

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOYOTA MOTOR CORP. AND KIA CORPORATION,

Petitioners,

v.

EMERGING AUTOMOTIVE, LLC,

Patent Owner

Case IPR2024-01167
U.S. Patent No. 11,738,659

VIDEO-RECORDED DEPOSITION OF KEVIN C. ALMEROOTH, Ph.D.

TUESDAY, APRIL 1, 2025

CONDUCTED REMOTELY VIA ZOOM VIDEOCONFERENCE

REPORTED BY LAUREN RAMSEYER, CSR NO. 14004

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I N D E X

WITNESS:

KEVIN C. ALMEROOTH, Ph.D.

EXAMINATION

PAGE

BY MS. ENTZMINGER

5

(NO DEPOSITION EXHIBITS WERE MARKED.)

1 TUESDAY, APRIL 1, 2025, REMOTE ZOOM VIDEOCONFERENCE,
2 9:05 A.M.

3
4 THE VIDEOGRAPHER: On the record, time is
5 now 9:05 a.m. Today's date is April 1st, 2025.
6 This begins the Zoom audio and video recording No. 1
7 in the deposition of Kevin C. Almeroth Ph.D.,
8 testifying in the matter of Toyota Motor Corp. and
9 Kia Corporation versus Emerging Automotive, LLC, in
10 the United States Patent and Trademark Office before
11 the Patent Trial and Appeal Board, case No.
12 IPR2024-01167. The U.S. patent number is
13 11,738,659.

14 This Zoom deposition is taking place in
15 multiple locations via Zoom. Will all counsel
16 please identify yourself and state whom you
17 represent, starting with our taking attorney.

18 MS. ENTZMINGER: Brenda Entzminger, from
19 Bunsow De Mory, representing patent owner Emerging
20 Automotive.

21 MR. LU: Quincy Lu on behalf of petitioner
22 Kia from Quinn Emanuel, and with me today is Nick
23 Eitsert, who is representing co-petitioner, Toyota.

24 THE VIDEOGRAPHER: The Zoom video and
25 audio recordings will take place at all times during

1 this deposition unless all counsel agree to go off
2 the record. The beginning and end of each Zoom
3 media will be announced.

4 My name is Clifford Gonsbery, CLVS,
5 videographer contracted by Lexitas Reporting. Will
6 the court reporter please introduce herself, and
7 then swear in or affirm the witness.

8 THE REPORTER: Good morning. My name is
9 Lauren Ramseyer, I'm the certified shorthand
10 reporter today. My CSR No. is 14004.

11 THE VIDEOGRAPHER: Counsel, you may
12 proceed.

13

14 KEVIN ALMEROTH, Ph.D.,
15 having first been duly sworn, was examined and testified
16 as follows:

17 EXAMINATION

18 BY MS. ENTZMINGER:

19 Q. Thank you. Good morning, Dr. Almeroth.

20 A. Good morning.

21 Q. As you heard me introduce myself, my name
22 is Brenda Entzminger, and I represent the patent
23 owner in this case, Emerging Automotive. And we're
24 here to proceed with your testimony on two different
25 IPR proceedings.

1 I'll list those out for you, IPR
2 2024-00981 and IPR 2024-01167. You understand that
3 you're here to give testimony on the declarations
4 you submitted in these IPRs on behalf of Toyota and
5 Kia, correct?

6 A. Yes.

7 Q. And I understand you've -- you've been
8 deposed via a remote set-up like this before; is
9 that correct?

10 A. Yes.

11 Q. Now, with respect to the court reporter,
12 the videographer, counsel being at different
13 locations, it's especially important to try to allow
14 just one speaker at a time. So if you could keep
15 that in mind so that we're not talking over one
16 another, that would be great.

17 If there's any question that I ask that
18 you don't understand, please say so. If you don't
19 ask some question that gives me an indication you
20 don't understand, I'll assume that you understood
21 the question, is that fair?

22 A. Yes.

23 Q. And I understand, I think you were on the
24 line at that time, I understand from discussing with
25 your counsel earlier that you have on hand copies of

1 the declarations and materials you cited in your
2 declarations for these IPRs with you here today,
3 correct?

4 A. Yes.

5 Q. And do you have electronic copies or paper
6 copies with you?

7 A. Yes, electronic for everything, and then
8 paper copies of some things.

9 Q. Okay. Well, with respect to both paper
10 and electronic copies, do you have notes that you
11 took on those particular copies?

12 A. I do not.

13 Q. Now, turning first to the -- I'm just
14 going to go with the last three numbers of the IPR,
15 the 981 IPR declaration, do you have that in front
16 of you?

17 A. Yes.

18 Q. Can you turn to paragraph 107, please.

19 A. Okay.

20 Q. And here, you site to Kleve, and I'm just
21 referring to Kleve, that's what you site to here as
22 Exhibit 1004, I'll just refer to it by its name,
23 Kleve. So here you say to Kleve's disclosure that a
24 vehicle owner enters authorization credentials to
25 set up a virtual key, correct?

1 A. I see the reference to authorization
2 credentials. That's part of what I describe in this
3 paragraph.

4 Q. Okay. But specific to my question, you're
5 citing to Kleve's disclosure that a vehicle owner
6 enters authorization credentials to set up a virtual
7 key; is that correct?

8 A. That is part of what I point to.

9 Q. Now, the entering of this information,
10 that's what your -- the entering of these
11 authorization credentials, that's what you're
12 pointing to as the recited request to generate an
13 eKey; is that correct?

14 A. No. I think that's incomplete. That's
15 only part of what the analysis is.

16 Q. The request to generate an eKey; is
17 that -- you're citing to Kleve at paragraph 62,
18 correct?

19 A. Again, that's only part of what I've cited
20 to. That's only one piece of what that process is.
21 As you can see in the surrounding paragraph, there's
22 lots of different citations that I point to.

23 Q. Yeah, and I can appreciate that, but I'm
24 asking about this one in particular. You do cite to
25 paragraph 62 of Kleve with respect to your opinion

1 that a server request from user -- from user by a
2 user account to generate an electronic key, correct?

3 A. That's only part of what I cite to, but I
4 do cite to it.

5 Q. Okay. And at Kleve, paragraph 62, you
6 have quoted there, "At step 502 the vehicle owner
7 may enter in vehicle authorization credentials based
8 on information received by the temporary user to set
9 up a virtual key," end quote; is that correct?

10 A. I'm not sure what the question is. I've
11 quoted that portion in that paragraph.

12 Q. Okay. You don't understand the question
13 when I ask whether you cited to a paragraph and
14 quoted from it?

15 MR. LU: Objection. Form.

16 THE WITNESS: I wasn't sure what your
17 question was. Was it whether or not I had just
18 cited to the portion that you read? If you're just
19 asking if I cited to the portion I read, that's one
20 of the things that I cited to.

21 BY MS. ENTZMINGER:

22 Q. Okay. Great. And at 502, at this step of
23 Kleve, it's my understanding from Kleve that this is
24 the vehicle owner entering authorization credentials
25 received from the temporary user. Is that your

1 understanding as well?

2 A. Could you repeat the question.

3 Q. At step 502 of Kleve, that you've
4 referenced in paragraph 107, Kleve is describing the
5 vehicle owner entering authorization credentials,
6 and those credentials are received from the
7 temporary user; is that correct?

8 A. No. That's not what it says.

9 Q. And where are the authorization
10 credentials received from?

11 A. I would have to check and see if Kleve
12 says where the authorization credentials come from.
13 I don't recall. It says here, it's based on
14 information received by the temporary user to set up
15 a virtual key, but that was different than what your
16 question was. As to where the authorization
17 credentials specifically come from, I'd have to go
18 back and check Kleve. I don't remember what it
19 says.

20 Q. Okay. Well, that's not part of your
21 opinion here, that -- as to where the credentials
22 come from? Is that fair to say?

23 A. No, because that's vague with respect to
24 whether or not that covers what I've actually said
25 in this paragraph.

1 Q. So in this paragraph, have you described
2 where the credentials -- the authorization
3 credentials come from?

4 A. I think the paragraph speaks for itself;
5 as to your characterization of the paragraph, I
6 mean, it's hard for me to say whether or not what's
7 here is sufficient to describe where those
8 credentials come from or -- the paragraph says what
9 it says, so I'm not sure what you're asking.

10 Q. I'm asking whether in this paragraph
11 regarding your opinion for what discloses receiving
12 by a server or request from a user by a user account
13 to generate an eKey, whether you have indicated
14 where the authorization credentials used to set up a
15 virtual key, where those authorization credentials
16 come from.

17 MR. LU: Objection. Form.

18 THE WITNESS: I think you asked in your
19 question and quoted the claim language. I'm not
20 sure that it says that it's a requirement.

21 BY MS. ENTZMINGER:

22 Q. I'm not sure which question you're
23 referring to, Doctor. I just asked -- I asked this
24 question --

25 A. I wasn't done answering. So I'm still

1 trying to figure out what your question is.

2 Q. Okay. With respect to your paragraph 107
3 that you have in front of you, do you have in that
4 paragraph any indication of where the authorization
5 credentials you refer to in this paragraph come
6 from?

7 MR. LU: Objection. Form.

8 THE WITNESS: Yeah, I'm --

9 MR. LU: Asked and answered.

10 THE WITNESS: -- not sure. I'm not sure
11 how to answer that question. Now you've used the
12 word "indication." The paragraph says what it says.
13 The portion that you've read says that the
14 credentials are based on information received by the
15 temporary user.

16 I'd have to go back and check and see what
17 Kleve says. I don't recall it being relevant to my
18 opinion where those authorization credentials would
19 come from, so other than pointing you to the
20 paragraph, I mean, again, I think it says what it
21 says.

22 BY MS. ENTZMINGER:

23 Q. Well, with respect to Kleve, you have that
24 in front of you, correct?

25 A. I do. I can pull it up. One second.

1 Okay. I've got Kleve up.

2 Q. So it's paragraph 62, which you quoted and
3 cited in your declaration at paragraph 107. So
4 those authorization credentials that you cite to in
5 that -- in that paragraph, is there an indication to
6 you of where those authorization credentials come
7 from?

8 A. And you -- it seemed like you were
9 limiting your question to just paragraph 62, so let
10 me just review that. At least in this paragraph, I
11 don't immediately see that it describes where the
12 authorization credentials that are used would
13 specifically originate.

14 Q. You also cite to paragraph 63. Does that
15 indicate where the authorization credentials come
16 from?

17 A. I mean, it says what it says. I think 62
18 is probably better in terms of providing any kind of
19 description on where that information would
20 specifically come from.

21 Q. Well, do you have any opinion, having read
22 those two paragraphs that you cited in your
23 declaration at 107, where those authorization
24 credentials come from?

25 MR. LU: Objection. Form.

1 THE WITNESS: The best I can say is I've
2 got at least paragraph 107. I haven't checked the
3 rest of the declaration to see if there's some other
4 paragraph that might bear on that question. But
5 you've really only asked so far about paragraph 107.
6 There might be something else in the declaration
7 that I don't have in mind sitting here right now.

8 BY MS. ENTZMINGER:

9 Q. Okay. But at least as far as those two
10 paragraphs in Kleve that you've cited in
11 paragraph 107 of your declaration, you don't have
12 any opinion with respect to where the authorization
13 credentials come from?

14 A. Well, I mean, the part you read said that
15 it's based on information received by the temporary
16 user to set up a virtual key, so there's at least
17 that information. I don't know if that's sufficient
18 for your question or if you're asking for more
19 detail than what that paragraph provides.

20 Beyond what the paragraph says that you're
21 pointing me to, again, there might be some other
22 portion of Kleve that might provide additional
23 indications to someone reading Kleve as to where
24 those credentials might come from.

25 There's also the idea that if I'm entering

1 authorization credentials, it would at least be
2 based on setting up an account or getting a user
3 name or establishing a password. There's any of a
4 variety of ways in which it could be done.

5 Q. With respect to the penultimate sentence
6 in that paragraph 107, you've stated here, quote,
7 "The entering of this information is a request sent
8 by the user to generate a virtual key."

9 When you use the term "this information,"
10 what information are you referring to specifically?

11 A. I think the kinds of information that
12 would be included there are discussed in some of the
13 later limitations in paragraphs. I mean, there's
14 whole paragraphs dedicated to this.

15 One sentence that jumps out in
16 paragraph 109, "request from the user profile can
17 contain all of the necessary information for the
18 server to provide the virtual key." And so I think
19 it goes on from there.

20 So I'd have to -- to go through multiple
21 paragraphs to kind of figure out what information
22 specifically is transmitted, and I think it's
23 covered across several different limitations.

24 Q. So that sentence, "The entering of this
25 information is a request sent by the user to

1 generate a virtual key," so I should go to two
2 paragraphs later, paragraph 109, to find out what
3 this information is that you're referring to?

4 MR. LU: Objection. Form.

5 THE WITNESS: No, I think you seem to
6 misunderstand what this sentence is referring to,
7 and potentially more of the declaration.

8 BY MS. ENTZMINGER:

9 Q. Okay. So what I'm trying to understand
10 is, when you write the sentence, "The entering of
11 this information is a request sent by the user to
12 generate a virtual key," I just want to know, what
13 is "this information" that you're referring to
14 there?

15 A. It's the same answer I gave you to
16 questions ago.

17 Q. And what's that?

18 A. You can have the court reporter read it
19 back if you'd like.

20 MS. ENTZMINGER: Court Reporter, can you
21 read back the answer to the question, what is the
22 entering of this information.

23 (Record was read.)

24 BY MS. ENTZMINGER:

25 Q. Okay. So Dr. Almeroth, what paragraphs of

1 your declaration do you need to go through to
2 understand what this information is as used in the
3 penultimate sentence of paragraph 107?

4 A. So again, I think you're misunderstanding
5 the declaration. What that -- the penultimate
6 sentence is referring to is generically the request
7 that gets sent, or generally the request that gets
8 sent. If you keep reading, it goes on and talks
9 about what would be in the request and other
10 requirements of this particular claim limitation.

11 As you get into some of the later
12 limitations, like starting before paragraph 116, it
13 says, "The request includes identifying information
14 for enabling sending of the eKey to the recipient
15 via electronic transmission." So there's discussion
16 there about what kind of information would be in the
17 request.

18 Three -- little No. 3, iii, says, "The
19 request includes a condition of use of the vehicle
20 as sent by the user via the user account." So
21 starting at paragraph 118, there's additional
22 descriptions as to what kind of information would be
23 in the request.

24 So that's where I've broken this
25 limitation down into multiple parts, so those

1 additional parts identify with more specificity the
2 kind of information that would be included in the
3 request.

4 Q. So for that penultimate sentence where
5 you've bolded and italicized "request sent by the
6 user," are you trying to give any indication of what
7 disclosure from Kleve meets that particular
8 limitation?

9 A. That --

10 MR. LU: Objection form.

11 THE WITNESS: Your question is vague when
12 you say "that limitation." I think the declaration
13 is quite clear. It says there -- when it talks
14 about the request sent by the user, and then to your
15 question specifically about what's in that request,
16 there are specific requirements in the additional
17 portions of the limitations, and those are addressed
18 in subsequent paragraphs.

19 All I'm establishing in paragraph 107 is
20 that there is a request sent by the user, and then
21 as to the contents of that request, that's covered
22 by later paragraphs.

23 BY MS. ENTZMINGER:

24 Q. So the owner entering vehicle
25 authorization credentials to set up a virtual key,

1 is that a request sent by the user to generate a
2 virtual key, in your opinion?

3 MR. LU: Objection. Form.

4 THE WITNESS: I'm not sure if I understand
5 the question. If you're asking if that in isolation
6 would be sufficient, I don't think I've offered that
7 opinion in the declaration.

8 BY MS. ENTZMINGER:

9 Q. I'm just trying to get at what you mean
10 when you use the term "this information." "The
11 entering of this information is a request sent by
12 the user to generate a virtual key."

13 You pointed to other paragraph numbers,
14 but it seems to me that when you use the term "this
15 information," you're referring to some information
16 in that paragraph. Is that not correct?

17 A. I -- I think I've made it clear in the
18 last five to ten minutes what my opinion is. It
19 seems to me you're trying to misread these sentences
20 to suggest I have an opinion that I don't.

21 Q. Well, I'm sorry you think that, Doctor.
22 I'm not trying to misrepresent anything. I'm just
23 trying to get at what you mean by the term "this
24 information" in the penultimate sentence there.

25 So if this information as you used it in

1 this sentence of this particular paragraph of your
2 declaration refers to more information than what is
3 in this paragraph, that's what I'm trying to
4 understand. Is "this information," as you use that
5 term, is that referring to information in this
6 paragraph, or should I be looking elsewhere to
7 understand what "this information" is?

8 MR. LU: Objection. Form and asked and
9 answered.

10 THE WITNESS: Yeah, I mean, I don't mind
11 explaining it for a third time. "This information"
12 refers to the information that's in the request, and
13 that's addressed across the different subcomponents
14 of how I've broken down the limitation. I mean,
15 I'll go through it again. I really don't mind.

16 BY MS. ENTZMINGER:

17 Q. But Kleve doesn't --

18 A. No, you asked the question, so I'm going
19 to give you the answer. So starting --

20 Q. This is a different question than --

21 A. Well --

22 MR. LU: Counsel, let the witness -- he
23 wasn't finished yet, so let him finish.

24 Go ahead, Dr. Almeroth.

25 THE WITNESS: Starting in paragraph 101,

1 that addresses the first portion of the preamble in
2 1A, the portion receiving by a server a request from
3 a user via user account, that has a vehicle
4 associated therewith to generate an electronic key
5 for an identified recipient to use the vehicle.

6 And so the paragraph 107 that you're
7 referring to falls within that particular aspect of
8 the limitation. And as I indicated, there are also
9 subsequent portions of that limitation, starting in
10 paragraph 116 and 118, respectively, that talk about
11 the kind of information that's included in the
12 request.

13 So by breaking the limitation into pieces,
14 I've established that there is a request that's
15 sent, based on disclosures in Kleve, and then the
16 contents of what that request includes are, at least
17 in paragraphs 116 through 117 for that first part,
18 identifying information for enabling sending of the
19 eKey to the recipient via an electronic
20 transmission. And then for 118 through 123, the
21 request includes a condition of use of the vehicle
22 as set by the user via the user account.

23 BY MS. ENTZMINGER:

24 Q. Now, for this request you're referring to
25 in paragraph 107, this is made after the parties

1 have already entered into a rental agreement, is
2 that -- is that correct?

3 A. That's at least one of the ways in which
4 it's described in Kleve.

5 Q. So the rental agreement doesn't have to
6 have been entered by the time this request to
7 generate a virtual key is made, is that fair to say?

8 MR. LU: Objection. Form.

9 THE WITNESS: The context of that question
10 is somewhat incomplete. So you can either add one
11 or I can explain what context I think is relevant.

12 BY MS. ENTZMINGER:

13 Q. Okay. Why don't you do that.

14 A. So there's certainly Figure 2 in Kleve,
15 and at least some of the steps have to be performed
16 before some of the other steps; for example,
17 paragraph 39 says, "At step 210, once the temporary
18 user selects the vehicle, pays the appropriate
19 amount and signs a consent agreement, then the
20 system may generate a virtual key to distribute to
21 the temporary user and VCS."

22 So the context of at least that
23 embodiment, and Figure 2 is described as exemplary,
24 the generation -- the system generation of the
25 virtual key to be distributed to the temporary user

1 and VCS, would happen after the consent agreement
2 had been signed. That's one example.

3 Q. What about -- okay. Thank you. What
4 about the embodiment that you reference in
5 paragraph 107 of your declaration?

6 MR. LU: Objection. Form.

7 THE WITNESS: I'm not sure what the
8 question is.

9 BY MS. ENTZMINGER:

10 Q. Well, with respect to the request that you
11 indicate here in paragraph 107 of your declaration,
12 the request sent by the user to generate a virtual
13 key, you refer to step 502. And I'm saying with
14 respect to that particular embodiment, of which 502
15 is a part, is the rental agreement, is it a
16 prerequisite that that has already been entered into
17 by the parties?

18 A. So, again, your question, is it a
19 prerequisite, I would understand to be does it
20 describe in Klevor that that contract has to be
21 signed before step 502 can be executed. So let me
22 look and see.

23 So paragraph 62, right before the portion
24 that I quote, says, "Figure 5 shows an illustrative
25 example of an overview of how the vehicle rental

1 micro-business may be structured with a keyless
2 transaction between the owner of the vehicle and the
3 temporary user. This example illustrates the
4 process after the vehicle owner and temporary user
5 have already set up a user profile within the
6 database and have both agreed to the rental
7 agreement."

8 So at least in that example, it looks like
9 step 502 proceeds after the vehicle owner and
10 temporary user have both agreed to the rental
11 agreement.

12 Q. And Doctor, when you say "agreed to the
13 rental agreement," are we talking about having
14 signed the rental agreement or just agreed to terms?

15 MR. LU: Objection. Form.

16 THE WITNESS: Kleve says agreed to the
17 rental agreement. I don't think -- I don't recall
18 if it goes into any more detail as to what is
19 required to achieve agreement. I mean, it could
20 probably be either.

21 BY MS. ENTZMINGER:

22 Q. Doctor, if you turn to paragraph 120, I
23 think it's just ten pages or so thereafter, after
24 107.

25 A. I'm there.

1 Q. So in this paragraph, before the last
2 citation you've made there, it says, "Moreover,
3 Kleve discloses that the virtual key is always
4 generated after the rental agreement."

5 Do you see that sentence?

6 A. I see that.

7 Q. Now, by "always generated after the rental
8 agreement," is it your opinion that it is
9 automatically generated after the rental agreement?

10 MR. LU: Objection. Form.

11 THE WITNESS: I don't see where it says
12 the word "automatic."

13 BY MS. ENTZMINGER:

14 Q. No, I don't either, but I'm asking what
15 you mean by "always generated."

16 A. That it's always generated. I don't
17 understand that there's some uncertainty as to what
18 those words mean.

19 Q. So you're not trying to convey that it is
20 automatically generated after the rental agreement
21 is formed, is that fair to say?

22 A. Again, there's lacking some context to
23 your question; as to whether or not Kleve describes
24 embodiments where it is automatically generated or
25 not automatically generated, I don't specifically

1 recall. I don't recall that it matters to the claim
2 whether it's automatically generated or not, so it's
3 probably not a question I've looked at.

4 Sitting here right now, it seems like it
5 could be automatically generated or it could not,
6 depending on kind of how the system would be
7 implemented.

8 Q. So with respect to "always generated," are
9 you referring there to, again, that it's a
10 prerequisite as we just discussed, that the rental
11 agreement having been formed by the parties is a
12 prerequisite to the virtual key being generated?

13 MR. LU: Objection. Form.

14 THE WITNESS: I think what I'm saying is
15 basically what's described in the declaration, which
16 is basically a person of skill in the art reading
17 Kleve would understand that there is an embodiment
18 where the virtual key is generated after the rental
19 agreement, and always generated after the rental
20 agreement at least in that embodiment.

21 BY MS. ENTZMINGER:

22 Q. Well, it doesn't say "in that embodiment."
23 It says "always generated after the rental
24 agreement."

25 MR. LU: Objection. Form.

1 BY MS. ENTZMINGER:

2 Q. So are you now clarifying that it's only
3 when embodiment where it's generated always after
4 the rental agreement?

5 A. I wouldn't characterize it as a
6 clarification. I don't think Kleve is limited in
7 all of its embodiments, where that a person of skill
8 in the art reading Kleve would understand that in
9 every embodiment, the only way the eKey could be
10 generated is after the rental agreement.

11 Certainly I think it would make sense to a
12 person of skill in the art that that's typically
13 what would happen.

14 Q. Well, this says "always." So always
15 refers to all of the embodiments in Kleve, correct?

16 A. I don't see where it says that.

17 Q. Your sentence says, "Kleve discloses that
18 the virtual key is always generated after the rental
19 agreement."

20 A. I think you read that sentence correctly.

21 Q. Okay. So "always generated after the
22 rental agreement" encompasses all embodiments of
23 Kleve, correct?

24 MR. LU: Objection. Form. Asked and
25 answered.

1 THE WITNESS: No. Not necessarily.

2 BY MS. ENTZMINGER:

3 Q. So you use typically and always. So
4 always does not refer to all of the embodiments of
5 Kleve, is that fair?

6 A. I think a person of skill in the art could
7 read Kleve and understand that there are probably
8 multiple ways in which the flow of actions among the
9 parties could occur. And I think thinking about a
10 real world scenario, in most cases you have an
11 agreement before you would generate an eKey, but
12 maybe, maybe not. I don't -- I don't know that the
13 real world is necessarily cut and dry.

14 So reading -- a person reading Kleve would
15 understand it's describing embodiments where it's
16 always the case. That might be a pretty common
17 scenario, but I don't know that it would necessarily
18 be a hard and fast rule in every embodiment or in
19 the understanding a person of skill in the art would
20 have.

21 Q. Well, this sentence in paragraph 120 of
22 your declaration is describing Kleve's disclosure.
23 It's not describing the, quote, "real world." This
24 says, "Kleve discloses that the virtual key is
25 always generated after the rental agreement."

1 So I'm just trying to understand, within
2 what Kleve discloses, is Kleve disclosing a virtual
3 key that is always generated after the rental
4 agreement regardless of embodiment?

5 MR. LU: Objection. Form. Asked and
6 answered.

7 THE WITNESS: I think it would be the same
8 answer I just gave.

9 BY MS. ENTZMINGER:

10 Q. Well, I'm asking specific to what Kleve
11 discloses, not this real-world description that you
12 provided.

13 MR. LU: Same objections, to the extent
14 that's a question.

15 THE WITNESS: Yeah, I'm not sure what the
16 question is.

17 MS. ENTZMINGER: Okay. Madam Court
18 Reporter, can you read back the question, please.

19 (Record was read.)

20 MR. LU: Same objections.

21 THE WITNESS: It's going to be the same
22 answer I already gave.

23 BY MS. ENTZMINGER:

24 Q. So it's fair to say that in some
25 embodiments of Kleve, the virtual key is not

1 generated after the rental agreement?

2 A. My recollection of Kleve is that the
3 embodiments that I at least recall describe the
4 virtual key being generated after the rental
5 agreement. Whether -- I mean, given the language of
6 Kleve, that Figure 2 is exemplary, Figure 5 is an
7 illustrative example, I have a hard time
8 characterizing Kleve as -- especially the
9 understanding a person of skill in the art would
10 have about Kleve, that there would be no -- no
11 contemplation of a scenario where the sequence of
12 events required the rental agreement to be generated
13 before the eKey.

14 MS. ENTZMINGER: Madam Court Reporter,
15 would you read back that answer, please.

16 (Record was read.)

17 BY MS. ENTZMINGER:

18 Q. With respect to paragraph 120, here you
19 offer the opinion that rental agreement restrictions
20 were sent with the request to generate a virtual
21 key; is that correct?

22 A. Could you repeat the question? I'm trying
23 to see if your characterization applies to exactly
24 what's in this paragraph.

25 Q. I'm trying to understand, is it your

1 opinion that rental agreement restrictions were sent
2 with the request to generate a virtual key?

3 A. Rental agreement restrictions, well, it
4 talks about restrictions; whether or not rental
5 agreement restrictions, I don't think the paragraph
6 is limited to rental agreement restrictions, though
7 that's a good example of what could be included in
8 the eKey request.

9 Q. My question wasn't trying to limit. I
10 just asked whether it was your opinion that rental
11 agreement restrictions were sent with the request to
12 generate a virtual key.

13 MR. LU: Objection. Asked and answered.

14 THE WITNESS: To the extent there's a
15 question there, it would be the same as what I just
16 gave.

17 BY MS. ENTZMINGER:

18 Q. So are rental agreement restrictions sent
19 with the request to generate a virtual key as
20 disclosed by Kleve?

21 MR. LU: Same objection.

22 THE WITNESS: It would be, essentially,
23 the same answer I gave. I think Kleve teaches that
24 one example of what can be sent during the request,
25 the eKey request is restrictions that would have

1 been or could have been identified in a rental
2 agreement.

3 BY MS. ENTZMINGER:

4 Q. And are those all of the rental agreement
5 restrictions, all of the rental agreement
6 restrictions that are agreed to by the parties that
7 are sent with the virtual key?

8 MR. LU: Objection. Form.

9 THE WITNESS: I don't understand the
10 question.

11 BY MS. ENTZMINGER:

12 Q. With respect to the rental agreement
13 restrictions being sent with the request to generate
14 virtual key, I'm trying to understand whether it's
15 all rental agreement restrictions, or some.

16 A. Again, there's not context for that
17 question, so I could envision a person of skill in
18 the art reading Kleve and understanding that the
19 rental agreement could be a source of restrictions,
20 though I don't think Kleve teaches that it would
21 have to be all of those restrictions or the -- the
22 source of restrictions would only be the rental
23 agreement.

24 Q. Well, is the rental agreement a source of
25 restrictions in Kleve?

1 A. I think a person of skill in the art would
2 understand that it could be.

3 Q. Well, I understand you're saying it could
4 be. I'm asking whether they are.

5 MR. LU: Objection. Form.

6 THE WITNESS: I think there could be --
7 there is an embodiment where they are, but I don't
8 think Kleve limits the source of restrictions to
9 being the rental agreement, or that all restrictions
10 in a rental agreement would necessarily need to be
11 included in the eKey request.

12 BY MS. ENTZMINGER:

13 Q. Which embodiment is that?

14 MR. LU: Objection. Form.

15 THE WITNESS: I don't understand the
16 question.

17 BY MS. ENTZMINGER:

18 Q. You said that there's at least one
19 embodiment in which the rental agreement
20 restrictions are sent with the request to generate
21 the virtual key. Which embodiment is that?

22 A. Your question seems tautological. It's
23 the embodiment where the premise of the answer is
24 the embodiment.

25 Q. I'm asking which embodiment from Kleve.

1 MR. LU: Objection. Form.

2 THE WITNESS: The embodiment where that is
3 an option.

4 BY MS. ENTZMINGER:

5 Q. Okay. Which embodiment is that an option?

6 A. I don't understand the question.

7 Q. You're referring to a specific embodiment
8 from Kleve. I'm just trying to understand what
9 embodiment you're referring to.

10 A. Actually, I don't think I'm referring to a
11 specific embodiment. I'm describing the
12 understanding a person of skill in the art would
13 have with respect to where restrictions could come
14 from. A rental agreement could be a source of
15 restrictions. There could be other sources of
16 restrictions. I don't think a person of skill in
17 the art reading Kleve would understand that Kleve
18 puts a limit on where restrictions can come from.

19 And so you could have an embodiment where
20 all of the restrictions and only the restrictions
21 identified in the rental agreement are included in
22 the eKey request. You could have an embodiment
23 where some of the restrictions in the rental
24 agreement but not all are included in the eKey
25 request. You could have embodiments of the two

1 types I just described, where there are then
2 additional requirements or restrictions that are
3 included in the request.

4 I don't think Kleve would describe or has
5 disclosures that would limit where the source of
6 restrictions would come from.

7 Q. Well, even if not limited, as an example,
8 can you cite an example from Kleve any embodiment,
9 any example in which the rental agreement
10 restrictions are sent with a request to generate a
11 virtual key.

12 A. So there are examples from paragraph 120
13 that talk about the disclosures there about given --
14 a given rental period is one example. And then I
15 believe there's also opinions about the other kinds
16 of restrictions that are discussed in the context of
17 Kleve being something that could both be in the
18 rental agreement as well as what's also specified in
19 the eKey request.

20 Q. Other than the rental period that you
21 cited to here in paragraph 120, are there any other
22 rental agreement restriction examples that Kleve
23 discloses that are sent with the request to generate
24 a virtual key, in your opinion?

25 MR. LU: Objection. Mischaracterizes.

1 THE WITNESS: My recollection of the
2 declaration is that I have identified understanding
3 that a person of skill in the art would have based
4 on the description of what restrictions there are,
5 and then opining that a person of skill in the art
6 would understand that those are some of the kinds of
7 restrictions that could be communicated during the
8 eKey request.

9 BY MS. ENTZMINGER:

10 Q. You're speaking of paragraph 120?

11 A. I don't think my answer is limited to
12 paragraph 120.

13 Q. Well, with respect to paragraph 120, where
14 you describe rental agreement restrictions were sent
15 with the request so that the virtual key could be
16 associated with said restrictions, I'm just trying
17 to understand what examples from Kleve you can point
18 to to support that opinion.

19 MR. LU: Objection. Form.

20 THE WITNESS: I -- I can't really answer
21 that question, because I think you've
22 mischaracterized the opinion I've expressed in
23 paragraph 120.

24 BY MS. ENTZMINGER:

25 Q. Does Kleve disclose any rental agreement

1 restrictions being sent with a request to generate a
2 virtual key?

3 A. Yes.

4 Q. And which ones are those, which rental
5 agreement restrictions?

6 A. So, again, that's going to be the opinion
7 as it's expressed in the declaration. That would
8 include at least what the given rental period is, so
9 that's one restriction. There are other
10 restrictions that are identified throughout Kleve
11 and that are referenced in the declaration, and I've
12 authored an opinion that it would be obvious to a
13 person of skill in the art to include those kinds of
14 restrictions as part of the eKey request.

15 Q. Well, looking at paragraph 119, just
16 proceeding 120, are any of those cited examples
17 rental agreement restrictions that were sent with
18 the request to generate a virtual key?

19 A. Those would be obvious examples to a
20 person of skill in the art as the type of
21 restrictions that could be included in an eKey
22 request, a virtual key request.

23 Q. Well, rather than they could be included,
24 does Kleve describe, does Kleve disclose that any of
25 these restrictions you've cited in paragraph 119 are

1 sent with the request to generate a virtual key?

2 MR. LU: Objection. Form.

3 THE WITNESS: If you're asking for some
4 explicit disclosure, I think it's an understanding a
5 person of skill in the art would have based on the
6 disclosures that are here. 119 provides some
7 examples of the kinds of things, the kinds of
8 restrictions that could be included in a request.

9 I know you've emphasized the word "could"
10 in your question. The "could" means that they are
11 options for the kinds of restrictions that could be
12 expressed in an eKey request. There's already
13 restrictions identified in the eKey request. Those
14 are some additional examples. Tying those examples
15 of restrictions into what could be included in a
16 request is part of the understanding I think a
17 person of skill in the art would have based on
18 looking at the specific disclosures I've identified
19 in this section of the declaration.

20 BY MS. ENTZMINGER:

21 Q. So if the examples in 119, paragraph 119
22 of your declaration are additional examples of the
23 restrictions that would be in the eKey request, what
24 are the other examples or other restrictions that
25 would be in the eKey request?

1 A. So I think the understanding a person of
2 skill in the art would have with respect to
3 restrictions would be basically any kind of
4 restrictions on operating a vehicle. I don't think
5 Kleve in its disclosure limits this set of possible
6 restrictions to be included in a request in some
7 significant way.

8 It could be that the type of activity is
9 something that's also expressed in the request. A
10 person of skill in the art reading this would
11 understand that Kleve's disclosures are open-ended
12 with respect to the kinds of restrictions and the
13 types of restrictions that could be included.

14 Q. Now, with respect to rental agreement
15 restrictions sent with the request to generate a
16 virtual key, do those refer to agreed-upon terms of
17 the rental agreement? The rental agreement
18 restrictions, are you referring to rental agreement
19 terms that have been agreed upon?

20 MR. LU: Objection. Form.

21 THE WITNESS: The predicate of that
22 question was based on an assumption you tried to
23 work into earlier questions that I don't think I
24 agreed with. As an example, I think they could be.

25

1 BY MS. ENTZMINGER:

2 Q. But it's not -- it's not necessary that
3 the rental agreement terms have been agreed to for
4 those terms to be included in the request to
5 generate a virtual key?

6 MR. LU: Objection. Form.

7 THE WITNESS: When you say it's not
8 necessary, it's unclear what the "it" is that you're
9 referring to; for example, whether you're referring
10 to a teaching of Kleve or a limitation of Kleve or
11 something else.

12 BY MS. ENTZMINGER:

13 Q. Well, for example, in paragraph 120, where
14 you describe what Kleve discloses, and you use the
15 term "rental agreement restrictions," I'm just
16 trying to understand whether those are rental
17 agreement terms that have already been agreed upon
18 by the parties.

19 MR. LU: Objection. Form. Asked and
20 answered.

21 THE WITNESS: Okay. Whether or not those
22 have already been agreed to or not, I don't think it
23 matters to the opinion.

24 BY MS. ENTZMINGER:

25 Q. Does Kleve --

1 A. Sorry, let me finish. In other words,
2 they could be or they need not necessarily be. I
3 don't understand that to be a -- a limitation of
4 Kleve in terms of what kinds of restrictions could
5 be included in a request to generate a virtual key.

6 Q. And with respect to the rental period that
7 you describe in 120 as an example of a rental
8 agreement restriction, is that referring to the
9 agreed-upon rental period?

10 A. I -- it could be. I mean, that's one
11 example. It could be the rental period that's in
12 the agreement. I mean, the person requesting the
13 rental may have wanted something longer or shorter,
14 and I think it could generally be any -- any rental
15 period.

16 Q. So you're referring to the temporary user
17 there as the individual, the renter, correct?

18 A. Yes.

19 Q. So the temporary user requesting a rental
20 period, whether or not that's agreed to by the
21 vehicle owner, that may be a rental agreement
22 restriction included in the request to generate a
23 virtual key?

24 MR. LU: Objection. Form.

25 THE WITNESS: As long as it is a

1 restriction, as long as there is a rental period,
2 that once it's expired, the virtual key can be reset
3 and cleared from the VCS, that's an example of a
4 kind of restriction that would be or could be
5 included in a request to generate a virtual key.

6 BY MS. ENTZMINGER:

7 Q. And is the restriction that you described,
8 is the restriction formed by the rental agreement
9 between the parties?

10 A. That seems like one example of how it
11 could be done.

12 Q. So in paragraph 120 of your declaration,
13 you've referred to Kleve at paragraph 9, and quoted
14 from Kleve paragraph 9. Does Kleve at paragraph 9
15 disclose the rental agreement restrictions were sent
16 with a request to generate a virtual key?

17 MR. LU: Objection. Form.
18 Mischaracterizes.

19 THE WITNESS: You mean 39?

20 BY MS. ENTZMINGER:

21 Q. Oh, yes. 39, thank you.

22 A. Okay. Could you repeat the question.

23 Q. Sure. You cited to and quoted from Kleve
24 at 39, paragraph 39, and I'm trying to understand
25 whether Kleve at paragraph 39 discloses that any

1 rental agreement restrictions are sent with the
2 request to generate a virtual key.

3 MR. LU: Objection. Form.

4 THE WITNESS: So I'm not sure how to
5 answer your question. It seems like you're trying
6 to ask for whether or not paragraph 39 discloses a
7 very specific and narrow disclosure. I'm not sure
8 it's as narrow as you've attempted to phrase in your
9 question, but certainly I think it is supportive of
10 the understanding a person of skill in the art would
11 have about the process of how information is
12 generated that could include restrictions that would
13 be part of the request and then ultimately how the
14 system operates.

15 BY MS. ENTZMINGER:

16 Q. So the last sentence of paragraph 39
17 appears to be at least part of what you've quoted in
18 your declaration at paragraph 120. Is that sentence
19 of paragraph 39 of Kleve supportive of your opinion
20 that rental agreement restrictions were sent with
21 the request to generate a virtual key?

22 A. Yes.

23 Q. And the paragraph 120 of your declaration
24 italicized and bolded "during a given rental
25 period." What is the significance of italicizing

1 and bolding that particular term?

2 A. Emphasis is placed there, because that's
3 one of the aspects that provides a restriction on
4 use and type of use for the particular eKey that has
5 been requested.

6 Q. So the rental period referred to, quoted
7 and bolded and italicized by you in paragraph 120,
8 that rental period, is that agreed to by the parties
9 in a rental agreement?

10 A. That's one scenario I think that a person
11 of skill in the art would understand is possible in
12 the context of Kleve.

13 Q. Well, in the context of paragraph 39, what
14 is it referring to, in your opinion?

15 MR. LU: Objection. Form.

16 THE WITNESS: I don't understand the
17 question.

18 BY MS. ENTZMINGER:

19 Q. Well, you said that the given rental
20 period could refer to the rental period agreed to by
21 the parties in the rental agreement. Is that what
22 paragraph 39 refers to in using the rental period?

23 MR. LU: Objection. Form.

24 THE WITNESS: So I think you've
25 mischaracterized my answer and then mischaracterized

1 how that answer would be applied to paragraph 39.
2 What I said was one way in which the rental period
3 could be determined is through what's specified in
4 the rental agreement. That rental period would be
5 part of the request to generate the virtual key, as
6 one example of a restriction that was an option for
7 inclusion in a request to generate a virtual key.

8 BY MS. ENTZMINGER:

9 Q. And in paragraph 119 of your declaration,
10 when you cite to various examples, you also cite to
11 paragraph 40 of Kleve.

12 A. Yes.

13 Q. And let's see, you cite to speed, global
14 position coordinates, or load weight restrictions
15 from paragraph 40; is that correct?

16 A. That's what the declaration seems to
17 indicate.

18 MR. LU: Counsel, we've been going an
19 hour. Is this a good time for a break?

20 MS. ENTZMINGER: Yeah, sure. What do you
21 want, like, five minutes?

22 MR. LU: Could we take ten minutes?

23 MS. ENTZMINGER: Sure.

24 MR. LU: All right. Thank you.

25 THE VIDEOGRAPHER: Off the record. Time

1 now 10:09 a.m.

2 (Recess.)

3 THE VIDEOGRAPHER: Back on the record.

4 Time is now 10:20 a.m. Counsel.

5 BY MS. ENTZMINGER:

6 Q. Dr. Almeroth, we were referring to your
7 declaration at paragraph 119, and specifically your
8 citation to speed, global position coordinates, or
9 load weight restrictions that you quoted from Kleve
10 paragraph 40, do you see that in front of you?

11 A. I do.

12 Q. Know, Kleve at paragraph 40 is describing
13 step 214. Is that fair to say?

14 A. In part.

15 Q. The speed, global position coordinates, or
16 load weight restrictions, are those restrictions
17 that Kleve discloses are set at step 214?

18 A. So that is generally correct. I think
19 what it's referring to is the implementation of
20 those restrictions.

21 Q. So it's my understanding, looking at the
22 first sentence of paragraph 120, that the
23 restrictions that you cite in paragraph 119 are
24 restrictions that are sent with the request to
25 generate a virtual key, is that your opinion?

1 A. Those are examples of things that could be
2 sent, of restrictions that could be sent.

3 Q. And Kleve -- is it your opinion that Kleve
4 discloses that those restrictions are sent with the
5 request to generate a virtual key?

6 MR. LU: Objection. Form.

7 THE WITNESS: I think that a person of
8 skill in the art's understanding of what Kleve
9 discloses would understand that those would be
10 examples of the kinds of restrictions that could be
11 sent as part of the request to generate the virtual
12 key.

13 BY MS. ENTZMINGER:

14 Q. Right. You repeated that they could be
15 sent, but your declaration here says that they are
16 sent. So I'm just trying to affirm that that's your
17 opinion, that --

18 A. Yes.

19 Q. -- Kleve discloses that those restrictions
20 you set forth in paragraph 119 are sent with the
21 request to generate a virtual key.

22 A. Yes. So when -- let me just be clear.
23 When I say could be sent, what I mean are examples
24 of restrictions that could be sent. Like I could
25 make a request or I would -- I will make a request

1 and it could include a variety of pieces of
2 information. So the "could" refers do you have
3 requests, they can include restrictions, not every
4 request needs to include restrictions, but for
5 restrictions that have -- for requests that have
6 restrictions, the types of restrictions that could
7 be included, or would be included if restrictions
8 are included, are described in an open-ended list in
9 119.

10 Q. Okay. But --

11 A. And 120.

12 Q. But my question is whether the
13 restrictions you set forth in paragraph 119 are
14 restrictions that Kleve discloses are sent with the
15 request to generate a virtual key.

16 MR. LU: Objection. Form. Asked and
17 answered.

18 THE WITNESS: Yeah, so I -- they are sent
19 if they are included in that particular request.
20 Kleve discloses a system that provides the
21 flexibility to include a whole variety of different
22 kinds of restrictions in the request.

23 One that we've talked about is what the
24 rental period is. There are other kinds of
25 restrictions that can be included in a request for a

1 virtual key. They could range in terms of what
2 their type is and what kind of information they
3 specify. So a system that would implement Kleve
4 could use some kinds of restrictions and maybe not
5 others, and it depends on what the restrictions are
6 in the particular system.

7 So what I'm saying here in these
8 paragraphs are, these are examples of the kinds of
9 restrictions that could be sent in a request for a
10 virtual key.

11 BY MS. ENTZMINGER:

12 Q. With respect to speed, global position
13 coordinates, or load weight restrictions that are
14 described in Kleve paragraph 40, does Kleve disclose
15 that those restrictions are sent with the request to
16 generate a virtual key?

17 MR. LU: Objection. Asked and answered.

18 THE WITNESS: I think as I described
19 earlier, those are examples of restrictions that a
20 person of skill in the art would understand would be
21 sent in a request if they were the kinds of
22 restrictions that were being used.

23 BY MS. ENTZMINGER:

24 Q. Okay. But my question is not what a
25 person of skill in the art would understand would be

1 sent. But you use the words here "are sent" with
2 the request. So I'm just trying to understand, of
3 that particular quotation from paragraph 40 of
4 Kleve, does Kleve disclose that those restrictions
5 are sent with the request to generate a virtual key?

6 A. Where's --

7 MR. LU: Objection. Asked and answered.

8 THE WITNESS: Where's the "are,"
9 specifically?

10 BY MS. ENTZMINGER:

11 Q. So paragraph 120, quote, "In my opinion,
12 Kleve discloses that such restrictions are sent with
13 the request to generate a virtual key."

14 A. Yeah. Okay. So what it's saying is Kleve
15 discloses that those kinds of restrictions are the
16 types of restrictions that are sent with the
17 request, that would be sent, could be sent, as part
18 of the request. That's the understanding from the
19 teachings of Kleve that a person of skill in the art
20 would have. And there are various paragraphs that
21 support that understanding.

22 Q. Okay. I'm just -- for now, I'm just
23 asking about your citation to speed global position
24 coordinates or load weight restrictions from Kleve
25 paragraph 40. It is your opinion that Kleve

1 discloses that those restrictions are sent with the
2 request to generate a virtual key, correct?

3 MR. LU: Objection. Asked and answered.

4 THE WITNESS: In the context of the
5 questions and answers that you just gave, that would
6 be the understanding a person of skill in the art
7 would have.

8 BY MS. ENTZMINGER:

9 Q. And those particular restrictions are set
10 at step 214, correct?

11 A. No. So I think you're misunderstanding,
12 then, what Figure 2 describes. They're implemented,
13 they're set in the system at 214. That's different
14 than the process of making the request to generate a
15 virtual key.

16 I think -- you know, and I've seen this
17 misunderstanding in some of the preceding materials.
18 Its pointing to 214 shows when those are actually
19 set, when they're effected, not that because 214
20 happens that they can't be sent during the request
21 for -- to generate a virtual key. And so I think
22 that's -- that's probably where you're
23 misunderstanding stems from.

24 Q. So at photograph 40 of Kleve, it's your
25 understanding that Kleve there is describing the

1 system implementing restrictions that were set
2 previously, is that fair to say?

3 A. That those are setting the user
4 restrictions by the website. The next step is
5 you're controlling usage. That is the process of
6 setting the user restrictions, putting them into
7 place.

8 Q. So at paragraph 40, the second sentence,
9 quote, "The owner may set user restrictions by use
10 of the website or nomadic device," end quote. So
11 that particular teaching, is that referring to the
12 owner setting restrictions at some previous time?

13 A. Well, first of all, it's open-ended. The
14 owner may set user restrictions, and then it goes on
15 what the restrictions may be based on. And so there
16 are user -- I mean, I think what this describes,
17 what this teaches is there's various times in which
18 restrictions can be set. And there's -- the idea
19 that you could set those restrictions and include
20 them as part of the request to generate a virtual
21 key is one of the options for when those can be set.

22 Q. And one of those options is the owner
23 setting restrictions at step 214, correct?

24 A. That -- that is -- and then one of the
25 places where you could cause restrictions to be

1 implemented.

2 Q. Well, I'm not asking about causing them to
3 be implemented. I'm asking is step 214, according
4 to Klevé, a step where the owner may set user
5 restrictions?

6 MR. LU: Objection. Asked and answered.

7 THE WITNESS: So I think you're using the
8 word "set," and I've tried to clarify that for you,
9 but even using the word "set" in terms of how those
10 restrictions can be implemented, that's certainly
11 something that Klevé contemplates that could be done
12 at that point in time, but that's not the only point
13 in time that Klevé contemplates where there can be
14 restrictions that are identified and determined for
15 the particular eKey that's to be generated.

16 BY MS. ENTZMINGER:

17 Q. Okay. Well, I'm just quoting from Klevé.
18 Klevé says, "the owner may set user restrictions."
19 So I'm just trying to understand, at step 214,
20 described in paragraph 40 of Klevé, is it your
21 understanding that Klevé is disclosing that the
22 owner may set user restrictions at step 214?

23 MR. LU: Objection. Asked and answered.

24 THE WITNESS: It's going to be the same
25 answer I just gave.

1 BY MS. ENTZMINGER:

2 Q. So in addition to being implemented then,
3 they can also be set at 214; is that correct?

4 MR. LU: Objection. Form.

5 THE WITNESS: That was not the total of
6 what my answer was.

7 BY MS. ENTZMINGER:

8 Q. But at least those two things are true,
9 they can be implemented, the restrictions can be
10 implemented and set at step 214, correct?

11 MR. LU: Objection. Form.

12 THE WITNESS: I think 214 is referring to
13 the implementation of restrictions. That's one of
14 the opportunities to perform that function that
15 Kleve --

16 THE REPORTER: I think he may have frozen,
17 Counsel.

18 MR. LU: Yeah.

19 THE VIDEOGRAPHER: Let me go off the
20 record for a second. Off the record. Time now
21 10:31 a.m.

22 (Recess.)

23 THE VIDEOGRAPHER: Back on the record.
24 Time now 10:32 a.m. Counsel.

25 MS. ENTZMINGER: Madam Court Reporter, I'm

1 not sure that the witness knows where he left off.
2 Maybe if you could read back where we left off
3 before we lost contact with the witness, please.

4 (Record was read.)

5 THE WITNESS: I think that Kleve describes
6 the other options are being able to set restrictions
7 during the request to generate a virtual key.

8 BY MS. ENTZMINGER:

9 Q. And one option Kleve teaches is for the
10 owner to set restrictions at step 214, correct?

11 A. So you've asked that question multiple
12 times. It's going to be the same answer I've given
13 every time you've asked it previously.

14 Q. Well, I keep hearing you use the word
15 "implement," but Kleve doesn't use the word
16 "implement" at paragraph 40. So I'm just asking, at
17 step 214, is Kleve disclosing that the owner may set
18 user restrictions at that step?

19 MR. LU: Objection. Asked and answered.

20 THE WITNESS: It's going to be the same
21 answer I've given previously.

22 BY MS. ENTZMINGER:

23 Q. In paragraph 120, do you describe this
24 implementation system of Kleve?

25 A. Your question asked about implementation

1 system. I'm not sure those are the words that I
2 would use. Whether it's part of 120 or not, I'm
3 really just answering the questions you're asking me
4 during the deposition.

5 Q. Well, I hadn't read it in your declaration
6 that the system implements at 214 restrictions. So
7 I'm using the word you had used in your testimony to
8 try to understand better what you're describing and
9 what your opinion is.

10 So is it your understanding that at step
11 214, Kleve is describing an implementation of
12 restrictions that are set at the rental agreement
13 period?

14 MR. LU: Objection. Asked and answered.

15 THE WITNESS: I don't see any reason that
16 it couldn't cover the same kinds of restrictions
17 that had been identified during the request to
18 generate a virtual key. In other words, you could
19 have restrictions that were part of a rental
20 agreement, that were included in the request to
21 generate the virtual key; and then how those
22 restrictions become enforced in the vehicle, that
23 could happen in a variety of different ways. And
24 that goes to the implementation piece.

25 214 could be one part of that. I mean, I

1 think that the language that Kleve uses is fairly
2 open-ended, and these different implementation
3 scenarios being possible based on the disclosures
4 that are in Kleve.

5 BY MS. ENTZMINGER:

6 Q. Referring to Figure 2 of Kleve, so at step
7 210, the distribution of the virtual key, is it your
8 opinion that the virtual key has already been
9 generated by that step 210?

10 A. That would make the most sense. It would
11 be hard to distribute something that hadn't been
12 generated.

13 Q. And at what step is it generated?

14 A. There does not -- just looking at it, does
15 not appear to be a step that identifies when it's
16 specifically generated. So, again, to a person of
17 skill in the art, it could be generated at or in
18 between any step that would -- would be reasonable
19 in the sense of you'd have the information to be
20 able to generate the key.

21 Q. So could the virtual key be generated at
22 step 204?

23 MR. LU: Objection. Form. Sorry. Go
24 ahead.

25 THE WITNESS: It seems not the primary way

1 a person of skill in the art would understand it.
2 It's hard for me to say that -- maybe you could
3 start the process of generating it. Some of these
4 steps could potentially overlap, but it would seem
5 unlikely that you could complete the generation of
6 the key before some of the other steps had happened.

7 BY MS. ENTZMINGER:

8 Q. Well, it seems to me that you're
9 indicating the virtual key would have to be
10 generated before step -- or at least by step 210
11 when it's distributed. Is there a teaching from
12 Kleve that gives specificity as to which -- where in
13 those prior steps, 202 through 210, that the virtual
14 key is generated?

15 A. The first sentence of paragraph 39 says,
16 "At step 210, once the temporary user selects the
17 vehicle, pays the appropriate amount, and signs a
18 consent agreement, than the system may generate a
19 virtual key to distribute to the temporary user and
20 VCS."

21 So it identifies at least some
22 requirements that have to happen before
23 distribution. So it seems like that sentence is
24 providing some book-ending as to when the virtual
25 key would be generated.

1 Q. So at least by step 210, is that fair to
2 say?

3 MR. LU: Objection. Form.

4 THE WITNESS: It seems reasonable that in
5 order to distribute the virtual key that it would
6 have to be generated. I can't envision a scenario
7 sitting here now where you could distribute
8 something that hadn't been created yet. So that
9 seems the most likely scenario in which Kleve would
10 be applied or understood.

11 BY MS. ENTZMINGER:

12 Q. Is there any requirement from Kleve that
13 the virtual key has to be generated after step 206?

14 A. I would have to go back and check. I
15 don't have all of Kleve memorized to be able to say
16 if there is a requirement for generating it. And
17 now I forget the question, whether you said after
18 206. Let's see. Hold on.

19 Q. My understanding from what you were
20 describing from paragraph 39 was that the -- "At
21 step 210, once the temporary user selects the
22 vehicle, pays the appropriate amount and signs a
23 consent agreement, then the system may generate a
24 virtual key to distribute to the temporary user and
25 the VCS."

1 So referring to step 206, which is the
2 collect consent -- sorry, collect rental consent and
3 agreement, I'm trying to understand, is it then your
4 opinion that it would have to happen after that
5 step, step 206, based on what you described in
6 paragraph 39?

7 A. It would seem at least based on the
8 example in paragraph 39 that the eKey would have to
9 be generated by the server after step 206.

10 Q. Now, referring to paragraph 39, again at
11 the end, the given rental period that we described
12 earlier, we discussed earlier, Kleve at paragraph 39
13 doesn't say how a given rental period is determined,
14 does it?

15 MR. LU: Objection. Form.

16 THE WITNESS: So limiting that question to
17 paragraph 39, which is a little hard to do since
18 there's the whole context, I don't see where it
19 explicitly says how the rental period is determined.
20 But of course, it's -- a person of skill in the
21 art's understanding isn't limited to one paragraph.

22 BY MS. ENTZMINGER:

23 Q. Well, does Kleve teach how that given
24 period, given rental period is determined?

25 A. I -- I don't have all of Kleve memorized,

1 but, you know, there are a variety of ways of
2 determining a rental period that I think would be
3 understood to a person of skill in the art.

4 Q. So turning, then, a couple pages -- pages
5 ahead to paragraph 124. In paragraph 124, you
6 indicated that "Kleve discloses or renders obvious a
7 server that generates a virtual key, eKey, and
8 assigns to it the rental agreement restrictions,
9 (conditional use of the vehicle) including the
10 rental period."

11 Do you see that?

12 A. I do.

13 Q. Now, are these two different steps that
14 you're describing, that step one is it generates a
15 virtual key, and step two, the server assigns to
16 that virtual key rental agreement restrictions, or
17 is that one particular operation?

18 A. So in your question, you used both the
19 term "steps" and "operation." I'm not sure what
20 definitions you would use for those terms that would
21 allow me to decide whether or not the two parts of
22 the conjunction happen in the same steps or -- or
23 not.

24 Q. Okay. Well, let's start with operation,
25 then. Are these two particular operations, or is

1 this one operation?

2 MR. LU: Objection. Form.

3 THE WITNESS: It could be one or two
4 depending on your definition of operation. So I
5 can't really answer your question unless you give me
6 a more specific rubric for establishing what an
7 operation is.

8 BY MS. ENTZMINGER:

9 Q. Well, I'm trying to understand, when you
10 say Kleve discloses that the server generates a
11 virtual key and assigns to it rental agreement
12 restrictions, whether you're describing Kleve's
13 server performing two different operations, or is
14 that one operation you're describing?

15 MR. LU: Objection. Asked and answered.

16 THE WITNESS: I'm not even sure what the
17 question is. It's going to be the same answer I
18 just gave. It appears that you won't give me your
19 understanding of operation, so it's hard for me to
20 decide whether it's one operation or multiple
21 operations.

22 BY MS. ENTZMINGER:

23 Q. Okay. Well, if that's too much, then
24 let's use step. Is it your understanding that Kleve
25 discloses a server generating a virtual key and

1 assigning to it rental agreement restrictions in two
2 different steps, or is that in one step?

3 MR. LU: Objection. Asked and answered.

4 THE WITNESS: You'd have to give me your
5 understanding of what a step is so that I can apply
6 it to that sentence.

7 BY MS. ENTZMINGER:

8 Q. Well, for example, the steps that Kleve is
9 citing in -- in paragraph 39, which you've cited to
10 in your declaration at 124.

11 A. So that doesn't help. It says the word
12 "step." I don't know how to apply -- that's not
13 really a definition of a step, it's an example of a
14 step. The fact that there is a step labeled 210
15 that says distribute virtual key, that doesn't
16 really tell me how you're defining what a step is or
17 whether or not it matters whether it's one step or
18 multiple steps, or even the ordering of those
19 particular steps.

20 Q. So in Kleve, to generate the virtual key,
21 the vehicle owner has to enter authorization
22 credentials from the temporary user, correct?

23 MR. LU: Objection. Form. Also asked and
24 answered.

25 THE WITNESS: Could you repeat the

1 question.

2 BY MS. ENTZMINGER:

3 Q. Sure. In Kleve, to generate a virtual
4 key, the owner -- the vehicle owner has to enter
5 authorization credentials from the temporary user,
6 correct?

7 A. I don't see where that is a requirement of
8 Kleve.

9 Q. Let's see. Can you turn to paragraph 183
10 of your declaration.

11 A. Okay.

12 Q. So there you've written, "In Kleve,
13 generating the key requires that the vehicle owner
14 enter authorization credentials from the temporary
15 user," comma, but just referring to that clause in
16 particular, I'm -- I can repeat my question if you'd
17 like, or you can answer it if you understand it now.

18 A. It sounded like there was an "or" that was
19 coming, so maybe you can ask your question, and
20 I'll --

21 Q. Sure. So in Kleve, to generate the
22 virtual key, the vehicle owner has to enter
23 authorization credentials from the temporary user,
24 correct?

25 MR. LU: Objection. Asked and answered.

1 THE WITNESS: So I think what it actually
2 says, and this goes back to probably the first
3 paragraph you were asking about, is in paragraph 62,
4 at step 502, the vehicle owner may enter in vehicle
5 authorization credentials based on information
6 received by the temporary user to set up the virtual
7 key. I don't think the only disclosure in Kleve
8 of -- is entering authorization credentials from the
9 temporary user.

10 BY MS. ENTZMINGER:

11 Q. Is that a requirement of generating the
12 key in Kleve; that is, is the vehicle owner entering
13 authorization credentials from the temporary user a
14 requirement for generating the virtual key?

15 MR. LU: Objection. Asked and answered.

16 THE WITNESS: So two parts, the first of
17 which is -- it's based on is the language of Kleve,
18 that's the understanding a person of skill in the
19 art would have. In terms of establishing some sort
20 of temporal relationship and whether or not that is
21 a necessary step, the way that Kleve describes the
22 operation of its system, and the likely scenario is
23 that the -- the vehicle owner would have to be able
24 to enter information authorizing him or herself, and
25 then information about the user, i.e. the renter,

1 the temporary user, as information that would have
2 to be exchanged before an eKey could be generated.

3 BY MS. ENTZMINGER:

4 Q. And before the virtual key is generated in
5 Kleve, does the vehicle owner input rental period
6 restrictions?

7 A. I think a person of skill in the art would
8 understand that that is something that the vehicle
9 owner could do.

10 Q. And is it your understanding that they
11 could do that by step 214 or some other step?

12 A. I think you said by step 214?

13 Q. Right.

14 A. It would happen as part of the request,
15 and so it would be before step 214.

16 Q. When before step 214 --

17 A. Hold on. Hold on. Again, I'm a little
18 bit hesitant to say that's the only teaching of
19 Kleve given the open-ended nature of the language,
20 so I think there's some flexibility in terms of when
21 step 214 could actually occur.

22 So, for example, in paragraph 39, there --
23 there is a temporal requirement specified in that
24 first sentence about what has to happen before the
25 virtual key can be generated. There aren't the same

1 kinds of restrictions for step 214, and so I think
2 there's some flexibility described in Kleve as to
3 when step 214 can happen.

4 Q. And specifically, are you referring to the
5 first sentence of Kleve at paragraph 39 for the --
6 the things that need to happen before the generation
7 of the virtual key?

8 A. That is correct.

9 Q. So is it your understanding, then, that
10 each of those clauses of that first sentence of
11 paragraph 39 must happen before the system may
12 generate a virtual key to distribute?

13 MR. LU: Objection. Form.

14 THE WITNESS: Your question again used the
15 language and phrasing "has to happen." The first
16 sentence of 39 describes an embodiment where they do
17 happen, but I -- I don't think that Kleve's
18 teachings would necessarily be limited to all of
19 those things necessarily having to happen in every
20 scenario.

21 So, for example, it says, at step 210,
22 once the temporary user selects the vehicle, pays
23 the appropriate amount and signs a consent
24 agreement, then the system can generate the virtual
25 key. I think a person of skill in the art reading

1 that would say, well, maybe there's an
2 implementation of Kleve where they don't have to pay
3 the appropriate amount. Maybe they put in a
4 deposit.

5 I don't think that a person of skill in
6 the art's understanding as to what those steps are
7 and what they could specifically contemplate would
8 deviate significantly if some of those steps were
9 different or -- or not necessarily enforced or that
10 there were different options. I mean, it's -- it's
11 a negotiation and an agreement, so maybe you just
12 pay the deposit.

13 BY MS. ENTZMINGER:

14 Q. Are you saying so maybe you just pay the
15 deposit and the system can generate a virtual key
16 thereafter, is that what you're indicating?

17 A. I think a person of skill in the art
18 reading the disclosures of Kleve would understand
19 that you could implement a system where you weren't
20 required to pay the full amount in order to be able
21 to use the system.

22 Q. Would it also contemplate not requiring
23 the parties to sign a consent agreement before the
24 system generates a virtual key?

25 MR. LU: Objection. Asked and answered.

1 THE WITNESS: I mean, typically, from a
2 business sense, that's typically a good thing to do,
3 but whether or not you could have an implementation
4 of Kleve where there wasn't specifically a consent
5 agreement, I think that would be another
6 understanding a person of skill in the art could
7 have about the way that you could implement what
8 Kleve is trying to accomplish.

9 BY MS. ENTZMINGER:

10 Q. The consent agreement referred to in
11 paragraph 9 of Kleve, is that -- is that the same as
12 the rental agreement referred to in paragraph 38?

13 MR. LU: Objection. Mischaracterizes.
14 Sorry. Go ahead.

15 THE WITNESS: Well, box 206 says "Collect
16 Rental Consent and Agreement." So the two things
17 could be accomplished with one document or they
18 could be separate. I don't think there's a
19 restriction within a person of skill in the art's
20 understanding as to what Kleve discloses.

21 BY MS. ENTZMINGER:

22 Q. Now turning to paragraph 126, so I think
23 that's on the same page.

24 A. Okay.

25 Q. Let's see, so in that first sentence, you

1 described, quote, "Kleve further discloses that when
2 the temporary user's nomadic device receives the
3 virtual key, it can be used to access the vehicle,
4 i.e. the device is implemented to use the eKey."

5 And what I -- I read that correctly,
6 correct?

7 A. I think so.

8 Q. So referring to Kleve, then, I think if
9 you go to the next page at least, you've cited to
10 paragraph 63 and 67 of Kleve, and Kleve at
11 paragraph 67 -- if you want to turn to that, or --

12 A. Okay. I've got it.

13 Q. Okay. At step 508, the temporary user may
14 use their virtual key credential to access the
15 vehicle.

16 So what I -- what I wanted to ask about
17 this particular step 508, is it your understanding
18 that the temporary user has to use Kleve's virtual
19 key to enter the vehicle?

20 MR. LU: Objection. Form.

21 THE WITNESS: I don't recall if I have
22 offered any opinion on that in the declaration or
23 not. Sitting here now, I'd have to give it some
24 thought. If there's some portion of the declaration
25 about accessing, requiring the key to access the

1 vehicle or to unlock it, I'd have to go and think
2 about it.

3 BY MS. ENTZMINGER:

4 Q. Well, when you use the term "access the
5 vehicle," are you referring to entry of the vehicle?
6 I'm trying to understand what that term encompasses.

7 A. It's going to be the same answer. I
8 thought there was some issue that was discussed in
9 one of the declarations. I don't -- you'd have to
10 point me to the paragraph, otherwise I don't -- I'd
11 have to give it some thought.

12 Q. Well, you cite to paragraph 63 and 67. So
13 if you want to take a look at those and let me know
14 your answer, that's fine.

15 MR. LU: Objection to the point -- to the
16 extent there was a question.

17 THE WITNESS: I don't know what the
18 question is.

19 BY MS. ENTZMINGER:

20 Q. I'm trying to understand whether access to
21 the vehicle, as you use it in paragraph 126, and you
22 cite to Kleve paragraphs 63 and 67, whether that
23 encompasses the temporary user entering the vehicle.

24 MR. LU: Objection. Form.

25 THE WITNESS: In the context of 126, I

1 don't see where I've had to ascertain whether access
2 meant entering the vehicle, so I'd have to give it
3 some thought whether that's what it meant, at least
4 in the context of 126. If it comes up in some other
5 paragraph, I'd have to find that in the declaration,
6 but at least as it relates to 126, I don't see where
7 I needed to answer that question.

8 BY MS. ENTZMINGER:

9 Q. Well, with respect to what Kleve discloses
10 at paragraph 63 and 67, Kleve's disclosure of access
11 to the vehicle, can that encompass entry to the
12 vehicle by the temporary user?

13 A. It would be the same answer.

14 Q. Is the answer that you don't know, is the
15 answer that you need to look at the rest of your
16 declaration?

17 A. The answer is I haven't thought of that
18 question in the context of these disclosures in
19 Kleve, at least in paragraph 126, so I'd have to
20 give it some thought. If there's some other portion
21 of the other declaration or some dependent claim
22 where that was an issue that I needed to resolve,
23 then you'd have to point me to that paragraph.

24 Q. Referring to Figure 5 of Kleve -- you can
25 let me know when you're there.

1 A. Okay. I'm there.

2 Q. So at box 508, where it says, "At rental
3 time TU, temporary user, enters vehicle and captures
4 credential with vehicle camera," do you see that
5 box?

6 A. Yes.

7 Q. Is it your understanding that the
8 temporary user utilized the virtual key generated in
9 Kleve to enter the vehicle as it's described in this
10 step?

11 MR. LU: Objection. Form.

12 THE WITNESS: I -- I don't see where --
13 let me -- let me check and see.

14 Okay. Could you repeat the question?

15 BY MS. ENTZMINGER:

16 Q. Sure. So you were looking at Figure 5,
17 step 508, and in that box, pointing to 508, it says,
18 quote, "At rental time TU enters vehicle and
19 captures credential with vehicle camera," end quote.

20 So at that step, at which the TU, the
21 temporary user has entered the vehicle, does the
22 virtual key have to have been generated by that
23 time?

24 A. I don't recall there being a requirement
25 within Kleve that that be the case.

1 Q. And you still have Kleve in front of you,
2 can you turn to Figure 2, please.

3 A. Okay. I'm there.

4 Q. So at 210, step 210 in Figure 2, it says,
5 "Distribute virtual key." At what step indicated in
6 Figure 2 are the rental agreement restrictions
7 assigned to the virtual key?

8 A. I don't think that Kleve requires a
9 specific point in time when that needs to occur.
10 And so if there is some part of Kleve that says when
11 it needs to happen by, I don't recall that
12 particular cite sitting here right now.

13 Q. At step 210 when the system in Kleve
14 distributes the virtual key, is it your
15 understanding that that is distributed to the -- at
16 least to the temporary user at that step?

17 A. That first sentence of paragraph 39
18 describes, at least for that embodiment, that once
19 the server's generated a virtual key, it generates
20 that "virtual key to distribute to the temporary
21 user and the VCS," and it goes on from there.

22 "The virtual key may be sent to, but not
23 limited to, the website for the temporary user to
24 view, sent through an email, or to the temporary
25 user's nomadic device at step 212. The virtual key

1 may also be sent to the vehicle configuring the VCS
2 to enable the keyless drive system for the
3 appropriate temporary user during the given a rental
4 period."

5 Q. So when that -- when Kleve discloses
6 distributing the virtual key to the temporary user,
7 what is sent to the virtual -- to the temporary
8 user?

9 A. I believe there's portions of the
10 declarations across both of them that go into the
11 details of what is distributed. I don't recall what
12 those paragraphs are from the declaration.

13 Q. In the distribution of the virtual key to
14 the temporary user at step 210, does that virtual
15 key include rental agreement restrictions?

16 A. It's going to be the same answer.

17 Q. The same answer, which is what, that it's
18 in the declaration somewhere?

19 A. I don't have the details memorized. To
20 the extent it was relevant to my analysis, it would
21 be included in the declaration. I mean, I can go
22 look for it or you can point me to the paragraphs.
23 I think it -- to the extent it's relevant to any
24 limitation, that's where to find it.

25 Q. So, for example, in paragraph 124 of your

1 declaration, where you indicate that "Kleve
2 discloses or renders obvious a server that generates
3 a virtual key, eKey, and assigned to it the rental
4 agreement restrictions, condition of use of the
5 vehicle, including the rental period," end quote,
6 I'm trying to understand whether that applies to
7 step 210 of Figure 2.

8 Have the rental agreement restrictions
9 you've described in paragraph 124 already been
10 assigned to the virtual key by step 210?

11 MR. LU: Objection. Form.

12 THE WITNESS: The result -- the resulting
13 eKey that's generated will have assigned to it the
14 rental agreement restrictions, the conditions of use
15 of the vehicle, including the rental period.

16 BY MS. ENTZMINGER:

17 Q. Okay. But also what is distributed to the
18 temporary user at 210, does that include the rental
19 agreement restrictions assigned by the server?

20 MR. LU: Objection. Form.

21 THE WITNESS: For the eKey that is
22 distributed to the temporary user, it would have at
23 least the eKey, and that would have at least
24 assigned to it rental agreement restrictions,
25 conditions of use of the vehicle, including the

1 rental period, and then there's potentially other
2 information that's also distributed, and that
3 potentially goes to other limitations of other
4 claims.

5 BY MS. ENTZMINGER:

6 Q. Now, at -- is it your opinion that the
7 virtual key enables the temporary user to operate
8 the vehicle during the agreed-upon rental period?

9 A. Let's see. I'm trying to find a
10 limitation where that is specifically required. I
11 don't see it -- the word "operate." Hold on. I
12 don't recall if that was a characterization I
13 provided for Kleve. I'd have to see if that's a
14 requirement of some claim or not.

15 Q. Well, do you agree that the virtual key is
16 only operable during the rental period set forth in
17 the parties' rental agreement?

18 A. Is only operable? I mean, certainly the
19 temporary user can only use the vehicle during the
20 rental period.

21 Q. But specifically the virtual key, that the
22 virtual key is only operable during the rental
23 period is set forth in the parties' rental
24 agreement?

25 MR. LU: Objection. Form.

1 THE WITNESS: It's going to be the same
2 answer.

3 BY MS. ENTZMINGER:

4 Q. Well, you answered with respect to the
5 temporary user being able to use -- use the vehicle.
6 I'm asking whether the virtual key is only operable
7 during the rental period set forth in the parties'
8 rental agreement.

9 A. You'd have to --

10 MR. LU: Asked and answered.

11 THE WITNESS: -- describe, then, what that
12 specifically means. If your definition of operable
13 is that it's only useable for the vehicle to allow
14 the user to use the vehicle during the rental
15 period, then that would be the purpose of the eKey.

16 BY MS. ENTZMINGER:

17 Q. Can the temporary user operate the vehicle
18 after the rental period has expired?

19 A. Not unless there is permission given by
20 the owner. So some additional negotiation takes
21 place after the fact, but the -- the temporary user
22 should not be able to use the vehicle beyond the
23 rental period.

24 Q. Is there an exit process described by
25 Kleve, disclosed by Kleve after the rental period

1 has expired?

2 A. I don't have Kleve memorized. I don't
3 recall if Kleve says something about this exit
4 period as you've characterized it.

5 Q. Is the owner able to discontinue use of
6 the virtual key before the expiration of the rental
7 period?

8 A. If you're asking that question in the
9 context of Kleve, I don't recall what Kleve says for
10 that scenario. I don't have it memorized.

11 Q. So if you'd turn to paragraph 158 of your
12 declaration.

13 A. Okay.

14 Q. So you have quoted language there from
15 Kleve at paragraph 49, quote, "Once the temporary
16 user has completed the rental period and returned
17 the vehicle to the appropriate drop-off, the virtual
18 key may terminate, allowing the system to reset any
19 private information stored on the vehicle-based
20 computing system."

21 Do you see that?

22 A. I do.

23 Q. And is this virtual key terminating
24 contemporaneous with the completion of the rental
25 period, or is that subsequent to the completion of

1 the rental period?

2 MR. LU: Objection. Form.

3 THE WITNESS: Could you repeat the
4 question.

5 BY MS. ENTZMINGER:

6 Q. Sure. Referring to the language I quoted
7 there, and specifically what you have italicized and
8 bolded, "the virtual key may terminate," I was
9 asking whether that virtual key terminating is
10 contemporaneous with the completion of the rental
11 period or is subsequent to the completion of the
12 rental period.

13 MR. LU: Objection. Form.

14 THE WITNESS: I think Kleve describes the
15 idea of the virtual key terminating, and then
16 describes in various places what happens after
17 termination. The virtual key termination is
18 associated with, for example, the end of the rental
19 period. I don't see that Kleve says much more than
20 that. Maybe I'm, again, not recalling some
21 additional portion of Kleve that could be relevant
22 to that question.

23 BY MS. ENTZMINGER:

24 Q. Well, is it a requirement that the virtual
25 key terminate upon completion of the rental period?

1 MR. LU: Objection. Form.

2 THE WITNESS: Again, that question lacks
3 context. Is it a requirement in Kleve that the
4 virtual key terminate? I mean, based on looking for
5 the word "terminate" through Kleve, it's describing,
6 for example, at the end of paragraph 49, "Once the
7 temporary user has completed the rental period and
8 returned the vehicle to the appropriate drop-off,
9 the virtual key may terminate, allowing the system
10 to reset any private information stored on the
11 vehicle-based computing system."

12 So it's describing termination of the
13 virtual key in conjunction with the completion of
14 the rental period, and then describing what can be
15 done after that. And it really is -- it can be done
16 immediately after it.

17 BY MS. ENTZMINGER:

18 Q. But when you say it can be done
19 immediately after it, are you referring to the
20 virtual key terminating could be done immediately
21 after the completion of the rental period?

22 A. No, the resetting of the private
23 information. So the statement, and I think part of
24 it's quoted in my paragraph 158, talks about once
25 the virtual key has been terminated, it allows the

1 system to reset any private information. I mean,
2 that can happen immediately after termination of the
3 virtual key.

4 Q. Is the virtual key termination automatic
5 at the completion of the rental period?

6 A. I don't recall. I don't know if -- let's
7 see. Kleve doesn't use the word "automatic" in that
8 context, but the idea that at the end of the
9 termination -- at the end of the rental period, the
10 eKey is not useable for that vehicle is I think an
11 understanding a person of skill in the art would
12 have.

13 So, I mean, this goes to the very simple
14 idea that the eKey allows the temporary user to use
15 the vehicle during the rental period and not beyond
16 the rental period.

17 Q. So in this quoted language that you have
18 from Kleve in your declaration at 158, where it
19 says, "has completed the rental period and returned
20 the vehicle to the appropriate drop-off," is it your
21 understanding that the virtual key terminates after
22 the drop-off?

23 A. I think Kleve contemplates different
24 scenarios, just like a person of skill in the art
25 would understand that there are various scenarios

1 for how you handle the end of a rental period. It's
2 not a foreign concept, and we rent cars generally.

3 I think in the context of Kleve, it -- at
4 least one understanding of the use of the eKey
5 during the rental period is there can be other
6 conditions for the end of the rental period, but
7 it's a generally understood proposition of Kleve
8 that the eKey aligns with the end of the rental
9 period. So the eKey is restricted in its use beyond
10 the rental period.

11 Q. You indicated that the system resetting
12 private information that's stored on the
13 vehicle-based computing system, that that happens
14 immediately after the virtual key terminates. Did I
15 understand that correctly?

16 A. It could be. I mean, the understanding a
17 person of skill in the art would have about how you
18 could implement a system like that would be once the
19 conditions had been established for the termination
20 of the virtual key, that that's part of the clean-up
21 process that happens.

22 Q. But Kleve doesn't say it's immediate after
23 the virtual key termination that the system resets
24 private information stored on the vehicle computing
25 system, correct?

1 A. I mean, the text speaks for itself. But I
2 think the general idea that it would happen such
3 that a subsequent temporary user would not have
4 access to the private information of the -- or first
5 or the preceding temporary user is what you're
6 essentially trying to achieve. So there's some
7 fairly basic common sense that a person of skill in
8 the art would have and apply to what Klevé teaches.

9 Q. So you could achieve that goal of not
10 having that information available to a subsequent
11 user without that information being immediately
12 reset after the virtual key termination, correct?

13 A. Sure. So there would be other solutions
14 to achieving that goal that would be obvious to a
15 person of skill in the art.

16 MS. ENTZMINGER: Why don't we take another
17 ten-minute break. And maybe, I don't know, Quincy,
18 if you want to discuss whether we need a lunch break
19 or not.

20 THE VIDEOGRAPHER: Okay. We'll go off the
21 record here. Off the record. Time is now
22 11:29 a.m.

23 (Recess.)

24 THE VIDEOGRAPHER: Back on the record.
25 Time now, 11:41 a.m. Counsel.

1 BY MS. ENTZMINGER:

2 Q. Doctor, if you could turn to paragraph 170
3 of your declaration, please?

4 A. Okay.

5 Q. Now, in your declaration at paragraph 170,
6 you indicated that Kleve discloses that frequent
7 destinations are a vehicle setting, and that a
8 location in the form of frequent destinations is
9 indicative of settings made during use with the
10 eKey.

11 What I'm trying to understand is, is it
12 your understanding that Kleve's disclosure of
13 frequent destinations is a setting made during use
14 with the eKey?

15 A. Frequent destinations are a setting that's
16 indicative of settings made during use with the
17 eKey. I'm not sure what you're asking.

18 Q. Well, is the -- so you cite to, quote,
19 "frequent destinations" from Kleve. Is that an
20 example of a setting made during use with the eKey?

21 A. Can you repeat the question? I'm trying
22 to understand what you're asking, and I'm not sure
23 I'm following.

24 Q. Frequent destinations, as you quoted here
25 from Kleve in your paragraph 170, is that an example

1 of a setting made during use with the eKey?

2 A. It is as it says, it's -- the location
3 aspect of the destination is indicative of settings
4 made during use with the eKey.

5 Q. The location aspect, what does that refer
6 to?

7 A. So the location aspect of the fact that
8 there are frequent destinations.

9 Q. Now, are these frequent destinations, are
10 these sent by the server to the vehicle?

11 A. That was not my -- in Kleve, that was not
12 my recollection. Let me look at paragraph 50.

13 Okay. So the -- the frequent destinations
14 are based on information that's provided by the
15 vehicle as to location.

16 Q. So is that a yes or no as to whether these
17 are sent by the server to the vehicle?

18 A. It's the answer I gave.

19 Q. Well, you just told me what it was based
20 on. I'm asking a question whether or not these
21 frequent destinations are sent by the server to the
22 vehicle.

23 MR. LU: Objection. Asked and answered.

24 THE WITNESS: So the frequent destinations
25 are sent by the server. They're indicative of

1 location information that was provided by the
2 vehicle to the server.

3 BY MS. ENTZMINGER:

4 Q. And is it in paragraph 50 of Kleve that
5 Kleve discloses that those frequent destinations are
6 sent by the server to the vehicle?

7 A. Not in paragraph 50. Maybe it's 76. Let
8 me check.

9 Sorry, could you repeat the question.

10 MS. ENTZMINGER: Madam Court Reporter,
11 would you please repeat the question for the
12 witness.

13 (Record was read.)

14 THE WITNESS: Yes, it's part of what 50
15 says.

16 BY MS. ENTZMINGER:

17 Q. And in paragraph 50 of Kleve, the first
18 sentence indicating "The temporary user may have
19 vehicle preset settings applied when renting a
20 vehicle," is -- or are the frequent destinations
21 preset settings according to Kleve?

22 A. It goes on from there, "The enhancements
23 may include but not limited to providing the
24 temporary user with stored frequent destinations
25 sent to the VCS, radio preset, seat, and mirror

1 positions and ambient lighting preferences."

2 Q. Okay. I'm just asking are the frequent
3 destinations preset settings?

4 MR. LU: Objection. Asked and answered.

5 THE WITNESS: That's what it says.

6 BY MS. ENTZMINGER:

7 Q. And does Kleve disclose when the user
8 presets those settings?

9 MR. LU: Objection. Form.

10 THE WITNESS: It doesn't limit the
11 identity of those preset settings to something
12 that's determined --

13 MR. LU: Doctor, I think your answer got
14 cut off.

15 THE WITNESS: Okay. The answer was the
16 identification of the presets are not limited to
17 determination by a user.

18 BY MS. ENTZMINGER:

19 Q. With respect to -- so you read the second
20 sentence of Kleve at 50, describing these as stored
21 frequent destinations. Where are they stored before
22 they're sent to the VCS?

23 A. I don't think Kleve identifies a
24 constraint on where they can be stored, or if
25 they're stored or generated on the fly. I think

1 that at least in this paragraph, it doesn't identify
2 constraints as to where, if, how, or when they're
3 stored before they're sent to the VCS.

4 Q. So Kleve doesn't preclude the temporary
5 user presetting and storing the frequent
6 destinations on their phone, for example?

7 A. I think that is one understanding a person
8 of skill in the art could have, is to the source of
9 the preset settings. It could obviously be other
10 sources that could be based on recommendations.

11 Q. Let's take a turn to your other
12 declaration. The last four digits of this IPR are
13 1167. Do you have that declaration in front of you,
14 Dr. Almeroth?

15 A. Yes.

16 Q. Let's see, if you could turn to
17 paragraph 132, please.

18 A. Okay.

19 Q. So you see here that Kleve discloses using
20 a matrix bar code as the virtual key being
21 recognized by the VCS; is that correct?

22 A. I see that.

23 Q. And further, that the vehicle capturing an
24 image of a matrix bar code displayed on the
25 temporary user's mobile device is an example of the

1 vehicle's wireless communication circuitry receiving
2 coded data from the mobile device when using the
3 eKey, correct?

4 A. I think that's one example that I
5 identify.

6 Q. And then if you could turn to
7 paragraph 139, please?

8 A. Okay.

9 Q. So the matrix bar code used as a virtual
10 key, this virtual key includes restrictions on the
11 types of use of the vehicle by the temporary user
12 using the virtual key; is that correct?

13 A. That is one understanding a person of
14 skill in the art would have.

15 Q. And Kleve discloses that the owner may set
16 user restrictions, and here you quote from paragraph
17 40 of Kleve, correct?

18 A. I do mention that the owner may set user
19 restrictions and do cite to paragraph 40.

20 Q. And it's quoted from paragraph 40,
21 correct?

22 A. There are quotes in that sentence from
23 paragraph 40.

24 Q. Right. Well, quote, "Owner may set user
25 restrictions," end quote. That is taken from Kleve

1 paragraph 40, correct?

2 A. It is.

3 Q. And Kleve at paragraph 40 describes step
4 214 where the owner may set user restrictions,
5 correct?

6 A. That's the paragraph we talked about
7 before. That is the first part of paragraph 214.

8 Q. Well, is that a correct statement, that at
9 step 214, Kleve describes the user restrictions or
10 the owner may set user restrictions?

11 A. It's the first sentence, it says, "At step
12 214, the owner may have access to control usage of
13 the vehicle being rented by the temporary user."
14 And then it goes on to say, "The owner may set user
15 restrictions by use of the website or nomadic
16 device."

17 Q. And this step 14, this proceeds after the
18 virtual key has been distributed, correct?

19 MR. LU: Objection. Form.

20 THE WITNESS: I think this is the
21 discussion you asked about earlier, and I would
22 refer you to the responses that I gave earlier,
23 which generally are that Figure 2 allows for either
24 overlap of some steps or reordering of some steps.
25 There are some temporal conditions, those are

1 specified in various paragraphs. You asked me about
2 those. So it's going to be the same kind of answers
3 about the ordering as it relates to Figure 2 of
4 Kleve.

5 BY MS. ENTZMINGER:

6 Q. Step 214 proceeds after the virtual key
7 has been generated; isn't that correct?

8 A. I can envision scenarios where that is the
9 case, but I don't know that Kleve has restrictions
10 or strict temporal limits on 214 having occurred
11 after the generation of the key.

12 Q. Well, the matrix bar code in particular
13 that you had cited in paragraph 132, does that get
14 generated by Kleve's system before step 214?

15 A. I do not recall the answer to that
16 question or specifically a portion of Kleve that
17 describes when that bar code has to be generated.

18 Q. So it's possible the matrix bar code could
19 be generated after step 214?

20 A. To a person of skill in the art's
21 understanding, I think that's one of the ways that
22 they would understand Kleve to be describing a
23 system, but of course, not the only embodiment or
24 use of Kleve's invention.

25 Q. And this matrix bar code is an example of

1 the coded data that's recited in claim one; is that
2 right?

3 A. It's the representation of the coded data.
4 I think if you're asking essentially about
5 paragraph 133, that's what I've identified as I
6 think one of the three possibilities for what the
7 encoded data could be as described in Kleve.

8 Q. What are the two other possibilities of
9 what Kleve describes could be coded data?

10 A. The -- the other one is in paragraph 135,
11 so the temporary user identification and virtual key
12 sends an encrypted message to the VCS. That
13 encrypted message is basically a type of coded data
14 that would meet the requirements of the claim.

15 And then the next one, in paragraph 136,
16 which is describing the combination of Kleve using
17 the particular technique and patent.

18 Q. With respect to the matrix bar code
19 example of coded data, that coded data includes
20 privileges assigned by an owner of the vehicle; is
21 that correct?

22 A. That -- the matrix bar code would include
23 information sufficient to meet the requirements of
24 at least 1[e], and think it's the same for the other
25 dependent claims in this declaration -- sorry, the

1 independent claims in this declaration. The wording
2 was slightly different for the claim language than I
3 think what you had said.

4 Q. Well, does the matrix bar code example you
5 cited from Kleve include privileges assigned by an
6 owner of the vehicle?

7 A. So to be clear, the opinion in 138 and 139
8 I think is just describing what's required by 1[e],
9 which doesn't say where the privilege settings have
10 to originate. I think as we discussed earlier with
11 Kleve, there are different types of restrictions or
12 privileged settings using the language of the '659
13 patent. One example of where they can be set is --
14 from the owner that is, I described in earlier
15 question and answers, it's not limited to kind of
16 that step 214.

17 Q. Okay. But at least one example is the
18 matrix bar -- the matrix bar code you cited includes
19 privileges assigned by an owner of the vehicle,
20 correct?

21 A. I think there is an embodiment where your
22 characterization of what Kleve discloses is one of
23 the ways that a person of skill in the art would
24 understand how Kleve could be used, but not the only
25 one, obviously.

1 Q. And those privileges assigned by an owner
2 of the vehicle, that would include rental agreement
3 terms negotiated between the owner and the temporary
4 user; is that correct?

5 A. Could you repeat the question.

6 Q. Yes, the privileges assigned by an owner
7 of the vehicle included in the matrix bar code,
8 would that include rental agreement terms negotiated
9 between the owner and the temporary user?

10 A. So I could envision a scenario that would
11 be consistent with Kleve that would cover the
12 characterization that you just described. I don't
13 think it's necessarily the one that I've identified
14 in the report.

15 Q. So let's turn, then, to paragraph 152. In
16 the second paragraph -- sorry, second sentence of
17 paragraph 152, you indicated Kleve -- "For example,
18 Kleve discloses the rental request may include terms
19 negotiated between the owner and the temporary
20 user."

21 And is that example an example of a
22 privilege assigned by an owner of the vehicle for
23 the matrix bar code virtual key?

24 A. So there are different disclosures within
25 Kleve. Again, I don't think Kleve limits where the

1 assignments can happen from, so certainly one
2 example is that it could be assigned by an owner,
3 another example is where it could be assigned by an
4 administrator.

5 And so Kleve, in terms of the source of
6 where these restrictions can come from, I think,
7 again, is open-ended, and a person of skill in the
8 art would understand that there are multiple
9 possibilities disclosed.

10 Q. Well, apart from where they can come from,
11 are they included in the virtual key, for example,
12 the matrix bar code that you've described? Are the
13 rental agreement terms included in that virtual key?

14 A. Irrespective of the source of the
15 privileges, they would ultimately be part of the
16 coded data, and then the reasons for that are set
17 forth in the declaration. There's a couple of
18 different scenarios, and there's an obviousness
19 opinion that are all part of what's in the
20 declaration.

21 Q. So further in paragraph 152 -- yeah, that
22 next sentence, you say, quote, "These terms may
23 include vehicle restriction limits initially set by
24 the owner at the beginning of the rental term," end
25 quote.

1 Are those vehicle restriction limits
2 included in the coded data that is part of the
3 matrix bar code that you've described?

4 A. Yes. They would be, for the reasons I've
5 described in the declaration.

6 Q. With respect to the beginning of the
7 rental term, is that the beginning of the parties'
8 agreed upon rental period?

9 A. I'm not sure where you're pulling those
10 terms from. I guess there's rental term.

11 Q. Yeah, sorry, that was the exact same
12 sentence. I was just quoting again from a clause of
13 that same sentence.

14 A. And sorry, I -- it seemed like your
15 question was --

16 Q. It's the first sentence in paragraph 152.

17 A. Right. I see the term "rental term," and
18 you were asking if it's the same as rental period?

19 Q. So the sentence says, "These terms may
20 include vehicle restriction limits initially set by
21 the owner at the beginning of the rental term," end
22 quote.

23 So I was asking about the beginning of the
24 rental term. Is that referring to the beginning of
25 the rental period agreed to by the parties?

1 A. That is one source of where the limits can
2 be set, and this is that same sentence you asked
3 about earlier where I had talked about set as
4 being -- that's when they're enforced. That's when
5 they're installed and used. It's at the beginning
6 of that rental term or rental period.

7 Q. Well, this is actually quoting from
8 paragraph 43, not 40. So this is a different
9 paragraph of Kleve.

10 A. It's describing the same thing. Yeah.
11 It's -- it's the full sentence, "If the rental
12 period is still within the agreed-upon rental
13 period, the system may carry on to monitor the
14 vehicle allowing the owner continued control of the
15 vehicle with the use of vehicle restriction limits
16 initially set by the owner at the beginning of the
17 rental term."

18 And so, initially set by the owner at the
19 beginning of the rental term is referring to box 214
20 or step 214. That's when the -- those restrictions
21 are enforced.

22 Q. So this language you've quoted here from
23 Kleve at paragraph 43, when it says, "initially set
24 by the owner at the beginning of the rental term,"
25 so you're saying that that is referring to box 214?

1 Is that my understanding? Is that a correct
2 understanding?

3 A. It's referring to what's set at -- in box
4 214, but then where those restrictions are part of
5 what was negotiated between the owner and the
6 temporary user. So there's really the two steps.
7 So it's referring to what was set at the time of the
8 rental period or rental term, and what was
9 negotiated and established as restrictions or
10 privileges during the negotiation process.

11 Q. Well, this language "initially set by the
12 owner," is there a -- I'm trying to understand. If
13 it can be set -- if these restrictions can be set by
14 the owner before step 214, why the quoted language
15 you have here is "initially set by the owner"? Do
16 you have an understanding to reconcile that?

17 A. Yeah, sure. I think it goes back to the
18 same confusion that you had earlier, that there are
19 restrictions or privileges that can be established
20 during the negotiation of the rental agreement.
21 They could actually just be requirements of the
22 owner. The source of those restrictions or
23 privileges can come from a variety of different
24 sources, and ultimately, they are what are included
25 in the eKey, and then ultimately, what's included in

1 the coded data as well. And those restrictions end
2 up being enforced or implemented or set at the time
3 that the rental period becomes.

4 It's pretty straightforward in the sense
5 that you can have this set of restrictions that are
6 not really meaningful for the vehicle, given that
7 the temporary user has not started using the
8 vehicle. So the idea is that when the temporary
9 user uses the vehicle, that's when the restrictions
10 that have been identified can be set.

11 I even think you had some question about,
12 you know, does it have to be just the ones that were
13 identified earlier, and I said, well, you know,
14 maybe the owner can set additional restrictions that
15 weren't agreed to. I mean, Kleve doesn't require or
16 stipulate or limit where the restrictions can come
17 from or ultimately what's implemented. But there
18 would be examples in Kleve where there were at least
19 restrictions or privileges that are initially
20 determined that are part of the eKey, and that are
21 ultimately also provided by the temporary user as
22 part of the coded data.

23 Q. So that would include rental agreement
24 terms included in the coded data in the matrix bar
25 code, correct?

1 A. It could. That's one example of
2 information that could be included in that coded
3 data, and it would be relevant to requirements of at
4 least some of the claims.

5 Q. And would it be all of the rental
6 agreement terms included in the coded data in the
7 matrix bar code?

8 MR. LU: Objection. Asked and answered.

9 THE WITNESS: Yeah, it's the same kind of
10 thing. It could be all of them, it could be some of
11 them, it could be none of them. I mean, Kleve
12 allows for those restrictions to be in place. I
13 don't recall there being someplace in Kleve that
14 said it had to be all of them or some of them, or
15 whether Kleve even says, well, maybe there's an
16 agreement that the only thing that's included is the
17 rental period.

18 So I think Kleve is fairly open-ended,
19 though a person of skill in the art would understand
20 some of the descriptions and embodiments are
21 consistent with how I've described them. And I've
22 described the ones I think are most relevant to the
23 claims at issue in the IPR.

24 BY MS. ENTZMINGER:

25 Q. So the restrictions described in paragraph

1 40, where step 214 is described by Kleve, those
2 restrictions, it's your opinion, are examples of
3 privilege settings included in the coded data of the
4 virtual key, correct?

5 A. They are some of the examples, but that's
6 not all of what I point to. And then, again, the
7 source of what's actually set or implemented comes
8 from earlier in the process.

9 Q. So those restrictions described at
10 paragraph 40 by Kleve, those are set earlier in the
11 process, is that fair to say?

12 A. They could be.

13 MR. LU: Objection. Form.

14 BY MS. ENTZMINGER:

15 Q. And then they're reset at step 214, is
16 that fair to say?

17 A. No. And I understand the potential
18 confusion by the word "set" and what the claim
19 requires, you know, it uses the term "set." But
20 when Kleve uses the word "set" for step 214, I
21 believe a person of skill in the art would
22 understand that's when the restrictions are
23 implemented or that they're effected, that they're
24 put into place.

25 And that makes sense, because you're not

1 going to put in the user -- the restrictions
2 associated with one temporary user outside of that
3 temporary user's rental period, like maybe somebody
4 else is a temporary user for that vehicle, while a
5 second temporary user is negotiating restrictions or
6 use.

7 And so the point would be that there can
8 be restrictions that are identified in the
9 negotiation. They could just be restrictions that
10 are identified by the owner. And so whatever
11 sources of those restrictions are, there's
12 disclosures in Kleve that they become part of the
13 eKey and then are ultimately implemented in the
14 vehicle, that they're set in the vehicle at the time
15 of the rental period, and they're also part of the
16 coded data that's provided by the mobile device.
17 And one example of the mechanism -- one of the three
18 examples of that mechanism that I identified was via
19 the bar code, QR code.

20 Q. Now, I'm trying to understand this again
21 with respect to this particular IPR. Is it your
22 opinion that the virtual key in Kleve is always
23 generated after the rental agreement?

24 MR. LU: Objection. Asked and answered.

25 THE WITNESS: The understanding of Kleve

1 with respect to this IPR is no different than a
2 person of skill in the art's understanding of Kleve
3 with respect to the '188 IPR. It's exactly the same
4 understanding. And you asked about that extensively
5 earlier in the context of the '188 IPR. My opinions
6 that I expressed earlier apply the same to the '659
7 IPR.

8 BY MS. ENTZMINGER:

9 Q. But you didn't include that particular
10 opinion in this IPR declaration, correct?

11 A. I'm not sure what opinion you're referring
12 to. I think I've consistently described Kleve and
13 its relevance in both IPR declarations, and to the
14 extent there was some clarification that you needed,
15 I think I provided that to you in answer to your
16 questions as part of this deposition.

17 Q. I appreciate that. I'm just trying to
18 clarify for the record that that statement in the
19 '981 IPR declaration, that Kleve's -- virtual key is
20 always generated after the rental agreement, that
21 doesn't appear in this IPR declaration, correct?

22 A. I -- I mean, the declarations speak for
23 themselves as to what statements specifically
24 appear. The opinions that I have with respect to
25 what a person of skill in the art would have about

1 Kleve are not inconsistent between the two. There
2 may be some additional opinions about what a person
3 of skill in the art would understand given the
4 slightly different scope and claims between the two
5 IPRs, but if you took the union of the two
6 declarations and my opinions about Kleve, they would
7 apply equally to both declarations.

8 Q. Well, if it's correct that that statement
9 regarding the virtual key in Kleve being always
10 generated after the rental agreement, that that does
11 not appear in this IPR declaration, the 1167, then
12 is it fair to say it's not germane to your opinions
13 for the 1167 IPR?

14 A. Sorry, could you repeat the statement that
15 you think that you're asking about?

16 Q. The statement that I think I'm asking
17 about? So the statement with respect to the virtual
18 key in Kleve being always generated after the rental
19 agreement.

20 A. And -- and so I don't understand -- I
21 mean, I had -- if -- let me start over.

22 I don't understand. I thought I had
23 provided some answers to questions about the
24 temporal requirements and the flexibility of Kleve
25 in the context of the '188 patent. That would

1 apply -- that understanding of Kleve would apply to
2 the '659 patent IPR as well.

3 Q. Okay. I'm just asking with respect to
4 that particular opinion. You have the statement in
5 the '981 declaration, "Kleve discloses that the
6 virtual key is always generated after the rental
7 agreement," end quote. That does not appear in the
8 1167 IPR.

9 A. Right, so -- so where were you reading
10 from for that statement?

11 Q. From the '981 declaration.

12 A. What paragraph?

13 Q. Oh, sure. 120.

14 A. I don't think that's right. Hold on.

15 All right. So you're asking about the
16 statement from the '188 declaration, paragraph 120,
17 "Moreover, Kleve discloses that the virtual key is
18 always generated after the rental agreement." And
19 you're saying that I didn't make that same statement
20 with respect to the '659 declaration. Okay.

21 So the point that I was making in
22 paragraph 120 of the '188 declaration was based on,
23 I think it was paragraph 39 of Kleve, and that's
24 what it says in that example, which is I think what
25 my testimony was when you asked me about

1 paragraph 120 earlier. Generally, that statement
2 will be true in the context of the '659 patent at
3 well. But that doesn't change any of the opinions
4 that are in that '659 declaration.

5 Q. Okay. But that -- that statement being
6 omitted, not existing in the 1167 IPR declaration,
7 that's not a mistake, correct?

8 MR. LU: Objection. Form.

9 THE WITNESS: I mean, the declarations are
10 not identical, so it's not going to use the exact
11 same phrasing. It's -- it's my opinion for both
12 declarations that paragraph 39 describes an
13 embodiment, where in that embodiment it's always the
14 case that you have to have the consent agreement
15 before the system, the server can generate the
16 virtual key to distribute to the temporary user and
17 the VCS.

18 So all of the characteristics that I
19 described about the different options that Kleve
20 discloses and then the relevance of step 214 apply
21 the same to a person of skill in the art's
22 understanding as it relates to the '659 patent.

23 BY MS. ENTZMINGER:

24 Q. So same question with respect to the
25 operability of the virtual key. For this IPR, is it

1 your opinion that the virtual key is only operable
2 during the rental period set forth in the parties'
3 rental agreement?

4 A. It's going to be the same answer. The
5 point here is that it allows the temporary user to
6 use the vehicle during the rental period. That's
7 kind of the basic understanding a person of skill in
8 the art would have. There are other options that I
9 think Kleve describes about ways in which that eKey
10 can be used with other information. You know, like
11 there's likely a scenario about what happens if a
12 user returns a car late, or they're driving.

13 So I think that the understanding about
14 the eKey and the restrictions that it applies to is
15 going to be consistent across all of those different
16 scenarios, even if there are exceptions about, you
17 know, the user's driving a hundred miles an hour
18 down the freeway trying to get back to return the
19 car. What does a person of skill in the art expect
20 Kleve's system to do in a situation like that.

21 So all of these different options I think
22 are fairly straightforward considerations that a
23 person of skill in the art would have about the
24 relationship between the eKey and its restrictions
25 on the rental period.

1 Q. And with respect to the rental agreement
2 restrictions in the virtual key in Kleve, are those
3 implemented by the time that the temporary user
4 accesses the vehicle?

5 A. It would depend on the hypothetical
6 scenario of when they attempt to access the vehicle.
7 I think the disclosures of Kleve say that those
8 restrictions would be enforced during the rental
9 period, and so if a user tried to access the vehicle
10 before the rental period, those restrictions would
11 not be in effect. But presumably the temporary user
12 would not be able to -- to use their eKey before the
13 rental period began.

14 Q. Well, referring back to Kleve, then,
15 Figure 5, the box we looked at before, 508, are the
16 restrictions in the virtual key implemented by that
17 step 508 in Figure 5?

18 A. So that says at rental time, so that would
19 presumably be at the rental period, so you're within
20 the window that's covered. Those restrictions, I
21 think a person of skill in the art would understand
22 that those restrictions would be in place at that
23 point.

24 Q. Would that be the same, then, for box 506,
25 where it says, "At rental time vehicle owner, V0,

1 sends credential to vehicle"?

2 A. It depends on when -- so at rental time --
3 sorry. Let me not think out loud.

4 If it's within the rental time, they would
5 also be enforced, but it also makes sense to be able
6 to send those restrictions for purposes of
7 confirming what the restrictions are. There's --
8 this idea that if the restrictions are in place
9 there's no need to provide restrictions, I think, is
10 not accurate.

11 Q. Okay. You're using a terminology that's
12 different, "in place." I was asking about
13 implemented. Are they implemented by that time,
14 implemented, to use the term that you had utilized,
15 are the restrictions implemented as of step 506 at
16 rental time, vehicle owner, VO, sends credential to
17 vehicle?

18 A. I think either are options. If the -- if
19 the rental -- sorry. If the temporary user has not
20 accessed the vehicle, they may be enforced or they
21 may not be. It really doesn't matter since the car
22 isn't being -- or, sorry the vehicle isn't being
23 used.

24 So they could be in place, and then the
25 step 506 uses the transmission of the restrictions

1 or privileges to confirm what will be enforced in
2 the vehicle; or if you're already within the
3 vehicle, the rental period, they could already be
4 enforced.

5 So as an example, you could have a two-day
6 rental, and at hour 24, the temporary user tries to
7 access the vehicle. So they've wasted the whole
8 first day.

9 So your question of whether or not those
10 restrictions are enforced, are in effect, are
11 implemented, at that time, 24 hours in, Kleve allows
12 for both options. I think a person of skill in the
13 art would understand if the car is not being used
14 the restrictions could be there or could not be
15 there. They could be enforced or not enforced.
16 What really matters is when the rental vehicle is
17 being used that those restrictions are in place.

18 So a person of skill in the art would
19 understand that there's some flexibility even within
20 the scope of what Kleve discloses on how some of the
21 implementation details -- or what the implementation
22 details could be, and those boil down to design
23 choices for -- for implementation.

24 Q. So is that the same with respect to step
25 210 of Figure 2, that those restrictions may or may

1 not be enforced at that time, both are possible?

2 A. So at 210 -- well, one of the scenarios
3 that you haven't asked about is whether or not the
4 rental period is in effect as of 210. Like, I want
5 to rent the car right now, and so the answer is,
6 yes, and then you go through the process of setting
7 up what's required to do the rental.

8 I -- I don't think it would be common to
9 do a retroactive rental, but I could envision that I
10 want to rent the car right now, the rental consent
11 and agreement have been signed. Maybe it's legally
12 binding at that point that the rental period has
13 started. But the system still has to go through the
14 steps of generating the key and distributing the
15 key, and then the user getting access to the
16 vehicle, to kind of use the terminology you used
17 earlier.

18 I mean, I think all of those are kind of
19 one-off scenarios for what a person of skill in the
20 art would understand about the disclosures in Kleve
21 and how some of these steps could actually be
22 overlapping or occur in a different order, depending
23 on the particular use scenario.

24 Q. So with respect to Figure 2, step 210, the
25 restrictions being enforced by that point or not,

1 are you saying that it depends on whether the rental
2 time has started?

3 A. That's at least one factor. I mean, I
4 could think of a scenario where the rental period
5 has not started and maybe the vehicle has a
6 different temporary user. You certainly wouldn't
7 want restrictions agreed to by temporary user No. 2
8 to suddenly be put in force for temporary user No. 1
9 while they're still in their rental period.

10 I think it's -- again, it's fairly common
11 sense in terms of keeping the rental periods for the
12 different respective temporary users independent or
13 not inconsistent with what's either in the rental
14 agreement or the consent or the agreed-to
15 restrictions.

16 MS. ENTZMINGER: Okay. It looks like
17 we've been going about an hour since our last break.
18 How long did you all want to take for a lunch
19 period?

20 THE WITNESS: I'll leave it up to the
21 court reporter. I've got -- I'm just going to snack
22 away, so I can do as short as 30 minutes.

23 THE VIDEOGRAPHER: Want me to go off the
24 record, Brenda?

25 MS. ENTZMINGER: Sure. That's fine.

1 THE VIDEOGRAPHER: Off the record. Time
2 now 12:33 p.m.

3 (Recess.)

4 THE VIDEOGRAPHER: Back on the record.
5 Time is now 1:06 p.m. Counsel.

6 MS. ENTZMINGER: Thank you.

7 BY MS. ENTZMINGER:

8 Q. Dr. Almeroth, would you turn to
9 paragraph 218 of that same 1167 declaration, please?

10 A. Okay.

11 Q. Now, here, as coded data recited by claim
12 one, you identify Mikan's disclosure of a secure
13 identifier 407; is that correct?

14 A. Give me a second to look.

15 Could you repeat the question.

16 Q. Sure. As coded data recited by claim one,
17 you identify Mikan's disclosure of a secure
18 identifier 407, correct?

19 A. It is what Mikan calls a secure
20 identifier, but it has fairly specific aspects of it
21 that make it a secure identifier. You know, it's a
22 digital signature associated with the wireless
23 device. There's -- there's more specific
24 information that's included as part of Mikan's
25 secure identifier, so it's not just any secure

1 identifier.

2 Q. Okay. So it's data comprised within
3 secure identifier 407, is that fair to say?

4 A. No. I think the secure identifier is only
5 part of it.

6 Q. What's the other part?

7 A. All of what's described in this paragraph,
8 so the idea of being able to authenticate the key
9 205A through C via the secure I.D. check. The
10 secure identifier 407 is part of that, but it also
11 has to be coded data such as the digital signature
12 associated with the wireless device. And then it
13 has to be also part of something that's encrypted.

14 Q. So the encrypted digital signature of the
15 wireless device, that is an example of coded data as
16 recited in claim one?

17 A. No, I think that oversimplifies what
18 Mikan's disclosures are that I've pointed to as
19 being the coded data.

20 Q. The secure identifier 407 that you pointed
21 to in paragraph 218, that is disclosed by Mikan as
22 part of the wireless -- or a wireless device that's
23 used to access or operate a vehicle; is that
24 correct?

25 A. I don't recall what Mikan said

1 specifically about 407, but it says what it says,
2 and, again, it's really only part of it.

3 Q. Part of what?

4 A. Part of what I've identified as the coded
5 data disclosure in Mikan.

6 Q. Okay. So where would you go to look where
7 secure identifier 407 is included -- whether it's
8 included in a wireless device?

9 A. At least in the context of Mikan, I would
10 start with Mikan, that's where it should be
11 described.

12 Q. So when you cite to "the secure identifier
13 may be coded data" in your paragraph 218, which
14 secure identifier are you referring to that may be
15 coded data?

16 A. It -- again, it's not just coded -- it's
17 not just the secure identifier that's the coded
18 data. I want to be absolutely clear. In the
19 context of Mikan, there is a process of
20 authentication that's described that uses multiple
21 pieces of information, and I've cited to some of the
22 paragraphs here in Mikan that describe both the
23 process and the information that's part of what I
24 identified as the coded data.

25 Q. And the coded data that you identify in

1 paragraph 218, is that included in a wireless
2 device?

3 A. I'm not sure what that question means,
4 "included in a wireless device."

5 Q. Is that coded data ever stored in a
6 wireless device per Mikan's disclosures?

7 A. I don't recall what Mikan says, but it
8 should be stored in a wireless device. I don't see
9 any reason why it wouldn't be. I don't recall --
10 well, let me take the inverse. I don't recall any
11 disclosure in Mikan saying that it shouldn't be
12 stored in a wireless device.

13 Q. With respect to the operation policy that
14 you identified in paragraphs 219 and 220, what is
15 your understanding of whether or not the vehicle
16 operation policy is stored in any wireless device
17 per Mikan?

18 A. I think it would be a similar answer.

19 Q. What's the answer?

20 A. What I -- what I just said. It would seem
21 like it would be stored on a wireless device. I
22 don't recall there being a disclosure of the inverse
23 that it specifically describes that it wouldn't be
24 stored on a wireless device, or the claimed wireless
25 device.

1 Q. Do you have any citation here in
2 paragraphs 218 through 220 indicating that the
3 vehicle operation policy of Mikan is stored on any
4 wireless device?

5 A. Looking at these paragraphs, I don't
6 suspect there is. I don't see a requirement for
7 1[d] or 1[e] that says anything about storage. If
8 it had been a requirement for storage either -- I
9 mean, explicitly, then I would have addressed that
10 as a requirement at least in these paragraphs.

11 Q. Do you have any citation from Mikan
12 indicating that the vehicle operation policy is
13 transmitted from any wireless device?

14 A. This goes, I think, probably closer to
15 what's required in 1[e]. And I think that is the
16 evidence that I've relied on in paragraph 220.
17 Starting in 221 it transitions to also considering
18 the requirements of 1[e] under an obviousness
19 analysis.

20 Q. So at 220, you've cited to Mikan at
21 paragraph 61, for example. Does Mikan at
22 paragraph 61 provide any disclosure that vehicle
23 operation policies are transmitted from a wireless
24 device?

25 A. It does, based on the language that I've

1 cited to there that provides the linkage between the
2 vehicle operation policy and the keys, and then what
3 that mapping provides. And so I think that that
4 teaches the inclusion of the vehicle operation
5 policy as part of what I've identified as the coded
6 data, based on how that information is used when
7 it's received.

8 Q. This mapping element that you've described
9 in paragraph 220, mapping 312, is that part of any
10 wireless device taught by Mikan?

11 A. I would have to check.

12 Q. Please feel free to.

13 A. I mean, I'd have to spend some time
14 looking through Mikan, and so...

15 Q. Well, you have three paragraphs cited here
16 at 220 from Mikan, so let's start there.

17 A. Well, it seems like you're asking a
18 different question than what's required by the
19 claim, and so I -- that's the point. I would need
20 some time to address the new question that you're
21 asking.

22 Q. Okay. So as you sit here without this
23 additional time to address what I'm asking, you
24 don't know whether mapping 312 is part of a wireless
25 device, is that fair to say?

1 A. I don't remember. I think the basis for
2 the opinion was not that the mapping functionality
3 was part of a wireless device, but the mapping
4 functionality was indicative of the fact that the
5 vehicle operation policy was provided to the
6 wireless communication circuitry of the vehicle.

7 Q. And where is it provided from, the vehicle
8 operation policy, from what location is the vehicle
9 operation policy provided to the vehicle?

10 MR. LU: Objection. Form.

11 THE WITNESS: Presuming you're asking
12 about claim one of the '659 patent, the wherein
13 clause starts, "Wherein the wireless communication
14 circuitry of the vehicle is configured to receive
15 coded data from the mobile device when using the
16 eKey." And then it goes on from there. So the
17 coded data would come from the mobile device.

18 BY MS. ENTZMINGER:

19 Q. So, I'm sorry, you're referring to the
20 patent, the '659 patent?

21 A. Yes, claim one.

22 Q. Okay. I was asking about Mikan's
23 disclosures, where the vehicle operation policy
24 comes from. You indicated it was received by the
25 vehicle, and so I was asking where the vehicle

1 operation policy is received from.

2 A. In the context of 1[e], which is part of
3 the wherein clause of 1[d], that vehicle operations
4 policy would be received from the mobile device.

5 Q. So Mikan discloses vehicle operation
6 policies, or at least a vehicle operation policy
7 being stored on the mobile device, is that fair to
8 say?

9 A. I -- again, because these claim
10 limitations don't talk about storage, it's my
11 understanding, generally, based on what Mikan --
12 Mikan is describing, that in order to transmit
13 something, it at least has to be stored temporarily
14 on the device that's doing the transmitting.

15 And so that vehicle operations policy
16 would have to at least be stored for some amount of
17 time in order for it to be included in the coded --
18 coded data that was transmitted from the mobile
19 device to the wireless communication circuitry of
20 the vehicle.

21 Q. Those vehicle operation policies, are they
22 also stored on the local database of the vehicle
23 computer system?

24 A. I suspect they are as well. You can
25 certainly have the same information stored in

1 multiple locations for purposes of redundancy and
2 confirmation.

3 Q. Well, okay. But does Mikan disclose both,
4 that the vehicle operation policy is stored both on
5 the wireless device and the vehicle?

6 A. So I've addressed the wireless device
7 aspect. As for on the vehicle, it would at least
8 have to be restored while it was -- or stored while
9 it was being received, or once it had been received.

10 As to your previous question about whether
11 it was also stored in a database on the vehicle, I'm
12 not sure exactly how you worded the question, I
13 don't recall what else Mikan says about how or when
14 or where it's stored on the device -- or sorry, on
15 the -- in the vehicle. But I would suspect that
16 there would be redundant storage of the vehicle
17 operation policy, given its different roles and uses
18 in various parts of the architecture in Mikan.

19 Q. Does Mikan have disclosure that allows a
20 user to access any of the vehicle operation policies
21 stored on the vehicle's local database?

22 A. Not that I recall.

23 Q. Same question with respect to the wireless
24 network database, what Mikan refers to as a master
25 database. Does the user have any access to that

1 master database's storage of vehicle operation
2 policies per Mikan?

3 MR. LU: Objection. Form.

4 THE WITNESS: Not that I recall. I don't
5 have Mikan memorized. Or it also depends on what
6 you mean by "access."

7 BY MS. ENTZMINGER:

8 Q. Okay. So referring to 221, the access I
9 was referring to was your wording there. So let's
10 see, three sentences in, "If the vehicle operation
11 policy is transmitted in unencrypted form, a user
12 may be able to access the policy and modify it to
13 enable unauthorized access to certain vehicle
14 features."

15 So I'm just trying to get at the concept
16 of how a user might access a vehicle operation
17 policy saved to the master database, if at all.

18 A. So the portion of 221 that you're reading
19 is in the context of why data would be encrypted or
20 why it would be made inaccessible. So there's
21 multiple ways to accomplish that goal.

22 And the problem with only using one -- one
23 technique; for example, trying to eliminate access
24 by users to vehicle operation policy, is they may
25 still get access. You'd like to think the database

1 is secure, but certainly we see in the news all the
2 time about how secure databases are accessed by
3 unauthorized users.

4 So, really, the point of 221 is to say
5 it's at least important to encrypt vehicle
6 operations policy for transmission, including as
7 part of the coded data, in order to eliminate ways
8 in which users could potentially even attempt to
9 tamper with that information at various points in
10 transmission, and at various points in which it's
11 stored.

12 Q. Okay. So apart from the transmission, is
13 there any teaching in Mikan that indicates that a
14 user has access to vehicle operation policies stored
15 to the master database?

16 A. It's --

17 MR. LU: Objection. Form.

18 THE WITNESS: It's what I just said, and
19 Mikan wouldn't disclose unauthorized access by users
20 as a feature of the system. But a person of skill
21 in the art would understand that users may still try
22 and access information, or policies in this case,
23 that they're not supposed to access. So there are
24 various protection mechanisms that can be used to
25 prevent that access.

1 BY MS. ENTZMINGER:

2 Q. Well, does -- you're speaking here to 221
3 regarding preventing access by the transmission, and
4 I'm asking whether there's any disclosure with
5 respect to how any user could access the vehicle
6 operation policy stored to a master database.

7 MR. LU: Objection. Asked and answered.

8 THE WITNESS: Yeah, those are related
9 concepts. The only way a user would get
10 unauthorized access to a master database is via
11 transmission, via a request that somehow was not
12 rejected because it was not authorized.

13 I mean, this is -- we're talking about
14 secure information here, and if you simply say,
15 well, users can't get access to secure information,
16 then there would be no need for security in the
17 world, because you just say it and it would happen.
18 So part of what this paragraph is dealing with is
19 how to operate in a system where you have a vehicle
20 operation policy that needs to be protected, and
21 having multiple layers of security, both in terms of
22 restricted access to database, and then also
23 encrypting the data during transit is something that
24 a person of skill in the art would understand would
25 be an important feature of a system, like Mikan.

1 BY MS. ENTZMINGER:

2 Q. Does Mikan disclose any mechanism by which
3 a user can access vehicle operation policies stored
4 to the local database of the vehicle?

5 MR. LU: Objection. Asked and answered.

6 THE WITNESS: No that's the point of
7 trying to make it secure. The challenge that Mikan
8 has to deal with, as every person of skill in the
9 art would understand, is, how do you prevent
10 unauthorized access.

11 So it's -- Mikan's not going to say,
12 here's the way that an unauthorized user would get
13 access to this information. That's -- that's not
14 the right -- I want to say it's not the right
15 question; it's not that your question is wrong, it's
16 that it's not the right question for someone reading
17 Mikan to expect Mikan to say this is how a user
18 would get unauthorized access to a database.

19 BY MS. ENTZMINGER:

20 Q. Well, for example, if there's a solution
21 being taught to protect data, for example, in a
22 transmission, a disclosure might indicate some
23 particular problem identified regarding access.

24 All I'm asking -- I'm not asking you for
25 the why behind Kleve's state of mind. I'm just

1 asking whether there is any teaching -- sorry, not
2 Kleve, Mikan -- whether there's any teaching in
3 Mikan that indicates that a user can access the
4 databases, either of the databases; the master
5 database of the wireless network or the local
6 database of the vehicle.

7 A. No, that's unauthorized access. Mikan
8 would try and prevent unauthorized access, so it's
9 not going to teach a way to access that information.
10 Mikan is teaching the idea of preventing
11 unauthorized access, and of protecting data that
12 users shouldn't have access to.

13 And ultimately my point is there's more
14 ways than just limiting access to protect data. And
15 in fact, security persons of skill in the art would
16 understand that you don't just use one technique.
17 You can use multiple techniques in combination to
18 prevent something like that from happening, because
19 every system that's supposed to be secure has -- has
20 failures.

21 Q. So in the context, for example, of the
22 last sentence of 221, paragraph 221 of your
23 declaration, where you're describing there why a
24 POSITA would have been motivated to encrypt or
25 otherwise encode a vehicle operation policy for

1 transmission so that users cannot tamper with the
2 vehicle operation policies and associated access
3 rules -- so if there is no transmission at all from
4 the wireless device of vehicle operation policies,
5 is there some other means by which the users can
6 tamper with the vehicle operation policies and
7 associated access rules?

8 A. Well, of course. They can gain
9 unauthorized access. That's what I've been saying
10 for the last several minutes; that -- they can --
11 first of all, that data has to be transmitted
12 anyway, so it's coming over a network, and
13 therefore, it's available to users to be able to
14 access.

15 They're not supposed to be able to. If
16 it's unencrypted then it's much easier to gather.
17 That data is broadcast through the air waves, so
18 it's easy enough to -- to determine what that data
19 is. It's also possible for databases that are
20 advertised to not be accessible to still allow
21 unauthorized access. I mean, that's what security
22 and hacking is all about.

23 So the point really here is -- and maybe
24 if you're even focused on communications to the
25 wireless device, you use the same security

1 techniques that you use in the databases you've
2 identified. You secure the transmissions, you
3 secure the data when it's -- when it's stored. You
4 can store it in encrypted format, or you can try and
5 prevent access to the data by the user through any
6 of a variety of known techniques.

7 And those apply for databases on vehicles,
8 at the server, on user wireless devices. I mean,
9 it's the same security techniques that are used in
10 cheat prevention in games and securing personal
11 identification information. It's a challenge that's
12 been understood for what available techniques there
13 are for -- for years.

14 Q. So if those vehicle operation policies are
15 never transmitted, but stored only locally on the
16 vehicle, then those would obviously be more
17 protected, less vulnerable to tampering with by a
18 user than if they were transmitted, is that fair to
19 say?

20 A. So two responses. First of all, they
21 don't -- I'm not trying to sound dismissive or
22 pejorative or insulting, but they have to get on the
23 vehicle somehow. So they are transmitted to the
24 vehicle. So the premise of your hypothetical
25 doesn't fit.

1 And then the second is, you used the
2 qualifier "more secure." I mean, the effectiveness
3 of security depends on what secure mechanisms --
4 securing mechanisms are used as opposed to the
5 degree to which the data is exposed to the world,
6 because it's already exposed to the world during
7 transmission. It's exposed to the world by storage
8 on the database. I mean, the database has to be
9 accessed. All a user has to do is impersonate an
10 authorized user of the database, and get the data
11 that way.

12 So it's not that -- that less access
13 necessarily makes something more secure. The level
14 of security depends on the protection mechanisms
15 that are put in place. And, again, all of this that
16 I'm sort of saying is pretty well understood in
17 basic security fundamentals that a person of skill
18 in the art would understand.

19 Q. So with respect to, again, 220 and 221, it
20 looks like there are descriptions in paragraph 220
21 regarding disclosures from Mikan, but then
22 paragraph 221 being what would have been obvious to
23 a POSITA to transmit to the vehicle. Are these
24 alternative opinions?

25 A. No, it's under the theory that both can be

1 true at the same time. Something can be anticipated
2 and disclosed by a reference, and at the same time,
3 it also would be obvious to a person of skill in the
4 art.

5 Q. Now, does the wireless device -- does the
6 wireless device disclosed in Mikan access the
7 mapping element 312 that you described to apply
8 vehicle operation policies?

9 A. I don't recall that detail. At least
10 based on the paragraphs we're looking at, I -- I
11 don't see where that was a relevant question given
12 the role of the mapping 312 that's identified, and I
13 just don't recall what Mikan says.

14 Q. So referring to what you quoted regarding
15 mapping 312 in paragraph 220, mapping 312 may link
16 vehicle operation policy 311 in keys 205A through C.
17 Is that in reference to the wireless device as a
18 key, or in reference to the key set saved to the
19 database?

20 A. Let me look at paragraph 56 and see if it
21 says. Yeah, I'd have to try and reconstruct this.
22 The point of the sentence in 220 is the existence of
23 that mapping, and I don't recall if the mapping was
24 on the mobile device or on the vehicle. But the
25 existence of that mapping was evidence that the

1 vehicle operation policy was either transmitted or
2 received, transmitted if the mapping were on the
3 mobile device or received based on the mapping that
4 happens in the vehicle.

5 The mapping was evidence that the vehicle
6 operations policy was transmitted across the link or
7 received across the link. And sitting here now, I
8 don't remember for paragraph 56 if -- if it's
9 describing that function is happening -- happening
10 on the mobile device or the vehicle.

11 Q. So this mapping 312 described in 6 -- in
12 Mikan 61, that mapping is linking vehicle operation
13 policies to -- to a specific key, 205A through C,
14 correct?

15 A. It's what it says, mapping 312 may link
16 vehicle operations policies 311 and keys 205A
17 through C.

18 Q. So that -- whichever of those keys is
19 being utilized by a user, A through C, 205A through
20 C, there's a corresponding key stored to the local
21 database of the vehicle, correct?

22 A. It should also be stored in the database
23 as well.

24 Q. And the vehicle operation policies that
25 correspond to those keys 205A to C, those are also

1 stored on the local database, correct?

2 A. My recollection is that they are, so the
3 point that I'm making is, there is redundancy here
4 to improve security to make sure that one had not
5 been tampered with.

6 Q. That which one had not been tampered with?

7 A. That's the point, that you send redundant
8 information in order to match up that redundant
9 information, in the idea that to the extent somebody
10 gained unauthorized access to one part of the
11 system, they'd only be able to change or tamper with
12 one copy of the information.

13 So by comparing and including the vehicle
14 operation policy as part of the coded data, and then
15 also storing it locally, it acts as a confirmation
16 that neither had been tampered with, if they're the
17 same. If they're different, that would be a good
18 indication that there had been some sort of
19 tampering. So it's a level of security through
20 redundancy that I believe Mikan is describing
21 through the use of this mapping function.

22 Q. Okay. So I understand it, the
23 transmission of the vehicle operation policy from
24 the wireless device, plus the storage of the vehicle
25 operation policy on the local database, that

1 redundancy evidences more security? Is that fair to
2 say?

3 A. It evidences one prong of security that's
4 in place, but, you know, security through
5 redundancy, security through multiple different
6 levels of protection, I think is part of what Mikan
7 is teaching.

8 Q. Okay. Thank you, Doctor. Unless your
9 counsel has any questions, then we're finished.

10 A. Great.

11 MR. LU: I have no further questions.

12 MS. ENTZMINGER: So, Doctor, if you'll
13 stay on to answer any questions the court reporter
14 may have regarding spelling or repeating anything,
15 I'd appreciate it.

16 THE WITNESS: Sure.

17 THE VIDEOGRAPHER: Lauren, do you want to
18 ask copy orders?

19 THE REPORTER: Just copy orders on the
20 record?

21 MR. LU: I don't need a copy.

22 THE VIDEOGRAPHER: I'll end the deposition
23 then.

24 MS. ENTZMINGER: I think I confirmed --
25 sorry. I think I confirmed with Liberty perhaps.

1 I'm not remembering. I think I confirmed our order
2 with Liberty.

3 THE REPORTER: Yes, we can discuss it off
4 the record.

5 MS. ENTZMINGER: Okay. Great. Thank you.

6 THE VIDEOGRAPHER: This concludes today's
7 deposition of Kevin C. Almeroth, Ph.D. on April 1st,
8 2025. The time is now 1:44 p.m. Off the record.

9 (Deposition concluded at 1:44 p.m.)
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I, KEVIN C. ALMEROOTH, Ph.D., hereby
declare under penalty of perjury that the foregoing
is my deposition under oath; that these are the
questions asked of me and my answers thereto; that I
have read my deposition and have made corrections,
additions, or changes that I deem necessary.

DATED this _____day of _____, 2025.

KEVIN C. ALMEROOTH, Ph.D.

1 REPORTER'S CERTIFICATE

2
3 I, Lauren Ramseyer, Certified Shorthand
4 Reporter licensed in the State of California,
5 License No. 14004, hereby certify that the deponent
6 was by me first duly sworn and the foregoing
7 testimony was reported by me and was thereafter
8 transcribed with Computer-Aided Transcription; that
9 the foregoing is a full, complete, and true record
10 of said proceedings.

11 I further certify that I am not of counsel
12 or attorney for either or any of the parties in the
13 foregoing proceeding and caption named or in any way
14 interested in the outcome of the cause in said
15 caption.

16 The dismantling, unsealing, or unbinding
17 of the original transcript will render the
18 reporter's certificate null and void.

19 In witness whereof, I have hereunto set my
20 hand this day: April 4, 2025.

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22 _____

23 Lauren Ramseyer, CSR No. 14004
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