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Transcript of Bjorn Markus Jakobsson, Ph.D., Volume 2

Date: April 24, 2019
Case: Apple Inc. -v- Universal Secure Registry LLC (PTAB)

Apple 1227
Apple v. USR
CBM2018-00024

1   UNITED STATES PATENT AND TRADEMARK OFFICE

2   ------------------------------------

3   BEFORE THE PATENT TRIAL AND APPEAL BOARD

4   ------------------------------------

5   APPLE INC.,

6   Petitioner,

7   v.

8   UNIVERSAL SECURE REGISTRY LLC,

9   Patent Owner.

10   ------------------------------------

11   Case No. IPR2018-00809

12

13   DEPOSITION OF BJORN MARKUS JAKOBSSON, Ph.D.

14   VOLUME II

15   Redwood Shores, California

16   Wednesday, April 24, 2019

17   9:02 a.m.

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23   Job No.:   240969

24   Pages: 249 - 509

25   Reported By: Charlotte Lacey, RPR, CSR No. 14224

1   DEPOSITION OF BJORN MARKUS JAKOBSSON, Ph.D., held

2   at the offices of QUINN EMANUEL URQUHART &

3   SULLIVAN, LLP, 555 Twin Dolphin Drive, 5th Floor,

4   Redwood Shores, California

5

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7   Pursuant to notice, before Charlotte Lacey,

8   Certified Shorthand Reporter, in and for the State of

9   California.

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

 2        ON BEHALF OF PETITIONER APPLE INC.:

 3              MARK D. SELWYN, ESQUIRE

 4              DEREK A. GOSMA, ESQUIRE

 5              WILMER CUTLER PICKERING HALE AND DORR, LLP

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 8              (650) 858-6031

 9

10        ON BEHALF OF PATENT OWNER UNIVERSAL SECURE

11   REGISTRY LLC:

12              BRIAN E. MACK, ESQUIRE

13              QUINN EMANUEL URQUHART & SULLIVAN, LLP

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1                          I N D E X

2    WITNESS                                        PAGE

3    BJORN MARKUS JAKOBSSON, Ph.D.

4    Examination by              Mr. Selwyn            253

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7           I N D E X   O F   E X H I B I T S

8    EXHIBITS        DESCRIPTION                     PAGE

9                        (None offered)

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

2              BJORN MARKUS JAKOBSSON, Ph.D.,

3   the witness herein, having been first duly sworn, was

4   examined and testified as follows:

5                       EXAMINATION

6   BY MR. SELWYN:

7        Q    Good morning, sir.

8        A    Good morning.

9        Q    Could you please state your full name.

10       A    Bjorn Markus Jakobsson.

11       Q    Dr. Jakobsson, do you understand that you have

12  taken an oath to tell the truth?

13       A    Yes.

14       Q    Is there any that reason you cannot give your

15  best and most complete testimony here today?

16       A    Not that I know of.

17       Q    By whom have you been retained in these

18  matters?

19       A    USR retained me.

20       Q    USR is the patent owner?

21       A    Yes.

22       Q    When were you retained?

23       A    I don't remember exactly.

24       Q    Was it in 2018?

25       A    No.  It was before that.
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1   Q   Was it in 2017?

2   A   I think it was.

3   Q   Was it in the second half of 2017?

4   A   I remember it being April or May when I was

5   retained, or I remember being retained in April or May.

6   Q   Of 2017?

7   A   I don't remember that.

8   Q   Was it after litigation commenced between USR

9   and Apple that you were retained?

10   MR. MACK: Objection; form.

11   A   I actually don't know.

12   Q   What's your best estimate of the year that you

13   were retained?

14   A   I think it was two years ago. In the spring.

15   Q   So the spring of 2017?

16   A   That's what I think, but I'd have to go back

17   and check my record.

18   Q   How did you come to be retained?

19   A   I had worked with Quinn Emanuel in the past,

20   and they called me up and asked whether I had any

21   conflicts, and I didn't.

22   Q   What did you do to prepare for today's

23   deposition?

24   MR. MACK: I'll just caution the witness,

25   don't reveal the substance of any attorney/client

1   privileged communications.

2   But you can answer.

3   A   So, among other things, I met with Brian

4   yesterday in these offices and spoke on the phone with

5   some other counsel of Quinn Emanuel and reviewed my

6   declarations.

7   Q   Did you speak with anyone other than counsel

8   to prepare for today's deposition?

9   A   No.

10   Q   Did you review any documents other than your

11   declarations to prepare for today's deposition?

12   A   Yes.

13   Q   What documents did you review?

14   A   I reviewed the patents related to today's

15   declarations. And I reviewed -- I'm sorry. So the

16   patents-in-suit and some of the prior art patents and

17   associated file histories.

18   Q   Anything else?

19   A   Not that I can think of right now.

20   Thank you. Is there two documents?

21   Q   Yeah. I have just handed you copies of Patent

22   Owner's Exhibit 2108 in case number IPR 2018-812 and

23   Patent Owner's Exhibit 2017 in same IPR, 2018-812.

24   Do you recognize those as declarations that

25   you submitted in connection with the '539 IPR?

1   A   Yes, I do.

2   Q   I've now handed you four additional

3   declarations, Patent Owner's Exhibit 2011 in

4   CBM 2018-34, Patent Owner's Exhibit 2101 in CBM 2018-24,

5   Patent Owner's Exhibit 2013 in CBM 2018-25, and Patent

6   Owner's Exhibit 2012 in CBM 2018-25.

7   Do you have those before you?

8   A   Yes, I do.

9   Q   Are those the four declarations that you

10 submitted in connection with the two CBMs associated

11 with the '813 patent?

12   A   Yes, they are.

13   Q   Did you review all six declarations that I've

14 put before you in preparation for your deposition today?

15   A   Yes, I did.

16   Q   Are your declarations complete and accurate in

17 all respects?

18   MR. MACK: Objection; form.

19   A   I remember that one of the motions to amend

20 had a typo. And if I find it, I will point it out to

21 you. It related to the -- to the citation.

22   Q   Other than that, are your declarations

23 complete and accurate in all respects?

24   MR. MACK: Same objection.

25   A   As far as I'm aware of.

1   Q   Do your declarations contain all your support

2 for your opinions?

3   MR. MACK: Objection; form.

4   A   So I'll -- the current support. I might be

5 asked to opine about related things onwards, in which

6 case, I will amend them.

7   Q   Do your declarations contain all the support

8 you currently have for your opinions?

9   MR. MACK: Objection; form.

10   A   To the best of my knowledge, yes.

11   Q   Who wrote your declarations?

12   A   This was collaborative, where I wrote some

13 parts and dictated other parts. The motions to amend, I

14 reviewed the suggested claims, but I did not write them.

15   Q   When you say it was collaborative, who did you

16 collaborate with?

17   A   Counsel for Quinn Emanuel.

18   Q   Are there any portions of your six

19 declarations before you that you did not author?

20   A   So I did not author the proposed claims and

21 the conditions -- the conditional motions to amend.

22 Those were given to me.

23   Q   Anything else?

24   A   I did not author the legal standards portions.

25 Nothing else comes to mind.

1   Q   Okay.   Let me hand you a copy of U.S. patent

2   number 8,856,539.

3   Do you recognize that?

4   A   I do.

5   Q   And will you understand me today if I refer

6   that as the '539 patent?

7   A   Yes, I will.

8   Q   Now let me hand you a copy of U.S. patent

9   number 8,577,813.

10   Do you recognize that?

11   A   Yes, I do.

12   Q   And will you understand me today if I refer to

13   that as the '813 patent?

14   A   Yes, I will.

15   Q   Were you aware of the '539 patent before you

16   were retained by counsel for USR?

17   A   I was not.

18   Q   Were you aware of the '813 patent before you

19   were retained by counsel for USR?

20   A   No, I was not.

21   Q   What was the first time that you read the '539

22   and '813 patents?

23   A   Actually, can I modify my answer to the

24   previous questions?

25   I was aware of them when I started discussing

1   with counsel to be retained, but prior to being

2   retained.

3   Q   Prior to being contacted by counsel for USR,

4   you were not aware of either the '539 or '813 patents,

5   correct?

6   A   That is correct.

7   Q   What was the first time that you read the '539

8   and '813 patents?

9   A   In connection with being contacted by counsel

10   and them asking whether I would have a conflict and

11   whether I would feel comfortable with the material in

12   these patents.

13   Q   You didn't know about either the '539 or '813

14   patents before being contacted by USR's counsel?

15   A   In the context of this case, correct.

16   Q   You have never cited the '539 or '813 patents

17   in any of your own papers or patents, correct?

18   A   Would you break that down, please?

19   Q   Sure.

20   You have never cited the '539 patent in any of

21   your own patents or papers, correct?

22   A   Would you ask it not broken down -- will you

23   ask -- break it down into two questions, please?

24   Q   Sure. Let's try it this way.

25   Prior to the time that you were retained for

1   this matter, you had never cited the '539 or '813

2   patents in any of your own papers or publications,

3   correct?

4   A   Can you break it down by papers and

5   publications, please?

6   Q   Sure. Before you were retained -- strike

7   that.

8   You have never cited the '539 patent in any of

9   your own patents, correct?

10   A   I don't know.

11   Q   You have never cited the '813 patent in any of

12   your own patents, correct?

13   A   I don't know.

14   Q   You have never cited the '539 patent in any of

15   your own publications, correct?

16   A   By "publication," do you mean peer-reviewed

17   publications?

18   Q   I'm not limiting it to that.

19   A   Do you include patent publications?

20   Q   Yes.

21   A   I don't know.

22   Q   You have never cited the '813 patent in any of

23   your own papers or publications, correct?

24   A   I don't know. The reason I do not know is

25   that sometimes things get cited in context of the

1   application, but it was not maybe used -- you didn't set

2   out to cite it. So I don't know.

3   Q   You're not aware of ever having cited the '539

4   or '813 patents in any of your own publications or work,

5   correct?

6   MR. MACK: Objection; form.

7   A   By "work," what do you mean?

8   Q   Any of the professional work that you've done

9   outside of this matter.

10   A   Okay. I'm not aware of having done that.

11   Q   The '539 and '813 patents have never been

12 discussed at any academic or industry conferences,

13 correct?

14   MR. MACK: Objection; form.

15   A   I would not know that.

16   Q   You're not aware of the '539 or '813 patents

17 ever having been discussed at any academic or industry

18 conferences, correct?

19   MR. MACK: Objection; form.

20   A   I wasn't asked to review that, and I have not.

21   Q   And therefore you're not aware of those

22 patents ever having been discussed at any academic or

23 industry conferences, correct?

24   MR. MACK: Objection; form.

25   A   Since I wasn't asked to do that, I didn't

1   review that.

2   Q   The '539 and '813 patents have never, to your

3   knowledge, been the subject of any academic, industry,

4   or other praise or acclaim, correct?

5   MR. MACK: Objection; form.

6   A   I wasn't asked to review either of that.

7   Q   You are not aware of the '539 or '813 patents

8   ever having been the subject of any academic, industry,

9   or other praise or acclaim, correct?

10   MR. MACK: Objection; form.

11   A   Again, I was not asked to review that. I do

12   not know.

13   Q   The '539 and '813 patents have never received

14   any awards, correct?

15   MR. MACK: Objection; form.

16   A   I was not asked to do that, and I am not aware

17   of any as a result.

18   Q   Mr. Ken Weiss did not receive any praise or

19   awards in connection with the '539 or '813 patents,

20   correct?

21   MR. MACK: Objection; form.

22   A   Counsel has not informed me of that, and

23   they've not asked me to review whether it would be so.

24   Q   You're not aware of Mr. Weiss ever having

25   received any praise or awards in connection with the

1   '539 or '813 patents, correct?

2   MR. MACK: Objection; form.

3   A   I was not informed one way or the other by

4   counsel, and I wasn't asked to find out.

5   Q   And you're not aware, correct?

6   A   As a result, just -- I wasn't informed or

7   asked to find out. I didn't try to establish that.

8   Q   And therefore, to be clear, you are not aware

9   of Ken Weiss ever having received any praise or awards

10   in connection with the '539 or '813 patents, correct?

11   MR. MACK: Objection; form.

12   A   I wasn't informed about it, and I wasn't asked

13   to find out. So, as a result, I didn't attempt to find

14   out.

15   Q   And therefore you have no such awareness,

16   correct?

17   A   As a result of not being told and not being

18   asked to find out, I am not aware of it one way or the

19   other.

20   Q   You're not aware of the '539 or '813 patents

21   ever having been licensed, correct?

22   MR. MACK: Objection; form.

23   A   I was not informed about that, and I wasn't

24   asked to find out. As a result, I do not know one way

25   or the other.

1   Q   You're not aware of anyone ever offering to

2   purchase the '539 or '813 patents, correct?

3   MR. MACK: Objection to form.

4   A   I was not informed about that by counsel, and

5   I wasn't asked to find out either, so I don't know one

6   way or the other.

7   Q   You're not aware of any awards given for the

8   '539 or '813 patents, correct?

9   MR. MACK: Objection; form.

10   A   Would you please read that question back?

11   Q   I can do it again.

12   A   Okay.

13   Q   You're not aware of any awards having been

14   given for the '539 or '813 patents, correct?

15   MR. MACK: Same objection.

16   A   What do you mean by "award"?

17   Q   The broadest sense of the word.

18   MR. MACK: Objection; form.

19   A   Well, USR were awarded patents for these

20   applications.

21   Q   Anything other than that?

22   A   I wasn't told about any other, and I wasn't

23   asked to find out. So, as a result, I do not know one

24   way or the other.

25   Q   All right. Could you put in front of you

1   Exhibit 2107 from IPR 2018-812, which is your

2   declaration.

3   A   Did you say 2107?

4   Q   2107 in IPR 2018-812.

5   A   Yes, I have that in front of me.

6   Q   This is your declaration in support of the

7   conditional motion to amend the '539 patent, correct?

8   A   Yes, it is.

9   Q   Could you please turn to paragraphs 31 and 32.

10   A   Give me a moment, please, to review them.

11   Yes, I have reviewed that.

12   Q   In paragraphs 31 and 32 of your declaration,

13   Exhibit 2107, you testified that you had reviewed the

14   priority applications for the '539 patent, correct?

15   A   That is correct.

16   Q   Did you read the priority applications in

17   their entireties?

18   A   Do you include the file histories when you say

19   that?

20   Q   No, just the priority application, which

21   you're referring to in paragraph 31.

22   A   I either read or skimmed them in their

23   entirety.

24   Q   There are two applications to which the

25   '539 patent claims priority, correct?

1   A   I'm aware of at least two.

2   Q   Are there more than two?

3   A   Not that I know of.

4   Q   You testified in paragraph 31 of your

5   declaration that, quote, It is my opinion that each

6   limitation of the proposed substitute claims 39

7   through 47 is disclosed in and fully supported by the

8   '729 application to which the '539 patent claims

9   priority, correct?

10   A   Yes, that's what it says.

11   Q   And you gave the same testimony about the

12   '703 application in paragraph 32, correct?

13   A   Would you read that question to me please?

14   Q   Sure. You gave the same testimony about the

15   '703 application in paragraph 32, correct?

16   MR. MACK: Objection; form.

17   A   Yes.

18   Q   Are there limitations in proposed substitute

19   claims 39 through 47 that are only supported by one

20   priority application but not the other?

21   MR. MACK: Objection; form.

22   A   I would have to review them and think about

23   that. I don't recall one way or the other. But reading

24   these two paragraphs, it's my understanding that they're

25   fully supported. If you want to, we could go through

1   them, though, and I could verify.

2   Q   Did you consider, before today, whether there

3   are any limitations in proposed substitute claims 39

4   through 47 that are only supported by one priority

5   application but not the other?

6   A   I don't --

7   MR. MACK: Objection; form.

8   A   I don't recall one way or the other. I recall

9   reviewing them, but I don't recall whether I was posed

10   with that particular question. If I were, then I would

11   have.

12   Q   Could you now put before you Exhibit 2010 from

13   CBM 2018-00024.

14   A   Yes, I have them.

15   Q   This is your declaration in support of the

16   conditional motion to amend the '813 patent, correct?

17   A   Yes, it is.

18   Q   Could you turn please to paragraphs 30

19   through 32.

20   A   Did you say 30 to 32?

21   Q   31 and 32.

22   A   Okay. Give me a moment, please.

23   Yes, I've reviewed those two.

24   Q   You've reviewed paragraphs 30 through 32?

25   A   I reviewed portions of paragraph 30 for

1   context, and I reviewed paragraph 31 and 32.

2   Q   Have you read the '586 and '14 [sic]

3   applications that are referenced in paragraphs 30

4   through 32?

5   A   With this, do you include the file histories?

6   Q   I include the applications that you have --

7   that you're referring to in those paragraphs.

8   A   Yes, I've either read or skimmed them in their

9   entirety.

10   Q   Focusing on paragraph 31 of your declaration,

11   you testified there that, quote, It is my opinion that

12   each limitation of the proposed substitute claims 27

13   through 48 is disclosed in and fully supported by the

14   '184 application, which is the originally filed

15   specification of the '813 patent, correct?

16   A   That's what it says, yes.

17   Q   And you gave the same testimony about the

18   '184 application in your declaration in support of the

19   conditional to amend the '813 patent in CBM 2018-25,

20   correct?

21   A   Would you please read that question back?

22   Q   You gave the same testimony about the

23   '184 application in your declaration in support of the

24   conditional motion to amend the '813 patent in CBM

25   2018-25, correct?

1   MR. MACK: Objection; form.

2   A   You're going too fast for me. I need to

3   review. What is the other one?

4   Q   CBM -- your declaration, CBM 2018-25.

5   A   2018.

6   Q   Exhibit 2012.

7   A   Exhibit 2012. Now, I'm ready to hear your

8   question. I'm sorry.

9   Q   Okay. You gave the same testimony about the

10 '184 application in your declaration in support of the

11 conditional motion to amend the '813 patent in

12 CBM 2015-00025 [sic], correct?

13   MR. MACK: Objection; form.

14   A   I'm struggling with the number there. What's

15 the number that -- CBM?

16   (The requested portion of the record was read

17 back by the reporter.)

18   A   Yes, I did.

19   Q   Now, could you put back in front of you your

20 declaration in CBM 2018-24? It's Exhibit 2010.

21   A   Yes, I have got that.

22   Q   And directing you to paragraph 32. In

23 paragraph 32 of that declaration, you testified that it

24 is your opinion that each limitation of proposed

25 substitute claims 27 through 48 is disclosed in and

1   fully supported by the '586 application to which the

2   '813 patent claims priority, correct?

3   A   That is correct.

4   Q   And you gave the same testimony about the

5   '586 application in your declaration in support of the

6   conditional motion to amend the '813 patent, correct?

7   MR. MACK: Objection; form.

8   A   What exhibit are you asking about now?

9   Q   I'm asking about Exhibit 2012 in CBM 2018-25.

10   A   And would you read the question back to me

11   please?

12   Q   Sure. You gave the same testimony about the

13   '586 application in your declaration in support of the

14   conditional motion to amend the '813 patent, correct?

15   MR. MACK: Objection; form.

16   A   In the exhibit that you just referred to.

17   Q   Exhibit 2012, correct.

18   A   In Exhibit 2012, I -- paragraph 32 in that one

19   matches paragraph 32 in Exhibit 2010 with regards to the

20   question you asked me.

21   Q   Are there limitations in proposed substitute

22   claims 39 through 47 that are only supported by the

23   '184 application but not the '586 application?

24   MR. MACK: Objection; form.

25   A   Would you read that question back to me?

1   Q   Are there limitations in proposed substitute

2   claims 39 through 47 that are only supported by the

3   '184 application but not the '586 application?

4   MR. MACK: Same objection.

5   A   I don't think I understand your question.

6   Q   Let me ask a new one.

7   Are there limitations in proposed substitute

8   claims 39 through 47 that are only supported by one

9   priority application but not the other?

10   MR. MACK: Same objection.

11   A   I don't know if I can answer that. I don't

12 understand your question.

13   Q   What don't you understand?

14   A   Would you ask it again?

15   Q   Sure.

16   Are there limitations in proposed substitute

17 claims 39 through 47 that are only supported by one

18 priority application but not the other?

19   MR. MACK: Same objection.

20   A   You are asking only about 39 to 47?

21   Q   Correct.

22   A   So we're not talking about the paragraphs that

23 you asked me to review here?

24   Q   I'm asking you about proposed substitute

25 claims 39 to 47. Do you have those in mind?

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 1        A    I need to look at those.  39 to 47.  So that's

 2    a subset of the claims, in the substitute claims,

 3    described in paragraph 32, correct?

 4        Q    Let me re-ask the question.

 5        A    Yes.

 6        Q    Are there limitations in proposed substitute

 7    claims 27 through 48 that are only supported by one

 8    priority application but not the other?

 9             MR. MACK:  Objection; form.

10        A    I believe they're both fully supported.  Oh,

11    yes -- wait.  Do I understand you to ask this in context

12    of one of these CBMs or both of them at the same time?

13        Q    Both of them.

14        A    Would you please break it down?

15        Q    Sure.

16             Let's focus first on CBM 2018-0024.  Do you

17    have that in mind?

18        A    Yes.

19        Q    And you have given an opinion with respect to

20    proposed substitute claims 27 through 48, correct?

21        A    That's correct.

22        Q    Are there limitations in proposed substitute

23    claims 27 through 48 that are only supported by one

24    priority application but not the other?

25        A    They're fully supported by both.
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1   Q   And is your opinion the same with respect to

2   CBM 2018-00025?

3   A   That is correct.

4   Q   Let me ask you to put in front of you

5   Exhibit 2010 from CBM 2018-24, your declaration.

6   A   Yes, I got it.

7   Q   And can you turn, please, to paragraph 30?

8   A   Paragraph? I'm sorry.

9   Q   30.

10   A   30. Yes. I'm at paragraph 30. Let me review

11 this for a moment.

12   Yes, I reviewed that.

13   Q   Do you see in the second sentence of

14 paragraph 30, you testified that, quote, The '813 patent

15 also claims priority through a series of continuing and

16 provisional application dating back to February 21st,

17 2006?

18   A   That's what it says.

19   Q   Did you read any of these continuing and

20 provisional applications?

21   A   I read or skimmed them.

22   Q   You have not offered an opinion in any

23 declaration regarding whether any of the continuing and

24 provisional applications referenced in paragraph 30

25 support the proposed substitute claims, correct?

1   MR. MACK: Objection; form.

2   A   You'd have to refer me to a particular portion

3 of one of my declarations and ask in that context. It's

4 hard for me to answer general question about six

5 declarations at the same time.

6   Q   Well, I'm asking with respect to any

7 declaration for the '813 patent. You haven't offered an

8 opinion regarding whether any of the continuing and

9 provisional applications referenced in paragraph 30 of

10 Exhibit 210 support the proposed substituted claims,

11 correct?

12   MR. MACK: Objection; form.

13   A   Do you mean one by one?

14   Q   I'm referring to all of them, yes.

15   A   So let me -- to understand your question, let

16 me just review the material here.

17   Q   Sure.

18   A   I can actually not recall one way or the

19 other, sitting here. But if there's an expression of it

20 in my declarations, I'd be -- my recollection would be

21 refreshed. So if you have something in mind, we can

22 turn to that portion.

23   Q   Well, let me ask you about the declaration you

24 have in front of you, Exhibit 210.

25   You haven't offered an opinion in that

1   declaration regarding whether any of the continuing and

2   provisional applications to which the '813 patent claims

3   priority support the proposed substitute claims,

4   correct?

5   MR. MACK: Objection; form.

6   A   I'd have to refresh my recollection by

7   reviewing the declaration. I don't recall, sitting here

8   today.

9   Q   In your declaration in support of the

10   conditional motion to amend the '813 patent in

11   CBM 2018-25, which is Exhibit 2012, you do not offer any

12   opinion regarding whether any of the continuing and

13   provisional applications to which the '813 patent claims

14   priority support the proposed substitute claims,

15   correct?

16   MR. MACK: Objection; form.

17   A   Do you have a particular paragraph in mind for

18   me to review?

19   Q   I'm referring to the entirety of the

20   declaration.

21   A   I'd have to review it again, then. I mean,

22   I -- I -- with six declarations, I can't remember them

23   verbatim, and I don't recall, but -- so if you have a

24   particular paragraph that you would ask about, I'd be

25   very happy to help.

1   Q   Do you recall in that declaration,

2   Exhibit 220 -- Exhibit 2012, offering any opinion

3   regarding whether any of the continuing and provisional

4   applications to which the '813 patent claims priority

5   support the proposed substitute claims?

6   MR. MACK: Objection; form.

7   A   I don't recall one way or the other, but that

8   doesn't mean that it's not in here. It's just a

9   statement about the extent to which I recall the details

10   of these -- the declaration.

11   Q   Could you put back in front of you your

12   declaration Exhibit 2012 from CBM 2018-25?

13   A   Yes, I got it.

14   Q   And please turn to paragraph 32.

15   A   Yes.

16   Q   In paragraph 32 of your declaration in support

17   of the conditional motion to amend the '813 patent, you

18   say, quote, It is my further opinion that because all

19   the limitations recited in substitute claims 27

20   through 48 have sufficient written support in the '586

21   application, as set forth below, the substitute claims

22   have an effective priority date at least as early as

23   February 26, 2009.

24   Did I read that correctly?

25   A   Yes, you did.

1   Q   Your opinion is that the earliest priority for

2   the substitute claims of the '813 patent is February 26,

3   2009, correct?

4   A   That's not what it says.

5   Q   Well, is that your opinion?

6   A   I haven't been asked to render an opinion

7   about that.

8   Q   The substitute claims for the '813 patent are

9   not entitled to a priority date before February 26,

10 2009, correct?

11   A   I haven't been asked to review that. I don't

12 know.

13   Q   You have not offered any opinion suggesting

14 that the substitute claims for the '813 patent are

15 entitled to a priority date before February 26, 2009,

16 correct?

17   A   I don't recall, sitting here.

18   But if there's a particular paragraph that you

19 want to refer me to, I'd be very happy to review it.

20   Q   Okay. Let me ask you some questions, if I

21 might, about the '813 patent.

22   You have studied the '813 patent, correct?

23   A   Yes, I have.

24   Q   And you've read it many times, correct?

25   A   At least in part, yes.

1   Q   The '813 patent claims generally relate to

2   verifying an account holder's identity, correct?

3   MR. MACK: Objection to form.

4   A   There's much more to it than that, of course,

5   but that's one aspect of it.

6   Q   The verification described in the '813 patent

7   is used to enable a transaction with a point-of-sale

8   terminal, correct?

9   MR. MACK: Objection; form.

10   A   That's one aspect of it, but there are others

11 as well.

12   Q   The '813 patent describes verifying an account

13 holder's identity based on codes, correct?

14   MR. MACK: Objection; form.

15   A   I need to look at the phrasing of this. Is

16 there a particular paragraph that you have in mind here?

17   Q   No. I'm not limiting it to a particular

18 paragraph. Can you tell me whether the '813 patent

19 describes verifying an account holder's identity based

20 on codes?

21   MR. MACK: Same objection.

22   A   I wouldn't characterize it as such. The

23 reason I'm having a hard time with the questions is that

24 I believe those -- some of those words are used in the

25 claim -- in the claims, and I want to make sure that I

1   answer it correctly.

2   So can -- with that in mind, can I ask you to

3   rephrase the question, please?

4   Q   Let me re-ask it and see if you can answer it

5   as phrased.

6   The '813 patent describes verifying an account

7   holder's identity based on codes, correct?

8   A   Let me review this with -- in mind that I want

9   to make sure that I don't be careless with respect to

10 the use of the terminology you are using.

11   I disagree with your characterization. I

12 would say that one aspect of the '813 patent is for a

13 user to convey its identity to a token -- to a device --

14 sorry -- and for that device to authenticate to USR.

15 And one aspect of that is to use encrypted identity

16 information.

17   Q   Would you agree with me that one aspect of the

18 '813 patent is to verify an account holder's identity

19 based on codes?

20   A   That's not the characterization I would use.

21 As I mentioned, what is done is that the device is

22 verifying the identity of a user and then the device is

23 interacting with the USR conveying an encrypted

24 authenticate -- identity -- encrypted authentication

25 information -- I'm sorry -- encrypted authentication

1   information.

2   Q   In the '813 patent, are codes used to verify

3   an account holder's identity?

4   A   So that's not how I characterize it. Instead,

5   the user would be locally authenticated at the device,

6   and the device would interact via proxies with the USR

7   and transmitting encrypted authentication information,

8   and that is used to determine whether to perform the

9   transaction associated with this or not.

10   Q   So you would disagree with the suggestion that

11   in the '813 patent codes are used to verify an account

12   holder's identity, correct?

13   A   I haven't considered that exact formulation

14   before. As I mentioned, I believe that the identity is

15   verified locally by a device.

16   Q   So I'm asking you to consider that

17   characterization now. Can you tell me whether in the

18   '813 patent codes are used to verify an account holder's

19   identity?

20   MR. MACK: Objection; form.

21   A   I would have to think about that.

22   Q   Okay. Can you tell me whether in the

23   '813 patent an account holder's identity is verified

24   based on codes?

25   MR. MACK: Objection; form.

1   A   So as I mentioned, I believe that an --

2 there's an authentication of a user local to a device

3 where the device makes an assessment about the identity

4 of the user and then the device communicates via proxies

5 with the USR, with the Universal Secure Registry -- I'm

6 sorry. No, I'm misusing this term. It's communicating

7 with a secure registry. USR is, of course, the name of

8 the company. I apologize for that. So the device

9 communicates with the secure registry.

10   Q   In the '813 patent --

11   A   But wait. To convey encrypted authentication

12 information that relates to the interaction between the

13 user and the device. And that encrypted authentication

14 information, among other things, is used to determine an

15 action by the secure registry.

16   Q   Would you agree with me that in the

17 '813 patent the codes used to verify an account holder's

18 identity typically incorporate information related to

19 the account holder?

20   MR. MACK: Objection; form.

21   A   I disagree with that characterization.

22   Q   Would you agree with me that the '813 patent

23 is generally directed to the idea of verifying an

24 account holder's identity to enable a transaction based

25 on codes or information related to an account holder?

1   MR. MACK: Objection; form.

2   A   Would you please read that to me again?

3   Q   Sure. Would you agree that the '813 patent is

4   directed to the idea of verifying an account holder's

5   identity to enable a transaction based on codes or based

6   on information related to an account holder?

7   MR. MACK: Same objection.

8   A   So let me break it down what I believe is

9   happening in -- among other things, in the '813 patent.

10   Q   Do you agree or disagree with what I said?

11   A   I want to make sure that I answer correctly.

12   Q   Well, are you able to answer it whether you

13   agree or disagree?

14   A   I -- please, for the context and for the

15   record, I'd like to reformulate it and explain my

16   understanding.

17   Q   I'll just move on if you can't agree or

18   disagree with my question.

19   A   I just need to formulate it using my words.

20   Q   I'm just asking you, sir, do you agree that

21   the '813 patent is generally directed to the idea of

22   verifying an account holder's identity to enable a

23   transaction based on codes or based on information

24   related to an account holder?

25   MR. MACK: Objection; form.

1   A   So, as I mentioned, that is not how I'd

2   characterize it. And if you want to, I could explain

3   why.

4   Q   Let me move to the '539 patent.

5   A   Okay.

6   Q   The '539 patent claims generally relate to

7   verifying an account holder's identity, correct?

8   A   Just a moment, please.

9   Q   Sure.

10   A   May I ask you to please read back the

11   question?

12   Q   Sure. The '539 patent claims generally relate

13   to verifying an account holder's identity, correct?

14   A   So the '539 patent, among other things,

15   describes using validation information, which is

16   information about the user of the database to whom the

17   data pertains and is to be used by the USR software 18

18   to validate that the person attempting to access the

19   information is the person to whom the data pertains or

20   is otherwise authorized to receive it.

21   I think that might answer your question.

22   Q   It doesn't. I'm not asking you to read from

23   your declaration, sir. I'm asking you this question.

24   The '539 patent generally relates to verifying

25   an account holder's identity, correct?

1   MR. MACK: Objection; form.

2   A   So I don't quite agree with that

3   characterization. What I believe, among other things,

4   that the '539 patent does is it allows a determination

5   that user initiates a purchase, and then, for example,

6   the user can enter a secret code, such as using SecurID,

7   and that code is transmitted to the USR, among other

8   things. And the USR determines whether the code is

9   valid, among other things that it determines, and then

10   accessing user's credit card information, which then

11   conditionally is transmitted to the credit card company.

12   Q   So I want to make sure we're clear. You

13   disagree with the suggestion that the '539 patent

14   generally relates to verifying an account holder's

15   identity, correct?

16   A   So this is not about identity authentication

17   as such, but it's a much bigger concept. Identity and

18   authentication play roles here, but it's not a correct

19   characterization as you do. It's a little bit narrow.

20   That is not the goal of the patent as such, but,

21   instead, it's using authentication of a user to

22   determine whether a transaction is performed -- to be

23   performed, among other things, where this transaction

24   may involve, for example, a credit card company.

25   Q   Does the '539 patent describe verification?

1   A   So, for example, if you look at figure 6 of

2   the '539 patent, in portion 604, it's determined whether

3   the requester has right -- have rights to access the

4   type of requested data. That's a form of verification.

5   Q   So you agree that the '539 patent describes

6   verification, correct?

7   A   I'm not sure whether the -- whether it uses

8   the word "verification" but, for example, it determines

9   whether a requester has rights to access a particular

10   type of requested data.

11   Q   Would you agree that the '539 patent describes

12   verification used to conduct different kinds of

13   transactions?

14   A   So, among other things, as I mentioned in

15   figure 6, element 604 is to determine whether a

16   requester have rights to access some type of requested

17   data. Now, there are many kinds of data in the context

18   of '539 that are considered. That is a form of

19   verification that is performed there.

20   Q   Okay. My question is a little bit different.

21   A   Okay.

22   Q   The verification that's described in the

23   '539 patent is used to conduct different kinds of

24   transactions, correct?

25   A   When you are saying "different kind of

```
 1   transactions," what do you mean?
 2        Q    Do you not understand that?
 3        A    I just want to understand what you mean by it.
 4        Q    I'm not giving it any kind of special meaning.
 5        A    Okay.
 6        Q    More than one kind of transaction.
 7        A    So, for example, the '539 patent describes
 8   that the USR system or database may be used to identify
 9   the user in many situations and thus might take the
10   place of multiple conventional forms of identification.
11   It does speak a little bit further down about enabling
12   anonymous identification, which facilitates multiple new
13   forms of transactions.
14        Q    Okay.  So let me re-ask my question.  The
15   verification described in the '539 patent is used to
16   conduct different kinds of transaction, correct?
17        A    The reason I'm hesitating to answer is I don't
18   understand whether you mean that there's an implication
19   here between the verification and the different kinds of
20   transactions.
21             Would you re-ask your questions in a way that
22   avoids that risk of confusion, please?
23        Q    Well, I am asking you whether there's a
24   relationship between the verification and the different
25   kinds of transactions.
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1   A   What -- would you rephrase your question so

2   that I don't have to feel hesitant about what you mean.

3   Q   Okay. The '539 patent describes verification,

4   correct?

5   A   So I gave an example before of where a

6   requester, it's determined whether the requester has --

7   have the rights to access the type of requested data.

8   Q   Are you able to answer my question yes or no?

9   A   I didn't -- I was not aware of the question

10   yet.

11   Q   The '539 patent describes verification,

12   correct?

13   A   So I'm giving an example here that I believe

14   is verification, which is, does the requester have

15   rights to access type of requested data?

16   Q   So is the answer to my question "correct"?

17   A   So I'm giving you an example that I believe

18   would answer your -- your question.

19   Q   I'm not asking you to give me an example. I'm

20   asking whether the '539 patent describes verification.

21   Is that correct or incorrect?

22   A   So the USR system in the '539 patent may be

23   used to identify the person in many situations. So

24   identifying a person could be seen as verifying the

25   person. And then it enables anonymous identification,

1   which in turn facilitates multiple new forms of

2   transactions.

3   Q   I'll try it one more time, and then I'll move

4   on.

5   Do you agree or disagree that the '539 patent

6   describes verification?

7   A   So the '539 patent, among other things, speaks

8   about enabling anonymous identification, which

9   facilitates multiple new forms of transactions. It

10   gives a description -- various descriptions of this.

11   One that is -- one that might be helpful here

12   is figure 8, element 806, which is that USR determines

13   if the code is valid.

14   So in the context of your question, that

15   determination is made, and in 812 -- no. I'm sorry --

16   '814, the USR notifies merchant of the result of the

17   transaction. That can be many forms of transaction.

18   MR. SELWYN: I move to strike as not

19   responsive.

20   Q   Can you put in front of you the '813 patent?

21   A   And after this line of questioning, I'd like

22   to take a short break.

23   Q   Yes. Do you want to take it now or?

24   A   If you don't mind.

25   Q   That's fine.

1   A   Okay. Thank you.

2   (A recess ensued from 10:03 a.m. to

3   10:10 a.m.)

4   BY MR. SELWYN:

5   Q   All right, Dr. Jakobsson, can you put the '813

6   patent in front of you?

7   A   Yes.

8   Q   And would you turn to column 4, lines 12

9   through 14.

10   A   Columns 4?

11   Q   Column 4, lines 12 through 14.

12   A   Just a moment. Yes.

13   Q   Do you see the sentence that reads, quote, The

14   system or database of the invention may be used to

15   identify the person in many situations and thus may take

16   the place of multiple conventional forms of

17   identification?

18   A   Yes, I do.

19   Q   Would you agree with me that one problem that

20   the '813 patent claims to address is verifying a user's

21   identity?

22   A   That's only a small part of what it's doing.

23   Q   Would you agree with me that that is one

24   problem the '813 patent claims to address?

25   A   Well, it's part of a bigger picture. The

1   reason I'm -- I'm clarifying this is that it is not

2   used, for example, as password replacement.

3   Q   Does the '813 patent address the problem of

4   verifying a user's identity, yes or no?

5   A   It's in the context of a transaction that one

6   needs to verify an identity, but it's -- the patent

7   itself is not relating to, for example, verification of

8   an identity such as a password replacement method would

9   do.

10   Q   Can you answer my question yes or no? Does

11   the '813 patent claim to address the problem of

12   verifying a user's identity?

13   A   So I don't want this to be misunderstood out

14   of context, so I'm going to explain that that's one part

15   of it only. And, you know, it's in order to perform a

16   transaction, such as a credit card transaction, where

17   there are multiple parties interacting.

18   And one part of this is for the system or

19   component of the system to verify that a user is who he

20   or she claims to be. So one example would be using

21   biometrics.

22   Q   The '813 patent doesn't claim a technique to

23   verify the identity of an electronic device, correct?

24   A   Would you say that again, please?

25   Q   The '813 patent does not claim a technique to

1   verify the identity of an electronic device, correct?

2   MR. MACK: Objection; form.

3   A   So it relates to identifying multiple things.

4   One is for a device to identify the identity of a user.

5   And another one is for the device to convey information

6   to the USR. And that information, it's useful for the

7   USR to identify the identity of the device.

8   Q   You're not answering my question, sir.

9   Does the '813 patent claim -- claim a

10 technique to verify the identity of an electronic

11 device?

12   MR. MACK: Objection; form.

13   A   When you say "claim," do you mean is it in the

14 claim language?

15   Q   Yes.

16   A   So I have to look at the claim language. Is

17 there a particular claim you have in mind.

18   Q   Well, you've studied the patent, sir, right?

19   A   Yes, I have.

20   Q   You've read it many times, correct?

21   A   Yes, I have.

22   Q   You've offered multiple declarations on this

23 patent, correct?

24   A   Yes.

25   Q   Can you tell me whether the '813 patent claims

1   a technique to verify the identity of an electronic

2   device?

3   A   Do you mean that is the full claim, and that's

4   it?

5   Q   Does --

6   A   Do you mean is it a limitation of a claim, or

7   is it the claim that you're reading now?

8   Q   Let's start with the claim.

9   A   So I have to look at whether there is a claim.

10   I gather you mean that this would be an independent

11   claim that I'm looking for.

12   Is that so?

13   Q   Let me ask you this.

14   In the '813 patent, the user device is what is

15   performing the authentication, correct?

16   MR. MACK: Objection; form.

17   A   Using the identification?

18   Would you read the question?

19   Q   In the '813 patent, the user device is

20   performing the authentication, correct?

21   MR. MACK: Objection; form.

22   A   The -- there are many types of authentication

23   performed. When you say "the authentication," what do

24   you mean?

25   Q   The user device is authenticating the identity

1   of the user of the device in the '813 patent, correct?

2   A   So one part of how the '813 patent works or

3   the technology in the '813 patent works is that a device

4   is verifying the user, for example, using biometrics,

5   but it could be a PIN. But that should not be seen out

6   of context. It does that, and then conveys encrypted

7   authentication information to the USR. And, again, the

8   USR performs verifications and computations on this

9   involving other parties. And then either it approves or

10   disapproves an associated transaction.

11   I think that's the question you're asking me

12   about.

13   Q   It wasn't.

14   In the '813 patent, authentication of the user

15   of the user device can take place using biometric

16   information, correct?

17   A   Would you please read that back to me?

18   Q   In the '813 patent, authentication of the user

19   of the user device can take place using biometric

20   information, correct?

21   A   When you say "of the user of the user device,"

22   do you also mean by the user device? Or is the

23   question -- would you clarify it?

24   Q   You understand what a user of a user device

25   is, correct?

1   A   A user of the user device is the user

2   associated with the user device.

3   Q   Okay. With that in mind, in the '813 patent,

4   authentication of the user of the user device can take

5   place using biometric information, correct?

6   A   So the device here could verify the user based

7   on biometric information.

8   Q   And that biometric is specific to the

9   particular user, correct?

10   A   That's not what I said. There are various

11   forms of biometric information, and some might not be

12   specific. So one form of biometric information is one's

13   fingerprint. One's fingerprint is unique or close to

14   unique to the person associated with it whereas there

15   are other biometric information that isn't unique. For

16   example, information about a biometrics might be that,

17   for example, a fingerprint sensor was used. That is

18   biometric information in some contexts.

19   You have to ask the question in context of a

20   particular situation, and I would be able to answer.

21   Q   Let me try it again.

22   In the '813 patent, authentication of the user

23   of the user device can be done using biometric

24   information, correct?

25   MR. MACK: Objection; form.

1   A   So the user device can use biometric methods

2   to authenticate the user in order to determine what to

3   do and what to transmit to the USR.

4   Q   And when that is done in the '813 patent, the

5   biometric is specific to a particular user, correct?

6   MR. MACK: Objection; form.

7   A   I would have to review the context to see if I

8   could answer that question.

9   Q   In the invention claimed in the '813 patent,

10   biometric information is not used to identify a specific

11   device, correct?

12   A   I'm sorry. I did not understand that

13   question.

14   Q   Let me try it again.

15   In the claimed invention of the '813 patent,

16   biometric information is not used to identify a specific

17   device, correct?

18   A   That's not the question I considered before.

19   Q   In the '813 patent, biometric information

20   would include comparing an image of a person's face to a

21   stored image, correct?

22   MR. MACK: Objection; form.

23   A   There are many ways of performing

24   verification. I would have to review the ways described

25   in the '813 patent in order to give you a good answer to

1   that question.

2   Q   Well, can you tell me, as you sit here today,

3   based upon all of the work that you've done in this

4   case, whether in the '813 patent biometric

5   identification would encompass comparing an image of a

6   person's face to a stored image?

7   A   So first of all, that is not normally how it's

8   done. One using -- one uses templates. Now, based on

9   how you define "stored information," that might be a

10 template.

11   With that in mind, would you please re-ask the

12 question?

13   Q   In the '813 patent, biometric identification

14 would encompass comparing an image of a person's face to

15 a stored image, correct?

16   MR. MACK: Objection; form.

17   A   I need to look at my declaration to answer

18 that question.

19   You know, I don't think I opined on that.

20 Please correct me if I think -- if you think I'm

21 mistaken. So I don't see anything in my declaration

22 that addresses that question.

23   Q   So you don't have an opinion whether in the

24 '813 patent biometric identification would encompass

25 comparing an image of a person's face to a stored image,

1   correct?

2   A   Sitting here right now, I would have to review

3   '813 in order to answer your question. I can't recall

4   one way or the other.

5   Q   Would you agree with me that one way that

6   people recognize others is by comparing how they look to

7   a mental stored image?

8   MR. MACK: Objection; form.

9   A   Do you mean what people do as opposed to what

10 machines do?

11   Q   What human beings do.

12   A   What human beings do. I'm not a specialist in

13 how human cognition works.

14   Q   So you don't know.

15   A   I don't feel comfortable rendering an opinion

16 about how that works.

17   Q   Would you agree with me that one problem that

18 the '539 and '813 patents claim to address is

19 interception of data by unintended third parties?

20   A   Did you say --

21   MR. MACK: Objection; form.

22   A   --'813 and '539?

23   Q   Yes.

24   A   Would you break it down, please?

25   Q   Sure. One problem that the '539 patent claims

1   to address is interception of data by unintended third

2   parties, correct?

3   A   So it's a bit narrow to say that that's the

4   goal of the patent. Of course, it's an important aspect

5   to address the problem of potential interception in any

6   system that involves communication over networks. So

7   '539 has components in it that address the problem of

8   potential interception, but it also has components to

9   perform other tasks. This is just a puny portion of the

10   technical goals associated with '539.

11   Q   Okay. But you agree that the '539 patent

12   addresses, among other things, the problem of

13   interception of data by unintended third parties,

14   correct?

15   A   So in a situation where you have a multiparty

16   computation of any form and communication over a

17   network, it's important if they are not dedicated

18   networks to address the problems of potential

19   interception. There are ways that the '539 patent uses

20   that would address the problem of potential

21   interception. But I don't know if those methods are

22   used for the pure purpose of addressing interception.

23   So with that in mind, would you please re-ask

24   your question?

25   Q   Let me ask a new question.

1   The '813 patent addresses, among other

2   problems, the interception of data by unintended third

3   parties, correct?

4   A   So there are components in the '813 patent

5   that, by using them, you reduce the risk of exposure of

6   data to third parties that might interpret messages

7   being communicated between the parties described in

8   '813. Now, that is, of course, not the entirety of the

9   technical goals set out to be addressed in the

10   '813 patent.

11   Q   Okay.

12   A   And I don't know one way or the other if the

13   pure goal of using the techniques that do address the

14   potential interception of information was to address

15   that or whether there are other goals as well for those

16   particular components.

17   Q   I'm not asking you about the entirety of the

18   goals of the patents. My question is more simple that

19   that.

20   Would you agree that one problem that the '539

21   and '813 patents claim to address is interception of

22   data by unintended parties?

23   A   Would you please break that down by the

24   patent, please?

25   Q   Do you think the answer may be different

1   depending on the patent?

2   A   I want to answer it in a good way. And in

3   order to answer it correctly for the record, I want to

4   be able to refer to the individual patent. And since

5   these are two different patents, I'd like to ask you to

6   break down the question.

7   Q   One problem that the '539 patent claims to

8   address is interception of data by unintended parties,

9   correct?

10   A   I think I answered this question before,

11   didn't I?

12   Q   I don't think you did.

13   A   Okay. So let me try again. So --

14   Q   Can you answer my question, correct or

15   incorrect?

16   A   Can I answer it correctly or incorrectly?

17   Q   No. Can you answer my question in terms of

18   the way it has been framed? Let me ask it again.

19   Would you agree with me, yes or no, that one

20   problem that the '539 patent claims to address is

21   interception of data by an unintended party?

22   A   When you say "claim," do you mean that it's in

23   the claim language?

24   Q   No. Anywhere in the patent.

25   A   I would have to review the entirety of the

1   patent again to answer that question.

2   Q   One patent -- strike that.

3   Would you agree with me that one problem that

4   the '813 patent says it addresses is interception of

5   data by unintended parties?

6   MR. MACK: Objection; form.

7   A   Do you mean verbatim like you said it, that it

8   addresses it, or that I would understand it or that a

9   person of skill in the art would?

10   Q   A person of skill in the art.

11   A   I haven't considered that question. I can

12   review it whether that would be the understanding of a

13   person of skill in the art.

14   Q   So you have not considered whether one of

15   ordinary skill in the art would understand the '539 and

16   '813 patents to address the problem of interception of

17   data by unintended parties, correct?

18   A   Would you please break that down by the

19   patent?

20   Q   You have not considered whether one of

21   ordinary skill in the art would understand the

22   '539 patent to address the problem of unintend -- of

23   interception of data by unintended third parties,

24   correct?

25   A   I don't recall, but we can refer to my

1   declaration to see if it's in there.

2   Q   You have not considered whether one of

3   ordinary skill in the art would understand the '813

4   patent to address the problem of interception of data by

5   unintended parties, correct?

6   A   I would have to refer to my declaration to

7   recall whether I have opined or not.

8   Q   Would you agree with me that interception of

9   sensitive information by unintended parties is not a

10   problem limited to the context of electronic

11   transactions?

12   MR. MACK: Objection; form, beyond the scope.

13   A   I don't understand your question. Would you

14   give me an example, please?

15   Q   Sure.

16   Interception of data can occur if someone

17   steals a letter containing credit card information from

18   the U.S. Postal Service mailbox on the street corner,

19   correct?

20   MR. MACK: Same objections.

21   A   One would not quite call it interception of

22   data, I think. Is that what you call interception of

23   data?

24   Q   Yeah.

25   A   I would characterize it as theft of mail.

1   Q   Okay. If theft of mail occurs where a letter

2   contains credit card information, that would be an

3   example of interception of sensitive data by an

4   unintended party, correct?

5   MR. MACK: Same objections.

6   A   So, generally speaking, beyond the technical

7   scope of the patents, interception, I think, to a person

8   on the street, would have a meaning in the context of

9   sports, not necessarily in the context of mail theft.

10   I'm not sure I could answer that question

11   without you reformulating it not using the word

12   "interception."

13   Q   How about this?

14   Theft of sensitive information by unintended

15   parties is not a problem limited to the context of

16   electronic transactions, correct?

17   A   Would you clarify what an unintended party is?

18   Q   A party that's not supposed to have the

19   information.

20   A   What information? The stolen information?

21   Q   Yes.

22   A   Would you please re-ask your question.

23   Q   I'll try it one more time.

24   Theft of sensitive information by an

25   unintended party is not a problem limited to the context

1   of electronic transactions, correct?

2   MR. MACK: Objection; form and the scope.

3   A   When you're asking -- you're not asking about

4   the patents now or the declarations, right?

5   Q   I'm asking you as somebody who says in your

6   declarations is an expert in cryptography, correct?

7   A   Right.

8   Q   And an expert in secure transactions, correct?

9   A   But not mail theft.

10   Q   Okay. Let me try it one more time and see if

11   you can answer this question because I want it to be

12   clear when the Board sees the transcript whether you've

13   answered the question or not. Okay?

14   A   That sounds good.

15   Q   Theft of sensitive information by an

16   unintended party is not a problem limited to the context

17   of electronic transactions, correct?

18   MR. MACK: Objection; form, beyond the scope.

19   A   When you're saying "electronic transactions,"

20   I understand that. When you say "beyond electronic

21   transactions," what kind of transactions did you have in

22   mind?

23   Q   I didn't say "beyond."

24   A   No. I'm sorry. Then I misunderstood.

25   Would you please reread your question? Would

1   you -- it would be helpful for me if you rephrased it,

2   actually, because there's some vague aspects of it that

3   makes me have a hard time to understand what you

4   actually are asking.

5   Q   I'll ask it one more time. If there's

6   something vague in it, you tell me words that are vague.

7   Okay?

8   A   I'll do my best.

9   Q   Because I want the Board to understand what

10   you think is vague.

11   Theft of sensitive information by an

12   unintended party is not a problem limited to electronic

13   transactions, correct?

14   A   So let's start with theft of the information.

15   What do you mean by theft of information?

16   Q   What else do you think is vague in that

17   question?

18   A   I have to understand theft of information

19   first, and then I can parse it beyond that.

20   Q   Okay. So the words "theft of sensitive

21   information," that's vague to you?

22   A   So it could be used in the context of

23   communications, for example, whether digital or not.

24   But it could also be used in the context of data at

25   rest, which, in the physical case, might be somebody

1   entering my home and stealing something.

2   What -- what did you have in mind?

3   Q   I'll move on if you don't understand the

4   question.

5   A   It's not so much that I don't understand the

6   question as I don't understand what you understand the

7   question to mean. So if you rephrase it, it would be

8   helpful me.

9   Q   You understand a deposition is an opportunity

10   for me to ask you questions, right?

11   A   Yes, sir.

12   Q   And what's important is whether you understand

13   the questions, right?

14   A   But the question, I'm saying, is vague. Okay?

15   You need to clarify in order for me to answer it in a

16   way that is going to be helpful.

17   Q   And if your testimony is that, in my question,

18   theft of sensitive information is vague to you, I will

19   move on.

20   A   Okay.

21   Q   Would you agree with me that the '813 patent

22   generally relates to the fields of security and

23   cryptography?

24   A   Along with other things, yes.

25   Q   Would you agree with me that the '813 patent

1   generally relates to the field of payment systems?

2   A   That's another thing, yes.

3   Q   Would you agree with me that the application

4   of security and cryptography to the field of payment

5   systems was known before the '813 patent?

6   MR. MACK: Objection; form.

7   A   Would you please say that again?

8   Q   The application of security and cryptography

9   to the field of payment systems was known before the

10   '813 patent, correct?

11   A   There were aspects that were known. They were

12   not the same aspects that are disclosed in the '813

13   patent.

14   Q   The '813 patent doesn't disclose any new form

15   of biometric sensor, correct?

16   MR. MACK: Objection; form.

17   A   No, it doesn't.

18   Q   The '539 patent doesn't disclose any new form

19   of biometric sensor, correct?

20   A   That is correct.

21   Q   The '539 patent doesn't disclose any new form

22   of user interface, correct?

23   MR. MACK: Objection; form.

24   A   Did you say '539?

25   Q   Yes.

1   A   Sometimes people, when they say "user

2   interface," also include user experience. When you ask

3   the question, do you include user experience?

4   Q   No.

5   A   So by "user interface," what do you mean?

6   Q   What the user sees on a device.

7   A   So what he sees or the manner in which it's

8   presented?

9   Q   Both.

10   A   So what he sees would, of course, be

11   contextually dependent on the patent because the patent

12   causes things to be shown that in another entirely

13   different context would not have been shown.

14   Q   Let me ask it this way.

15   A   Okay.

16   Q   Does the '539 patent claim to have invented a

17   new form of user interface?

18   A   Not that I'm aware of.

19   Q   Does the '813 patent claim to have invented a

20   new form of user interface?

21   A   I'm not aware of that.

22   Q   Does the '539 patent claim to have invented a

23   new form of fingerprint sensor?

24   A   Not that I'm aware of.

25   Q   Does the '813 patent claim to have invented a

1   new form of fingerprint sensors?

2   A   Not that I'm aware of.

3   Q   Does the '539 patent claim to have invented a

4   new form of processor?

5   A   Processor?

6   Q   Yes. Computer processor.

7   A   So you're speaking of the hardware?

8   Q   Yes.

9   A   So you don't mean it in the terms of how it's

10   used, but rather the raw processor?

11   Q   That's my question now, and I'll ask it again.

12   A   Okay.

13   Q   Does the '539 patent claim to have invented a

14   new form of processor?

15   A   Not that I'm aware of.

16   Q   Does the '813 patent claim to have invented a

17   new form of processor?

18   A   Not that I'm aware of.

19   Q   Does the '539 patent claim to have invented a

20   improved way to operate a processor?

21   MR. MACK: Objection; form.

22   A   Now, that question is interesting because the

23   manner in which one operates a processor, of course,

24   relates to the software that is being executed on it.

25   With that in mind, would you paraphrase the

1   question, please?

2   Q   Sure. The '539 patent doesn't improve the way

3   processors operate, correct?

4   MR. MACK: Objection; form.

5   A   Do you mean, for example, in terms of their

6   speed?

7   Q   That would be one example, but I'm not

8   limiting to that.

9   A   So they do improve on what the processors

10   perform in -- for example, the patent describes

11   technology that is run on a processor. And -- in order

12   to achieve goals that are specific to the patent. And,

13   therefore, it improves the use of the processor by

14   including this new functionality in this context.

15   MR. SELWYN: I move to strike as

16   nonresponsive.

17   Q   Does the '539 patent disclose an improved

18   processor?

19   MR. MACK: Objection; form.

20   A   By "improved," what do you mean?

21   Q   Better.

22   A   So "better" in that it can perform tasks that

23   processors did not perform before?

24   Q   No.

25   Does the '539 disclose improved hardware for a

1   processor?

2   A   Not that I'm aware of.

3   Q   Does the '813 patent disclose improved

4   hardware for a processor?

5   A   Not that I'm aware.

6   Q   Does the '539 patent disclose any new form of

7   communication interface?

8   A   It describes communication interfaces between

9   the entities described in the patent. And when you

10 saying -- describing the new form of user interface, you

11 just mean the raw interface --

12   Q   Yes.

13   A   -- or do you mean what it's doing too?

14   Q   The interface.

15   A   Just by itself.

16   Q   Yes.

17   A   So would you please re-ask the question with

18 that in mind.

19   Q   Does the '539 patent disclose any new form of

20 communication interface?

21   A   May I ask you to clarify in the -- in the

22 question what you mean by the "new form"? Do you mean

23 only the raw form of communication -- of interface?

24   Q   Let me ask it this way. Does the '539 patent

25 claim to have invented a new form of communication

1 interface?

2   A   No, not to my knowledge.

3   Q   Does the '813 patent claim to have invented a

4 new form of communication interface?

5   A   Not to my knowledge.

6   Q   Does the '539 patent claim to have invented a

7 new way of operating a database?

8   A   So that depends on what you mean, because, of

9 course, the database would be used in the context of the

10 patent.

11   Would you please paraphrase the question with

12 that in mind.

13   Q   Does the '539 patent claim to have invented a

14 new form of database?

15   A   So a new form of database, does that include

16 its functionality and its use?

17   Q   Can the invention claimed in the '539 patent

18 be used with any form of database?

19   MR. MACK: Objection; form.

20   A   That's my understanding, yes.

21   Q   Can the invention claimed in the '813 patent

22 be used with any form of database?

23   MR. MACK: Same objection.

24   A   I haven't considered it in detail, but I

25 believe it to be true.

1   Q   Can the invention claimed in the

2   '539 database -- strike that.

3   Can the invention claimed in the '539 patent

4   be used with prior art databases?

5   MR. MACK: Objection; form.

6   A   I haven't reviewed all prior art databases, so

7   I can't tell for sure. There might be some that are not

8   suitable.

9   Q   Do you know of any reason the invention

10 claimed in the '813 patent couldn't be used with a prior

11 art database?

12   A   I haven't considered that question.

13   Q   Do you know of any reason the invention

14 claimed in the '539 patent couldn't be used with a prior

15 art database?

16   A   I also have not considered that question.

17   Q   The '539 patent doesn't claim to have invented

18 a new form of encryption, correct?

19   MR. MACK: Objection; form.

20   A   It does not.

21   Q   The '813 patent doesn't claim to have invented

22 a new form of encryption, correct?

23   MR. MACK: Objection; form.

24   A   When you say "claimed," do you mean in the

25 claim language?

1   Q   I mean, anywhere in the patent.

2   A   I'm not aware of it, but I also wasn't asked

3   to look for that.

4   Q   The '539 patent doesn't disclose any new form

5   of encryption algorithm, correct?

6   MR. MACK: Object to form.

7   A   Not that I'm aware of.

8   Q   And the '813 patent doesn't disclose any new

9   form of encryption algorithm, correct?

10   MR. MACK: Objection; form.

11   A   Not that I'm aware of.

12   Q   The '539 patent doesn't disclose any new form

13   of computer memory, correct?

14   A   I don't think so.

15   Q   The '813 patent doesn't disclose any new form

16   of computer memory, correct?

17   A   I also don't think so.

18   Q   Would you agree that disabling an electronic

19   device in response to failed authentication attempts was

20   known before the '539 patent?

21   MR. MACK: Objection; form.

22   A   When you say "disable," what do you mean by

23   it?

24   Q   Just the ordinary English meaning of

25   "disable."

1   A   So such as nonoperable.

2   Q   That would be one example.

3   A   So I'm aware of -- would you please ask

4   your -- the question again?

5   Q   Disabling an electronic device in response to

6   failed authentication attempts was known prior to the

7   '539 patent, correct?

8   A   I would say a temporary disablement of devices

9   was known prior to the '539 patent.

10   Q   Disabling an electronic device in response to

11   failed authentication attempts was known before the

12   '813 patent, correct?

13   A   So I think temporary disabling was understood

14   prior to the patent, prior to that.

15   Q   Before the '539 and '831 -- strike that.

16   Before the '539 patent was filed, downloading

17   software to electronic devices was known, correct?

18   A   Yes, it was.

19   Q   Before the '813 patent was filed, downloading

20   software to electronic devices was known, correct?

21   A   Yes, it was.

22   Q   Conducting a transaction anonymously was

23   something people could do prior to the filing of the

24   '539 patent, correct?

25   MR. MACK: Objection; form.

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1          A     What kind of transaction do you have in mind?

2          Q     Any kind of financial transaction.

3          A     So financial transactions.

4                Would you please re-ask the question with that

5    in mind?

6          Q     Conducting a financial transaction anonymously

7    is prior art to the '539 patent, correct?

8                MR. MACK:  Objection; form.

9          A     There were ways proposed wherein people could

10   transact anonymously prior to the '539 patent.

11         Q     Conducting a financial transaction anonymously

12   is prior art to the '813 patent, correct?

13               MR. MACK:  Objection; form.

14         A     There were proposals of how to transact

15   anonymously prior to the priority date of the

16   '813 patent.

17         Q     Before the -- strike that.

18               Before the priority date of the '813 patent,

19   there were methods and systems that existed to conduct a

20   financial transaction anonymously, correct?

21               MR. MACK:  Objection; form.

22         A     Would you read that back to me slowly?

23         Q     Before the priority date of the '813 patent,

24   there were methods and systems in existence to conduct a

25   financial transaction anonymously, correct?
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1   MR. MACK: Same objection.

2   A   I actually have not considered that question.

3   Q   Before the priority date for the '539 and

4   '813 patents, downloading apps over a wireless network

5   was known, correct?

6   A   That is not something I have opined on, and I

7   would have to review that in order to tell.

8   Q   Before the priority date of the '539 and

9   '813 patents, downloading apps that conducted financial

10 transactions was known, correct?

11   A   Would you rephrase this question without using

12 the word "app," please?

13   Q   Sure. Before the '539 -- strike that.

14   Before the priority date of the '539 and

15 '813 patents, downloading software that conducted

16 financial transactions was known, correct?

17   A   Would you please break it down by the patent.

18   Q   Before the priority date of the '539 patent,

19 downloading software that conducted financial

20 transactions was known, correct?

21   A   Would you give me some more context here,

22 who's downloading and where to?

23   Q   No. You can't answer that question that I

24 asked?

25   A   It's a little bit vague.

1   Q   What is vague in my question?

2   A   For example, it could be a consumer that

3 downloads something, or it could be a bank that

4 downloads something.

5   And also I'd like to ask you to clarify what

6 you mean by "downloading."

7   Q   You don't understand the word "downloading"?

8   A   I understand downloading, how it's used

9 currently, but not how you used it in the context of the

10 patents.

11   Q   I'm not using it in the context of the

12 patents.

13   A   Okay.

14   Q   I'm using the ordinary English meaning of the

15 word.

16   A   Okay. Now, how about the context of what kind

17 of entity is downloading?

18   Q   No. I'm not limiting it, sir. Listen to my

19 question. Okay?

20   Before the priority date of the '539 patent,

21 downloading software that conducted financial

22 transactions was known, correct?

23   A   It's not something I've considered.

24   Q   Before the priority date of the '813 patent,

25 downloading software that conducted financial

1   transactions was known, correct?

2   A   It's not something I've considered.

3   Q   And you don't know, therefore?

4   A   So if you help me by specifying where to

5   software is downloaded, that might help me answer the

6   question.

7   Q   Before the priority date of the '539 patent,

8   point-of-sale terminals were known, correct?

9   A   Yes, they were.

10   Q   Before the priority date of the '813 patent,

11   point-of-sale terminals were known, correct?

12   A   Yes, they were.

13   Q   The '539 patent doesn't disclose any new form

14   of point-of-sale device, correct?

15   MR. MACK: Objection; form.

16   A   Did you say '539?

17   Q   I did.

18   A   So it does disclose point-of-sales devices

19   that are compatible with the technology described, for

20   example, in figure 8. And I haven't considered whether

21   existing prior to the priority date point-of-sale

22   devices would have been compatible with that.

23   With that in mind, may I ask you to please

24   rephrase your question again?

25   Q   You're -- respectfully, you're answering a

1   question I didn't ask. Let me try it again.

2   The '539 patent doesn't claim to have invented

3   any new form of point-of-sale device, correct?

4   A   That's correct.

5   Q   The '813 patent doesn't claim to have invented

6   any new form of point-of-sale device, correct?

7   A   Not that I'm aware.

8   Q   The '539 patent does not claim to have

9   invented multifactor authentication, correct?

10   A   In general or in the context of the patent?

11   Q   You know what multifactor authentication is,

12   correct?

13   A   Yes, I do.

14   Q   What is multifactor authentication?

15   A   So when you -- for example, that you have to

16   use two things to prove your identity.

17   Q   The '539 patent doesn't claim to have invented

18   multifactor authentication, correct?

19   A   That is correct.

20   Q   The '813 patent doesn't claim to have invented

21   multifactor authentication, correct?

22   A   You mean in the context of the claim language?

23   Q   In the context of anything the patent says.

24   A   I haven't actually looked for that. I'm not

25   aware of it. I -- you know, whether they claim it or

1   not.

2   Q   You would agree that multifactor

3   authentication is prior art to the '539 and '813

4   patents, correct?

5   MR. MACK: Objection; form.

6   A   Would you please break it down by the patent?

7   Q   Multifactor authentication has existed since

8   at least the 1990s, correct?

9   A   I actually don't -- haven't prepared to answer

10   this question. I don't know when multifactor

11   authentication was introduced, just sitting here today.

12   Q   You work for RSA, correct?

13   A   Correct.

14   Q   Did any part of RSA's business involve

15   multifactor authentication?

16   A   Yes.

17   Q   What was that part of the business?

18   A   Well, for example, the security token.

19   Q   When was that introduced?

20   A   I don't remember.

21   Q   It was at least by the 1990s, correct?

22   A   Yes.

23   Q   Before 2006, it was known that one

24   authentication factor in multifactor authentication

25   could include information that a user knows, correct?

1   A   So many multifactor authentication methods

2   prior to 2006 involve, for example, a PIN that the user

3   would have to enter in addition to another factor that

4   would have to be measured or inputted.

5   Q   Before the priority date of the '539 and '813

6   patents, it was known that one authentication factor in

7   multifactor authentication could include biometric

8   information, correct?

9   A   Would you please break it down by the patent?

10   Q   Before the year 2000, it was known that one

11   authentication factor in multifactor authentication

12   could include biometric information, correct?

13   A   Yes.

14   Q   Before the year 2000, it was known that one

15   authentication factor in multifactor authentication

16   could include a non-predictable value, correct?

17   MR. MACK: Objection; form.

18   A   So I need to ask you to clarify that because

19   the context, as I see it, is you're asking me about

20   methods of determining the user's identity by device,

21   for example.

22   With that in mind, would you please rephrase

23   your question.

24   Q   Well, I'm not sure what context you're -- have

25   in mind. Just focus on my question. Okay?

1   Before the year 2000, it was known that one

2   authentication factor in multifactor authentication

3   could include a non-predictable value, correct?

4   MR. MACK: Objection; form.

5   A   So a non-predictable value produced by tokens,

6   such as a SecurID, in combination with, for example, a

7   PIN that was entered by user could be used to determine

8   the likely identity of a user. And that was well

9   understood prior to 2000.

10   Is that the question you're asking me about?

11   Q   I believe so. Let me try it again.

12   A   Sure.

13   Q   Before the year 2000, it was known that one

14   authentication factor in multifactor authentication

15   could include a non-predictable value?

16   MR. MACK: Objection; form.

17   A   So prior to 2000, one way of authenticating

18   user in a multifactor context would be to ask the user

19   to use a token that produced a value that varied with

20   time. And sometimes, in addition, would enter -- the

21   user would enter a PIN. And based on those two

22   elements, the user would be authenticated.

23   Q   Before the year 2000, it was known that one

24   authentication factor in multifactor authentication

25   could include a SecurID code, correct?

1   A   So the SecurID code could be one of the

2   elements that a back end would verify in order to

3   determine the likely identity of a user.

4   Q   Before the year 2000, it was known that one

5   authentication factor in multifactor authentication

6   could include a user's account number, correct?

7   A   I don't understand when you say "include"

8   here. Would you please explain what you have in mind?

9   Q   What's confusing to you about the word

10 "include"?

11   A   Well, "include" could mean either be part of

12 something else or that, for example, if you include

13 something in something else, then it's inserted, for

14 example.

15   Q   Multifactor authentication has more than one

16 factors, correct?

17   A   Yes.

18   Q   So my question to you is whether one of those

19 factors includes a user's account number.

20   Do you have that in mind?

21   A   That is not how one authenticates a user in a

22 multifactor authentication. The account number is --

23 whether it is public or not, it is believed to be known

24 or understood to be known and not used in order to

25 authenticate the user.

1   Q   Let me ask it again.

2   Before the year 2000, it was known that one

3   authentication factor in multifactor authentication

4   could include a user's account number, correct?

5   MR. MACK: Objection; form.

6   A   So a user's account number, I'm not aware of

7   instances where that was used to authenticate users. I

8   think you're asking me that question, and I -- unless

9   you can paraphrase it to make me understand that it's a

10   different question, I do not think that account numbers

11   would be useful for purposes of establishing identity.

12   Q   Before the year 2000, it was known that one

13   authentication factor in multifactor authentication

14   could include a digital signature, correct?

15   A   Please read that back to me.

16   Q   Before 2000, it was known that one

17   authentication factor in multifactor authentication

18   could include a digital signature, correct?

19   A   Digital signatures were used for

20   authentication. Whether they were included in

21   multifactor authentication or not, I -- I'd have to

22   review my declaration if I opined on that or look at any

23   evidence that, for example, whether the patents that we

24   are discussing spoke of that exact thing.

25   Q   Okay. Let me hand you a copy of the '586

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1     application, which has been previously -- been marked as

2     USR Exhibit 2011.

3               Have you seen that before?

4          A    Yes, I have.

5          Q    You've reviewed that?

6          A    Yes, I have.

7          Q    Could you please turn to page 68.

8          A    Yes.  I'm there.

9          Q    And let me ask you to read to yourself from

10    line 24 on page 68 to line 2 on page 69.

11         A    Just a moment.

12              Yes.  I've read that.

13         Q    That passage explains that after certain

14    events, there may be a lockout period during which the

15    user device is rendered unusable, correct?

16         A    It speaks of a lockout period.

17         Q    And it says that after certain events, that

18    lockout period renders the user device unusable,

19    correct?

20         A    Yes.

21         Q    This passage doesn't specify what functions of

22    the device would be rendered unusable during the lockout

23    period, correct?

24              MR. MACK:  Objection; form.

25         A    It speaks of the device being rendered
```

1   unusable. I understand that you cannot use the device.

2   Q   The passage doesn't specify the particular

3   functions of the device that would be rendered unusable

4   during the lockout period, correct?

5   MR. MACK: Same objection.

6   A   I'm sorry. Would you please say it again?

7   Q   Sure. The passage doesn't specify particular

8   functions of the device that would be rendered unusable

9   during a lockout period, correct?

10   A   No. Let me go back and correct my previous

11   questions -- answer. It's unclear to me from this

12   context alone what you -- what the answer to your

13   question is. So it speaks of the device being rendered

14   unusable. I'd have to review other paragraphs to see

15   whether that -- to "render unusable" has been described

16   previously. Sitting here today, I don't know if it has

17   been discussed elsewhere in the application.

18   Q   I'm just asking you to focus on this

19   particular passage. Okay?

20   This passage doesn't specify which functions

21   of the device would be rendered unusable during a

22   lockout period, correct?

23   MR. MACK: Objection; form.

24   A   To understand the description here, person of

25   skill in the art may have to read the context of the

1   application with that in mind. Now, I haven't read the

2   application with that question in mind.

3   I don't understand your question, maybe. And

4   if you could help me clarify it, it might be helpful.

5   But as I under -- believe I understand it, I would have

6   to review if there are descriptions elsewhere that

7   clarifies what it means to have rendered unusable.

8   Q   Okay. This passage doesn't explain how a

9   device would implement a lockout period, correct?

10   A   That is correct.

11   Q   A person of ordinary skill in the art at the

12   time of the '586 application would have understood what

13   a lockout period is as referenced in this paragraph,

14   correct?

15   MR. MACK: Objection; form.

16   A   A person of skill in the art would have read

17   the remaining specification to make sure that he or she

18   understood what was meant by the lockout period in order

19   to make sure that he or she does not make a mistake.

20   Q   A person of ordinary skill in the art at the

21   time of the '586 application would have understood what

22   a lockout period is, correct?

23   A   Are you asking in the context of this

24   paragraph or in general?

25   Q   In general.

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1        A    In general, the term "lockout period" would

2   have been understood by a person of skill in the art.

3        Q    The '586 application didn't coin the term

4   "lockout period," correct?

5        A    I do not believe it did.

6        Q    The concept of a lockout period after failed

7   authentication attempts was known before the

8   '586 application, correct?

9        A    I believe it was, yes.

10       Q    And the concept of a lockout period after

11  failed authentication attempts was known before the

12  priority date of the '539 patent, correct?

13       A    I believe it was.

14       Q    The concept of a lockout period after failed

15  authentication attempts was known before the priority

16  date of the '813 patent, correct?

17       A    Are you asking about lockout periods alone?

18  Would you please restate the question.

19       Q    The concept of a lockout period after failed

20  authentication attempts was known before the priority

21  date of the '813 patent, correct?

22       A    So it's not a question that I have considered

23  before, but I believe so.

24       Q    A person of ordinary skill in the art at the

25  time of the '586 application would have understood how
```

1   to implement a lockout period in software, correct?

2   MR. MACK: Objection; form.

3   A   Is this the '586 application?

4   Q   Exhibit 2011.

5   A   Yes.

6   So they would know how to implement some

7   lockout periods. I don't know in general whether they

8   would be able to know how to implement all kinds of

9   lockout periods.

10   Q   The idea of disabling a device for a period of

11   time after failed authentication attempts was known

12   before the priority date of the '813 patent, correct?

13   A   So the notion of limiting the functionality of

14   a user device based on failed authentication was known

15   prior to the priority date of the '813 patent.

16   Q   And the notion of limiting the functionality

17   of a user device based on failed authentication attempts

18   was known prior to the priority date of the '539 patent,

19   correct?

20   A   Yes.

21   Q   And the idea of limiting the functionality of

22   a user device based on failed authentication attempts

23   was known before the '586 application, correct?

24   A   This is the '586, Exhibit 2011?

25   Q   Yes.

1   A   I'm sorry. The reason I'm asking is that it

2   doesn't say '586, and I want to make sure that I don't

3   misunderstand you.

4   So the 5 -- assuming this is '586, this is one

5   of the provisionals for which the -- from which the

6   '539 patent issued. So the same answer would apply as

7   to the '539 patent.

8   MR. MACK: We've been going about an hour, if

9   now is a good time for a --

10   MR. SELWYN: Would you like a break?

11   THE WITNESS: Yeah.

12   MR. SELWYN: Okay.

13   (A recess ensued from 11:09 a.m. to

14 11:16 a.m.)

15 BY MR. SELWYN:

16   Q   Dr. Jakobsson, could you put back in front of

17 you the '539 patent? I want to ask you some questions

18 about it.

19   A   Yes.

20   Q   The '539 patent describes embodiments that

21 transmit an entity's personal information to a provider,

22 correct?

23   MR. MACK: Objection; form.

24   A   I know that it -- it describes embodiment

25 where the personal information is not transmitted. If

1   you draw my attention to some paragraph that does the

2   opposite, I'd be very happy to review it.

3   Q   Do you recall, based upon your study of the

4   '539 patent, whether it describes embodiments that

5   transmit an entity's personal information to a provider?

6   A   I don't recall one way or the other.

7   Q   Let's look at column 3, lines 24 through 27.

8   A   So it says "Additionally, USR system may

9   enable the user's identity to be confirmed or verified

10 without providing any identifying information about the

11 person to the identity requiring identification."

12   Q   So would you agree with me that the

13 '539 patent doesn't prohibit transmitting a user's

14 personal information to a provider?

15   MR. MACK: Objection; form.

16   A   I'm sorry. That's not what this says. This

17 says something else.

18   Q   Okay. I'm asking a new question, then.

19   A   Okay.

20   Q   The invention claimed in the '539 patent

21 doesn't prohibit transmitting a user's personal

22 information to a provider, correct?

23   MR. MACK: Objection; form.

24   A   I'd have to review it with that question in

25 mind. If you have a particular paragraph, I would be

1   happy to review it.

2   Q   So, based upon your study of the '539 patent,

3   you can't answer the question whether the claimed

4   invention prohibits or does not prohibit transmitting a

5   user's personal information to a provider?

6   MR. MACK: Objection; form.

7   A   I understand the claimed invention, but you're

8   asking me about various embodiments, and I haven't

9   considered that question. I don't know.

10   Q   Does anything in the '539 patent prohibit

11   transmission of a user's personal information to a

12   provider?

13   MR. MACK: Objection; form.

14   A   Would you please rephrase the question? First

15   of all, I'd like to know whether you're asking about the

16   claims or the specification if you may -- if you don't

17   mind.

18   Q   I'm asking anything in the patent.

19   Is there anything in the '539 patent that

20   prohibits transmissions of a user's personal information

21   to a provider?

22   MR. MACK: Same objection.

23   A   I haven't considered that question.

24   Q   Well, let's look at column 12, line 55.

25   Do you see that paragraph describes figure 9?

1   A   Yes. Let me take a quick look at figure 9 in

2   this paragraph to refresh my recollection.

3   Yes, I have read the paragraph.

4   Q   Okay. And have you looked at figure 9?

5   A   Briefly, yes.

6   Q   Now that you've read that paragraph and

7   figure 9, can you tell me whether the '539 patent

8   prohibits transmitting a user's personal information to

9   a provider?

10   MR. MACK: Objection; form.

11   A   So this -- this paragraph speaks of

12 transmitting -- well, I don't know if we should call it

13 transmitting but of a user providing a check to a

14 merchant. I understand that the check might, for

15 example, have a username and an address, which would be

16 personal information. So this is not an embodiment that

17 corresponds to the claim language that I have reviewed

18 carefully.

19   With that in mind, please -- do -- do I make

20 sense, or would you like to rephrase the question?

21   Q   I think I understand what you're saying. Let

22 me try to piece it apart.

23   A check typically includes a user's or an

24 account holder's name and address, correct?

25   MR. MACK: Objection; form.

1   A   So, actually, let -- let me go back.

2   I think that the personal information has not

3   been construed yet. So under some construction, under

4   some proposed constructions, the username and the

5   address may be personal information. And I'm not saying

6   one way or another in this context. We can go to that

7   later, that question of the construction of that

8   information.

9   Q   I'm not sure what question you're answering.

10   A   Okay.

11   Q   My question to you is a check typically

12   includes an account holder's name and address, correct?

13   A   That is common, yes.

14   Q   And an account holder's name and address are

15   personal information of the account holder, correct?

16   MR. MACK: Objection; form.

17   A   That depends on the construction. If the --

18   so let me review here.

19   Are you saying personal information?

20   Q   Yeah. You would consider an account holder's

21   name and address to be personal information of the

22   account holder, correct?

23   MR. MACK: Objection; form.

24   A   So I want to make sure that I answer your

25   question given the terminology that we are using in the

1   context of this analysis.

2   My apologies for the delay. I just need to

3   brush up on claim language.

4   Q   Okay. Let me re-ask my question.

5   An account holder's name and address are

6   personal information of the account holder, correct?

7   MR. MACK: Objection; form.

8   A   I haven't considered that question in the

9   context of the claim language and the specifications

10   here.

11   Are you asking me in general?

12   Q   I'm asking you in general.

13   A   In general, I would say a person of skill in

14   the art would say that. But in the context of the

15   patent, I haven't considered that question.

16   Q   Okay. But you'd agree with me that a person

17   of ordinary skill in the art would understand an account

18   holder's name and address to be personal information of

19   the account holder, correct?

20   MR. MACK: Objection; form.

21   A   Beyond the scope of patents, a person of skill

22   in the art would likely consider the name and the

23   address to be personal information.

24   Q   Okay. Let's look at column 12, lines 59

25   through 62.

1   A   Of the '539.

2   Q   Of the '539.

3   A   I heard you say column 12. But then I missed

4   what you --

5   Q   I want you to look at '539 patent, column 12,

6   beginning at line 59.

7   A   59.

8   Q   Do you see where it says "The check may be a

9   conventional check containing identifying information or

10   may be a check bearing a unique serial number and no

11   identifying information to enable the check to be used

12   anonymously"?

13   A   Yes, I see that.

14   Q   That passage makes clear that the claimed

15   invention doesn't require the check to be used

16   anonymously, correct?

17   MR. MACK: Objection; form.

18   A   When you say "claim," I'm not sure what you

19   mean.

20   Q   The invention claimed in the '539 patent.

21   A   So you mean according to the claim language.

22   Q   Yes.

23   A   I don't see -- this is not the claim language

24   we're reading here. So if we want to, we can go to the

25   claim language. This is a specification, and this is

1   not the embodiment I understand to be part of the claims

2   that I have reviewed.

3   Q   Well, let's just speak about figure 9, then.

4   This passage from column 12, lines 59

5   through 62 make clear that in the context of figure 59,

6   the check need not be used anonymously, correct?

7   A   I'm sorry.

8   MR. MACK: Objection; form.

9   A   Just a moment.

10   MR. MACK: I think you said figure 59.

11   A   Yes.

12   Q   I'm sorry. Okay. Let me try it again.

13   The passage at column 12, lines 59 through 62

14   makes clear that figure 9 doesn't require the check to

15   be used anonymously, correct?

16   MR. MACK: Objection; form.

17   A   So this is a different embodiment than I have

18   studied in detail before. I haven't considered this

19   paragraph very carefully before. I have to read it a

20   bit and think about it. This is a different embodiment,

21   clearly, than the other ones I have considered.

22   Q   Okay. Well, I'm asking you to consider

23   figure 9 now.

24   A   Yes.

25   Q   My question to you is figure 9 doesn't require

1   the check to be used anonymously, correct?

2   A   It says it might be a conventional check. It

3   doesn't use the word "personal" -- "personal

4   information" that you did before, and I don't understand

5   personal information to be the same as identifying

6   information, necessarily.

7   So in this context of a check, I don't know

8   what identifying information would mean. And

9   identifying information, I believe, is something that we

10   haven't yet construed. There have been constructions

11   proposed but no decisions made.

12   So would you please ask your question with

13   that in mind?

14   Q   Well, I'll just re-ask the question.

15   Would you agree that figure 9 doesn't require

16   the check to be used anonymously?

17   MR. MACK: Objection; form.

18   A   Figure 9 on its own speaks not of whether it's

19   anonymous or not. It says that the user initiates a

20   purchase and writes a check to the merchant, in

21   step 900. So figure 9 by itself doesn't seem to have

22   the answer to your question.

23   Q   Well, let's look at lines 59 through 62 on

24   column 12.

25   A   Yes.

1   Q   That passage contemplates sending a check that

2   contains personal information about a user on it,

3   correct?

4   A   That's not what it says. It doesn't use those

5   words.

6   Q   Well, one of ordinary skill in the art would

7   interpret that passage to mean that a check can contain

8   personal information about a user, correct?

9   A   This passage by itself, I don't think, says

10 anything about that. It doesn't describe even personal

11 information. It does speak about identifying

12 information, which I don't necessarily understand to be

13 the same as personal information.

14   Q   Well, that sentence says the check may contain

15 identifying information but need not contain identifying

16 information, correct?

17   A   The paragraph says "The check may be a

18 conventional check containing identifying identification

19 or may be a check bearing a unique serial number and no

20 identifying information to enable the check to be used

21 anonymously."

22   Q   So a person of ordinary skill in the art would

23 understand that the reference to a check "may be a

24 conventional check containing identifying information,"

25 to be disclosing a conventional check that contains an

1   account holder's personal information, correct?

2   MR. MACK: Objection; form.

3   A   I haven't considered that.

4   Q   Well, a conventional check containing

5   identifying information would include an account

6   holder's name and address, correct?

7   A   I don't know one way or the other. I -- the

8   only thing I could say is that it says that the check

9   may be a conventional check containing identifying

10   information or may be a check bearing a unique serial

11   number and no identifying information to enable the

12   check to be used anonymously.

13   Q   Would you agree that a check containing

14   identifying information is not a check that can be used

15   anonymously?

16   MR. MACK: Objection; form.

17   A   I haven't considered that in the context of

18   the claim language. And, as you know, we haven't had

19   the terms construed. Identifying information hasn't yet

20   been construed. I don't know how to answer that

21   question, given that.

22   Q   An account holder's name and address would be

23   an example of identifying information, correct?

24   A   I don't know one way or the other. That

25   depends on the construction.

1   Q   You would agree that the claims of the

2   '539 patent are not limited to anonymous systems,

3   correct?

4   MR. MACK: Objection; form.

5   A   Would you please read me your question?

6   Q   Yes. The claims of the '539 patent are not

7   limited to anonymous systems, correct?

8   MR. MACK: Same objection.

9   A   So if you mean that there's no limitation

10   describing anonymous systems, I cannot find such a

11   limitation.

12   Is that the answer you're looking for?

13   Q   That's part of the answer.

14   Would you agree that a person of ordinary

15   skill in the art reading the claims of the '539 patent

16   would understand that they're not limited to anonymous

17   systems?

18   MR. MACK: Objection; form.

19   A   Could I ask you to please point me to the part

20   of the declaration where I opine about that? I can't

21   remember doing that.

22   Q   I'm just asking you, sir, to look at the

23   claims.

24   And my question again is would you agree that

25   one of ordinary skill in the art would understand the

1   '539 patent claims are not limited to anonymous systems?

2   MR. MACK: Same objection.

3   A   That's a different question than I've been --

4   different from questions that I've been asked to opine

5   on. Sitting here right now, I could tell you that that

6   would take me more time than you would be willing to

7   spend on this to determine the answer.

8   Q   So you do not have an opinion one way or the

9   other whether the '539 patent claims are or are not

10   limited to anonymous systems, correct?

11   A   So as I said, this is not something I believe

12   that I have opined on. If you think I'm mistaken and it

13   is in my declaration, I'd ask you to please refer me to

14   that section.

15   That said, I cannot recall one way or the

16   other. And in order to answer your question, I would

17   have to look at that in more detail.

18   Q   In your opinion, could a system that transmits

19   name or address information to a merchant meet the

20   claims of the '539 patent?

21   MR. MACK: Objection; form, beyond the scope.

22   A   First of all, that depends on the claim

23   constructions that are selected, that are decided on. I

24   think this cannot be answered without knowing how the

25   claims would be construed.

1   Q   What claims or terms would you need construed

2   to answer my question?

3   A   So, at the very least, identifying

4   information.

5   Q   Anything else?

6   A   I would have to think about that.

7   Q   How do you understand the term "identifying

8   information" in the '539 patent?

9   MR. MACK: Objection; form.

10   A   Can I use this as a placeholder?

11   So in the context of the '539 patent, the

12 petitioner has identified account-identifying

13 information as personal information about an entity,

14 such as name, address, or account number.

15   Now, I understand that the patent owner

16 contends that construction of this and other terms is

17 not necessary to resolve the matters raised in here. So

18 the term "account" -- "account-identifying information"

19 hasn't been construed yet. I am aware of the

20 petitioner's view of how it would -- should be

21 construed. But for the patent owner's view, it should

22 be described -- it should be used in a way that doesn't

23 require construction.

24   Q   Okay. That was not my question.

25   My question to you, sir, is how do you

1   understand the term "identifying information" as used in

2   the '539 patent?

3   A   So you're not asking about account-identifying

4   information but identifying information?

5   Q   Yes.

6   A   I don't remember opining on that.

7   Q   Okay. Do you have an opinion as to what the

8   term "identifying information" means as used in the

9   '539 patent?

10   A   I would have to read the whole specification

11 carefully in order to answer that. I know you don't

12 want me to do that, right? It's -- I'm sorry. This is

13 not something that I have opined on, I believe.

14   Q   Do you have an opinion as to what the term

15 "account identifying" means -- strike that.

16   Do you have an opinion as to what the term

17 "account-identifying information" means as used in the

18 '539 patent?

19   A   I don't think this is one of the terms that I

20 was asked to opine on. I don't think that I have

21 expressed an opinion in either one of the declarations

22 that we are discussing.

23   Q   And you don't have an opinion, as you sit here

24 today, as to what the term "account-identifying

25 information" means, correct?

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1          A     I would need to consider that before I answer.

2          Q     It's not something you've considered before,

3    correct?

4          A     I wasn't asked to consider that.

5          Q     And therefore you haven't, correct?

6          A     I only do what I'm asked to do.

7          Q     Okay.  And you have not previously considered

8    the meaning of "account-identifying information,"

9    correct?

10               MR. MACK:  Objection; form.

11         A     I don't remember having opined on that.  Now,

12   I don't -- there -- of course, there was much work going

13   into these declarations, and I'm happy when they're

14   detailed because they jog my memory as to what I've

15   done.  But I don't remember it being expressed in these

16   two declarations related to the '539 and opinion related

17   to this, and I don't remember either having been asked

18   to express such an opinion.

19         Q     Do you remember being -- strike that.

20               Do you remember considering, in the context of

21   any of the work that you've done in connection with the

22   IPRs and the CBMs on the USR patents, the meaning of

23   "account-identifying information" or "identifying

24   information"?

25               MR. MACK:  Objection; form.
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1   A   You know, just today, there are six

2   declarations, and we were here some weeks ago discussing

3   another six declarations. It's just impossible for me

4   to remember all the details about this. I apologize

5   that I -- my memory is flawed, like you might expect in

6   this case and I don't remember all the opinions I have

7   rendered before. I would have to go back and look at

8   those declarations to see whether I rendered an opinion

9   there.

10   Q   But we can agree, as you sit here today, you

11   have no opinion or view as to the meaning of

12   "account-identifying information" or "identifying

13   information," correct?

14   MR. MACK: Objection; form.

15   A   That's not what I said.

16   Q   Well, I'm asking you that question.

17   A   I haven't -- I don't remember having rendered

18   an opinion. Now, in the context of -- I'm not going to

19   include declarations that are not in front of me today

20   because I cannot remember those. And I don't find it in

21   the declarations we are discussing now. I can't recall

22   one way or the other.

23   Q   Let's look at the '539 patent, column 3,

24   lines 22 through 27. Do you see the passage that reads,

25   quote, This USR system or database may be used to

1   identify the person in many situations and thus may take

2   the place of multiple conventional forms of

3   identification. Additionally, the USR system may enable

4   the user's identity to be confirmed or verified without

5   providing any identifying information about the person

6   to the entity requiring identification.

7   Did I read that correctly?

8   A   Yes.

9   Q   That passage makes clear that the USR system

10   may work in a mode that provides personal information to

11   authenticate a user or in a mode that authenticates a

12   user without providing personal information, correct?

13   MR. MACK: Objection; form.

14   A   That's not what it says.

15   Q   This passage makes clear that the USR system

16   may provide personal information to authenticate a user,

17   correct?

18   A   I'm sorry. I think it says "without providing

19   any identifying information." So did you -- did I

20   mishear you?

21   Q   No. Let me try it again.

22   Do you see the reference where it says

23   "Additionally, the USR system may enable the user's

24   identity to be confirmed or verified" and the sentence

25   continues?

1   A   Yes.

2   Q   Would you agree that this passage makes clear

3   that the USR system either may provide personal

4   information to authenticate a user or may not provide

5   personal information to authenticate a user?

6   MR. MACK: Objection; form.

7   A   That's not how I understand the sentence. The

8   sentence says "Additionally, the USR system may enable

9   the user's identity to be confirmed or verified without

10 providing any identifying information about the person

11 to the entity requiring identification."

12   I think that's clear what it means, but that's

13 different from what you're asking me.

14   Q   Does the '539 patent disclose an embodiment

15 where the USR system authenticates a user without

16 providing personal information?

17   A   I'm sorry. Did you say "personal

18 information"?

19   Q   Yes.

20   A   I haven't considered that question because I

21 haven't considered the term "personal information."

22   Q   Does the USR -- strike that.

23   Does the '539 patent disclose an embodiment

24 where the USR system authenticates a user in a mode that

25 provides personal information?

1   MR. MACK: Objection; form.

2   A   Is there a particular paragraph you'd want me

3   to review?

4   Q   No.

5   A   It's a big question and rather open-ended. I

6   need to -- I could read all of it, of course, but I know

7   you wouldn't want me to.

8   Q   Let me ask a new question.

9   Does the '539 patent disclose any embodiments

10 where the USR system operates by providing personal

11 information to authenticate a user?

12   MR. MACK: Objection; form.

13   A   This is not a question I've considered, and I

14 wasn't asked to consider that. So I don't believe I've

15 rendered any opinions on that.

16   Q   Does the '539 patent disclose any embodiments

17 where the USR system operates by authenticating a user

18 without providing personal information?

19   MR. MACK: Objection; form.

20   A   So I haven't considered personal information,

21 and, therefore, it's hard for me to answer questions

22 related to personal information. I don't know how the

23 '539 patent -- what it means by personal information.

24   Q   Dr. Jakobsson, in your view,

25 account-identifying information can include a credit

1   card number, correct?

2   MR. MACK: Objection; form.

3   A   Please refer me to the -- the appropriate

4   declaration. I don't remember one way or the other.

5   Q   Well, I'm just asking you what your opinion is

6   here, sir.

7   A   But I know I'm here to describe and explain my

8   rendered opinion. I don't believe this is a rendered

9   opinion.

10   Q   Does account-identifying information, in your

11   view, include a bank account number?

12   MR. MACK: Same objection.

13   A   I haven't been asked, as far as I can recall,

14   to render an opinion about what account-identifying

15   information should be construed as. But if you think

16   I'm mistaken and there is something in one of my

17   declarations that does it, I apologize for my weak

18   memory. And I would be happy to discuss it in that

19   context.

20   Q   Is it your understanding that Apple has

21   offered a construction of account-identifying

22   information?

23   A   What patent are you speaking in context of?

24   Q   The '539 patent.

25   A   I understand that the petitioner proposed the

1   construction for account-identifying information as

2   personal information about an entity, such as name,

3   address, or account number.

4   Q   And you have not offered any opinion in any

5   declaration whether the petitioner's proposed

6   construction of account-identifying information is right

7   or wrong, correct?

8   A   So I could tell you about what the patent

9   owner has said. The patent owner contends construction

10   of this term along with the other terms identified in

11   the context of the '539 patent is not necessary to

12   resolve the matters raised in this context.

13   I don't recall being asked to render an

14   opinion about what it would mean. And, in light of

15   this, I suspect that I was not.

16   Q   You have not offered any opinion in your

17   declaration whether the petitioner's proposed

18   construction of account-identifying information is right

19   or wrong, correct?

20   A   I recall rendering an opinion related to

21   account-identifying information in the context of the

22   '539 related to Reber and Franklin and, in particular,

23   in the context of the petitioner's description of these

24   two prior references.

25   Beyond that, I'm not currently aware of other

1   opinions that I rendered, but I'd be happy to look

2   through it carefully, if you want me to.

3   Q   Is "name" account-identifying information as

4   that term is used in the '539 patent?

5   A   I'm so sorry. Would you --

6   Q   Is a name an example of account-identifying

7   information as that term is used in the '539 patent?

8   MR. MACK: Objection; form.

9   A   You know, I don't remember the text here by

10   heart. It's hard for me to answer that question. But

11   if you have a particular paragraph you would like me to

12   analyze I, would be very happy to do so.

13   Q   I don't. I'm just asking you your best

14   opinion, as you sit here today.

15   Is "name" an example of account-identifying

16   information as that term is used in the '539 patent?

17   MR. MACK: Objection; form.

18   A   I'd have to review it carefully and consider.

19   Q   Is an address an example of

20   account-identifying information as that term is used in

21   the '539 patent?

22   MR. MACK: Same objection.

23   A   I haven't been asked to opine on that, and I

24   would have to review it carefully and think about it.

25   Q   Have you been asked to opine on whether "name"

1   is an example of account-identifying information as that

2   term in used in the '539 patent?

3   A   I cannot recall, but I don't see it described

4   in my -- in one of my declarations. Now, I don't recall

5   whether I was asked, but nothing was used. It would

6   surprise me.

7   Q   Is it your opinion that "name" is not an

8   example of account-identifying information?

9   A   I haven't established any opinions about this.

10   Q   Is it your opinion that "address" is not an

11 example of account-identifying information?

12   A   Since I haven't been asked to opine about

13 this, I have no opinions. This is not straightforward.

14 I would have to review this carefully in order to

15 establish this.

16   Q   Can you give us any examples of

17 account-identifying information as that term is used in

18 the patent, as you sit here today?

19   MR. MACK: Objection; form.

20   A   This is not what I've been asked to do, and I

21 would need to analyze it carefully. These are important

22 terms to construe.

23   Q   Before 2006, it was known that encrypted

24 messages could include authentication information from a

25 transmitting device, correct?

1   MR. MACK: Objection; form.

2   A   Are you using these terms as they are used in

3   the claim language?

4   Q   What term are you talking about?

5   A   Well, in general, your question.

6   Would you please rephrase the question in a

7   way that doesn't use the same words?

8   Q   Well, I'm going to ask the same question. See

9   if you understand.

10   Before 2006, it was known that encrypted

11   messages could include authentication information from a

12   transmitting device, correct?

13   MR. MACK: Objection; form.

14   A   Now, to save us some time, is there a

15   particular reference this is relevant to? I can look

16   through all of this, but I just want to help you save

17   time. I know these are terms that are of relevance, and

18   I don't want to answer in a way that can be

19   misunderstood. So I need to review the declaration to

20   make sure that my answer is representative of my

21   opinions.

22   Q   PIN-based authentication was known before

23   2006, correct?

24   A   Yes.

25   Q   Biometric authentication was known before

1   2006, correct?

2   A   Yes.

3   Q   It was known before 2006 that PINs and

4   biometric information could be combined to authenticate

5   a user, correct?

6   A   What does it mean to be combined?

7   Q   You don't understand that?

8   A   I don't understand your question.

9   Q   Okay. Before 2006, it was known that

10   encrypted messages could be used by the receiving device

11   to authenticate the transmitting device, correct?

12   A   I need a little bit more context, since you're

13   saying "the transmitting device."

14   Is there a particular transmitting device you

15   have in mind?

16   Q   Any transmitting device.

17   A   Say that again, please.

18   Q   Before 2006, it was known that encrypted

19   messages could be used by a receiving device to

20   authenticate a transmitting device, correct?

21   A   The way I understand your question is that

22   somehow the encryption of the messages would be useful

23   for the authentication.

24   No, I don't understand that to be correct.

25   Q   Okay. Let me ask it one more time to make

1   sure the record's clear.

2   Before 2006, it was known that encrypted

3   messages could be used by the receiving device to

4   authenticate the transmitting device, correct?

5   A   I would need a little bit more context what

6   you mean here.

7   So what would the messages contain in

8   particular?

9   Q   Local authentication was known before 2006,

10   correct?

11   A   Yes.

12   Q   Before 2006, it was known that encrypted

13   messages could include information from the transmitting

14   device that could be used to verify the identity of an

15   individual, correct?

16   A   Would you explain what you mean by "include,"

17   and then reread the question after that?

18   Q   Include, I mean be part of.

19   A   Be part of what? The encrypted -- the input

20   to encryption function?

21   Q   Yes.

22   A   Would you please repeat the question.

23   Q   Before 2006, it was known that encrypted

24   messages could include information from the transmitting

25   device that could be used to verify the identity of an

1   individual, correct?

2   MR. MACK: Objection; form.

3   A   I'm sorry. You're reading it so fast. I have

4   a hard time making sure that I understand the question.

5   Say that again, but slower.

6   Q   Before 2006, it was known that encrypted

7   messages could include information from the transmitting

8   device that could be used to verify the identity of an

9   individual, correct?

10   A   So you're saying -- the transmitting device

11   here, you mean any kind of transmitting device?

12   Q   Yes.

13   A   So it was known that one could encrypt

14   messages, and it was also known that one could

15   authenticate a user on a device, for example, using a

16   PIN.

17   Is that the answer to your question?

18   Q   You remember being deposed by me about a month

19   or two ago?

20   A   Yes.

21   Q   Do you stand by all the testimony you gave in

22   that deposition?

23   MR. MACK: Objection; form.

24   A   You know, there is nothing I recall being

25   incorrect. I answered to the best of my knowledge then.

1   If I misspoke, I apologize.

2   So unless there are particular questions you

3   have, it's hard for me to answer this.

4   Q   Do you have any reason to believe that you

5   would answer the same questions that I asked you

6   previously different if I were to ask them today?

7   MR. MACK: Objection; form.

8   A   Not unless I misunderstood the question either

9   then or now.

10   The contexts are different too, of course. So

11   I am considering the context right now of the '539 --

12   sorry -- the '539 patent most recently. And in the

13   previous deposition, we did not discuss the '539.

14   So to the extent that the questions depend on

15   the context of the patent, the answers might, of course,

16   be different.

17   Q   Can you put in front of you your declaration

18   Exhibit 2108 from IPR 2018-812?

19   A   Just a moment.

20   Yes, I have that.

21   Q   Okay. Could you turn to paragraph 51, please?

22   A   So, by the way, I want to ask you if this is a

23   long series of questions because this might be a good

24   time for us to take a lunch break?

25   Q   This will be relatively short, a few minutes,

1   I would guess.

2   A   That sounds good.

3   Q   Okay.

4   A   Let me review paragraph 51.

5   Yes, I've reviewed it.

6   Q   In paragraph 51, you state that "Access

7   restrictions indicate what requested data may or may not

8   be accessed," right?

9   A   Yeah. What I'm saying is that the language of

10   the '539 patent confirms to one skilled in the art that

11   the access restrictions indicate what data may or may

12   not be accessed.

13   Q   Access restrictions are used to determine

14   whether a party is authorized to access specific data,

15   correct?

16   MR. MACK: Objection; form.

17   A   Are you asking in the context of the

18   '539 patent?

19   Q   Is it different outside the context of the

20   '539 patent?

21   A   I would have to consider that.

22   Q   Okay. Well, let's talk about in the context

23   of paragraph 51 of your declaration. Okay?

24   A   Okay.

25   Q   Access restrictions are used to determine

1   whether a party is authorized to access specific data,

2   correct?

3   MR. MACK: Objection; form.

4   A   So it says that the provider requesting the

5   transaction, it's verified that that party complies with

6   the access restrictions before the secure data is

7   accessed or released.

8   Q   So is it correct, then, to say that access

9   restrictions are used to determine whether a party is

10   authorized to access specific data?

11   MR. MACK: Same objections.

12   A   So it doesn't use the terms you're using.

13   I -- I'm not sure what your question really means. But

14   I could say that access restrictions in this context are

15   used to verify that a provider requesting a transaction

16   complies with these restrictions before secure data is

17   released or accessed.

18   Q   So if a merchant is permitted to complete a

19   transaction with the user, the requesting merchant has

20   complied with any access restrictions, correct?

21   MR. MACK: Objection; form.

22   A   So that's not what this says. The

23   determination might, of course, be wrong. So the system

24   has a belief about the access restrictions having been

25   complied with. Whether that is -- could be wrong at

1   some time.

2   Q   Well, would you agree that if a merchant is

3   allowed to complete a transaction with the user, the

4   requesting merchant has complied with any access

5   restrictions?

6   MR. MACK: Objection; form.

7   A   That's not what this says. You're asking me a

8   very different question.

9   Q   Okay. Can you answer my question?

10   A   I would have to consider it. Would you say it

11   again?

12   Q   If a merchant is allowed to complete a

13   transaction with the user, the requesting merchant has

14   complied with any access restriction, correct?

15   MR. MACK: Objection; form.

16   A   I don't think I've rendered an opinion on

17   that. That's a different question than is addressed in

18   here.

19   Q   Have you offered any opinion that merchant

20   validation is different from determining compliance with

21   access restrictions?

22   MR. MACK: Objection; form.

23   A   I don't remember, but I understand them to be

24   different.

25   Q   What is the difference between compliance with

1   an access restriction and merchant validation?

2   MR. MACK: Objection; form.

3   A   Let me give you an example to clarify it.

4   Q   Well, I'm not asking for an example. I'm

5   asking you to tell me what the difference is between

6   compliance with an access restriction on the one hand

7   and merchant validation on the other.

8   A   Let me give you an example to clarify it. I

9   think that might be easiest. So say that you go and

10   fill up your car, assuming that it's a gassed car, and

11   you put, say, $100 of gas in your car at your

12   neighborhood gas station. Now, your neighborhood gas

13   station, we assume, is a valid merchant. Now, say that

14   you drop your card as you leave and there's somebody

15   there who picks it up and they start gassing up other

16   cars. So as many cars as they can. Now, it's -- the

17   merchant here, the gas station, is still a valid

18   merchant, but the access restrictions will indicate at

19   some point -- and I don't know what point that is --

20   that this is not okay. So for -- this is a fraud

21   prevention measure in particular. So in this example,

22   maybe after $500 worth of gas, an entity tasked with

23   evaluating the access restrictions would determine that

24   this is not permissible and, therefore, would not give

25   access. And that's a way of protecting you in case you

1   drop your credit card.

2   And it's not a statement about the merchant.

3   The merchant hasn't become a nonvalid merchant. I could

4   come right after this and fill up my car and my

5   transaction, independently of what transpires with your

6   credit card, would either go through or not go through

7   based on my credit card. So the merchant, still, would

8   be valid in this example, but the access restrictions,

9   which are different from the validity consideration and

10   which applies to your credit card and the merchant in

11   that context, would not apply to my credit card and the

12   merchant because it's a different context.

13   Q   Do you have an opinion as to the meaning of

14   the term "access restrictions" as it's used in the

15   patent?

16   A   Are we speaking about the '539?

17   Q   Yes.

18   A   So I see under the claim construction title on

19   page 19 of the declaration, Exhibit 2108, that the

20   patent owner consents that construction of these terms,

21   the six terms construed by the petitioner, that the

22   patent owner contends that this is not necessary to

23   resolve the matters. So I have not provided an opinion

24   about a construction provided by the patent owner.

25   Q   What do you understand the meaning of the term

1 "access restrictions" to be as it's used in the

2 '539 patent?

3   A   So in -- a little bit more context, access

4 restriction for the provider and then whether that is to

5 secure data or to at least one portion of secure data.

6 So that term, the patent owner contends, should be

7 construed to mean two or more restrictions specific to

8 the provider that indicate what secure data may or may

9 not be accessed.

10   That's a slightly different question from what

11 you're asking, though.

12   Q   So my question to you, sir, is what do you

13 understand the meaning of the term "access restrictions"

14 to be as used in the '539 patent?

15   A   Sorry. Read it in the context of the phrase,

16 for example, access restriction for the provider.

17   Q   I'm just asking you about the two words,

18 "access restrictions." What's your understanding of the

19 meaning of those words?

20   A   It's restrictions for access.

21   Q   Can you give me some examples of what would be

22 an access restriction as that term is used in the

23 '539 patent?

24   MR. MACK: Objection; form, beyond the scope.

25   A   So I gave you an example with the gas station

1   before to clarify the difference between access

2   restrictions and merchant validity. Would you like me

3   to think of another example like that?

4   Q   Yes.

5   A   So here's one where I can explain how this is

6   not the same as validity, and the access restrictions

7   are used to determine whether the merchant gets access

8   or not.

9   So imagine that you use your credit card to

10   initiate a payment to an offshore gambling site. Now,

11   the entity tasked with evaluating access restrictions in

12   this example may determine, based on context, that it is

13   not okay to transfer money to offshore gambling

14   corporations even though this is a valid merchant.

15   In your context or in the context considered

16   in this example, the access restriction here would

17   prevent transfer of funds because, even though the

18   offshore gambling company is a valid credit card

19   merchant, they do not comply with the access

20   restrictions.

21   Now, this is, of course, a little bit

22   hypothetical because these are not examples that I've

23   been asked to opine on, and you're asking me about my

24   understanding sitting here today. I might be able to

25   come up with further clarifications, but I want to check

1   first if this is helpful to you.

2   Q   Is merchant validation a prerequisite for

3   determining compliance with an access restriction?

4   MR. MACK: Objection; form, beyond the scope.

5   A   I haven't considered that question.

6   MR. SELWYN: Why don't we take our lunch

7   break.

8   THE WITNESS: Okay.

9   (A recess ensued from 12:22 p.m. to

10   12:56 p.m.)

11   BY MR. SELWYN:

12   Q   Dr. Jakobsson, can you put back in front of

13   you your declaration that's been marked as Patent

14   Owner's Exhibit 2108?

15   A   Yes. Got it.

16   Q   And please turn to paragraph 51 again.

17   A   Let me refresh my recollection about this.

18   Yes. I reviewed it again.

19   Q   In paragraph 51 of your declaration, you've

20   offered the opinion that the access restrictions for the

21   provider should refer to, quote, two or more

22   restrictions specific to the provider, correct?

23   A   That is correct.

24   Q   And the basis that you give for that in your

25   declaration is that the limitation reads access

1   restrictions in the plural, correct?

2   A   That's at least one of the reasons.

3   Q   The only reason that you have given in your

4   declaration for the "two or more" portion of the

5   construction is that the limitation received -- reads

6   access restrictions in the plural, correct?

7   MR. MACK: Objection; form.

8   A   I'd have to verify, but I remember the access

9   restrictions were plural, meaning -- making it obvious

10   that there are at least two.

11   Q   The only basis you've given in paragraph 51 of

12   your declaration for the "two or more" portion of that

13   construction is that the limitation reads access

14   restrictions in the plural, correct?

15   A   In paragraph 51, yes.

16   Q   And there's no place else in your declaration

17   where you offer an opinion that two or more -- I'm

18   sorry. There's no -- strike that.

19   There's no place other than paragraph 51 in

20   your declaration where you offer the opinion that access

21   restrictions for the provider should refer to two or

22   more restrictions specific to the provider, correct?

23   MR. MACK: Objection; form.

24   A   I would have to review the declaration with

25   that in mind.

1   Would you like me to?

2   Q   Not as we sit here.

3   A   Okay.

4   Q   You don't recall, as you sit here, providing

5 any basis in your declaration for the "two or more"

6 portion of that construction, other than that the

7 limitation reads access restrictions in the plural,

8 correct?

9   MR. MACK: Objection; form.

10   A   I recall that there is analysis related to the

11 access restrictions in the context of the Reber and

12 Franklin references. I could review that to see if I

13 make additional analysis in there.

14   Q   Do you recall without re-reviewing?

15   A   I know that the access restrictions was

16 relevant to the analysis of the Reber and Franklin

17 component, but I do not recall the answer of the

18 question you're asking because I'm more focused on what

19 I do say rather than locations that I say it.

20   Q   Okay. The '539 patent never describes any

21 systems where there are two or more access restrictions

22 for a single provider, correct?

23   MR. MACK: Objection; form.

24   A   So it mentions several places. One is in 18,

25 45 to 50. Another one is in 20, 16 to 20. And a third

1   one, I believe, is 22, 1 through 4. Let me check that.

2   Well, the last one is not so clear on it, but

3   the other two make it clear that there are access

4   restrictions.

5   Q   Does the specification of the '539 patent ever

6   describe any systems where there are two or more access

7   restrictions for a single provider?

8   MR. MACK: Objection; form.

9   A   I don't recall that. But it's clear from the

10 language of these two claims, number 1 and 22, that it's

11 a plural form. This is clearly not a typo. They are

12 access restrictions, and they're all for the provider.

13 So it specifies that there's one provider and multiple

14 access restrictions.

15   Q   I'm not asking you about the claims. I'm

16 asking you to focus on the specification.

17   Does the specification of the '539 patent ever

18 describe any systems where there are two or more access

19 restrictions for a single provider?

20   MR. MACK: Objection; form.

21   Q   You've been looking at the spec for several

22 minutes. Can you answer my question?

23   A   I've only gotten to the sixth column. I need

24 to review it in detail to tell.

25   Q   Do you recall, sir, anyplace in the

1   specification of the '539 patent where it describes

2   systems where there are two or more access restrictions

3   for a single provider?

4   MR. MACK: Objection; form.

5   A   So even though the '539 patent is relatively

6   short, there's 22 columns. It's hard to memorize all of

7   it.

8   Q   I'm not asking you, sir, to memorize it. I'm

9   asking you what your recollection is. Okay?

10   Do you recall anyplace in the specification of

11   the '539 patent where it describes systems where there

12   are two or more access restrictions for a single

13   provider?

14   A   I would have to refresh my recollection by

15   looking at something I have written. Do you see that --

16   would you like me to look at the declaration?

17   Q   No, we don't have time for you to reread the

18   entire specification.

19   A   No, I didn't say specification. I'm sorry.

20   Declaration.

21   Q   No, we don't have time for you to reread your

22   entire declaration.

23   A   Okay. It's hard for me to answer without that

24   context.

25   Q   Well, you knew I would be asking you about the

1   patent today, didn't you?

2   A   Yes.

3   Q   You knew I'd be asking you about the

4   declaration, correct?

5   A   Yes.

6   Q   There's nothing in your declaration where you

7   identify anyplace in the specification of the

8   '539 patent where it describes systems where there are

9   two or more access restrictions for a single provider,

10   correct?

11   MR. MACK: Objection to form.

12   A   Is that a question or a statement?

13   Q   That is a question.

14   A   I would have to review it.

15   Q   Look at the '813 patent. Can you turn to

16   claim 1.

17   A   Just a moment. Let me review it again.

18   Yes, I've reviewed claim 1 now.

19   Q   Claim 1 doesn't require the electronic ID

20   device to include computer memory, correct?

21   MR. MACK: Objection; form.

22   A   What unit would you -- did you say?

23   Q   Claim 1 does not require the electronic ID

24   device to include computer memory, correct?

25   MR. MACK: Objection; form.

1   A   Why do you say that? I think it has -- the

2   processor of the electronic ID device has been

3   programmed to perform some actions, and, typically,

4   those instructions are stored in memory.

5   Q   What specific language do you see in claim 1

6   that leads you to believe the electronic ID device must

7   include computer memory?

8   A   It says the processor also being programmed

9   such as once -- let me -- just a moment, please.

10   Yeah. This processor is associated with

11   electronic ID device. I know that because it says "It's

12   coupled to the biometric sensor to receive information

13   among other things."

14   And it also states that "The processor is

15   being programmed such that once the electronic ID device

16   is activated, the processor is configured to generate a

17   non-predictable value," among other things. So that

18   tells me reading it as a person of skill in the art that

19   there would be instructions stored and those

20   instructions that are stored there would be stored in

21   the memory.

22   Q   Okay. Does claim 1 require that the

23   electronic ID device store in memory any information

24   concerning user accounts?

25   A   Are you asking about my legal understanding?

1   Q   I'm asking you as a person of ordinary skill

2 in the art.

3   MR. MACK: Objection; form.

4   A   So I could speak about processors executing

5 instructions, needing to store the instructions. Now,

6 of course, a claim does not need to specify all the

7 components and all the steps in order to perform a

8 process in order to be found inventive. It's

9 sufficient, is my understanding, that the examiner

10 determines that it distinguishes over prior art.

11   Q   That's not my question.

12   Claim 1 does not require that the electronic

13 ID device store in memory any information concerning

14 user accounts, correct?

15   MR. MACK: Objection; form.

16   A   I was ask -- I thought you asked about whether

17 it has memory? Did I misunderstand your question?

18   Q   You did. Let me re-ask it.

19   Claim 1 does not require that the electronic

20 ID device store in memory any information concerning

21 user accounts, correct?

22   MR. MACK: Same objection.

23   A   Would the code be concerning user accounts

24 because it processes it, the instructions related to the

25 functionality of the processor?

1   Q   Can you answer my question, please?

2   A   First, I need to understand whether you

3   include the instructions in this description because

4   they concern -- they are applied to matters related to

5   the input.

6   Q   Is there any language in claim 1 that you

7   believe requires the electronic ID device to store in

8   memory information concerning user accounts?

9   MR. MACK: Objection; form.

10   A   I haven't rendered an opinion about this in my

11   declarations, I believe. I need to consider that.

12   Q   Are you able to answer my question now?

13   A   Give me a moment, and I'll consider it.

14   I need to ask you about the second part of

15   your question just to make sure that I recall it

16   correctly.

17   Would you please reread your question to me.

18   Q   Claim 1 does not require that the electronic

19   ID device store in memory information concerning user

20   accounts, correct?

21   A   So what I need to ask you about in order to

22   understand the scope of your question is the latter

23   part, the "information concerning."

24   Would you include data or instructions or both

25   in that?

1   Q   Either or both.

2   A   Can we take them one by one?

3   Q   Go ahead.

4   A   So which one do you want me to start with?

5   Q   Any one you want to.

6   A   So you're asking -- let me consider, then, the

7   question whether the electronic ID device stores

8   instructions.

9   Q   That wasn't my question.

10   A   Okay.

11   Q   Don't change my question. Okay?

12   A   No --

13   Q   Stick with the question I'm asking, sir.

14   A   That's why I need for you to state the

15   question.

16   Q   Okay. Let me break it down. In your

17   declaration, you have not offered any opinion that

18   claim 1 requires that the electronic ID device store in

19   memory information concerning user accounts, correct?

20   A   That is a question not a statement, right?

21   Q   Right. I ended it with "correct."

22   A   Okay. So I do not recall. I would have to

23   review my declaration. Now, since we're speaking

24   about --

25   Q   And as --

1   A   I'm sorry.

2   Q   Let me ask my new question.

3   A   But you're cutting me off.

4   Q   I think you answered my question.

5   A   Okay. That's good.

6   Q   As you sit here today, you don't have an

7   opinion as to whether claim 1 does or does not require

8   that the electronic ID device store in memory

9   information concerning user accounts, correct?

10   MR. MACK: Objection; form.

11   A   Then you understand my answer, if that is what

12   you concluded. So I -- we -- I thought we talked about

13   whether my declaration opines about it.

14   Q   You answered that question.

15   A   So this is a separate question, then, isn't

16   it?

17   Q   Yes, it is.

18   A   May I ask you to please read back the question

19   for me?

20   (The requested portion of the record was read

21   back by the reporter.)

22   MR. MACK: Objection; form.

23   A   Information about user accounts.

24   So do you mean information unique to user

25   accounts?

1   Q   I mean information about user accounts.

2   MR. MACK: Objection; form.

3   A   I haven't considered this question, I think.

4   If you think I have and want a clarification, let's talk

5   about my declaration.

6   Q   Do you -- you remember your declarations,

7   correct?

8   A   Not by heart, but I understand approximately

9   what statements I've made.

10   Q   Are you familiar with the '585 reference?

11   A   '585. Is that the one we normally call the

12   Jakobsson reference?

13   Q   We called it the '585 reference in the last

14   deposition.

15   A   I don't remember the number so well.

16   Would you please refresh my recollection?

17   Q   Let me hand you --

18   A   Thank you.

19   Yes. This is the Jakobsson reference. So,

20   yes, I'm familiar with this.

21   Q   You are one of the named inventors on this

22   reference?

23   A   Yes, I am.

24   Q   And the last three digits of this reference

25   are '585?

1   A   Yes.

2   Q   And you'll understand me if I refer to this as

3   the '585 reference?

4   A   Yes.

5   Q   Would you agree with me that the '585

6   reference discloses a communication terminal 140?

7   A   Yes. I see that on page -- I'm not sure. The

8   first figure. So the first out of eight papers.

9   Q   One example that the '585 reference gives of a

10 communication terminal 140 is a card reader, correct?

11   A   Just to make sure I don't mangle the

12 terminology here, do you have a particular paragraph

13 you'd like me to refer to?

14   Q   What terminology are worried about mangling?

15   A   Card reader.

16   Q   Do you know what a card reader is?

17   A   I do know what a card reader is, but I need to

18 make sure that I understand in the context of this

19 specification here.

20   Q   What is a card reader?

21   A   Well, for example, it's a device which can --

22 you could swipe a mag stripe of a credit card and which

23 then reads signals based on the magnetic information,

24 encoded information.

25   Q   Okay.

1   A   Another card reader device would be the

2   version in which a chip card is being read by -- mostly,

3   most of the time, powering the chip card, but not

4   necessarily, and sending a signal to and receiving a

5   response from.

6   Q   Can you turn, please, to paragraph 44 of the

7   '585 reference?

8   A   Let me review this for a moment, please.

9   Yes. I reviewed that.

10   Q   One example that paragraph 44 of the '585

11   reference gives of a communication terminal 140 is a

12   card reader, correct?

13   A   Yes. It says a card reader, a device

14   receptacle, cradle, or holder for personal computer,

15   telephone, personal digital assistant, a network

16   interface card, a wireless receiver, and so on.

17   Q   What is a card reader as that term is used in

18   paragraph 44?

19   A   A device that reads cards.

20   By cards, I understand it to mean chip cards,

21   for example, or mag stripe cards.

22   Q   A credit card would be an example?

23   A   Not in the context of the '585 reference. It

24   doesn't read credit cards.

25   Q   In the '585 reference, the communication

1   terminal 140 can communicate directly with the user

2   device 120, correct?

3   A   So let me review that.

4   It says that the user, optionally and

5   depending on implementation, has one or both of direct

6   access to the communications terminal and indirect

7   access to communication terminal 140 via the user

8   authentication device.

9   Q   I'm not sure what the answer is to my

10 question.

11   A   So would you please reread your question to

12 make sure that I --

13   Q   In the '585 reference, the communication

14 terminal 140 can communicate directly with the user

15 device 120, correct?

16   A   It doesn't say so.

17   Q   Are you positive?

18   A   Well, this sentence doesn't -- doesn't say so.

19 If there are other places, I could review those.

20   Q   Look at paragraph 44. Do you see it says in

21 paragraph 44 "The communication terminal 140 can receive

22 direct input from the user 110, the user authentication

23 device 120, or both"?

24   A   I'm -- I'm sorry. Where -- where are you

25 looking?

1   Q   Paragraph 44.

2   A   It's just kind of a long paragraph. What page

3   are you on?

4   Q   Yeah. It's -- it's the fourth line on

5   page 16.

6   A   Fourth line, page 16. Let me review that.

7   So it says "Likewise, the communication

8   terminal 140 can receive direct input from the user 110,

9   the user authentication device 120, or both."

10   Q   And my question to you is in the

11   '585 reference, the communication terminal 140 can

12   communicate directly with the user device 120, correct?

13   A   That's not exactly what it says here. It says

14   "The communication terminals can receive direct input

15   from the user 110, the user authentication device 120,

16   or both."

17   Q   And --

18   A   That's very different from what you're saying.

19   Q   So your opinion is that a person of ordinary

20   skill in the art would not interpret the sentence that

21   begins "Likewise, the communication terminal" to mean

22   that the communication terminal 140 can communicate

23   directly with the user device 120?

24   A   Communicate normally would mean two-way, and

25   this sentence does not speak about two-way

1   communication. So I don't think the sentence speaks of

2   that. This says that "The communications terminal can

3   receive direct input from the user 110, the user

4   authentication device 120, or both." But it doesn't

5   speak of authentication device 120 receiving a signal

6   from the communications terminal 140.

7   Q   Let me make sure I understand.

8   A   Yes.

9   Q   You say that the word "communicate" requires

10 two-way communication?

11   A   Well, I want to understand how you think about

12 it.

13   Q   No, no, no. I'm not being deposed, sir.

14   The -- in your opinion, the word "communicate"

15 requires two-way communication?

16   MR. MACK: Objection; form.

17   A   So maybe I should not jump to conclusions, and

18 I apologize for that.

19   Would you please restate your question

20 clarifying what you mean so that I can answer the

21 question correctly.

22   Q   I don't know what you need clarification.

23   A   So if the question is whether they send

24 information back and forth, this sentence doesn't say

25 so. If it's -- if the question is whether the

1   communication terminal receives direct input from the

2   user 110, the authentication device 120, or both, then

3   the answer is yes. That's what it says.

4   Q   So let me try it again.

5   In the '585 reference, the communication

6   terminal 140 can communicate directly with the user

7   device 120, correct?

8   MR. MACK: Objection; form.

9   A   So this sentence doesn't speak about two-way

10   communication. So your question is broader than what

11   this speaks about. This speaks about communication from

12   the user or from the authentication device 120 to the

13   terminal 140, but it doesn't speak about communication

14   in the other direction.

15   Q   My question didn't refer to two-way

16   communication --

17   A   Okay.

18   Q   -- anyplace.

19   A   So --

20   Q   Listen to my question, sir.

21   A   Yes.

22   Q   In the '585 reference, the communication

23   terminal 140 can communicate directly with user

24   device 120, correct?

25   MR. MACK: Objection; form.

1   A   So for the record, I need to just make clear

2   that communication could mean two-way, and this does not

3   disclose two-way communication. We can look at other

4   paragraphs to see if they do. This paragraph discloses

5   one-way communication. So to the extent that that is

6   your question, yes, they do. The communications

7   terminal 140 can receive direct input from the user 110,

8   the user authentication device 120, or both. It's

9   silent on other direction of communication.

10   Q   Okay. In the '585 reference, the

11 communication terminal can communicate directly from the

12 user device 120, correct?

13   A   What does it mean to "communicate directly

14 from"? I can restate what I believe is happening here,

15 but I don't understand your question. You normally

16 communicate to.

17   Q   In the '585 reference, the communication

18 terminal 140 can communicate directly to the user

19 device 120, correct?

20   A   Not if you consider bi-directional

21 communication or communication in which the

22 communications terminal 140 transmits a message to the

23 device 120 in the context of this sentence.

24   Q   I'm not limiting it to this sentence.

25   A   Then I need to review the other sentences too.

1   Q   Device 120 in the '585 reference can be a

2   credit card, correct?

3   MR. MACK: Objection; form.

4   A   '585 does not deal with credit cards. It

5   speaks of credit card form factor. But in this context

6   that we're reviewing now and the -- the card reader

7   you're speaking about, that is not a credit card.

8   Q   Can you answer my question?

9   Would device 120 in the '585 reference be a

10   credit card? Yes or no?

11   MR. MACK: Objection; form.

12   A   So the '585 reference deals with a password

13   replacement system. A credit card has no role in a

14   password replacement system. It doesn't speak about

15   credit cards being read, and there would be no meaning.

16   A person of skill in the art would not see any relevance

17   of credit cards being read by this reader.

18   Q   So your opinion is that the '585 reference --

19   strike that.

20   Your opinion is that device 120 in the

21   '585 reference cannot be a credit card, correct?

22   MR. MACK: Objection; form.

23   A   Did you say the device -- the user

24   authentication device 120?

25   Q   Yes.

1   A   A credit card is used to store on a mag stripe

2   or on a chip financial information.

3   Now, the '585 reference do not -- does not

4   deal with reading financial information. It has no

5   relevance here. To the extent that credit card form

6   factors are described, it's to describe what the device

7   might look like.

8   MR. SELWYN: I move to strike.

9   Q   Can you answer my question yes or no?

10   Can device 120 be a credit card in the

11   '585 reference?

12   A   Is the question whether I could answer your

13   question?

14   Q   Yes.

15   A   I cannot answer your question unless you

16   clarify.

17   Q   Let's look at paragraph 41.

18   A   Just a moment, please.

19   Q   I'm not asking you to look at the declaration.

20   I'm asking you to look at paragraph 41.

21   A   I understand, yes.

22   Q   So you're -- I'm asking you to look at

23   paragraph 41, not your declaration.

24   A   Yes, I understand. I'm looking at the

25   paragraph you're asking me to.

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 1        Q    Okay.   Do you see the sentence on page 14

 2   beginning around line 9 that says, quote, In still other

 3   embodiments, a credit-card-sized device 120 is a card,

 4   such as a credit card, including a magnetic strip or

 5   other data store on one of its sides.

 6             Do you see that sentence?

 7        A    Yes, I do.

 8        Q    Now, when it says "still other embodiments,"

 9   do you see that phrase?

10        A    Yes, I do.

11        Q    That's referring to still other embodiments of

12   the invention claimed in the '585 reference, correct?

13             MR. MACK:   Objection; form.

14        A    That's my understanding.

15        Q    And one of the embodiments disclosed in the

16   '585 reference is "a credit-card-sized device 120 where

17   the card is a credit card, including a magnetic strip or

18   other data store on one of its sides," correct?

19        A    I'm sorry.   Where did you read that?

20        Q    The same sentence I read to you.

21        A    So what this refers to -- there's actually a

22   really good picture on -- if you're looking at --

23        Q    Can you answer my question?

24        A    Yes, I'm trying to give you context.   If you

25   look at Exhibit 2013 on page 34, there are three images
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1   of -- representing the security product line. Two of

2   these would fit in the wallet in the same space as a

3   credit card would. So these are the credit-card-sized

4   or might even say credit-card-shaped devices that is

5   being referred to in this paragraph, paragraph 41.

6   MR. SELWYN: I move to strike as

7   nonresponsive.

8   Q   Communication terminal 140 can be a card

9   reader in the '585 reference, correct?

10   A   Would you say that again slowly, please?

11   Q   Communication terminal 140 can be a card

12 reader, correct?

13   A   That is correct.

14   Q   And page 14, lines 9 and 10 say that user

15 device 120 can be a credit card, correct?

16   A   No. Then you misunderstand. I'm sorry.

17   It speaks about the form factor. This

18 paragraph is about the form factor of the user device.

19   Q   Okay. So your opinion is that the

20 '585 reference does not disclose an embodiment that uses

21 a credit card and card reader?

22   A   So let's leave it to one by one. Do you want

23 to discuss the card reader or the credit card in one?

24   Q   Can you answer my question?

25   A   So I can tell you that the '585 reference has

1   nothing to do with reading credit cards. This is not

2   about performing financial transactions, such as credit

3   card transactions.

4   Q   You changed my question, sir. That's not what

5   I asked you.

6   A   No. I'm trying to explain you with context --

7   to you with context.

8   So the '585 reference is a password

9   replacement scheme with special features, but those

10 special features are not the payment of credit cards.

11   MR. SELWYN: Okay. I move to strike as

12 nonresponsive.

13   Q   Would you agree -- have you ever heard of

14 something called a block cipher?

15   A   Yes.

16   Q   Block ciphers are prior art to the

17 '539 patent, correct?

18   A   Yes.

19   Q   And a block cipher is one type of encryption

20 function, correct?

21   MR. MACK: Objection; form.

22   A   Yes.

23   Q   Can you turn to paragraph 73 of the

24 '585 reference.

25   Paragraph 73 --

1   A   Just a moment. I need to take a look at it.

2   Yes. I have read the paragraph now.

3   Q   Paragraph 73 indicates that authentication

4   code 291 is one of the inputs to create authentication

5   code 292, correct?

6   A   So I think you're referring to the

7   paragraph -- the sentence saying the combination

8   function 230 then combines the generated authentication

9   code 291 with a PIN (P) to generate an authentication

10   code 292 that is a function of (K, T, E, P).

11   Is that the one you have in mind?

12   Q   I'm asking you about paragraph 73.

13   Can you answer my question?

14   A   What is the question again, please?

15   Q   Paragraph 73 indicates to one of ordinary

16   skill in the art that authentication code 291 is one of

17   the inputs to create authentication code 292, correct?

18   MR. MACK: Objection; form.

19   A   So, yes, it does.

20   Q   A block cipher can be applied to

21   authentication code 291 to create authentication

22   code 292, correct?

23   MR. MACK: Objection; form.

24   A   That is one way of doing it.

25   Q   Paragraph 73 of the '585 reference is an

1   example of an encryption process that takes an

2   authentication code as an input, correct?

3   A   That's not what it says. This reference can

4   use encryption functions, but that doesn't mean that it

5   encrypts. And there's a subtle distinction here.

6   Encryption functions are one-way functions,

7   and this reference, the Jakobsson reference, relies on

8   having access to a one-way function.

9   Q   Paragraph 73 is not limited to one-way

10 functions, correct?

11   A   It -- you could apply other functions too.

12   Now, let me explain why you need a one-way

13 function.

14   Q   No. Your counsel can ask you a redirect

15 question. I haven't asked you a question.

16   Authentication code 292 is the output of a

17 block cipher, correct?

18   MR. MACK: Objection; form.

19   A   So the block cipher can be used as a one-way

20 function, taking as input the generated authentication

21 code 291 and a PIN (P). But when you use an

22 authentic -- when you use a block cipher for encryption

23 purposes, you need a key.

24   Now, this does not describe using a key. In

25 fact, in other places, it describes how to use the input

1   in the key field, but it isn't a key. It's using it as

2   a one-way function.

3   Q   Paragraph 73 discloses how the PIN (P) can be

4   combined with A, correct?

5   A   So I think you should -- A is a function. So

6   I -- I think, for correctness, you should say that

7   combined with A (K, T, E).

8   Is that what you mean?

9   Q   It is. Fair enough.

10   Paragraph 73 discloses that the PIN (P) can be

11   combined with the function A, parentheses, K, T, E,

12   correct?

13   A   Yes.

14   Q   And paragraph 73 discloses that those can be

15   combined using any algorithm, correct?

16   MR. MACK: Objection; form.

17   A   It doesn't say any algorithm. It gives

18   examples here. For example, arithmetically adding,

19   that's one example using a block cipher, which as I

20   explained, is not used to encrypt, but it's used for

21   purposes of applying a one-way function or an -- or

22   other one-way function or other algorithm.

23   Q   Now, when it says "or other algorithm," that's

24   not limited to any particular algorithm, correct?

25   A   It doesn't specify.

1   Q   Authentication code 292 is an encrypted

2   authentication code, correct?

3   A   No, it isn't. That's what I tried to explain.

4   Thank you.

5   MR. MACK: Thanks.

6   THE WITNESS: Before you start, how about a

7   quick break?

8   MR. SELWYN: Sure.

9   (A recess ensued from 1:41 p.m. to 1:47 p.m.)

10 BY MR. SELWYN:

11   Q   All right. Dr. Jakobsson, can you put in

12 front of you the Maritzen reference?

13   A   Yes.

14   Q   In Maritzen, the personal transaction device,

15 or PTD, is the user's device, correct?

16   A   It's referred to as a personal transaction

17 device. I'm not sure what you mean by "user's device."

18   Q   The PTD is the device that the user has,

19 correct?

20   A   It's associated with a vehicle. I'm not so

21 sure it's associated with a user.

22   Q   Well, who uses the PTD?

23   A   I would assume the driver of the vehicle.

24   Q   So the driver is the user?

25   A   Yeah. But the driver might change over time.

1   Q   The PTD is intended to be used by a person,

2   correct?

3   A   Yes.   Well, in the sense that -- you mean as a

4   person, as opposed to a dog?

5   Q   That would be one example.

6   A   So it has a biometric sensor that I presume is

7   taking an input from a person.

8   Q   We can agree the PTD is used by a user who is

9   a person, correct?

10   A   When you say "user," what do you mean?

11   Q   The person who uses the PTD.

12   A   So that might change over time.   So there

13   might be different users for one PTD over time.   So it's

14   used by one or more people.

15   Q   The PTD is used by a user who is a person,

16   correct?

17   A   I would characterize it slightly different.

18   The PTD is used by one or more users, whom

19   I -- each one, I believe, is a person.

20   Q   Maritzen uses something called a "transaction

21   key" to conduct transactions, correct?

22   A   Let me look at the terminology.

23   So they refer to as the VAPGT transaction key.

24   That's the vehicle-accessed, payment-gateway terminal

25   transaction key.

1   Q   So you agree, don't you, that Maritzen uses

2   something called a "transaction key" to conduct

3   transactions?

4   A   So the way they describe it is it's a VAPGT

5   transaction key. The place I'm looking -- is there

6   another place where they refer to it only as a

7   transaction key?

8   Q   The VAPGT120 is a transaction key, correct?

9   MR. MACK: Objection; form.

10   A   The VAPGT is not a transaction key.

11   Q   I'm sorry. Let's back up.

12   Maritzen uses something called a "transaction

13   key," correct?

14   A   Let me review.

15   Yes, transaction key 340.

16   Q   And the transaction key is used to conduct

17   transactions in Maritzen, correct?

18   A   So it's used in the context of transmitting to

19   the server. No, I'm so sorry. I'm looking at the wrong

20   place.

21   So in general, Maritzen is -- is describing

22   how to perform toll payments. The VAPGT is a

23   vehicle-accessed, payment-gateway terminal, and the

24   transaction key 340 is used by the VAPGT to carry out

25   the payment of the toll.

1   Q   In Maritzen, the PTD 100 generates the

2   transaction key, correct?

3   A   I need to refresh my recollection on how it's

4   generated. Is there a particular paragraph you would

5   like me to look at?

6   Q   Look at paragraph 45.

7   A   Here, it states that the PTD 100 creates a

8   transaction key.

9   Q   And Maritzen also describes that before a

10 transaction, the user can select which transaction key

11 to use, correct?

12   A   I don't recall that being said. Would you

13 draw my attention to a paragraph that describes that,

14 please?

15   Q   Paragraph 48.

16   A   I don't see it say what you asked about. It

17 does speak about the transaction key, but I think it

18 says something else.

19   Q   Paragraph 48 discloses that a user can select

20 which transaction key to use, correct?

21   MR. MACK: Objection; form.

22   A   I'm so sorry. I don't see this described.

23 Does it say it in an alternative way?

24   Q   I'll move on if you don't see it.

25   A   Would you read the sentence to me where you

1   think it says it?

2   Q   No, sir. You have read this reference before,

3   haven't you?

4   A   I have, but I don't recall the

5   characterization you gave.

6   Q   Okay. In Maritzen, the selection of the

7   transaction key can occur at the PTD 100, correct?

8   MR. MACK: Objection; form.

9   A   So you referred me before to paragraph 45

10   where it says that "the PTD creates a transaction key."

11   Now, you're asking a slightly different question, the

12   selection of it.

13   Did I get that right?

14   Q   Let me re-ask the question again.

15   In Maritzen, the selection of the transaction

16   key can occur at the PTD 100, correct?

17   MR. MACK: Objection; form.

18   A   This is a very particular question. I need

19   for you either to refer to my -- one of my declarations

20   or to the sentence in Maritzen that says it because I

21   can't recall one way or the other.

22   Q   Well, I'm asking you as a person of ordinary

23   skill in the art having read Maritzen, can you tell us

24   whether the selection of a transaction key can occur at

25   the PTD 100?

1   A   So I know that the PTD generates the key, but

2   I don't recall whether it selects it. That's a very

3   different thing, of course.

4   Q   Maritzen discloses one type of user input

5   device, correct?

6   A   I'd have to refresh my recollection on that.

7   Q   Do you recall any user input device disclosed

8   in Maritzen other than PTD 100?

9   A   So it says here in paragraph 76 that

10   "Figure 6A and 6B are example of personal transaction

11   devices." So these are two examples. Now, they're very

12   hard to see, at least in my copy here. It's not a very

13   clear copy. So I can't say what they mean at all, but

14   Maritzen says that there are two different. I

15   understand it to be examples of a PTD.

16   Q   Okay. My question to you is does Maritzen

17   disclose any user input device other than PTD 100?

18   A   So here it refers to personal transaction

19   device 610 and 640.

20   Q   Where are you reading from?

21   A   So this is paragraph 76. I'm trying to

22   understand the context of your question. So here there

23   are -- the personal transaction device, that's the PTD,

24   and there are two examples here, 610 and 640, as I

25   understand this. So there are two -- at least two PTDs

1   disclosed, 610 and 640.

2   Q   Okay. Does Maritzen disclose any user input

3   device other than the PTD?

4   A   I have to scan this quickly to say.

5   I know you don't want me to read all of this.

6   I don't recall offhand. This is not something I think

7   I've opined on. I'm happy to review in more detail.

8   I've reviewed portions of page 4 so far. I want to, of

9   course, answer your question accurately, and so far I

10   don't know one way or the other.

11   Q   Do you recall, as you sit here, Maritzen

12   disclosing any user input device other than the PTD?

13   A   Well, in paragraph 57 it says "Alternatively,

14   user may pay the transaction amount by any other

15   appropriate means, such as, for example, cash, credit

16   card, or the like." That might not disclose another

17   user interface. I'm not so sure. I would have to

18   consider this more to give an accurate answer.

19   Q   My question is do you recall, as you sit here,

20   Maritzen disclosing any user input device other than the

21   PTD?

22   A   I think I understand your question. This is

23   not something I think I opined on; so I -- I haven't

24   really reviewed those portions of Maritzen in

25   preparation for this deposition. And I would be happy

1   to review this in order to give you a good answer. But

2   just sitting here today, I can't tell one way or the

3   other.

4   Q   Maritzen discloses a PTD that is capable of

5   receiving user input, correct?

6   A   Now, I'd like to ask you to refer me to the

7   paragraph where it says that, and I would be happy to

8   verify the language.

9   Q   Can you answer my question based upon your

10   memory of having reviewed Maritzen?

11   A   So I know that the -- the PTD receives a

12   biometric input, but I'm looking for the context of that

13   now. I think it speaks about that in paragraph 67, "The

14   biometric control manager 330 includes computer-readable

15   instructions used by CPU 210 to receive biometric

16   information from privacy card 110, verify the biometric

17   information, and unlock the PTD 100."

18   So I know, based on this, that the PTD can

19   receive information from the privacy card 110. It

20   appears from this that the privacy card 110 is the

21   entity that collects the biometric information in the

22   first place. It doesn't say that the PTD does.

23   Q   Listen to my question, sir, please. Maritzen

24   discloses that the PTD is capable of receiving user

25   input, correct?

1   A   So what do you mean by "user input" in this

2   context?

3   Q   Are you familiar with -- strike that.

4   You don't understand the term "user input"?

5   A   In general, I do. But in Maritzen, I know

6   that since this is in the context of a person driving a

7   vehicle, it's not desirable to provide, for example,

8   key-based input. And Maritzen, I believe, addresses the

9   problem of a user interface that should be operable

10   while driving.

11   Q   Can you just tell us whether or not the PTD in

12   Maritzen can receive user input?

13   A   You know, this is not one of those things that

14   I believe that I opined on. I'd be very happy to

15   consider the question in the context of, for example,

16   the paragraph you asked me to read.

17   Q   Have you considered before today whether the

18   PTD disclosed in Maritzen is capable of receiving user

19   input?

20   MR. MACK: Objection; form.

21   A   So, as we discussed before, I've been working

22   on the case for roughly two years, if not more. I

23   actually don't recall everything that I considered along

24   the way. In the context of these declarations that

25   we're reviewing today, I cannot recall having considered

1   it.

2   Q   In Maritzen, each transaction key can be

3   associated with a particular user account, correct?

4   A   Would you please say that again?

5   Q   Maritzen discloses that each transaction key

6   can be associated with a particular user account,

7   correct?

8   A   I know you don't want me to speculate. I

9   don't recall opining about that, but -- and I didn't

10   prepare for this question, as a result, for today's

11   deposition. But I understand Maritzen well enough that

12   I don't think I would have to read all through this to

13   understand it. But it's enough that you point me to a

14   couple of places where it discusses it, and I would

15   probably be able to understand and explain the answer to

16   your question.

17   Q   Sir, do you know whether Maritzen discloses

18   that each transaction key can be associated with a

19   particular user account?

20   A   This is not something I opined on, I believe.

21   If you think I'm wrong, I'd love to ask you to

22   point me to the portion in my declaration where I talk

23   about it.

24   Q   Okay.

25   A   I -- I don't recall one way or the other,

1   since I haven't committed Maritzen to my memory.

2   Q   Would you agree that Maritzen discloses that

3   the user can select a transaction key associated with an

4   account?

5   A   I -- again, I'd have to look at the

6   formulation to understand the context of the question.

7   Q   Would you agree that Maritzen discloses that

8   after the transaction key is generated by the PTD, it is

9   sent to the VAPGT 120?

10   A   No. It would be really helpful if you refer

11   me to the paragraph where this is discussed, to make

12   sure that I speak accurately for the record.

13   Q   How much time have you spent reviewing

14   Maritzen?

15   A   I've spent a lot of time with Maritzen, but

16   not in the days leading up to this deposition. And I

17   haven't committed to my memory, but I'm pretty sure that

18   you have something in mind.

19   So if you want to ask me about a particular

20   paragraph, I'd be really happy to answer that.

21   Q   Let's go back to my question.

22   How much time have you spent reviewing

23   Maritzen?

24   A   Are you asking altogether?

25   Q   Yes.

1   A   I don't know.

2   Q   What's your best estimate?

3   A   I'd be guessing. I have spent time enough to

4   be able to opine on the matters involving Maritzen that

5   are included in these declarations.

6   Q   Have you considered -- have you spent more

7   than 10 hours reviewing Maritzen?

8   A   I -- you know, that's not how I do the

9   bookkeeping, by the -- by the reference. And I wouldn't

10   be able to answer that off the bat here. I could review

11   my invoices and -- to see whether they described whether

12   it was Maritzen I reviewed or other prior art, but I

13   cannot think of the answer and answer correctly sitting

14   here today.

15   Q   Can you turn to paragraph 45 of Maritzen.

16   Let me know when you finish reading that.

17   A   Sure.

18   Yes. I think I have -- have finished that

19   now.

20   Q   In Maritzen, after the transaction key is

21   generated by the PTD, it is sent to the VAPGT 120,

22   correct?

23   A   So just to make sure that I don't

24   misunderstand, would you please read it to me again, the

25   question?

1   Q   Maritzen discloses that after the transaction

2   key is generated by the PTD, it is sent to the

3   VAPGT 120, correct?

4   A   Yeah. It doesn't use exactly the same

5   terminology, but that's how I understand it.

6   Q   The VAPGT 120 forwards the transaction key on

7   to the clearinghouse 130 as part of the transaction

8   request, correct?

9   A   No. The paragraph you spoke about doesn't

10   describe that, and I need to review whether it forwards

11   or it processes and forwards before I can --

12   Q   Can you look at paragraph 46?

13   A   Yes.

14   Yes. Thank you for drawing my attention to

15   that.

16   Q   Would you agree with me that one of ordinary

17   skill in the art would understand paragraph 46 to mean

18   that the VAPGT 120 forwards the transaction key on to

19   clearinghouse 130 as part of a transaction request?

20   A   So it says that the transaction request is

21   transmitted via the communication link 160 to

22   clearinghouse 130.

23   Let me review the -- is there a figure that

24   goes with this? It doesn't speak to whether it's

25   sending it directly or there are proxies.

1   Is that your question about?

2   Q   No.

3   A   Would you rephrase your question? I just need

4 to make sure that I don't misunderstand.

5   Q   Would you agree that one of ordinary skill in

6 the art would understand paragraph 46 of Maritzen to

7 mean that the VAPGT 120 forwards the transaction key on

8 to clearinghouse 130 as part of a transaction request?

9   MR. MACK: Objection; form.

10   A   When you're saying "as part of a transaction

11 request," a transaction request is actually a data item.

12   It says that in one embodiment, the

13 transaction request includes the transaction key. And,

14 also, it speaks of other things, like a transaction

15 amount, a transaction type, and a terminal identifier.

16   Later on, it speaks about an alternate --

17 alternate embodiment. So this is not the same

18 embodiment. It says in alternate embodiments, the

19 transaction request may include other information. The

20 transaction request is transmitted.

21   So I don't know that this speaks about the

22 same embodiment that the paragraph begins with.

23   Q   Wait a second. You're saying that

24 paragraph 46 discloses multiple embodiments that are

25 unrelated?

1   A   It -- I'm not saying one way or the other.

2   It say that -- it says "in alternate embodiments," so,

3   obviously, there are two embodiments being described in

4   this paragraph.

5   Q   The alternate embodiment is describing

6   something that can be included in the prior embodiment

7   described in the same paragraph, correct?

8   A   So, I -- you know, the only thing I can say

9   with certainty is that in the -- in the context of the

10   alternate embodiment, the transaction request is

11   transmitted via communication link 160 to the

12   clearinghouse 130.

13   Given this information alone in this

14   paragraph, I can't say with certainty whether that

15   applies to the previous embodiment as well, but maybe

16   there are other paragraphs that clarifies that.

17   Q   Maritzen discloses pre-funded accounts,

18   correct?

19   A   Yes.

20   Q   And Maritzen's pre-funded accounts are loaded

21   onto the PTD?

22   A   Let me verify the location.

23   So paragraph 49 speaks of clearinghouse 130

24   selecting a preexisting account. It doesn't speak of

25   the PTD having access to this.

1   Q   Okay. I'm not limiting my question to

2   paragraph 49.

3   Does Maritzen disclose pre-funded accounts

4   loaded onto the PTD?

5   A   I'd have to -- I don't remember opining about

6   that.

7   Q   Did you study Maritzen to see whether it

8   discloses pre-funded accounts loaded onto the PTD?

9   A   I don't recall.

10   Q   Can you look at paragraph 8 of Maritzen?

11   A   Yes. That says that in an alternate

12   embodiment, a preregistered key-enabled personal

13   transaction device, PTD, is loaded with a pre-funded

14   cash account.

15   Q   So would you agree with me that Maritzen

16   discloses pre-funded accounts loaded onto the PTD?

17   A   In at least this alternate embodiment, yes.

18   Q   Maritzen's pre-funded accounts contain the

19   user's funds, correct?

20   MR. MACK: Objection; form.

21   A   What do you mean when you say "contains the

22   user's fund"?

23   Q   What is -- funds are loaded onto the PTD,

24   correct?

25   A   So a representation of funds are loaded onto

1   the PTD.

2   Q   And those funds are the user's funds, correct?

3   MR. MACK: Objection; form.

4   A   So it doesn't actually say so. For example,

5   we've spoken about it -- it is possible that a PTD is

6   associated with multiple users; for example, by means of

7   an organization. When we were here last time, we spoke

8   of an example of a bus, which, of course, is a vehicle.

9   Which, if you think about the bus having to pay tolls,

10   there might be several bus drivers. These are not the

11   users in this context.

12   Q   Would one of ordinary skill in the art

13   understand Maritzen to disclose that the pre-funded

14   accounts can include the user's funds?

15   MR. MACK: Objection; form, beyond the scope.

16   A   Would you please rephrase the question without

17   saying "user"?

18   Q   No. My question is about a user.

19   A   So I don't -- I'd have to study Maritzen in

20   the context of the word "user" to answer that question.

21   Maritzen is not very clear on what the user's role is

22   here. And in this particular paragraph, he doesn't

23   speak of user.

24   Q   Does Maritzen disclose that a pre-funded

25   account can be a standard bank checking account?

1   A   If you want to, I could review that. But,

2   just to understand the context, that, of course, could

3   belong to an organization.

4   Q   Can you answer my question?

5   A   I -- I'd have to look at the context, please.

6   Q   The use of a pre-funded account is one

7   embodiment in Maritzen, correct?

8   A   Yes, the one that is described in paragraph 8.

9   Q   Have you read paragraph 7 of Maritzen before?

10   A   Yes, I have. Let me refresh my recollection

11   by reading it again.

12   Yes. So that must be the -- the other

13   embodiment, so to speak.

14   Q   In paragraph 7, Maritzen discloses an

15   embodiment that involves a transaction request that is

16   transmitted to a server, correct?

17   A   Yes, it does.

18   Q   And in the embodiment described in

19   paragraph 47, if the transaction is approved, the server

20   subsequently sends a transaction authorization message,

21   correct?

22   A   It doesn't say so. It says "Further, a

23   transaction authorization message is received from the

24   server to complete the transaction."

25   Q   And one of ordinary skill in the art would

1   understand that to mean that upon approval of the

2   transaction, the server sends a transaction

3   authorization message, correct?

4   MR. MACK: Objection; form.

5   A   So I think it's plain what it says. It -- a

6   transaction authorization message is received from the

7   server to complete the transaction.

8   Do I fail to understand your question?

9   Q   I think you do.

10   One of ordinary skill in the art would

11   understand the embodiment described in paragraph 7 to

12   mean that upon approval of the transaction, the server

13   sends a transaction authorization message, correct?

14   MR. MACK: Objection; form.

15   A   You know, it doesn't speak of approval. It

16   says "The transaction authorization message is received

17   from the server to complete the transaction."

18   Q   You understand the transaction authorization

19   message is what authorizes the transaction, correct?

20   A   A transaction authorization message sounds

21   like a message that authorizes the transaction message

22   unless defined otherwise. I'd have to review Maritzen

23   to see if there's anyplace where they describe it as

24   having another meaning.

25   Q   The embodiment described in paragraph 7 does

1   not involve pre-funded accounts, correct?

2   MR. MACK: Objection; form.

3   A   It doesn't say one way or the other.

4   Q   Nothing in paragraph 7 discloses pre-funded

5   accounts, correct?

6   A   It does not.

7   Thank you.

8   Q   I've handed you U.S. patent number 5,930,767

9   to Reber. Do you recognize that?

10   A   Yes, I do.

11   Q   And you'll understand me if I refer to this as

12   the Reber patent?

13   A   I will.

14   Q   Reber discloses that interception of sensitive

15   personal or financial information is undesirable,

16   correct?

17   MR. MACK: Objection; form.

18   A   It speaks about -- it says "Additionally, the

19   interception of the end user's personal identification

20   number can result in transactions by unauthorized

21   parties."

22   There might be other paragraphs it speaks of

23   interception to. Would you like me to look for those?

24   Q   No. Can you tell us based upon your -- strike

25   that.

1   Did you review Reber?

2   A   Yes.

3   Q   How much time have you spent reviewing Reber?

4   A   I don't recall.

5   Q   More than an hour?

6   A   Yes.

7   Q   More than ten hours?

8   A   I don't recall.

9   Q   Based upon your review of Reber, can you tell

10   us whether the reference discloses the interception of

11   sensitive personal or financial information is

12   undesirable?

13   MR. MACK: Objection; form.

14   A   So it says here that "Interception of the end

15   user's personal identification number can result in

16   transactions by authorized parties."

17   I understand the personal identification

18   number to be what often is referred to as the PIN. So

19   there might be other places where Reber speaks of

20   interception of data, but I'd have to look for those.

21   Q   Reber discloses the use of a time-varying code

22   to prevent interception of personal data, correct?

23   MR. MACK: Objection; form.

24   A   It says in one -- an exemplary embodiment "The

25   personal identification code is time varying and

1   non-predictable by authorized parties." That is

2   column 4, 18 to 20.

3   Q   Can you answer my question, please?

4   A   Would you please restate your question?

5   Q   Reber discloses the use of a time-varying code

6   to prevent interception of personal data, correct?

7   MR. MACK: Objection; form.

8   A   I would have to look for that. In this

9   particular sentence, it doesn't make an implication of

10   why, and it doesn't speak of personal data as such. But

11   it says "Personal identification code is time-varying."

12   It doesn't speak about the reasons, and it doesn't

13   generalize, but there might be other sentences. This is

14   not something I've looked for. If you'd like me to, I

15   could look for other places.

16   Q   So in reaching your opinion in this case, you

17   did not examine Reber to see whether it disclosed the

18   use of time-varying codes to prevent interception of

19   personal data, correct?

20   MR. MACK: Objection; form.

21   A   That's not what I'm saying.

22   Q   Well, did you?

23   A   So we haven't used the terminology "personal

24   data," so it's hard for me to answer without knowing

25   what you mean by "personal data."

1   Q   Data of a person?

2   A   Data of a person?

3   Q   A person's data.

4   A   A person's data. That is different from how I

5   understand personal data. But maybe I should go with

6   your definition of it.

7   Q   Is a personal identification code personal

8   data?

9   MR. MACK: Objection; form, beyond the scope.

10   A   So I think that depends on how you define it.

11 For example, my PIN number, if used by my wife too, does

12 not belong to me alone, and so I couldn't lay claims to

13 saying that it's personal. I don't think I understand

14 how you mean by personal well enough to answer your

15 question.

16   Q   Okay. Let's look at column 2, lines 29

17 through 32.

18   A   Did you say 29 to 32?

19   Q   I did.

20   A   Okay. "To reduce the likelihood of

21 unauthorized interception of a personal identification

22 code, a time-varying bar code is used to authenticate

23 the end user."

24   Q   So can we agree that Reber discloses the use

25 of a time-varying code to prevent interception of a

1   personal identification code?

2   MR. MACK: Objection; form.

3   A   That's not quite what it says. First of all,

4   it speaks about time-varying bar codes, and it speaks

5   about them -- using them to authenticate the user, and

6   it doesn't eliminate the risk of interception. But this

7   speaks of reducing the likelihood of unauthorized

8   interception of this personal identification code.

9   Q   So your opinion is that column 2, lines 29

10   through 32 do not disclose the use of a time-varying

11   code to prevent interception of a personal

12   identification code, correct?

13   A   So it says that "to reduce the likelihood of

14   an unauthorized interception of a personal

15   identification code, a time-varying bar code is used to

16   authenticate the end user." I take that at face value.

17   Q   I don't know what you mean by that, sir.

18   One of ordinary skill in the art reading this

19   passage would understand Reber to disclose the use of a

20   time-varying code, correct?

21   A   It uses a time-varying bar code.

22   Q   And a time-varying bar code is an example of a

23   time-varying code, correct?

24   MR. MACK: Objection.

25   A   So time-varying bar code is different, I

1   think, than a time-varying code as I understand it in

2   the context of these patents, and I haven't considered

3   whether one is a subset of the other.

4   Q   So I want to be perfectly clear for the Board

5   who is going to be reading this.

6   Do you believe that a time-varying bar code is

7   not an example of a time-varying code, correct?

8   A   That's not what I said.

9   Q   Okay. Let's be clear, then. Is a

10 time-varying bar code an example of a time-varying code?

11   MR. MACK: Objection; form, beyond the scope.

12   A   I haven't considered that question.

13   Q   I'm asking you to consider it this moment.

14 Okay?

15   Is a time-varying bar code an example of a

16 time-varying code? Yes or no.

17   MR. MACK: Same objection.

18   A   I would have to review Reber to understand the

19 context in which the time-varying bar code is used.

20   Q   So you are not and have not offered any

21 opinion that a time-varying bar code is or is not a

22 time-varying code, correct?

23   MR. MACK: Same objections.

24   A   I do not recall that. But if there is a

25 particular portion of my -- of one of my declarations

1   you would like to review in this context, that would

2   refresh my memory on this matter.

3   Q   Would you agree that a person of ordinary

4   skill in the art at the time of the Reber patent would

5   understand that having your data misappropriated is

6   undesirable, whether it's misappropriated by a merchant

7   or by a third party?

8   MR. MACK: Objection; form.

9   A   By "misappropriated," you mean stolen, in

10   general?

11   Q   That would be an example.

12   A   That would not be desirable.

13   Q   And a person of ordinary skill in the art

14   would understand that the use of a time-varying code

15   helps protect against misappropriation, whether that

16   misappropriation is done by a merchant or by a third

17   party, correct?

18   MR. MACK: Object --

19   A   Are you speaking in the context of Reber?

20   Q   I'm talking about what one of ordinary skill

21   in the art would understand at the time of the Reber

22   patent.

23   MR. MACK: Objection; form.

24   A   So you're not speaking in context of the Reber

25   patent, then, but just in general?

1   Q   I am, in general. We'll get to the Reber

2   patent.

3   A   Okay. Would you please re-ask the question?

4   Q   One of ordinary skill in the art in the 1990s

5   and in the 2000s would understand that the use of a

6   time-varying code helps protect against

7   misappropriation, whether that misappropriation is done

8   by a merchant or by a third party, correct?

9   MR. MACK: Objection; form, beyond the scope.

10   A   I wouldn't say that it stops the

11   misappropriation of it, but it might -- it might limit

12   the effects of the misappropriation.

13   Q   Did I use the word "stop" in my question?

14   A   I'm sorry. Would you please rephrase your

15   question?

16   Q   One of ordinary skill in the art in the 1990s

17   or in the 2000s would understand that use of a

18   time-varying code helps protect against

19   misappropriation, correct?

20   MR. MACK: Same objections.

21   A   When you say "misappropriation," you mean

22   theft of something?

23   Q   That would be an example.

24   A   So, in some contexts, time-varying codes were

25   used. So, for example, the Security Dynamics SecurID

1   technology, which I showed, I think, a few images of

2   before. Exhibit 2013, page 34, there's one image with

3   three of them. That was used as a password replacement.

4   And the reason for that was that people were concerned

5   that if they transmitted their password over a network,

6   somebody may, for example, shoulder-surf. And as

7   they're entering their password, it would become known

8   to somebody whom they didn't want it to be known to,

9   which would be a form of misappropriation, as I

10   understand your question.

11   Q   One of ordinary skill in the art in the 1990s

12   would understand that a time-varying code could be used

13   to help protect against misappropriation by a merchant

14   or misappropriation by a third party, correct?

15   MR. MACK: Same objections.

16   A   I don't understand when you're saying "by a

17   merchant." Do you mean by the merchant's shoulder

18   surfing?

19   Q   That would be an example.

20   A   So if we limit this to the example where

21   you're saying the merchant is shoulder-surfing and --

22   and looking at some information that is being entered,

23   such as a password, then the merchant would know the

24   password, and that would be undesirable.

25   Q   In the 1990s, the use of a time-varying code

1   was a way to help protect against misappropriation,

2   correct?

3   MR. MACK: Same objections.

4   A   So the example I gave you was one of where you

5   don't want your password to be misappropriated. That is

6   the example that comes to mind in the context of

7   time-varying code in the 1990s. I'm sure there are

8   other examples, but let me explain this one.

9   So, here, a person who sees the person

10   entering this code, this time-varying code, would not

11   have much use of that because they can't, for example,

12   go home and use it instead of your password, had -- as

13   they would have been able to if they had been able to

14   see your password being entered. So that helped against

15   misappropriation for a shoulder surfer.

16   Now, in the context of a merchant, it may be

17   different, unless you'd consider a merchant who's

18   shoulder surfing. And so I need a particular example

19   that you have mind for me to answer your question

20   accurately.

21   Q   Okay. Let's turn to column 4, lines 14 to 20.

22   A   Did you say 14 to 20?

23   Q   Yes.

24   A   Just a moment, please.

25   Yes. I have read that now.

1   Q   This passage of Reber discusses the second

2   data element, correct?

3   A   Yes, it does.

4   Q   And this passage of Reber states that the

5   second data element can include a personal

6   identification code, correct?

7   A   Yes, it does.

8   Q   And this passage states that in an exemplary

9   embodiment, the personal identification code is time

10   varying, correct?

11   A   Well, for more -- that's part of it, yes.

12   Q   A person of ordinary skill in the art would

13   have understand -- stood this passage of Reber to mean

14   that the personal identification code could vary based

15   on the time it is generated, correct?

16   A   Would you say that again?

17   Q   A person of ordinary skill in the art would

18   have understood the passage in Reber from column 4,

19   lines 14 through 20 to mean that the personal

20   identification code could vary based on the time it is

21   generated, correct?

22   A   So it describes that the personal

23   identification code is time varying and non-predictable

24   by unauthorized parties.

25   I don't think I understand your question.

1   If -- if you're asking about something else, would you

2   please clarify?

3   Q   I don't know what you find confusing in my

4   question. Let me re-ask it.

5   A   Mm.

6   Q   A person of ordinary skill would have

7   understood the passage in Reber in column 4, lines 14

8   through 20 to mean that the personal identification code

9   could vary based on the time it's generated, correct?

10   A   See, I have a hard time understanding "could

11   vary based on the time it was generated." That doesn't

12   make much sense to me. That's why I'm trying to

13   rephrase it and use "time varying" instead, instead of

14   using varying based on the time it was generated.

15   Would you say it in another way?

16   Q   No. Let -- let me re-ask my question. A

17   person of ordinary skill in the art would understand

18   this passage of Reber to mean that a personal

19   identification code would vary based on the time it is

20   generated, correct?

21   A   Would vary based on the time it was generated.

22   I don't understand what you say.

23   Q   Okay. Do you understand what Reber means by

24   time varying?

25   A   We spoke before about time-varying bar codes.

1   This may be the same, or it may be different. I would

2   have to review it because this is not something that I

3   opined on, I believe.

4   Q   Okay. Could -- do you know how one of

5   ordinary skill in the art would understand the term

6   "time varying" as it's used in Reber in column 4,

7   lines 14 through 20?

8   A   So I haven't considered what a person of skill

9   in the art would have considered time varying as

10   described in Reber in the -- this paragraph, from 4, 14

11   to 20, but I would be happy to do so. Now, that would

12   require for me to understand the context of this.

13   Q   Do you understand how one of ordinary skill in

14   the art would understand the term "time varying" as it's

15   used anywhere in the Reber disclosure?

16   A   They would say that in the context of bar

17   codes, the time-varying bar code is something that is

18   used to authenticate an end user, for example. The

19   portion we spoke about was about the benefits, I think.

20   Q   How would one of ordinary skill in the art

21   define time varying as that term is used in the Reber

22   patent?

23   A   Claim construction is difficult and takes

24   time. I would have to consider that question. I

25   haven't considered it so far.

1   Q   You have not considered how Reber uses the

2   term "time varying," correct?

3   A   That's not what I'm saying.

4   Q   I'm asking you.

5   A   I have considered Reber in the context of the

6   request I was being made to analyze Reber. I have read

7   Reber in general, but I haven't focused on all the

8   aspects of Reber. If they didn't seem relevant to the

9   question I was being asked, I would skim through and

10   would not necessarily form an opinion about what it

11   meant.

12   Q   I'll ask you again.

13   Have you considered how Reber uses the term

14   "time varying"?

15   A   I would have refer to my declaration to

16   refresh my memory.

17   Q   Can you tell us how Reber uses the term "time

18   varying"?

19   A   So I gave you a few contexts where Reber does

20   use "time varying."

21   Q   How does Reber -- strike that.

22   How would one of ordinary skill in the art

23   understand how Reber uses the term "time varying"?

24   A   I think you're asking me for a claim

25   construction.

1   Q   Would one of ordinary skill in the art

2 understand Reber's reference to time varying to mean

3 that the code varies based on the time it is generated?

4   MR. MACK: Objection; form.

5   A   I have a hard time understanding what you mean

6 when you say varying based on the time it was generated.

7 So, if you please, reformulate that.

8   Q   Have you ever heard a time-varying code

9 defined as a code that varies based on the time it is

10 generated?

11   A   I can't recall the exact definitions that I've

12 seen. I understand in general what time-varying codes

13 means, but the formulation you have strikes me as a

14 little bit odd, and I'm not so sure that I've heard that

15 exact formulation.

16   Q   Okay. Let's look at the next paragraph of

17 Reber beginning at 4 -- column 4, line 21.

18   A   Yes, I've reviewed that.

19   Q   The paragraph that begins at column 4, line 21

20 of Reber discusses an alternate embodiment where the

21 second data element is generated by a code generator at

22 the network access apparatus 32, correct?

23   A   It describes two things. It can be

24 generated -- I'm sorry. It can be "prestored in the

25 network access apparatus 32, or it could be generated by

1 a code generator associated with the network access

2 apparatus 32."

3   Q   And the passage from lines 25 through 27 of

4 column 4 of Reber discloses that the second data element

5 could be time varying, correct?

6   A   So it describes that the previously described,

7 the second example that we gave in the previous

8 sentence, preferably in that case, the code generator

9 generates the second data element, which is time varying

10 and non-predictable by unauthorized persons -- parties.

11 I'm sorry.

12   Q   Do you know what Reber means by "time varying"

13 as it's used in the sentence in column 4, lines 25

14 through 27?

15   A   So this refers to the second data element, and

16 it says "this should be time varying." Now, it's -- we

17 know from before that the second data element includes

18 personal identification code, such as a personal

19 identification number to identify the end user, an

20 organization, or an account. So Reber says that -- that

21 refers probably to the embodiment where the second data

22 element can be prestored in the network access apparatus

23 because I don't see data of that format being generated

24 by a code generator.

25   Q   I'm asking you about the words "time varying"

1   that appear on those lines. Do you know what Reber

2   means by "time varying" as it's used in the sentence in

3   column 4, lines 25 through 27?

4   A   So the second data element should be time

5   varying. Now, it does not make sense for me, for

6   example, to be an organization being time varying. So

7   I'm going to exclude that embodiment and instead speak

8   about where it's generated by the code generator. So

9   the code generator would produce something that is time

10   varying and non-predictable by unauthorized parties.

11   I don't know from reading Reber exactly how

12   Reber anticipates that would be done, given this context

13   alone. I would have to look at other portions of Reber

14   to understand that.

15   Q   Okay. And I'm asking you to focus on the

16   words "time varying." Do you know what Reber means by

17   "time varying" as it's used in column 4, lines 24 to 27?

18   A   I suspect that I do, but I would have to

19   verify to make sure that I don't make a mistake here. I

20   haven't opined on exactly what Reber means in this

21   context in terms of time varying.

22   Q   A person of ordinary skill in the art would

23   have understood that one possible input to the code

24   generator referenced in column 4, lines 25 through 27

25   could be the current time, correct?

1   MR. MACK: Objection; form, beyond the scope.

2   A   So in Reber, I don't know one way or the other

3   how this is going to be done. There are many ways of

4   generating time-varying codes.

5   Q   Okay. A person of ordinary skill in the art

6   would have understood that one possible input to the

7   code generator disclosed in column 4, lines 25

8   through 27, could be the current time, correct?

9   MR. MACK: Same objections.

10   A   So I haven't considered this question in the

11   context of Reber. I could speak about time-varying

12   values in general.

13   Q   Okay. Would you agree with me that a person

14   of ordinary skill in the art would have understood that

15   one possible input to a code that generates -- strike

16   that.

17   Would you agree that a person of ordinary

18   skill in the art would have understood that one possible

19   input to a generator that generates a time-varying code

20   would be the current time?

21   A   In the context of Reber or in general?

22   Q   No, in general.

23   A   So, for example, in the context of the SecurID

24   tokens, which I can speak about with confidence, I know

25   that there is a representation of time. Now, it might

1   not be accurate. In fact, it's suspected often that it

2   isn't accurate, and there are methods to deal with that,

3   but it is a representation of time since some beginning

4   time kept in the card here and which provides an input

5   to the algorithm that produces the output here. This is

6   known as a time-varying code.

7   Q   Can you look again -- strike that.

8   Can you look at column 6 beginning at line 25

9   of Reber?

10   A   It says "Optionally, the computer 64 directs

11   that an account for the first party be credited by the

12   transaction amount and an account for the second party

13   be debited by the transaction amount."

14   Q   Yes.

15   A   Let me read the context for this.

16   Yes, I've reviewed the context.

17   Q   Reber discloses in that sentence that the

18   computer 64 could direct a third party to credit and/or

19   debit an account, correct?

20   A   So it says "The computer 64 directs that an

21   account for the first party be credited by the

22   transaction amount, and an account for the second party

23   be debited by the transaction amount," but it doesn't

24   speak about what entity would perform it.

25   Whether this is a third party or not, I can't

1   tell from this context. Now, third party, of course, is

2   something that may need construction. So if you could

3   ask the question without using "third party," that would

4   be helpful.

5   Q   Well, let me ask the questions the way I think

6   they should be asked.

7   In that sentence, the computer 64 is directing

8   something, correct?

9   A   You know, it's a little bit unclear from the

10   context here what it means.

11   Q   Well, what do you interpret the word "directs"

12   to mean in that sentence?

13   A   So it could be at least two things. One could

14   be that it sends a signal to another party to cause that

15   second party to perform this action. It's also possible

16   that it directs it by executing instructions. I need to

17   look at the context here to understand what is being

18   said, and there might be other interpretations as well.

19   It's a little bit vague with just directs.

20   Q   Well, we know -- strike that.

21   One of ordinary skill in the art would

22   interpret that sentence in column 6, lines 25 through 28

23   to mean that the computer 64 is telling someone or some

24   entity or something to take an action, correct?

25   A   We know that it directs that the -- the

1   crediting and the debiting be taking place, but we don't

2   know whether this is another party. We just know that

3   it's being directed.

4   Q   Well, it's not directing itself to do

5   something, correct?

6   A   So I don't know how Reber describes this. Let

7   me look at the figure for this. Some of these patents

8   use a little bit goofy terminology, so I want to make

9   sure that I interpret it correctly.

10   So I know from reviewing my declaration -- and

11 I'm speaking now of Exhibit 2108, page 46,

12 paragraph 87 -- that computer 64 is tasked with allowing

13 or disallowing the transaction by authenticating the

14 transaction data's second data element. So it refers

15 to, for example, at Reber at 617 to 18, the computer 64,

16 which is the one you referred to, "authenticates the

17 second data element to allow or disallow the

18 transaction."

19   So I think that's the answer to the question

20 you had.

21   Q   What question are you answering?

22   A   So you were asking about the directing.

23 And -- performed. Now, I apologize. I lost my marker

24 of where in Reber we described this.

25   Would you remind me of the paragraph?

1   Q   Let me ask a new question.

2   Directing your attention to column 6, lines 25

3   through 29 of Reber.

4   A   Just a moment, please.

5   That's the same paragraph then, right?

6   Q   Yes.

7   A   Yes.

8   Q   Would you agree that a person of ordinary

9   skill in the art could fairly interpret that sentence as

10   directing a third party or someone else to do something?

11   A   Now, this must be read in context, of course,

12   and it's vague. But in Reber 617 to 18, it's very

13   clear. It says "The computer 64 authenticates the

14   second data element to allow or disallow the

15   transaction," so that clarifies what happens. The

16   direction is not to a third party. The direction must

17   be the computer performing the task or directing a

18   portion of the computer.

19   Q   So your opinion is that column 6, lines 26

20   through 29 should be interpreted to mean that the

21   computer 64 is directing the computer 64 to take an

22   action; is that right?

23   A   Sir, that's not what I'm saying. I'm saying

24   this sentence in the paragraph you pointed to is a

25   little bit vague about what is happening. And so in

1 order to answer it correctly, I would have to read the

2 context of it and related statements. So one place that

3 it's very clear is Reber at 617 to 18, and that

4 clarifies things in my mind. It says "The computer 64

5 authenticates a second data element to allow or disallow

6 the transaction."

7   Q   What do you interpret the word "optionally" to

8 mean in column 6 beginning at line 26?

9   A   So "optionally" means it's not necessary.

10   Q   Okay. And the rest of the sentence says "The

11 computer 64 directs that an account for the first party

12 be credited by the transaction amount, and an account

13 for the second account be debited by the transaction

14 amount."

15   Did I read that correctly?

16   A   Yes, I think so.

17   Q   So can we agree that the computer 64 in that

18 optional mode is directing something to happen or some

19 entity to take an action?

20   A   So it initiates an action. And that action is

21 for the crediting and the debiting, but it doesn't say

22 who performs the action.

23   Q   But it's directing somebody to perform that

24 action, correct?

25   A   Well, it doesn't say directing somebody.

1   It's -- it's kind of vague, what it says.

2   And, as I mentioned before, several of these

3   patents, you have to read them over and over to

4   understand what they really mean and look at the

5   context. And Reber is one of those. It just -- it's

6   hard to understand one sentence without the context.

7   MR. SELWYN: I move to strike as

8   nonresponsive.

9   Q   Let me ask the question one more time because

10   I want this to be very clear for the Board when they

11   review the transcript.

12   Is it your opinion that the phrase "the

13   computer 64 directs" should be interpreted to mean the

14   computer 64 directs computer 64 to take some action?

15   A   That is not what I'm saying. I'm saying this

16   is vague as to the meaning, so I have to look at the

17   context.

18   And there's some very helpful context at

19   Reber 6:17 to 18, which is that the computer 64

20   authenticates the second data element to allow or

21   disallow the transaction.

22   Since one is unclear and one is clear, if

23   you're asking me what is happening, I have to go with

24   the one that is perfectly clear.

25   MR. SELWYN: I move to strike everything after

1   "That's not what I'm saying."

2   THE WITNESS: What do you think about a short

3   break?

4   MR. SELWYN: If you need one.

5   THE WITNESS: Just to stretch my legs once

6   every hour is nice.

7   MR. SELWYN: Okay.

8   (A recess ensued from 3:01 p.m. to 3:10 p.m.)

9   BY MR. SELWYN:

10   Q   Dr. Jakobsson, I'm handing you a European

11   patent application with the named defenser -- inventor

12   Dan Schutzer.

13   Do you recognize that?

14   A   Yes, I do. It's a while since I reviewed it,

15   though.

16   Q   Will you understand if I refer to this today

17   as the Schutzer reference?

18   A   Yes, I do.

19   Q   Schutzer discloses a system for conducting

20   bank card transactions, correct?

21   A   You know, it says "method and system for

22   performing bank card transaction." That's how it

23   starts, so I believe that is a very appropriate

24   description.

25   Q   And you'd agree that a bank card transaction

1   is a financial transaction?

2   A   Let me see what -- what Schutzer says here.

3   What was the exact term you asked me about?

4   I'm sorry.

5   Q   A bank card transaction is a financial

6   transaction, correct?

7   A   That's how I understand it, yes.

8   Q   To perform bank card transactions, Schutzer

9   discloses what it calls an alternate card number,

10   correct?

11   A   Yes.

12   Q   And in Schutzer, the alternate card number is

13   used in a transaction as a proxy for a user's actual

14   credit card number, correct?

15   MR. MACK: Objection; form.

16   A   I've read a portion of it now. I'm not sure

17   what you're going to ask, of course. You did ask

18   something.

19   Q   I did.

20   A   I'm sorry. It took -- took me a while to

21   review the first and second page.

22   Q   Would you agree with me that in Schutzer, the

23   alternate card number is used in a transaction as a

24   proxy for the user's actual credit card?

25   MR. MACK: Objection; form.

1   A   So the -- Schutzer describes that the person

2   would use -- let me see here.

3   So it describes -- this is paragraph 19 of

4   Schutzer. In an embodiment of the present invention,

5   the anonymous or alternate card number is used in a

6   transaction by the transaction card user in place of the

7   transaction card user's transaction card number.

8   So the way I understand that is if I would

9   have in one context input my credit card number into --

10   onto a web page, for example, instead, now I would input

11   the transaction -- I'm sorry -- the transaction card

12   number. So I would use one in the way that I would

13   otherwise have used the other one.

14   Q   When you said "transaction card number," you

15   mean alternate card number?

16   A   Yes. I'm sorry.

17   So what I meant to say was that if, in a

18   normal standard credit card transaction -- say online --

19   instead of entering my credit card in a website, instead

20   I would enter my alternate card number. And the

21   merchant would process it without essential deviation

22   from how the credit cards would have been processed.

23   There are some differences, of course.

24   Instead of sending the credit card to an issuer, we know

25   that the transaction card number sends the anonymous

1   card number to the merchant, which in turn sends it to

2   the merchant's bank with a request for authorization.

3   Then the merchant bank sends the anonymous

4   card number over the card associate network to the

5   transaction card issuer. That's the entity that would

6   be able to process this.

7   Q   So the alternate card number disclosed in

8   Schutzer is not an actual account number, correct?

9   MR. MACK: Objection; form.

10   A   What do you mean by "an actual account

11   number"?

12   Q   Let me ask it this way. The alternate

13   account -- strike that.

14   The alternate card number disclosed in

15   Schutzer is not an account number, correct?

16   MR. MACK: Objection; form, beyond the scope.

17   A   I don't know one way or the other. I don't

18   know how Schutzer describes it, but it has the format of

19   a credit card number.

20   Q   The alternate card number is used in place of

21   the account number, correct?

22   MR. MACK: Same objections.

23   A   So that's not quite what it says.

24   It's used in place of the transaction card

25   user's transaction card number. This doesn't speak of

1   an account.

2   Q   The alternate card number is not a transaction

3   card number, correct?

4   MR. MACK: Same objections.

5   A   The -- say that again, please.

6   Q   The alternate card number is not a transaction

7   card number.

8   MR. MACK: Same objections.

9   A   I wouldn't know. It just says that it's used

10 in place of it.

11   Q   The alternate card number disclosed in

12 Schutzer is linked to an actual credit card number,

13 correct?

14   MR. MACK: Same objections.

15   A   When you say "linked," what do you mean?

16   Q   Connected to.

17   A   Let me review further to see what the

18 association is.

19   So paragraph 25 clarifies a little bit. It

20 says, Upon receipt of the anonymous card number for

21 authorization, the anonymous card number can be

22 associated by the issuing bank 8 with a proper

23 cardholder 2. And the cardholder's account then can be

24 authorized.

25   Q   Doesn't paragraph 19 tell us that the

1   alternate card number is linked to an actual card

2   number?

3   MR. MACK: Objection; form, beyond the scope.

4   A   What do you have in mind there? I don't see

5   that.

6   Q   Do you see the sentence in paragraph 19 that

7   says "The transaction card issuer's authorization

8   processor receives the anonymous card number linked with

9   the transaction card number," and it continues?

10   A   Yes, I see that.

11   Q   So is it fair to say that the alternate card

12   number is linked to an actual card number?

13   MR. MACK: Same objections.

14   A   When you say "linked" with, it could either be

15   an action, or it could be a relationship. What -- which

16   one do you have in mind here?

17   Q   I'm just using the words of Schutzer.

18   A   So I don't know reading this alone which one

19   Schutzer means. I'd have to read other paragraphs to

20   understand if it's an action or a relationship.

21   Q   But you would agree that Schutzer indicates

22   that the alternate card number is linked with an actual

23   card number.

24   MR. MACK: Same objections.

25   A   But it doesn't specify whether that is an

1   action or a relationship, and I think that is relevant

2   in the context of your question.

3   Q   Does paragraph 19 say that the alternate card

4   number is linked with an actual card number or not?

5   A   So it says, among other things, "The

6   transaction card issuer's authorization processor

7   receives the anonymous card number linked with a

8   transaction card number and sends an authorization back

9   to the merchant via the card association network and the

10   merchant's bank."

11   Now, to understand your question, in the

12   context of Schutzer, so that it wouldn't be

13   misunderstand out of context, I would have to consider

14   whether you mean a relationship or an action, and this

15   sentence doesn't clarify it.

16   MR. SELWYN: I move to strike as

17   nonresponsive.

18   Q   Schutzer discloses an embodiment where users

19   must authenticate themselves to their electronic device

20   before they can access their alternate card number,

21   correct?

22   A   Let me review that part.

23   So in paragraph 14, it speaks of an

24   alternative embodiment. "In an alternate aspect for an

25   embodiment of the presentation invention, the

1   transaction card user authenticates himself or herself

2   with a transaction card user information at a local

3   computing device, such as a personal computer, personal

4   digital assistant, or a smart card of the transaction

5   card user."

6   MR. SELWYN: Move to strike as nonresponsive.

7   Q   Schutzer discloses an embodiment where users

8   must authenticate themselves to their electronic device

9   before they can access their alternate card number,

10   correct?

11   MR. MACK: Objection; form, beyond the scope.

12   A   I'm not sure that I understand to their

13   device? What did you say there?

14   Q   Schutzer discloses an embodiment where users

15   must authenticate themselves to their electronic device

16   before they can have access to their alternate card

17   number, correct?

18   MR. MACK: Same objections.

19   A   So the recipient of that authentication you

20   refer to as to their electronic device? Is that so?

21   Q   Have you considered paragraph 35 of Schutzer?

22   A   In the context of your question, not yet, but

23   I will take a look at it.

24   MR. MACK: And I know, Mark, that Schutzer is

25   in your opposition for motions to amend. Can I just

1   have a standing objection that this is beyond the scope

2   of his declarations? Are you guys taking another

3   deposition after his declaration and our surreply or our

4   reply? I don't think Schutzer is actually at issue in

5   any of his declarations that we're here today for, the

6   six declarations. I think Schutzer was cited in your

7   opposition to the motions to amend. So he's going to be

8   maybe submitting a reply declaration with notice.

9   MR. SELWYN: But we're submitting an

10   opposition to the condition of motion to --

11   MR. MACK: Right.

12   MR. SELWYN: Okay.

13   MR. MACK: But I'm just -- I'll just have a

14   standing objection this is beyond the scope of the six

15   declarations that he's submitted so far.

16   MR. SELWYN: Okay. Our view is that because

17   the conditional motions to amend were filed, prior art

18   like Schutzer is relevant as part of those oppositions.

19   MR. MACK: Our position would be that he

20   submits a declaration and reply, then you would depose

21   him at that time, and that would be the time to ask

22   about Schutzer. But we'll just have a standing

23   objection that it's beyond the scope to this deposition.

24   MR. SELWYN: That's -- you can have your

25   standing objection. We would be entitled to depose him

1   after he submits a declaration of that kind. But

2   because of the conditional motions to amend, it's

3   relevant today.

4   MR. MACK: Okay.

5   A   So I need to apologize. I wasn't quite able

6   to absorb the material while you were having that

7   discussion, so I'm going to continue reading it now.

8   Q   And I'm just asking about paragraph 35.

9   A   Yes, I understand. I'm also going to look at

10   figure 5, though, because paragraph 35 refers to

11   figure 5.

12   Q   Fine.

13   A   So this speaks of a input device 34. Now, I

14   don't see that actually being part of -- of figure 5.

15   Would you happen to know where that is described?

16   Q   User 2 in figure 5.

17   A   Oh. I see. Yes.

18   Okay. I have reviewed that paragraph now.

19   Q   Paragraph 35 and figure 5 of Schutzer shows an

20   embodiment where users authenticate themselves to their

21   electronic device before they can gain access to their

22   alternate card number, correct?

23   MR. MACK: Objection; form.

24   A   So it speaks of the input device 34, but it

25   doesn't speak of ownership of this here. Based on the

1   context, I don't think I could tell what the answer is

2   to your question.

3   Q   Why are you referring to ownership?

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

5   Q   Do you see that paragraph 35 refers to the

6   user 2 entering a password onto the input device 34?

7   A   Yes.

8   Q   And do you see that later in the same

9   paragraph, it indicates that upon entering the correct

10   password or biometric onto that input device 34, the

11   anonymous card number is displayed?

12   A   Yes.

13   Q   Would you agree with me that the paragraph

14   discloses an embodiment wherein users authenticate to

15   themselves to their electronic device before they gain

16   access to the alternate card number?

17   A   So this doesn't speak of their electronic

18   device. So that's why I spoke of ownership. When you

19   say "their electronic device," that suggests an

20   ownership of a electronic device.

21   Q   Okay. Let me eliminate the word "their" if

22   that's your problem.

23   Schutzer discloses an embodiment where users

24   must authenticate themselves to a electronic device

25   before they can gain access to an alternate card number,

1   correct?

2   MR. MACK: Objection; form.

3   A   This does not speak of gaining access to. It

4   describes, for example, "upon entering the correct

5   password or biometric onto the input device 34, the

6   anonymous card number is displayed on the LCD 36."

7   Is that what you mean?

8   Q   Schutzer discloses an embodiment where users

9   must authenticate themselves to an a electronic device

10   before they receive an alternate card number, correct?

11   A   This speaks of an anonymous card number. And

12   it displayed on the LCD 36 as the card number, which I'm

13   not sure what it means here. I haven't prepared to be

14   deposed on Schutzer, so I need a little bit more time on

15   this. I recall reviewing Schutzer a long time ago, but

16   I know I haven't been opining on it in the declarations.

17   Q   You do know --

18   A   In front of us.

19   Q   You do --

20   A   And I was given the impression, maybe

21   incorrectly, so -- and please correct me so that the

22   deposition cover the material and the declarations.

23   Q   Schutzer requires biometric authentication at

24   a user device to conduct a financial transaction,

25   correct?

1   MR. MACK: Objection; form.

2   A   So I need to look at it carefully before I

3   answer your questions. As you know, many of the terms

4   you use are claim terms, and I need to understand how to

5   relate to those in the context of Schutzer.

6   Q   Which term did I just use that's a claim term?

7   A   Would you say your question again?

8   Q   Schutzer requires biometric authentication at

9   a user device to conduct a financial transaction,

10   correct?

11   MR. MACK: Objection; form.

12   A   I'm sorry to keep you waiting here. As I

13   explained, I haven't really prepared to be testifying on

14   Schutzer. So I'm very happy to do so, but I need to

15   look at the claim language of the patents that were

16   considered in my declarations in order to make sure that

17   I understand the subtleties of Schutzer in the context

18   of the question you're asking, and this may take some

19   time.

20   Q   I'm not asking you about the claim language.

21   A   But some of the words you're using, I think,

22   are related to the claim language, and I want to make

23   sure that I don't use the wrong terminology or

24   misunderstand your questions.

25   Q   Do you have an understanding of Schutzer?

1   A   Yes, but I haven't reviewed Schutzer ahead of

2   the -- the declaration -- the deposition today. So my

3   recollection is a bit hazy, and that means that I would

4   have to revisit many aspects before I could answer

5   pretty much any question you may have regarding Schutzer

6   to make sure that I don't answer out of context.

7   Q   Okay. Let me ask a new question.

8   Digital signatures have existed since at least

9   the 1990s, correct?

10   A   Yes.

11   Q   X.509 digital certificates have existed since

12 at least the 1990s, correct?

13   A   I don't remember when they were introduced.

14   Q   Certainly before 2000.

15   A   Yes.

16   Q   You wrote about digital signatures in your own

17 articles before 2006, correct?

18   A   Yes, I did.

19   Q   You wrote about digital signatures in your own

20 patents before 2006, correct?

21   A   I don't recall what patents I'm listed on as

22 an inventor prior to 2006 and whether they relate to

23 digital signatures.

24   Is there a particular one you have in mind?

25   Q   No, there's not.

1   A   So I -- I mean, I'm -- I'm listed as an

2   inventor for a large number of patents. And after

3   they're filed, I pretty much forget about them, sadly.

4   So I don't know really know how to attribute a year or

5   topic.

6   Q   Okay. Let me ask you a little bit more about

7   digital signatures.

8   A person of ordinary skill in the art before

9   2006 would have known that digital signatures could be

10   use to authenticate the generator of the digital

11   signature, correct?

12   MR. MACK: Objection; form, beyond the scope.

13   A   So normally the way people think about it is

14   they that don't authenticate a generator, but they

15   authenticate the fact that the generator has access to

16   some information, whoever that might be.

17   A good way of thinking about that is, for

18   example, if I were to be able to access your private key

19   used by you normally -- or your device, I should say --

20   to generate digital signatures, I can typically

21   produce -- on my device, of course -- generate a digital

22   signature that would be indistinguishable from one that

23   you generate. So it's the possession rather than the

24   originator that is being authenticated.

25   Q   Before 2006, a person of ordinary skill in the

1   art would have understood that one purpose of generating

2   a digital signature is to verify the device that

3   generated it, correct?

4   A   So that is not entirely accurate. What I

5   wanted to clarify before -- but let me try in another

6   way -- is that it isn't the device per se that is being

7   authenticated, but it's the access to a secret piece of

8   information, which is referred to often as the private

9   key. So any device that has access to the private key

10   is able to generate the digital signature you're asking

11   about. And for the typical digital signature context,

12   there would be no way for a verifier to determine what

13   device that was.

14   Q   Can you put in front of you Patent Owner's

15   Exhibit 2108, your declaration in support of the patent

16   owner's response for the '539 patent?

17   A   Yes. I have it here.

18   Q   You did not offer any opinion in that

19   declaration, Exhibit 2108, regarding secondary

20   considerations of nonobviousness, correct?

21   A   So could you break the question down into the

22   secondary considerations and the nonobviousness, please?

23   Q   No. Why -- why would you need that?

24   A   So that I could answer each question

25   separately.

1   Q   Do you know what secondary considerations of

2 nonobviousness are?

3   A   Did you say "of nonobvious"?

4   Q   Secondary considerations of nonobviousness.

5   A   I'm sorry. I misheard you.

6   So in this declaration, I do not offer any

7 opinions of that because I wasn't asked to.

8   Q   Okay. Now, can you put in front of you Patent

9 Owner's Exhibit 2013, your declaration in support of the

10 patent owner's response in CBM 2018-25. And at the same

11 time, I'd ask you to put in front of you Exhibit 2011,

12 your declaration in support of the patent owner's

13 response in CBM 2018-00024.

14   A   I've got 2011.

15   Q   You have both of those in front of you?

16   A   Yes, I do.

17   Q   And in both of those declarations, you offer

18 an opinion regarding commercial success, correct?

19   A   So in the Exhibit 2011, I offer an opinion

20 about commercial success in paragraphs 126 and 127

21 whereas in Exhibit 2013, I offer opinions about

22 commercial success in paragraphs 124 and 125.

23   Q   And the opinions that you give in each of

24 those declarations on commercial success are identical,

25 correct?

1   A   Just a moment.

2   Yes, I find them identical to the extent that

3   they may not be -- not counting the paragraph numbers.

4   That would probably be a typo.

5   Q   Okay. I want to ask you some questions, then,

6   about the opinions that you've offered in both of those

7   declarations on commercial success. Okay?

8   A   Okay.

9   Q   Your declarations do not cite any technical

10 documents that show how Apple Pay works, correct?

11   MR. MACK: Objection; form.

12   A   Are you speaking about these two declarations?

13   Q   I am.

14   A   No, they do not.

15   Q   Your declarations don't explain how Apple Pay

16 works, correct?

17   MR. MACK: Objection; form.

18   A   They do not.

19   Q   Your declarations do not cite any evidence

20 that Apple Pay infringes the claims of the '813 patent,

21 correct?

22   A   So in the context of these declarations, which

23 are both part of patent owner's response, I wasn't asked

24 to do that.

25   Q   Okay. Can we agree your declaration does not

1   cite any evidence that Apple Pay infringes the claims of

2   the '813 patent?

3   A   I was not asked to opine on that, and,

4   accordingly, I did not opine on it.

5   Q   Your declarations do not compare any claims of

6   the '813 patent to any Apple product or service,

7   correct?

8   A   So just to make sure that I understand the

9   question, you're still speaking in the context of these

10 two declarations, right? You're not speaking about my

11 declarations in general. You're speaking about

12 declaration Exhibit 2013 and declaration 2011.

13   Q   I am.

14   You have Exhibit 2013 and Exhibit 2011 in

15 front of you?

16   A   Yes.

17   Q   And both of those have sections that address

18 commercial success, correct?

19   A   Right.

20   Q   Those declarations do not compare any claims

21 of the '813 patent to any Apple product or service,

22 correct?

23   A   That is correct.

24   Q   Your declarations, Exhibit 8 -- 211 and

25 Exhibit 213, do not compare any claims of the '813

1   patent to any Visa product or service, correct?

2   A   That is also correct.

3   Q   Your declarations do not cite any documents or

4   other evidence that show how Visa Checkout works,

5   correct?

6   A   I was not asked to do that.

7   Q   And therefore the answer is correct?

8   A   As a result of not being asked to do that, I

9   didn't do it.

10   Q   Your declarations do not identify any USR

11   products or service that practice the '813 patents,

12   correct?

13   MR. MACK: Objection; form.

14   A   Are you still speaking in the context of the

15   commercial success?

16   Q   I am.

17   A   So it does not describe the -- the products of

18   USR.

19   Q   You are not aware of any products of USR,

20   correct?

21   A   I am aware that USR has products, but I can't

22   recite what they're doing.

23   Q   You -- strike that.

24   Your declaration identifies no evidence that

25   USR has practiced the '813 patent in any USR product or

1 service, correct?

2   A   I wasn't asked to do that, and, accordingly, I

3 didn't do that.

4   Q   Your declarations, Exhibit 211 and

5 Exhibit 2013, do not identify any USR products or

6 services, correct?

7   A   I wasn't asked to identify any products or

8 services of USR, and, as a result, I did not do that.

9   Q   Your declarations do not identify any evidence

10 that USR has ever made any money or enjoyed any

11 commercial success from the '813 patent, correct?

12   MR. MACK: Objection; form.

13   A   I wasn't asked to opine about that, and I

14 haven't been given information about it. I haven't, for

15 no particular reason, looked that up and tried to

16 determine it. And so I have no way of knowing and

17 therefore could not put it in my declarations.

18   Q   Your declarations do not identify any evidence

19 that USR has ever licensed the '813 patent, correct?

20   A   I haven't asked about nor been informed about

21 licensing history. And I wasn't asked to determine it,

22 so I do not know what the licensing history is and

23 therefore could not opine about it in these

24 declarations.

25   Q   Did you ever request, in the context of

1   researching your opinion on commercial success, to speak

2   with anybody employed by USR?

3   A   I neither have spoken with anybody at USR, to

4   my knowledge, nor requested to do so.

5   Q   In the context of researching your opinion on

6   commercial success, did you ever ask anyone at USR for

7   any information?

8   A   I have not asked anybody at USR for any

9   information, whatsoever. I have not spoken with anybody

10   at USR.

11   Q   In the context of researching your opinion on

12   secondary considerations of nonobviousness, did you

13   investigate whether the '813 patent had ever received

14   any praise, acclaim, or recognition?

15   MR. MACK: Objection; form.

16   A   Did I ever research it, you said?

17   Q   Yes. In the context of preparing your opinion

18   on secondary considerations.

19   A   I was not asked to review that, and, as a

20   result, I didn't review it. These opinions here

21   describe -- these paragraphs here describe my opinions

22   related to the secondary considerations of

23   nonobviousness.

24   Q   You also gave an opinion in your declarations,

25   Exhibit 211 and 213, on long-felt need.

1   A   Yes. Let me review that paragraph -- those

2   paragraphs in order to respond to your question.

3   Yes.

4   Q   In connection with preparing your opinion on

5   long-felt need, did you ever discuss with Ken Weiss what

6   need he thought he was addressing by the invention

7   claimed in the '813 patent?

8   A   I reviewed the patents. And having done

9   substantial research in the context of electronic

10   transactions starting as early as 1991, I had an

11   understanding of what would constitute the long-felt

12   need.

13   And there are two citations here, one in

14   paragraph 121 of Exhibit 213 and one in 122 of 213, that

15   I think address the sentiment at the time.

16   For example --

17   Q   I don't mean to interrupt, but my question

18   wasn't what you wrote here.

19   My question was: Did you speak with Mr. Weiss

20   in connection with writing this?

21   A   As I mentioned before, I've never, to my

22   knowledge, spoken with Mr. Weiss.

23   Q   Would you agree that remote authentication was

24   known before 2006?

25   A   So the question may not be whether the

1   individual limitations were known but whether their

2   composition were known.

3   Would you like me to address that?

4   Q   No. Just please answer my question.

5   A   Would you say it again, please?

6   Q   Remote authentication was a known concept

7   before 2006, correct?

8   A   And you don't mean it in the context of the

9   claims or the specification, but just freestanding

10   remote authentication?

11   Q   One of ordinary skill in the art before 2006

12   would have known about remote authentication, correct?

13   A   By "remote authentication," I gather that you

14   mean a server not co-located with a device can verify

15   some aspect associated with the device or its

16   identity --

17   Q   Yes.

18   A   -- is that correct?

19   That was known prior to 2006.

20   Q   Prior to 2006, combining local and remote

21   authentication was known, correct?

22   MR. MACK: Objection; form.

23   A   So I would have to consider the context of

24   this. When you say "combining," what do you mean?

25   Using them both in the same product?

1   Q   That would be one example.

2   A   So that would have been known.

3   Q   How many patents have you reviewed in the

4   course of your professional life?

5   A   That's a hard question to answer.

6   When you say "reviewed," what's the context?

7   Do you mean in the context of expert work?

8   Q   No. I'm talking about your entire

9   professional career.

10   How many patents have you reviewed?

11   A   I would not be able to answer that question.

12   Q   Would it be more than a thousand?

13   A   I couldn't quite tell. I'd have to sit down

14   and think carefully.

15   Q   Fair to say hundreds?

16   A   What do you mean by "review"? Just read some

17   part of it?

18   Q   Read enough that you feel comfortable to say

19   that you reviewed them.

20   A   That's a little bit circular. I don't know

21   how to answer that question.

22   Q   Have you read the '539 patent?

23   A   The '539 patent?

24   Q   Yes.

25   A   Yes.

1   Q   Is that Mr. Weiss?

2   A   Yes.

3   Q   With that understanding of "read," was it fair

4   to say that you have read hundreds of patents relating

5   to cryptography in the course of your career?

6   A   So that is not a reasonable comparison because

7   I've spent a very big amount of time reading these

8   particular patents that we've spoken about today.

9   Whether -- whereas there are many patents that I may

10 only have reviewed to a much lesser extent, and I

11 wouldn't know where you want to set that threshold of

12 effort.

13   Would you help me understand what you had in

14 mind, please?

15   Q   If you're not able to tell me approximately

16 how many patents you've reviewed in the course of your

17 career, I'll move on.

18   A   It's a difficult question. I apologize for

19 not having prepared for that.

20   Q   Okay. Let me hand you what has been

21 previously been marked -- I may have given you my copy.

22   A   Sorry.

23   Thank you.

24   Q   Would have been previously been marked as

25 Apple 1007, which is U.S. patent number 6,000,832. Do

1   you recognize that?

2   A   Yes, I do. It is the one that we have

3   referred to as Franklin at times.

4   Q   You'll understand me this afternoon if I refer

5   to you as patent number 6,000,832 as the Franklin

6   patent?

7   A   Yes, I would.

8   Q   Have you read the Franklin patent?

9   A   Yes, I have.

10   Q   How much time have you spent reading it?

11   A   I would not be able to tell you that without

12   reviewing my spreadsheets related to invoicing.

13   Q   Fair to say you've spent hours reviewing the

14   Franklin patent?

15   A   Do you mean as in at least two hours?

16   Q   Sure.

17   A   Yes, I have.

18   Q   Would you please turn to column 1 beginning at

19   line 48 of Franklin?

20   A   Yes.

21   Q   That sentence beginning at column 1, line 48

22   is within the background of the invention, correct?

23   A   Yes, it is.

24   Q   And do you see it says "Another concern is

25   that dishonest merchants may reuse or redistribute an

1   individual's credit card information"?

2   A   Yes, it says so.

3   Q   Do you understand what that means?

4   A   So to reuse a credit card information might

5   mean to perform two transactions instead of one where

6   the owner of the credit card is only aware of one. To

7   redistribute an individual credit card information, I

8   take to mean give it to somebody who is not authorized

9   to receive it, and this redistribution is not what the

10   user of the credit card intended.

11   Q   In this passage, Franklin discloses that

12   providing account-identifying information to merchants

13   can sometimes lead to unauthorized use, correct?

14   A   It doesn't say so.

15   Q   One of ordinary skill in the art would

16   understand this passage in Franklin to mean that

17   providing account-identifying information to merchants

18   can sometimes lead to unauthorized use, correct?

19   A   We haven't yet determined in claim

20   construction what account-identifying information means,

21   so that would be hard for me to opine on.

22   Q   In this passage, Franklin discloses that

23   providing a individual's credit card information to

24   merchants can sometimes lead to unauthorized use,

25   correct?

1   A   It says that "concern is that dishonest

2   merchant may reuse or redistribute an individual's

3   credit card information."

4   Q   One of ordinary skill in the art would

5   understand those words in Franklin to mean that

6   providing an individual's credit card information to

7   merchants can sometimes lead to unauthorized use,

8   correct?

9   A   That's not what it says. There might be other

10   paragraphs that describe this, but this only speaks of

11   the "concern that dishonest merchant may reuse or

12   redistribute an individual's credit card information."

13   Q   And such reuse or redistribution would be

14   unauthorized, correct?

15   A   It doesn't particularly call it out.

16   Q   Well, what do you interpret "dishonest

17   merchants" to mean?

18   A   So somebody who is not honest and is a

19   merchant.

20   Q   And an example of a merchant being dishonest

21   would be a merchant who used an individual's credit card

22   information in a way that was not authorized, correct?

23   A   There are many ways of being dishonest. I

24   would have to review the context here to see exactly

25   what they had in mind.

1   Q   Well, you can -- you would agree with me,

2   wouldn't you, that one example of a merchant being

3   dishonest would be a merchant who uses a individual's

4   credit card information in a way that that individual

5   didn't authorize.

6   A   So it doesn't speak --

7   Q   Correct?

8   A   -- of authorization here. What it says is

9   that the concern that a dishonest merchant may reuse or

10   redistribute a individual's credit card information.

11   You know, we could speculate about the authorization,

12   but it doesn't speak about it. So I'd rather focus on

13   what it does say if you want me to opine on that.

14   Q   Would you agree, sir, than an example of a

15   dishonest merchant would be a merchant who uses an

16   individual's credit card information without

17   authorization?

18   A   That would be dishonest, yeah.

19   Q   And Franklin discloses that providing

20   sensitive information to a dishonest merchant could

21   result in fraud, correct?

22   A   Would you please reread the question?

23   Q   Franklin discloses to one of ordinary skill in

24   the art that providing sensitive information to a

25   dishonest merchant can result in fraud.

1   MR. MACK: Objection; form.

2   A   When you say "sensitive information," what do

3   you refer to?

4   Q   Credit card information would be an example.

5   A   So I think Franklin does not speak of

6   sensitive information. Please correct me if I'm wrong.

7   Would you like me to answer about credit card

8   information?

9   Q   Let me rephrase the question in terms of

10 credit card -- well, let me ask you this first.

11   Credit card information is a form of sensitive

12 information, correct?

13   A   That might be in the eyes of the beholder. So

14 since we've talked about things that are sensitive

15 before, I want to make sure for the record what we agree

16 on, and this does not speak about sensitive information.

17   Q   Do you regard your own credit card information

18 as sensitive information?

19   A   I willingly give it to strangers, and that

20 might be foolish but, you know, if I truly consider it

21 to be sensitive, I would never hand my credit card to

22 somebody I don't inherently trust.

23   Q   When you give your credit card information to

24 strangers, is it your expectation that they will be

25 using that credit card information in a way that you

1   have authorized?

2   A   It's always my hope that they would.

3   Q   Does Reber propose a solution to the problem

4   of dishonest merchants reusing credit card information?

5   MR. MACK: Did you mean Franklin or Reber?

6   Q   I meant Franklin. I'm sorry. Let me rephrase

7   it.

8   Does Franklin propose a solution to the

9   problem of dishonest merchants reusing credit card

10 information?

11   A   So you would have to direct me to particular

12 paragraphs that describe this connection between things.

13 I know the technology -- at least, I think I do -- that

14 is being proposed in Franklin.

15   Now, in terms of the motivation that it's

16 done, which I think you're asking about, in order not to

17 see it reused, I haven't considered that particular

18 question. And I'd like to ask you to refer me to a

19 particular paragraph for me to review the context.

20   Q   So you don't recall whether Franklin proposes

21 a solution to the problem of dishonest merchants reusing

22 credit card information, correct?

23   A   That's not what I was saying. So it speaks of

24 a concern, which is a dishonest merchant "may reuse or

25 redistribute an individual's credit card information."

1   Q   Does it propose a solution to that problem?

2   A   So I know it proposes technology. Now, I

3   haven't considered whether it's particularly to address

4   that problem. Now, the problem is stated in the

5   background, which is an indication that it might be so.

6   But I haven't asked myself that question before, so I

7   need to review Franklin in the context of your question

8   to see whether they make that connection when they

9   describe the technology.

10   Q   Does Franklin disclose the use of one-time

11 codes?

12   A   I have to apologize. You have to excuse me

13 for looking. It's getting late in the day, and I want

14 to make sure I don't mix them up in the blur.

15   Did you ask whether they disclose time-varying

16 codes?

17   Q   Nope.

18   A   What did you ask?

19   Q   Franklin discloses the use of a one-time code,

20 correct?

21   A   One-time code. Let me see. I don't recall

22 offhand if they do.

23   You know, I haven't committed Franklin to

24 memory, and I don't know whether they use the term

25 "one-time code," but if you have a particular paragraph

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1    in mind that would highlight this, I would be able to

2    answer your question.

3              While you're looking, I'm going to get some

4    water.  I hope that's okay.

5         Q    Can you turn, please, to column 5 of Franklin

6    beginning at line 36.

7         A    Let me read the context of this in the

8    paragraph.

9              Yes, I've reviewed that portion.

10        Q    Do you see the reference to a temporary

11   transaction number that is specific to a single

12   transaction?

13        A    Where does it say that?

14        Q    Line 38, column 5.

15        A    Yes, I see that part.

16        Q    One of ordinary skill in the art would

17   understand a temporary transaction number that is

18   specific to a single transaction to be an example of a

19   one-time code, correct?

20             MR. MACK:  Objection; form.

21        A    So I know that the customer computer embeds

22   the code number in the reserved digits of the customer

23   account number.

24             Now, the context of Franklin is a transaction

25   system where the merchant does not need to make any
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1   changes. So the reserved digits, I understand to refer

2   to those of a typical credit card number or that format.

3   So this is a small number of digits that are reserved

4   digits.

5   And so I understand that there will be

6   collisions. It's not a unique number. And when they

7   refer to a temporary transaction number that is specific

8   to a single transaction, it doesn't refer to a unique

9   number.

10   Now, I don't know what you have in mind when

11   you say a "one-time code." Can you ask the question

12   without using that term, please?

13   MR. SELWYN: Move to strike the answer as

14   nonresponsive.

15   Q   Have you ever heard of a one-time code?

16   A   I understand one-time codes in, for example,

17   the context of security tokens.

18   Q   Okay. What do you understand a one-time code

19   to be in the context of security tokens?

20   A   So security tokens are used for password

21   replacement. So security tokens and their output are

22   used to authenticating a user and his or her device --

23   rather, the possessor of this device -- to a server, in

24   general.

25   Now, you're asking in the context of Franklin,

1   right?

2   Q   No, sir.

3   A   No.

4   Q   I asked you the question, what do you

5   understand a one-time code to be in the context of

6   security tokens?

7   Have you answered that question?

8   A   So I gave you an example in the context of

9   SecurID. That would not necessarily match my

10   understanding of Franklin. I don't know whether

11   Franklin refers to one-time codes.

12   Q   Okay. Let's go to the '539 patent.

13   Does the '539 patent refer to one-time codes?

14   A   Let me take a look.

15   Q   You don't remember?

16   A   No. It's getting late in the day. And a

17   particular word, whether they used them or not, I don't

18   remember.

19   Q   You have -- let's be clear.

20   You have no memory of whether the '539 patent

21   refers to one-time codes?

22   A   I know what the '539 patent is about, but

23   whether they use a particular phrase or not, that's hard

24   to say without referring to it.

25   Q   Okay. Do you know whether the '539 patent

1   describes providing a one-time code to a merchant?

2   A   So I see one place that says a multi-character

3   public code may be provided, which the system can map to

4   provide permits, delivery of items, complete telephone

5   calls, and perform other functions for entities.

6   I will look for one-time code to see if it

7   does mention that.

8   So '539 does refer to codes. Now, I need to

9   look at the particular context here, but in figure 8,

10   item 806, it refers to code in context of USR determines

11   if code is valid.

12   Now, I could look at that to see if that

13   brings to light to whether they use the term "one-time

14   code."

15   Q   Does the invention claimed in the '539 patent

16   have anything to do with one-time codes?

17   MR. MACK: Objection; form.

18   A   It does refer to a secret user code and/or

19   time-varying value.

20   Now, I'm looking for a particular -- it says

21   here a one-time non-predictable code. Now, that is not

22   the same, of course, as a one-time code.

23   Q   A --

24   A   It is a particular form of one-time code which

25   is non-predictable.

1   Q   Wait a second. Your testimony is that a

2   one-time non-predictable code is not a type of one-time

3   code?

4   A   No, that's not what I said.

5   I said a one predict -- one-time

6   non-predictable code is a type -- is a type of a

7   one-time code that is non-predictable.

8   Q   Okay. So tell us, if you would, what is a

9   one-time non-predictable code that's referred to in the

10   '539 patent?

11   A   So that is what is used to determine if the

12   user is authorized access to the USR database.

13   Q   What is it?

14   A   What is the nature of it?

15   Q   Yeah. What is a one-time non-predictable code

16   as used in the '539 patent?

17   A   It's a bit string that is used for the

18   purposes of determining if the user gets authorized

19   access.

20   Q   What --

21   A   Now, that is, of course, an abbreviated

22   explanation, and I'm reading this from one portion.

23   There are many other aspects, and I could look at other

24   aspects of this to give a more seasoned answer.

25   Q   What are the characteristics of the one-time

1   non-predictable code as disclosed in the '539 patent?

2   MR. MACK: Objection; form.

3   A   I need to review the '539 patent with that

4   in -- question in mind. That is not one of the

5   questions that I have opined on, I believe.

6   Q   Okay. What are the characteristics of the

7   temporary transaction number that is specific to a

8   single transaction that's disclosed in the Franklin

9   reference?

10   A   Now, you spoke very fast, and I wasn't quite

11   able to capture what you said.

12   Would you please reread it very slowly?

13   Q   What are the characteristics of the temporary

14   transaction number that is specific to a single

15   transaction that Franklin discloses?

16   A   So it's getting really late in the day, and I

17   haven't committed Franklin to memory. I need to ask you

18   to either refer me to my declaration, which I would

19   prefer, or to a particular portion of Franklin for me to

20   answer it.

21   Q   Does your declaration say anything about the

22   characteristics of the temporary transaction number that

23   is specific to a single transaction that's disclosed in

24   Franklin?

25   A   It's getting really late in the day, and I

1   cannot remember whether I do or not. I would have to

2   look at my declaration --

3   Q   Go ahead.

4   A   -- for that.

5   Q   Go ahead. We've got all day.

6   A   Just to make sure I'm looking for the right --

7   I look for the right thing, would you say again what

8   you're looking for?

9   Q   Does your declaration say anything about the

10   characteristics of the temporary transaction number that

11   is specific to a single transaction that is disclosed in

12   the Franklin reference?

13   A   That's quite a mouthful. Let me review this,

14   but I may have to ask you to state it again in a moment

15   after I have done -- made some progress on this.

16   (An off-the-record discussion ensued.)

17   A   So in Exhibit 2107, page 19, I say "For

18   example, Reber, alone or in combination with Franklin,

19   fails to disclose, among other things, received from the

20   provider a transaction request including, at least, a

21   time-varying multi-character code for the entity on

22   whose behalf the transaction is to be performed and an

23   indication of the provider requesting the transaction."

24   So that is one of the things.

25   MR. SELWYN: I move to strike as

1   nonresponsive.

2   THE WITNESS: Since you said that, let me ask

3   you. What was your question again?

4   Q   Does your declaration say anything about the

5   characteristics of the temporary transaction number that

6   is specific to a single transaction that is disclosed in

7   the Franklin reference? Yes or no.

8   A   I do refer to Franklin, for example, in the

9   context of the -- of USR Exhibit 2107, page 19, and it

10   continues on page 20.

11   Would you like to discuss that, or would you

12   like me to go to the other declarations and review

13   material there?

14   Q   I -- I just need an answer to my question.

15   A   I -- I need to look at the others in order to

16   understand if there is an exact match to what you're

17   asking or if you're asking me to generalize.

18   Can I limit it to '539 declarations?

19   Q   Yes.

20   A   Thank you.

21   Q   How much more time do you need?

22   A   I -- there's only a few pages left. I'm

23   looking for discussion of Franklin.

24   Did I understand correctly that that's what

25   you want me to do?

1   Q   I want you to tell me whether your declaration

2   says anything about the characteristics of the temporary

3   transaction number that Franklin discloses.

4   A   Then I have to look at the portions of my

5   declaration that describes Franklin.

6   Q   How much more time do you need to do that?

7   A   My guess is three or four minutes, but I don't

8   know. It depends on --

9   Q   We can do that on the next break, then.

10   A   Okay.

11   Q   Okay. Turn to Franklin, column 4.

12   A   Franklin at 4, did I hear?

13   Q   Column 4 of Franklin.

14   A   Column 4.

15   Q   Do you see in lines 3 through 9, it says

16 "Although labeled as a bank, the issuing bank 26 may

17 represent other types of card-issuing institutions, such

18 as credit card companies, card-sponsoring companies, or

19 third-party issuers under contract with financial

20 institutions. It is further noted that other

21 participants may be involved in some phases of the

22 transaction, such as an intermediary settlement

23 institution, but these participants are not shown."

24   Did I read that right?

25   A   Yes, you did.

1   Q   Franklin discloses in this passage that,

2   quote, other participants may be involved in some phases

3   of the transaction, correct?

4   A   It does not describe what those do or what

5   they are. It's unclear what they're -- what Franklin

6   refers to in this paragraph alone.

7   Q   Sir, does Franklin disclose in this passage

8   that, quote, other participants may be involved in some

9   phases of the transaction?

10   A   Such as an intermediary settlement

11 institution, but these participants are not shown.

12   This refers to figure 1. So it says that

13 they're not shown in figure 1. I don't know whether

14 they're shown elsewhere. I don't understand what they

15 are without seeing what they refer to.

16   Q   My question, sir, is just: Does this passage

17 disclose, quote, other participants may be involved in

18 some phases of the transaction?

19   A   It gives no details of what they are. A

20 person of ordinary skill in the art would not know what

21 this refers to.

22   Q   Do the words that I just said appear in that

23 sentence?

24   A   The sentence says "It's further noted that

25 other participants may be involved in some phases of the

1   transaction."

2   Q   You see the words "the transaction" there?

3   A   Wait. You -- you cut me off.

4   So it says "It's further noted that other

5   participant may be involved in some phases of the

6   transactions, such as an intermediary settlement

7   institution, but these participants are not shown."

8   This relates to -- you -- you asked me to look

9   at a portion that describes the --

10   Q   No, I didn't.

11   Are you just trying to run the clock, sir?

12   A   No. I want to make sure --

13   Q   Listen to my question.

14   A   Yes.

15   Q   Okay?

16   Do the words "other participants may be

17   involved in some phases of the transaction" appear in

18   that sentence?

19   A   It says "It is further noted that other

20   participants may be involved in some phases of the

21   transactions, such as an intermediary settlement

22   institution, but these participants are not shown."

23   So are you asking me about that sentence?

24   Q   Yes.

25   A   So I think it says what it says. It's very

1   clear.

2   Q   Okay. What does "the transaction" refer to?

3   A   I would not know without reading the context.

4   Q   What are the phases of the transaction that

5   are referred to?

6   A   I -- again, I'd have to look at the context to

7   know that.

8   Q   Did you consider, in reaching your opinions in

9   this case, what the words "the transaction" refer to in

10   that sentence?

11   A   So I don't remember in this sentence

12   particularly what I considered. I reviewed Franklin. I

13   don't have a recollection of particular sentences.

14   Q   Are you able to tell us any examples of other

15   participants in some phases of the transaction as

16   referred to by Franklin?

17   A   Are you asking on top of my head, potentially

18   speculating, or with knowledge of what Franklin says?

19   Q   Obviously, with knowledge of what Franklin

20   says based upon all the work you've done in this case.

21   A   I'd have to review it again. This is not a

22   question I remember particularly being asked to review.

23   Q   Okay. In the passage in column 4, lines 3

24   through 9, Franklin discloses that the function of the

25   issuing institution can be spread among multiple

1   parties, correct?

2   MR. MACK: Objection; form.

3   A   It doesn't say what you are saying. It says

4   something else. Maybe I misunderstand your question.

5   Q   One of ordinary skill in the art reading this

6   passage would understand Franklin to disclose that the

7   function of the issuing institution can be spread among

8   multiple parties, correct?

9   MR. MACK: Same objection.

10   A   You know, out of context, it's hard to judge.

11 I'd have to look at other portions of Franklin to

12 understand the context of this sentence.

13   Q   And you haven't done that, correct?

14   A   I have looked at other portion, but not in the

15 context of this particular question.

16   Q   Franklin states in this passage that

17 participants in some phases of the transaction might not

18 be shown in the figure, such as figure 1, correct?

19   A   That's not what it said. It said that "other

20 participants may be involved in some phases of the

21 transaction, such as an intermediary settlement

22 institution, but these participants are not shown. It

23 sounds to me like you're asking me something else.

24   Q   This passage says participants in some phases

25 of the transaction might not be shown in the figures,

1   correct?

2   A   That's not how I read it.

3   Q   Okay. Franklin doesn't restrict which phases

4   these other parties can participate in, correct?

5   MR. MACK: Objection; form.

6   A   Are you asking about Franklin in general or in

7   this particular sentence?

8   Q   Either.

9   A   So can we start with one of those?

10   Q   How about in this sentence?

11   A   Would you read the question to me again,

12 please?

13   Q   Let's try it this way.

14   Franklin states that an intermediary

15 settlement institution is one example of a participant

16 in the transaction that is not shown, correct?

17   A   It says that it's "further noted other

18 participants may be involved in some phases of the

19 transaction, such as an intermediary settlement

20 institution, but these participants are not shown."

21   Q   So is the answer to my question correct?

22   A   So you're answering -- asking a question about

23 a portion of this. I want to make sure that I

24 understand your question and answer in the context of

25 this paragraph.

1   Q   I'll try it one more time, and I want your

2   best answer, please.

3   Franklin states that an intermediary

4   settlement institution is one example of a participant

5   in the transaction that is not shown, correct?

6   A   I don't know whether the transaction is shown

7   or not. I don't understand your question. You're

8   asking me about whether the transaction is shown?

9   Q   No.

10   A   No.

11   Q   The sentence indicates that an intermediary

12   settlement institution is not shown, correct?

13   A   You know, I don't want this to be

14   misunderstood, and I haven't considered the other

15   sentences in this context. So my best bet to avoid

16   confusion here and misstatement is that -- to clarify,

17   that it's "further noted that other participants may be

18   involved at some phases of the transaction, such as an

19   intermediary settlement institution, but these

20   participants are not shown."

21   If you look at other sentences, I might be

22   able to give you a better answer.

23   Q   You just need to answer my question, sir.

24   Is an intermediary settlement institution one

25   of the participants in the transaction?

1   A   It doesn't say that it is.

2   Q   That's your best understanding of that

3   sentence?

4   A   It says, it's "further noted other

5   participants may be involved" -- doesn't say that they

6   are involved -- "in some phases of the transaction, such

7   as an intermediary settlement institution, but these

8   participants are not shown."

9   I don't know one way or the other, but there

10 might be other parts of Franklin that clarifies this.

11   Q   Okay. Let's turn to lines 16 through 21 of

12 column 4. Have you read that?

13   A   I need to read the context here. If you don't

14 mind, I'm going to read the entire paragraph.

15   MR. SELWYN: Okay. Let's take a break, and

16 you can read as much of it as you want.

17   (A recess ensued from 4:38 p.m. to 4:46 p.m.)

18 BY MR. SELWYN:

19   Q   Dr. Jakobsson, have you now had a chance to

20 read column 4, lines 16 through 21 and any associated

21 context that you want?

22   A   I have not done that. I needed the break.

23   Q   Okay. Could you read, please, to yourself

24 column 4, line 16 through 21.

25   A   Only those lines?

1   Q   Yes.

2   A   Did you say 16 through 21, right?

3   Q   Okay. I'll read it to you.

4   A   Okay.

5   Q   Do you see it says "The bank 26 has a

6 computing center 32 shown as a mainframe computer.

7 However, the bank computing center 32 may be implemented

8 in other forms, such as a minicomputer, a PC server, a

9 networked set of computers, and the like."

10   Did I read that correctly?

11   A   Yes, you did.

12   Q   In Franklin, the computing center 32 is part

13 of the bank 26, correct?

14   A   Let me refer to the figure for that.

15   Q   Sir, the sentence I just disclosed -- I just

16 read to you discloses that the computing center 32 is

17 part of the bank 26, correct?

18   A   Yes. "The bank 26 has a computing center 32

19 shown as the mainframe computer."

20   Q   The functions of Franklin's bank 26 can be

21 distributed among multiple parties, correct?

22   A   Would you please read that back to me?

23   Q   The functions of bank 26 in Franklin can be

24 distributed among multiple parties, correct?

25   A   I need to refer to my declaration for that. I

1   don't remember one way or the other.

2   Q   Column 4, lines 3 through 9 of Franklin tells

3   one of ordinary skill in the art the functions of

4   Franklin's bank 26 can be distributed among multiple

5   parties, correct?

6   MR. MACK: Objection; form.

7   A   This is the sentence we spoke of before, I

8   think. It's a little bit unclear what it discloses. It

9   says. "Although labeled as a 'bank,'" I presume that's

10   the sentence you mean?

11   Q   Yes.

12   A   "The issuing bank 26 may represent other types

13   of card-issuing institutions, such as credit card

14   companies card sponsoring companies, or third-party

15   issuers under contract with financial institutions."

16   Q   And that tells us that the functions in

17   bank 26 can be distributed among more than one party,

18   correct?

19   MR. MACK: Objection; form.

20   A   That's not how I read it. You're speaking of

21   a distributional functionality. I understand that to

22   mean that there are many parties that perform the

23   function.

24   Is that what you're asking about?

25   Q   Well, let's look again at the sentences I read

1   to you in column 4, line 16 through 21.

2   Do you have those in mind?

3   A   16 to 21. It says "The bank 26 has a

4   computing center 32 shown as a mainframe computer.

5   However, bank computing center 32 may be implemented in

6   other forms, such as a minicomputer, a PC server, a

7   networked set of computers, and the like."

8   I think this addresses something else than

9   what you're asking about.

10   Q   Sir, in that passage that you just read,

11   Franklin discloses that the functions of the bank

12   computing center 32 can be distributed among multiple

13   networked computers, correct?

14   MR. MACK: Objection; form.

15   A   So it says that it might be implemented as a

16   networked set of computers among other things, but I

17   don't understand that to be a distribution of

18   functionality.

19   Q   A networked set of computers is multiple

20   computers, correct?

21   A   Connected to a network, yes.

22   Q   Franklin also discloses that the functions of

23   the bank computing center 32 can be distributed among

24   multiple parties which are not shown, correct?

25   A   It doesn't use the word "distribution." Let

1   me explain why --

2   Q   We don't have time --

3   A   Please --

4   Q   -- for you to answer questions I haven't

5   asked.

6   A   No, but -- can you re-ask the questions

7   without using the word "distribution"?

8   Q   Mr. Mack can ask you questions if he wants,

9   but you have to answer my questions, not something that

10   I didn't ask. Okay?

11   A   But you used the "distribute" --

12   "distributed," right?

13   Q   So you can answer my answer "incorrect" if you

14   disagree with me.

15   A   No. But the word "distribution" has meaning

16   in the context of security. I need to understand what

17   you're asking.

18   Could you please ask the questions without

19   saying "distributed."

20   Q   No. I am going to ask the questions I want

21   the way I want to frame the question.

22   A   Sure.

23   Q   Okay? Here's the question. See if you can

24   answer it.

25   Franklin discloses that the functions of the

1   bank computing center 32 can be shared or distributed

2   among multiple parties, some of which are not shown,

3   correct?

4   MR. MACK: Objection; form.

5   A   So both the words "shared" and "distributed"

6   has very specific meanings in the context of

7   cryptography, and I do not see Franklin making

8   statements in these paragraphs about sharing or

9   distributing.

10   Q   Okay.

11   A   It's very difficult for me to answer your

12 question when I don't know when you mean by the terms.

13   Q   Now, did you look at the '539 and '813 patents

14 for the words "distributed" or "sharing"?

15   A   Do you mean ever or at some particular time?

16   Q   Ever.

17   A   I -- was I asked to look for those words, or

18 did I see those words?

19   Q   Focus on my question. Did you consider --

20 strike that.

21   Did you look at the '539 and '813 patents for

22 the words "distribute" or "share" or any cognates?

23   A   Sitting here right now, I cannot recall, but I

24 could look at my declarations to determine whether I did

25 opine about it, and that would tell me for sure if I did

1   opine and, of course, I did review it.

2   Q   Do you think that -- strike that.

3   Did you consider a patent to someone named

4   Maes?

5   A   Yes, I did.

6   Q   How much time did you spend reviewing Maes?

7   A   Do you mean at any time during my involvement

8   or in preparation for this deposition?

9   Q   No, any time in connection with your

10 engagement by USR?

11   A   I do not recall.

12   Q   What's your best estimate?

13   A   I haven't prepared to make estimates like

14 that. I reviewed it to the extent that I needed in

15 order to make the determinations I was asked to make.

16   Q   Do you feel you're qualified today to testify

17 about Maes?

18   A   Certainly.

19   Q   Do you feel you're qualified today to testify

20 about Franklin?

21   A   Certainly.

22   Q   Have you given your best testimony today about

23 Franklin?

24   A   I've done my best.

25   Q   Have you given your best testimony today about

1   Reber?

2   A   Certainly.

3   Q   And have you given your best testimony today

4   about the '539 and '813 patents?

5   A   I've done the best I could to answer your

6   questions. Some of your questions are difficult to

7   answer, such as the last one.

8   MR. MACK: Thanks.

9   Q   I've handed you U.S. patent number 6,016,476.

10   That's the Maes patent?

11   A   Yes.

12   Q   And Maes discloses to one of ordinary skill in

13   the art that the object of his invention is

14   compatibility with current infrastructure or existing

15   infrastructure, correct?

16   A   Yes.

17   Q   Infrastructure in Maes refers to systems that

18   use magnetic cards or smart cards, correct?

19   A   Among other things, yes.

20   Q   And existing infrastructure could cover an ATM

21   system, correct?

22   A   I have not considered that question. It says

23   "The PDA includes a modem, serial port, and/or a

24   parallel port as to provide direct communication

25   capability with peripheral devices, such as a

1 point-of-sale, POS, and ATM terminals and is capable of

2 transmitting or receiving information through wireless

3 communications, such as radio frequency, RF, and

4 infrared communication."

5   Am -- am I understanding your question?

6   Q   Wasn't existing infrastructure as of 1998 --

7 strike that.

8   Wouldn't existing infrastructure as of 1998

9 include an ATM system?

10   MR. MACK: Objection; form.

11   A   Are you asking in general or in the context of

12 Maes?

13   Q   In the context of Maes.

14   A   So it's an object of the invention to provide

15 a PDA device with digital certificate security -- and

16 now I'm skipping a couple of things -- for performing

17 ATM transactions.

18   So ATM transactions would be part of what is

19 considered in the context of Maes.

20   Q   An ATM system was part of what Maes was

21 referring to by existing infrastructure, correct?

22   A   So Maes spends a lot of time speaking of

23 consumer transactions in the context of pre-enrolled

24 credit cards. That would not involve an ATM.

25   It does say the present invention may

1   immediately be employed without the need for changes in

2   the infrastructure since the PDA and universal card may

3   utilized with any system which utilizes magnetic cards

4   or smart cards for electronic data transfer, such as

5   point-of-sale, POS, terminals or automated teller

6   machines, ATM, which provide direct debit capability.

7   So I read this to understand that ATMs could

8   be used in the context of Maes.

9   Q   Existing infrastructure, as referred to in

10 Maes, could cover a credit or debit card payment system,

11 correct?

12   A   I know from the paragraph I read before that

13 it could involve a credit card transaction. Let me

14 verify whether debit cards are also used or described.

15   If you know the place, I'd be very happy for a

16 pointer. Otherwise, I just have to skim through it to

17 look for the debit card.

18   Q   Look, for example, at column 4, lines 12

19 through 18. Or column 11, lines 51 through 57.

20   A   So it describes that the invention is

21 compatible with all credit card and/or smart card

22 electronic funds transfer system; that is, systems that

23 process ATM cards, debit cards, credit cards, access

24 control cards, calling cards and/or service cards.

25   So do I understand your question to be about

1   debit cards alone?

2   Q   My question is when Maes refers to existing

3   infrastructure, that would include a credit or debit

4   card payment system, correct?

5   A   It doesn't say that it's a payment system. It

6   says that it's an electronic fund transfer system.

7   So, for example, if I withdraw money in an

8   ATM, I am transferring funds from my account to, you

9   know, the bills that come out, but I'm not paying,

10   per se.

11   With that in mind, may I ask you to please

12   reformulate your question?

13   Q   Maes refers to something called the existing

14   infrastructure, correct?

15   A   So this particular sentence speaks of the

16   current infrastructure, which I take to be the same.

17   Q   Okay. Part of the current or existing

18   infrastructure in 1998 was credit or debit card payment

19   systems, correct?

20   A   In general, there were, of course, credit crd

21   and debit card transactions and systems to process them.

22   This sentence speaks about electronic fund transfer

23   systems. It doesn't specify that it's for payment.

24   If -- if you want to, we could speak about

25   another sentence, if there is one context in which

1   payments are -- are used. This speaks about electronic

2   funds transfer system, which is related to, but it isn't

3   a payment.

4   Q   My -- my question didn't refer to any

5   particular sentence.

6   A   Okay. So you -- I appreciate you drawing my

7   attention to this sentence. I saved myself a lot of

8   search.

9   This does not speak about payment systems. It

10 speaks about electronic fund transfer systems.

11   Q   Did the existing infrastructure in 1998

12 include the use of magnetic swipe cards?

13   A   Do you mean in general or in the context of

14 Maes?

15   Q   In general.

16   A   In general, there was an existing

17 infrastructure that involved magnetic swipe cards.

18   Q   Did the existing infrastructure as of 1998

19 include credit or debit card payment systems?

20   A   So can I again assume that you mean in the

21 context not in Maes, but in general?

22   Q   Not necessarily in Maes.

23   A   So we're not considering Maes, but we are

24 considering the general infrastructure, not as recited

25 by Maes.

1   Q   It could include what's recited in Maes, but

2   I'm not limiting myself.

3   A   Okay. So I need to be careful with what Maes

4   defines existing infrastructure to be because I don't

5   recall that by heart. I understand the term in general,

6   but I don't recall whether Maes made any particular

7   callouts as to what he meant by "the existing

8   infrastructure."

9   Q   As of 1998, did the existing infrastructure

10   use digital certificates to validate users?

11   A   I know that in the context of SSL, for

12   example, which, of course, is not a payment system but a

13   method to secure a link, I -- or I should say secure a

14   communications link, that certificate -- digital

15   certificates were used. For example, there were

16   authorities, such as certification authorities, that

17   certified public keys of parties who wished to be -- the

18   address bar to indicate that they were SSL connected.

19   I'm not saying that very well. So that the user would

20   know that there's an SSL connection.

21   Q   When was SSL introduced?

22   A   I don't remember the exact dates, but it was

23   prior to the year 2000.

24   Q   In 1998, the existing infrastructure included

25   use of infrared to transmit information to an ATM or a

1   point-of-sale device, correct?

2   MR. MACK: Objection; form.

3   A   May I please ask you to rephrase that

4   question? I'm just maybe a little bit confused by it

5   because it's late in the day.

6   Q   Are you familiar with the use of infrared --

7   infrared to transmit information?

8   A   Yes.

9   Q   In the 1998, the existing infrastructure

10   included use of infrared to transmit information to a

11   ATM or to a point-of-sale device, correct?

12   MR. MACK: Objection; form.

13   A   This is not something I've opined upon, and

14   I'm not sure one way or the other.

15   I presume, by "existing infrastructure," you

16   mean actually deployed system as opposed to

17   publications; am I right?

18   Q   Let's talk about deployed systems as of 1998.

19   A   So with that in mind, can I ask you to please

20   restate the question?

21   Q   In 1998, the existing infrastructure included

22   use of infrared to transmit information either to an ATM

23   or to a point-of-sale device, correct?

24   A   So before I give the answer, I want to comment

25   that this is in the context of deployed systems.

1   I'm not so sure. This is not something I have

2   been asked to opine on. Nothing comes to mind here. If

3   there's something that you're aware of and you would

4   like me to look at, I'd be delighted to.

5   Q   Did the existing infrastructure in 1998

6   include encryption and decryption?

7   A   When you say "existing infrastructure," do you

8   mean in the context of, for example, the World Wide Web

9   or Maes?

10   Q   Could be in the context of the World Wide Web.

11   Whatever existed in 1998.

12   A   So there was encryption and decryption used,

13   for example, in the context of SSL, which existed prior

14   to 1998.

15   Q   Do you understand "existing infrastructure,"

16   as that term is used in Maes, to refer to systems that

17   were in use as of 1998?

18   A   That's how I understand it.

19   Q   So existing infrastructure, as that term is

20   used in Maes, would include financial transaction

21   systems that were in use as of 1998, correct?

22   A   It would include systems considered by Maes.

23   So I need to refresh my recollection on what exactly

24   Maes is speaking about because Maes obviously was not

25   interested in any kinds of existing infrastructure, but

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1   only existing infrastructure relevant to the patent

2   itself.

3        Q    You are not an expert in back-end credit card

4   systems that were in existence in 1998, correct?

5        A    So I understand the structure of credit card

6   systems.  I haven't prepared for your question.  And

7   depending on the nature of the question, this might fall

8   into my expertise, but it might not.  It depends on what

9   you're going to ask about.

10            For example, I am not an expert when it comes

11  to, say, regulation or legal aspects related to credit

12  cards at that time.  I do understand encryption

13  technology used at that time, but I haven't been asked

14  to consider the question you're asking.  So I don't have

15  a ready-made answer for you.

16       Q    You're not an expert in ATM kiosks that were

17  in existence in 1998, correct?

18       A    So I am at least a person of skill in the art

19  as it relates to ATM kiosks.  So I could evaluate

20  statements in the context of ATM kiosks.  Whether you're

21  asking about whether -- if you're asking whether I was

22  an expert in this, it depends on what aspect you're

23  asking.

24            So, as I mentioned before, I'm not an expert

25  in terms of regulation related to these things or the
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1   legal aspects in general. But I do understand

2   encryption, for example, and I was an expert in 1998 in

3   the context of encryption.

4   Q   Can you turn, please, to column 2, lines 23

5   through 30, of Maes.

6   A   I heard the column, but I missed the line.

7   Q   23 through 30.

8   Do you see it reads "It is therefore an object

9   of the present invention to provide a portable

10   information and transaction-processing device,

11   parenthesis, personal digital assistant or PDA, closed

12   parenthesis, in which a user can store his or her credit

13   card, ATM card, and/or debit card, parentheses, i.e.,

14   financial, closed parentheses, information"?

15   A   Yes. And continues "as well as personal

16   information, and then access and write selected

17   information to a smart card," which they refer to as the

18   universal card, "which is then used to initiate the POS,

19   ATM, or consumer transaction."

20   Q   Would you agree that a credit card account is

21   an example of a financial account?

22   A   The reason I'm looking at my declaration is

23   because some of these terms are -- their meaning is

24   contested. And it's late in the day, and I'm getting a

25   little bit blurred. I need to make sure that I answer

1   your question correctly. I'm just looking for these

2   terms.

3   Now, you said one was financial accounts. I

4   think the other you asked about was credit card.

5   Q   I'm just asking you, sir, whether a credit

6   card account is an example of a financial account.

7   A   Do you mean in the context of these

8   specifications that we're considering now?

9   Q   Would one of ordinary skill in the art

10   reviewing Maes understand a credit card account to be an

11   example of a financial account?

12   A   You know, I forgot where we were before, and I

13   think that has information of relevance here.

14   What was the paragraph we've reviewed before?

15   Q   Of Maes?

16   A   Yes.

17   Q   I was initially referring you to column 2,

18   lines 22 through 30.

19   MR. MACK: I think, Mark, we've hit the

20   seven-hour limit. If there's -- maybe we can wrap up.

21   MR. SELWYN: Well, I'm -- I'm not done with

22   the deposition. I don't believe that the witness has

23   been responsive in a consistent way to my questions. So

24   I believe I am entitled to finish the questions that I

25   came prepared to ask.

1   THE WITNESS: We could finish this question,

2   but I'm really getting exhausted. You took a long time

3   asking about Schutzer. And it might seem really trivial

4   to you, and you know that I've reviewed Schutzer, but I

5   haven't prepared my -- I haven't prepared for my

6   deposition to review Schutzer. And it really made me

7   really tired to focus my attention on the questions of

8   Schutzer that I haven't considered in this context. I

9   really need for us to stick to the time.

10   That said, I'll try to answer the question

11   you're asking now, but I would like us to stick to the

12   rules here.

13   MR. MACK: Yeah. And I think we're taking the

14   position that we're limited to seven hours. If you'd

15   like to ask the Board for more time, we can do that. We

16   can bring him back for a few hours if the Board

17   authorizes it, but we're taking the position that your

18   time is up.

19   But if you'd like to ask one or two more

20   questions to finish this line, we'll give you that

21   courtesy. But, yeah, I'm not --

22   MR. SELWYN: Okay. Well, why don't we have

23   Dr. Jakobsson answer, if he could, the question that was

24   pending.

25   We do reserve the right to ask the Board for

1   more time --

2   MR. MACK: Understood.

3   MR. SELWYN: -- with Dr. Jakobsson. But I

4   think as a matter of good housekeeping, why don't we

5   have him answer the question that has been posed.

6   A   Would you please read it back to me.

7   Q   I will do my best.

8   Would one of ordinary skill in the art

9   reviewing Maes understand a credit card account to be an

10 example of a financial account?

11   A   So let me review the section that we spoke

12 about before in order to understand how to best answer

13 that question.

14   No. I remember that this -- the section

15 I'm -- the portion I'm looking for refers to financial.

16 I even believe that it was financial in parenthesis, but

17 I can't remember where I saw that.

18   Do you remember that?

19   Q   Do I remember where you saw something? No.

20   A   Well, you drew my attention to it. I think

21 you read it to me.

22   Q   Column 2, lines 22 through 30?

23   A   No, I don't think that's the one. Do you

24 remember you read out when I started to get really

25 tired, you did me the favor of reading out one paragraph

1 to me until I found it, and I read the very end of it.

2 I think one of the things you read was in parenthesis,

3 financial, but I might be just blurred about that. Now

4 I -- you have access to the screen that clarifies the

5 record. So if you look back on that, if you may -- if I

6 may ask you, would you please tell me where that it was

7 to save me the time to search for this.

8   Q   I referred you at various times to different

9 parts of Maes, so I'm not sure what you have in mind.

10 Among other things, I referred you to column 4, lines 12

11 through 18 and column 11, lines 51 through 57. But

12 there may have been other portions.

13   A   You said column 11. What -- what lines,

14 please?

15   Q   51 through 57. I'm not intending to limit you

16 to that.

17   A   No, of course, not.

18   THE WITNESS: Let me please ask the court

19 reporter, do you have on the record when counsel read to

20 me a statement that was an excerpt from the '832 patent.

21 It was in the last, I'd say 15 minutes.

22   Could I ask you to please look that up?

23   Q   The '832 patent? I'm not even asking you

24 to --

25   A   I'm sorry. Am I looking at the wrong thing?

1   You were asking in the context of Franklin?

2   Q   I'm asking you about Maes.

3   A   Maes. I'm so sorry. It's getting really

4   late. So I was actually looking at the wrong patent

5   before when I was searching. There's no wonder that I

6   couldn't find it. Then let me just take a look here.

7   Now, Maes refers to collectively ATM cards and

8   direct debit cards as financial cards and credit cards

9   as well. So it -- in paragraph -- in line 1 -- 50

10   through 54, it says "Accordingly, there's a strong trend

11   today moving towards a 'cashless society,' which has

12   caused a substantial increase in the use of credit

13   cards, ATM cards, and direct debits cards (collectively

14   'financial cards,') for performing consumer

15   transactions." I'm hoping I'm answering your question.

16   Q   I'm not sure that you are, but...

17   A   I'm sorry. I'm really running out of steam.

18   Q   Okay.

19   MR. SELWYN: Why don't we call it a day

20   subject to my previous statements regarding our

21   reservation to ask the Board for additional time.

22   THE WITNESS: Of course. Thank you.

23   MR. MACK: Nothing from us, but we'll reserve

24   the right for the witness to review and sign his

25   deposition transcript. Thanks.

1   (The deposition concluded at 5:19 p.m.)

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 1                    CERTIFICATE OF SHORTHAND REPORTER

 2              I, Charlotte Lacey, Certified Reporter within

 3    and for the State of California do hereby certify:

 4              That BJORN MARKUS JAKOBSSON, Ph.D., the

 5    witness whose deposition is hereinbefore set forth, was

 6    duly sworn by me before the commencement of such

 7    deposition and that such deposition was taken before me

 8    and is a true record of the testimony given by such

 9    witness.

10              I further certify that the adverse party,

11    UNIVERSAL SECURE REGISTRY LLC, was represented by

12    counsel at the deposition.

13              I further certify that the deposition of BJORN

14    MARKUS JAKOBSSON, Ph.D. occurred at the offices of QUINN

15    EMANUEL URQUHART & SULLIVAN, LLP, 555 Twin Dolphin

16    Drive, 5th Floor, Redwood Shores, California, on

17    Wednesday, April 24, 2019, commencing at 9:02 a.m. to

18    5:19 p.m.

19              I further certify that I am not related to any

20    of the parties to this action by blood or marriage, that

21    I am not employed by or an attorney to any of the

22    parties to this action, and that I am in no way

23    interested, financially or otherwise, in the outcome of

24    this matter.

25
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2   IN WITNESS WHEREOF, I have hereunto set my

3   hand this 29th of April, 2019.

4

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6   _____

7   Charlotte Lacey, RPR, CSR #14224

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