reading this would understand
20 Jones would suggest at least one interface that would
21 be on the device, yes.

22 Q. So in the context of Jones, would different
23 users within the same network be able to set their
24 own desired backup policies?

25 A. That's one example, yes.

1 Q. And after the user inputs what their
2 desired backup policy is, where would the
3 configuration data for that policy actually be
4 stored?

5 A. They would certainly be on the phone or the
6 device when they're applying.

7 Q. Okay. And would that be stored on the
8 device that has data that needs backing up?

9 A. Sorry. Can you ask the question again?

10 Q. Yeah. So after the user inputs what their
11 desired backup policy is, would the configuration
12 data for that policy be stored on the device that has
13 the data that needs backing up?

14 A. I'm sorry. Going back to Jones, the
15 connection state is actually held on the data
16 transfer -- the policy is held on the data transfer
17 controller and applied clients, as described in
18 line 3 through 15 of Jones.

19 Q. And do you have an understanding where the
20 data transfer controller is located? Feel free to
21 review context, but Figure 2 --

22 A. Right. Yeah. It's in client. It's inside
23 client 200. So the client itself has the policy --
24 I'm sorry. The controller inside the client has the
25 policy.

1 Q. And is it your understanding that client
2 200 is the device that needs data backup and is
3 initiating the data backup process?

4 A. Yes, I believe so.

5 Q. Okay. Could you please go to Jones column
6 5, starting at line 25? Let me know when you're
7 ready.

8 A. I'm there.

9 Q. Okay. And do you see the sentence starting
10 at column 5, line 25 of Jones states, "for instance,
11 a first rule may prohibit data transfers over a modem
12 connection"?

13 A. Yes.

14 Q. And what is your understanding of what
15 Jones is referring to when it describes "a modem
16 connection"?

17 A. A connection that uses a modem.

18 Q. Would that include a connection to a
19 wireless or wide area network?

20 A. It could.

21 Q. Can you think of any examples that -- where
22 Jones' device would connect to the network without
23 using a modem connection?

24 A. Yes. So if you go to column 5 of Jones,
25 around line 20 it says, "for a modem policy a system

1 administrator may decide that modem connections have
2 lower bandwidth than non-modem connections."

3 In that case, it's making a distinction
4 between the two kinds of connections.

5 Q. So what's an example of a non-modem
6 connection in this context?

7 A. Maybe traditional dial up. I'm sorry.
8 That is a modem connection. I'm sorry. Maybe a
9 straight wired Ethernet cable.

10 Q. And what do you mean by a straight wired
11 Ethernet cable?

12 A. Just something copper. Just a bare RJ45
13 connection into a wall, for example.

14 Q. Does a direct wired connection make use of
15 a modem?

16 A. It depends on how you would define it. I
17 mean, there is modulation and demodulation happening,
18 but --

19 Q. Other than a straight wired Ethernet cable,
20 can you think of any other examples of what might
21 constitute a non-modem connection?

22 A. I would have to think about it.

23 Q. Okay. So sitting here today, other than
24 straight wired Ethernet connection, you're not
25 immediately -- strike that. Sitting here today,

1 nothing other than a straight wired Ethernet
2 connection is immediately coming to mind as an
3 example of a non-modem connection?

4 A. That's correct. Is there something in my
5 report you would like to pull me to to kind of ground
6 this conversation?

7 Q. Not in particular. I guess, for example,
8 paragraph 250 of your declaration does discuss in the
9 third sentence of that paragraph says, "Jones
10 provides one example in which, quote, 4A modem
11 policy, a system administrator may decide that modem
12 connections have lower bandwidth than non-modem
13 connections."

14 A. Yes, I see that.

15 Q. And so that's an example where non-modem
16 connections are discussed in your declaration. It
17 doesn't discuss examples of what those are. I was
18 just wondering if, you know, sitting here today
19 you're aware of specific examples of what those
20 non-modem connections would be?

21 A. With respect to the context being the '110?

22 Q. No. Specifically in the context of what
23 Jones is referring to when he's referring to
24 non-modem connections.

25 A. Right. So Jones in this example is talking

1 about policy that would be applied for non-modem
2 connections. One of them could be an Ethernet
3 connection. However, that's not limiting in Jones.
4 Jones talks about applying policies based on
5 whatever, you know, a modem, a non-modem. So Jones
6 discloses applying policies based on different kinds
7 of things, one of them being some networks use modems
8 and some don't.

9 Q. So in going back to Jones in column 5, and
10 feel free to review for context, but at a high level,
11 starting at column 5, lines 19 through 32, Jones is
12 talking about "a situation where a system
13 administrator may decide that modem connections have
14 lower bandwidth than non-modem connections. Then, it
15 further goes on to state that a first rule may
16 prohibit data transfers over a modem connection."

17 So my question is, if modem connections
18 have lower bandwidth than non-modem connections, why
19 would a system administrator want to specify a rule
20 that prohibits data transfer over the modem
21 connection?

22 A. Lots of reasons. It could be that it's too
23 slow, that it's insecure. Any number of reasons.

24 MR. MILKEY: All right. I have no further
25 questions at this time.

1 MS. HUANG: Nothing from me. Thank you.
2 I'll take a rough.

3 MR. MILKEY: A rough for me today and,
4 assuming the length of the transcript, an expedite
5 for next Wednesday wouldn't be a problem?

6 (Proceedings concluded at 9:47 A.M.)
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DECLARATION UNDER PENALTY OF PERJURY

I, DR. PATRICK MCDANIEL, do hereby certify
under penalty of perjury that I have read the
foregoing transcript of my deposition taken June 6th,
2025; that I have made such corrections as appear
noted on the Deposition Errata Page attached hereto
and signed by me; that my testimony as contained
herein, as corrected, is true and correct.

Dated this _____ day of _____,
2025, at _____,
California.

DR. PATRICK MCDANIEL

1 STATE OF CALIFORNIA)
2 COUNTY OF LOS ANGELES)

3
4 I, Michael Cagliata, Certified
5 Shorthand Reporter No. 14491, do hereby
6 Certify:

7
8 That DR. PATRICK McDANIEL, the witness
9 whose deposition is hereinbefore set forth,
10 was duly sworn by me before the commencement
11 of such deposition and that such deposition
12 was taken before me and is a true record of
13 the testimony given by such witness.

14
15 I further certify that the adverse party,
16 Petitioner was represented by counsel at
17 the deposition.

18
19 I further certify that the deposition of
20 DR. PATRICK McDANIEL, occurred virtually on
21 June 6, 2025, commencing at 9:03 a.m. to 9:47
22 a.m.

23
24 I further certify that I am not related
25 to any of the parties to this action by blood

1 or marriage, I am not employed by or an attorney
2 to any of the parties to this action, and that I
3 am in no way interested, financially or otherwise,
4 in the outcome of this matter.

5
6 IN WITNESS WHEREOF, I have subscribed my
7 name this 6th day of June, 2025.

8 *M. Cagliata*
9 _____

10 Michael Cagliata, CSR #14491, RPR

11 Certified Shorthand Reporter

12 In and for the State of California
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