

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD
3

4 APPLE INC.

5 Petitioner

6 v.

7 VIRNETX, INC.

8 Patent Owner

9
10 Case No. IPR2015-00810

11 Patent No. 8,868,705

12 Case Nos. IPR2015-00811

13 and IPR-2015-00812

14 Patent No. 8,850,009

15
16
17 DEPOSITION OF DR. ROBERTO TAMASSIA

18 Volume One

19 Washington, D.C.

20 November 12, 2015

21
22
23 Reported by: Mary Ann Payonk

24 Job No. 99551
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November 12, 2015

9:00 a.m.

Deposition of DR. ROBERTO TAMASSIA,
Volume One, held at the offices of Sidley
Austin, 1501 K Street, N.W., Washington, D.C.,
pursuant to Notice before Mary Ann Payonk,
Nationally Certified Realtime Reporter and
Notary Public of the District of Columbia,
Commonwealth of Virginia, States of Maryland
and New York.

1 APPEARANCES:

2 ON BEHALF OF VIRNETX INC.:

3 JOSEPH PALYS, ESQUIRE

4 DANIEL ZEILBERGER, ESQUIRE

5 CHETAN BANSAL, ESQUIRE

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7 875 15th Street, N.W.

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9
10 ON BEHALF OF APPLE:

11 SAMUEL DILLON, ESQUIRE

12 THOMAS BROUGHAN, ESQUIRE

13 SIDLEY AUSTIN

14 1501 K Street, N.W.

15 Washington, D.C. 20005

1 DR. ROBERTO TAMASSIA,

2 called as a witness, having been duly
3 sworn, was examined and testified as
4 follows:

5 EXAMINATION

6 BY MR. PALYS:

7 Q. Good morning.

8 A. Yes, good morning.

9 Q. Can you please state your name and
10 spell it for the record.

11 A. Yes. Roberto Tamassia.

12 R-O-B-E-R-T-O T-A-M-A-S-S-I-A.

13 Q. And, Mr. Tamassia -- or Dr. Tamassia?

14 A. Yeah, Roberto, as you please.

15 Q. You are here to provide
16 cross-examination with respect to your direct
17 testimony that you provided in some IPR matters
18 involving VirnetX patents. Is that accurate?

19 A. Yes.

20 Q. Okay. And you submitted a
21 declaration in a few matters relating to
22 VirnetX patents; correct?

23 A. Yes, it's correct.

24 MR. PALYS: Okay. I'm going to
25 hand you a copy of a document that's

1 been previously labeled Exhibit 1005,
2 and it's entitled "Declaration of
3 Roberto Tamassia regarding u.S. Patent
4 numbers 8,868,705 and 8,850,009."
5 (Exhibit No. 1005, previously marked, was
6 referenced and indexed.)

7 BY MR. PALYS:

8 Q. I'll just hand this to you.

9 A. Thank you.

10 Q. Do you recognize Exhibit 1005, sir?

11 A. So scanning through it, I seem to
12 recognize. I've not check all the pages. I
13 trust you gave me what this is meant to be.

14 Q. Okay. Now, Exhibit 1005, as you can
15 see on the first page, relates to the two
16 patent numbers that I identified. And I'm
17 going to refer to those patents today as the
18 '705 and the '009 patents.

19 Do you understand?

20 A. Yes, I do.

21 Q. Can you turn to page 174 of
22 Exhibit 1005, please. And is that your
23 signature on page 174?

24 A. Yes.

25 Q. Okay. So this Exhibit 1005 is a

1 declaration that you provided in -- for
2 IPR2015-00810. Is that accurate?

3 A. Yes.

4 Q. Okay. And this exhibit is also the
5 same declaration that you submitted for
6 IPR2015-00811.

7 A. Yes.

8 Q. And Exhibit 1005 is also the same
9 declaration you submitted for IPR2015-812?

10 A. Yes.

11 Q. And this exhibit is also the
12 declaration that was submitted -- you submitted
13 for IPR2015-00813; correct?

14 A. Yes.

15 Q. Okay. Now, sir, have you been
16 deposed before?

17 A. Yes.

18 Q. How many times?

19 A. Once.

20 Q. And when was that?

21 A. Three years ago.

22 Q. And was that deposition relating to
23 the matter that's identified on paragraph 8 of
24 your declaration?

25 A. Yes.

1 Q. You mention on paragraph 8 that it
2 was a software privacy case. Is that accurate?

3 A. This is correct.

4 Q. Was that at all a patent-related
5 matter?

6 A. It was not, to my recollection.

7 Q. Okay. I'm sure your lawyers
8 instructed you what's going to happen today.
9 You went through a deposition before. I won't
10 go through all the rules, but if you have any
11 questions on how the process is going to take
12 place today, just let me know.

13 But obviously, I'm going to be asking
14 you questions. You do have answer them. The
15 court reporter was kind enough to remind you
16 and myself to make sure we don't talk over each
17 other, so if that happens, you know, we will
18 just work with each other to make sure each of
19 us finish your response and my answers. Okay?

20 A. Okay.

21 Q. All right. Is there any reason why
22 you cannot testify today truthfully and
23 accurately?

24 A. I cannot think of any such reason.

25 Q. Okay, that's a good start.

1 So, sir, who retained you to provide
2 an opinion for these proceedings?

3 Well, let me take a step back so we
4 can use the same terminology.

5 I identified a number of IPR numbers,
6 matter numbers, 810, 811, et cetera. Remember?

7 A. Yes.

8 Q. You got to verbally say it.

9 A. Yes.

10 Q. So I may refer to those as the 810
11 matter or the 811 matter when I'm referring to
12 those IPR proceedings. Okay?

13 A. Okay.

14 Q. Okay. So if you don't understand at
15 any point, just let me know and I'll clarify.
16 Okay?

17 A. Okay.

18 Q. All right. And in terms of your
19 Exhibit 1005, I will refer to it as your
20 declaration, and that's what I'm referring to
21 as Exhibit 1005, okay?

22 A. Sounds good.

23 Q. Okay, all right.

24 Now, who retained you for these
25 proceedings? When I say "these proceedings," I

1 mean matters 810, 811, 812, and 813.

2 A. I was retained by Sidley Austin.

3 Q. Okay. And if you turn to page 1,
4 paragraph 1 of your declaration, you state that
5 you've been retained by counsel for Apple
6 Incorporated; correct?

7 A. Yes.

8 Q. And by "counsel," you mean Sidley
9 Austin there; right?

10 A. That's what I meant.

11 Q. Okay. Have you done any other work
12 for Apple other than the work you've done with
13 respect to these IPR matters?

14 MR. DILLON: Objection to the
15 extent it seeks privileged information.
16 To the extent that you do not reveal
17 privileged information, you may answer.

18 A. And that other work which is in the
19 public record related to other patents.

20 BY MR. PALYS:

21 Q. For Apple?

22 A. For Apple.

23 Q. So this other work that's in the
24 public record related to other patents, were
25 these relating to Apple patents?

1 A. No.

2 Q. Relating to some party other than
3 Apple; correct?

4 A. That is correct.

5 Q. Okay. And when you say "other work,"
6 was it one instance or multiple instances?

7 A. It was more than one instance.

8 Q. Okay. And when was the first time
9 you did other work for Apple relating to other
10 patents?

11 A. It was earlier this year.

12 Q. This year? 2015?

13 A. Yes.

14 Q. And how many other instances did you
15 do work for Apple related to other patents?

16 MR. DILLON: Objection to the
17 extent it seeks privileged information.
18 Subject to that objection, you may
19 answer. And to form.

20 A. As I said, I've done other work,
21 which appears as declarations in the public
22 record.

23 BY MR. PALYS:

24 Q. Now I'm asking you how many of those.

25 A. My recollection is two.

1 Q. Okay. So the first one, the first
2 other work that you did for Apple relating to
3 other patents was sometime earlier in 2015, as
4 you mentioned.

5 When was the second one?

6 A. It was also this year.

7 Q. After the first one, I assume.

8 A. Yes.

9 Q. Okay. Was it recent? Was it -- let
10 me strike that.

11 Was it within the last six months?

12 A. It was in the spring. I don't
13 remember the date exactly, but I will be happy
14 to look it up.

15 Q. And for each of these matters, I'll
16 call them --

17 A. Uh-huh.

18 Q. -- you mentioned that you submitted
19 declarations; is that right?

20 A. This is right.

21 Q. Okay. What type of declaration was
22 submitted?

23 MR. DILLON: Objection, form.

24 BY MR. PALYS:

25 Q. Do you understand my question?

1 A. Can you explain better what you mean
2 by "type"?

3 Q. Right. So you submitted -- in the
4 first matter, you submitted a declaration;
5 correct?

6 A. Are you referring to this one here?

7 Q. No. You testified earlier -- we're
8 talking about these other --

9 A. Other.

10 Q. -- matters.

11 A. Okay.

12 Q. And I believe you said that you
13 provided a declaration in those other matters;
14 is that accurate?

15 A. This is accurate.

16 Q. Okay. So what I'm trying to find out
17 is what type of declaration did you provide in
18 those other matters?

19 MR. DILLON: Objection, form.

20 BY MR. PALYS:

21 Q. If you understand my question now.

22 A. I believe I understand better.

23 Q. Okay.

24 A. I'm not sure if I understand it
25 completely, but in terms of form, I analyze

1 some previous work that is related to other
2 patents, and I expressed what is my opinion
3 about that work and about obviousness issues in
4 terms of combinations.

5 Q. Okay. So it was -- the declaration
6 related to the validity of these other patents;
7 is that accurate?

8 MR. DILLON: Objection, form.

9 A. I will say that I provided technical
10 opinion. I believe that this issue of validity
11 and invalidity is a legal issue.

12 BY MR. PALYS:

13 Q. Okay. You said these were of public
14 record. So let's start with the first other
15 matter.

16 Was that in a litigation where you
17 submitted this, or were you provided this
18 declaration?

19 MR. DILLON: Objection, form.

20 Objection to the extent that it seeks
21 privileged information. Subject to that
22 objection, you may answer.

23 A. I provided declaration that is also
24 related to a -- what is called IPR,
25 inter partes review.

1 BY MR. PALYS:

2 Q. Okay, okay. Thank you.

3 A. Okay.

4 Q. So it was another IPR matter you
5 submitted a declaration; is that right?

6 A. That's correct.

7 Q. And was the second matter that you
8 worked on also related to an IPR?

9 A. I believe it was.

10 Q. Okay. And who were the parties
11 involved in those IPRs? Let me make it easier
12 for you. Sorry.

13 A. Okay.

14 Q. You provided an opinion regarding
15 other patents, right --

16 A. Yes.

17 Q. -- in those other -- or those IPR
18 matters. Who was the patent owner of those
19 other patents in those IPRs?

20 A. I understand those patents were
21 assigned to VirnetX --

22 Q. VirnetX?

23 A. -- so VirnetX could be considered the
24 owner.

25 Q. Did you provide opinions regarding

1 other patents to any other -- regarding -- I'll
2 start over.

3 Did you provide a declaration
4 regarding patents owned by any other company
5 other than VirnetX?

6 MR. DILLON: Objection, form.
7 Objection to the extent that the
8 question seeks privileged information.
9 Subject to that objection, you may
10 answer the question.

11 A. The opinions I have expressed in my
12 declarations refer to patents, some of which
13 are owned by VirnetX, and others do not appear
14 to be owned by VirnetX.

15 BY MR. PALYS:

16 Q. Why do you say they don't appear to
17 be owned by VirnetX?

18 MR. DILLON: Objection, form.

19 A. I'm using the word "appear" because
20 VirnetX was not mentioned as the assignee. But
21 I don't know, you know, what is behind the --
22 so I don't know what is, I should say, beyond
23 the original assignment that is recorded in the
24 patent.

25 BY MR. PALYS:

1 Q. Have you done any other work for
2 Apple other than the matters that you just
3 identified earlier?

4 MR. DILLON: Objection to the
5 extent it seeks privileged information.
6 Subject to that objection, you may
7 answer.

8 A. I'm happy to confirm the work that is
9 related to my declarations for IPRs.
10 BY MR. PALYS:

11 Q. So my question was: Have you done
12 any other work for Apple other than the matters
13 that you've just identified to me earlier?

14 MR. DILLON: Same objection.

15 A. I understand you asked me already the
16 question.

17 BY MR. PALYS:

18 Q. Right. I don't believe you answered
19 it so that's why I'm asking it again.

20 MR. DILLON: Same objection.

21 BY MR. PALYS:

22 Q. So the question was: Have you done
23 any other work for Apple other than the matters
24 that you identified to me earlier?

25 MR. DILLON: Same objection.

1 A. Does your question seek to find
2 privileged information?

3 BY MR. PALYS:

4 Q. So the question is a yes or no, and I
5 don't believe there's a privilege issue here.
6 And your counsel will instruct you, so I'll
7 repeat the question.

8 Have you done any other work for
9 Apple other than the matters that you
10 identified to me earlier?

11 MR. DILLON: To the extent that
12 this question seeks privileged
13 information and that would be the only
14 information it seeks, you may say no.
15 To the extent that it does not seek
16 privileged information, you may explain
17 and say yes or no, yeah, or --

18 A. So what I can say is that there may
19 or may not be work which would be covered by
20 confidentiality and privilege. Besides such
21 work which may or may not exist, I don't
22 remember having done any other work for Apple.

23 BY MR. PALYS:

24 Q. With all respect, that's a pretty
25 wishy-washy response so I'll ask the question

1 again.

2 Have you done any other work for
3 Apple other than the matters that you've
4 identified to me earlier?

5 MR. DILLON: Objection to the
6 extent it seeks privileged information.
7 To the extent that you have done
8 nonprivileged work, you may describe
9 that work. You may answer yes or no.

10 A. I've not done any nonprivileged work.
11 I cannot comment on the work I may or may have
12 not done, which is privileged.

13 BY MR. PALYS:

14 Q. Right. I'm not asking you for the --
15 any content or substance of that work if you
16 feel that's privileged.

17 I'm just asking you for the fact, the
18 nonprivileged fact of whether you've done any
19 other work for Apple other than the matters
20 that you've identified here today.

21 MR. DILLON: Objection to the
22 extent the question seeks privileged
23 information. To the extent that you
24 have done nonprivileged work you may say
25 "yes" or "no."

1 A. I don't know how to answer with words
2 different than what I've used before so I will
3 again say that I've been working for Apple, and
4 indeed, there are these declarations that I've
5 submitted besides the current one.

6 BY MR. PALYS:

7 Q. Okay, so -- and I mean this with
8 respect. I'm asking, are you refusing to
9 answer that question that I -- that is pending?
10 Let me repeat the question, then I'll ask you
11 that.

12 So again, the question is: Have you
13 done any other work for Apple other than the
14 matters that you just identified earlier? And
15 the follow-up to that is I just need to know if
16 you're refusing to answer that question.

17 A. Well, I --

18 MR. DILLON: Object to form.

19 THE WITNESS: I absolutely do not
20 want to refuse. I want to cooperate and
21 give you the information I'm allowed to
22 give you. So I feel a bit in a strange
23 spot because I, you know, don't know the
24 exact, you know, boundaries of privilege
25 or nonprivilege.

1 MR. PALYS: Okay. And I appreciate
2 that, sir.

3 MR. BROUGHAN: Joe, let --

4 MR. PALYS: I've got a question
5 pending, then I'll get right to you.

6 BY MR. PALYS:

7 Q. So I appreciate that, sir. So that's
8 why I've got to know if you are going to answer
9 that question. Your basis for reasoning
10 whether you're going to answer that or not is
11 entirely up to you. I just need to know if
12 you're going to answer that question.

13 MR. DILLON: Objection.

14 MR. PALYS: Let him answer first.

15 MR. DILLON: Objection, form.

16 A. I believe I answered to the extent I
17 believe I can answer. If I were given the
18 opportunity of understanding better, you know,
19 what I'm allowed to say or not to say, what
20 I -- you know, I -- I will be, you know, happy
21 to say more.

22 MR. BROUGHAN: Joe, let's take a
23 break. We can confer about privilege
24 and I can explain to him what's
25 privileged and nonprivileged.

1 MR. PALYS: We will circle back
2 after a break and revisit it.

3 THE WITNESS: Yes, I'll be happy
4 to.

5 BY MR. PALYS:

6 Q. For the other matters that you
7 identified that you did work for Apple, the
8 other IPR matters, did you work with a law firm
9 on those?

10 A. Yes.

11 Q. And what was the law firm?

12 A. Sidley Austin.

13 Q. And when did you --

14 MR. BROUGHAN: I thought you were
15 going to move on to a different topic,
16 Joe.

17 MR. PALYS: I can do my deposition
18 as I want.

19 MR. BROUGHAN: I mean, if you are
20 going to keep asking him questions about
21 this matter, he's not sure how to
22 respond with privileged information. I
23 want to make sure he understands the
24 bounds of privilege and doesn't
25 accidentally reveal information he's not

1 supposed to.

2 MR. PALYS: I appreciate your
3 concern, Tom. And I have to say I'm
4 going to ask you to stop doing a
5 speaking objection at this point. If
6 you see my question, it's not the same
7 question. So if you have an issue, make
8 your objection and move on, but no more
9 speaking objections.

10 MR. BROUGHAN: It's not a speaking
11 objection. I asked to take a break to
12 confer with the witness about privilege,
13 which is a perfectly permissible thing
14 to do. You said no, you didn't want to
15 do that.

16 MR. PALYS: Can you mark the
17 transcript, please? Thank you.

18 BY MR. PALYS:

19 Q. Okay. So my question was, sir: For
20 the other matters that you had identified that
21 you did work for Apple, the IPR matters, did
22 you work with a law firm? And you said yes;
23 right?

24 A. I did say yes.

25 Q. And I -- I --

1 THE WITNESS: And now it will be --
2 sorry.

3 MR. PALYS: Sorry.

4 THE WITNESS: I thought it would be
5 a good time to take a break.

6 MR. PALYS: We have been going
7 about 20 minutes.

8 THE WITNESS: I know, but give an
9 opportunity to ask Tom to review some
10 matters to actually help the next
11 questions. I believe it is in our
12 common interest not to get stuck.

13 MR. PALYS: You can take a break if
14 you want.

15 (Recess taken.)

16 MR. DILLON: During the break,
17 counsel for Apple had a short
18 conversation with Dr. Tamassia where we
19 explained how to answer a question
20 involving privilege without answering or
21 waiving privilege.

22 MR. PALYS: Okay. I appreciate
23 that.

24 BY MR. PALYS:

25 Q. So if I may, I'm going to go back to

1 some of my earlier questions and hopefully we
2 will get a little more clarification. Thank
3 you.

4 Okay, sir. Have you done any other
5 work for Apple other than the matters that you
6 identified earlier to me today?

7 MR. DILLON: Objection to the
8 extent the question seeks privileged
9 information. Subject to that objection,
10 you may answer.

11 A. I believe not.

12 BY MR. PALYS:

13 Q. Why do you say you believe not?

14 A. Because I'm speaking out of my
15 current recollection.

16 Q. So there's a possibility that you
17 did?

18 MR. DILLON: Objection, form.

19 A. I'm telling you what I remember now.

20 BY MR. PALYS:

21 Q. Right.

22 A. Yes. So I will say no. I believe it
23 is a simpler answer.

24 Q. Okay. I mean, it's your response.

25 A. Okay. So just let me clarify this.

1 No.

2 Q. Okay. Sir, by your response, you
3 said "no." Do you mean no to nonprivileged
4 work, or privileged work?

5 MR. DILLON: Objection, form.

6 Objection to the extent this question is
7 seeking privileged information. Subject
8 to that objection, you may answer the
9 question.

10 BY MR. PALYS:

11 Q. Do you understand my question?

12 A. Not exactly.

13 Q. Okay.

14 A. Could you say it again?

15 Q. So your response of no, that you
16 didn't do any other work for Apple other than
17 the matters that you identified to me earlier,
18 what I'd like to know is was that for all types
19 of work that -- for Apple? In other words,
20 I'll get to the question. I'm setting it up
21 for you.

22 You mentioned before that you have
23 some nonprivileged public work and then
24 possibly privileged work. Do you recall that
25 testimony?

1 MR. DILLON: Objection, form,
2 foundation.

3 A. I did not say that I possibly had. I
4 just stated something obvious, which is I may
5 or may not have done additional work. It's a
6 statement that, sorry, doesn't add any
7 information.

8 BY MR. PALYS:

9 Q. Okay. I appreciate that.

10 A. Okay.

11 Q. Have you ever heard of a company
12 called RPX Corporation?

13 A. Can you spell out the name of the
14 company?

15 Q. R-P-X.

16 A. The second letter is P as in Peter?

17 Q. Yes.

18 A. And the third S as in Sam?

19 Q. No, sorry, X as in x-ray.

20 MR. DILLON: Objection, relevance.

21 A. I may. I don't remember right now:
22 I can look it up.

23 BY MR. PALYS:

24 Q. Have you done any work for RPX
25 Corporation?

1 MR. DILLON: Objection, relevance,
2 privileged, to the extent it seeks
3 privileged information. Subject to that
4 objection, you may answer the question.

5 A. Can you say what "work for" means?

6 BY MR. PALYS:

7 Q. I believe that term's been used
8 before. What do you understand the phrase
9 "work for" to mean?

10 MR. DILLON: Objection, form.

11 A. One meaning is being employed by or
12 being a, you know, consultant for.

13 BY MR. PALYS:

14 Q. How about even a broader
15 understanding? So any type of work for -- when
16 I say "work for," so have you done any type of
17 work for RPX Corporation?

18 MR. DILLON: Objection, relevance,
19 form, privilege to the extent it seeks
20 privileged information. Subject to that
21 objection, you may answer the question.

22 A. I don't remember.

23 BY MR. PALYS:

24 Q. Have you heard of a company called
25 Mangrove Partners?

1 MR. DILLON: Objection, relevance.

2 A. Mangrove Partners?

3 BY MR. PALYS:

4 Q. Yes.

5 A. I may have encountered, but now I
6 don't remember. I don't remember precisely.

7 Q. Do you remember when you may have
8 encountered the name?

9 MR. DILLON: Objection, relevance,
10 form.

11 A. I don't remember right now. I'm --
12 I'm happy to look it up.

13 BY MR. PALYS:

14 Q. What would you do to look it up to
15 see if you can answer that question?

16 MR. DILLON: Objection, relevance,
17 form.

18 A. I will do two things. First, I will
19 see in the context of this deposition whether
20 it is mentioned in the exhibits or my
21 declaration. And if not, I will look more into
22 my files and finally do a search.

23 BY MR. PALYS:

24 Q. Have you done any work for Mangrove
25 Partners?

1 MR. DILLON: Objection, form,
2 relevance.

3 A. As I cannot remember the possible
4 connection I may have to Mangrove Partners, I
5 also cannot think now of any work I may have
6 done for them. I can certainly say I was not
7 employed by them. And I was not, you know,
8 directly paid by them. That, I'm pretty sure.

9 BY MR. PALYS:

10 Q. Have you heard of a gentleman by the
11 name of Nathaniel August?

12 MR. DILLON: Objection, relevance.

13 A. August, like in the month?

14 BY MR. PALYS:

15 Q. Yes.

16 A. I'm afraid I have to give you a
17 similar answer as before, which is I don't
18 remember right now.

19 Q. Okay. How about a gentleman by the
20 name of Ward Dietrich?

21 MR. DILLON: Objection, relevance.

22 BY MR. PALYS:

23 Q. Have you heard of that --

24 A. Can you spell the first name?

25 Q. I'll just start over with the

1 question.

2 A. Yes.

3 Q. Do you know a gentleman by the name
4 of Ward Dietrich, first name spelled W-A-R-D?

5 MR. DILLON: Objection, relevance.

6 A. The last name would be
7 D-E-I-E-T-R-I-C-H, or --

8 BY MR. PALYS:

9 Q. Last name is spelled D-I-E-T-R-I-C-H.

10 A. Ward Dietrich? Don't remember right
11 now. May or may not be.

12 Q. Have you done any work for -- I'll
13 start over.

14 Have you done any patent-related work
15 for any other entity other than Apple?

16 MR. DILLON: Objection, relevance,
17 privileged to the extent it seeks
18 privileged information. Subject to that
19 objection, you may answer the question.

20 A. I will answer by saying that I am
21 myself an inventor of multiple patents, and my
22 employer, Brown University, has applied for
23 several patents where I am an inventor; and
24 hence, I would consider my participation in the
25 application as work. I'm not sure. Is that

1 the sense that you are using in your question?

2 BY MR. PALYS:

3 Q. Well, I mean, that answered one.

4 So how about this: Have you done any
5 work as a consultant that related to patents
6 for any other entity other than Apple?

7 MR. DILLON: Objection, relevance.

8 A. So let me qualify my answer. I have
9 been a consultant in the past for other
10 companies, and the work I've done appeared to
11 be unrelated to patents, but I do not know if
12 what I was asked to work on was actually
13 related.

14 You can see in my CV several
15 companies like Anderson Consulting or Digital
16 Equipment. I don't know if what they asked me
17 to work on, you know, for them was related to
18 patents.

19 BY MR. PALYS:

20 Q. When were you first retained by
21 counsel for Apple Incorporated as an expert
22 witness for these IPR matters that we're
23 discussing today?

24 A. At the beginning of the current year.

25 Q. January 2015?

1 A. I don't remember the exact date. It
2 was early this year.

3 Q. When did you first start preparing
4 your opinions that are reflected in your
5 declaration, Exhibit 1005?

6 MR. DILLON: Objection, form.

7 A. It was early this year.

8 BY MR. PALYS:

9 Q. So you signed the -- your declaration
10 on March 2, 2015, and that's on page 174;
11 correct?

12 A. Yes, correct.

13 Q. Okay. So when you say you started
14 work with these matters earlier this year,
15 would you agree that would have been before
16 March 2, 2015?

17 A. Absolutely.

18 Q. Okay. So when you started work, it
19 couldn't have been earlier than January 1 of
20 2015 based on your response; is that accurate?

21 MR. DILLON: Objection, form.

22 A. That is my recollection, but I don't
23 remember exactly.

24 BY MR. PALYS:

25 Q. So sometime early this year, before

1 March 2, you first started --

2 A. I'll say well before, yes.

3 Q. -- you first started work on --

4 A. That's my --

5 Q. -- your opinions --

6 A. That's my recollection. Sorry, I
7 don't want to interrupt you.

8 Q. Okay, I've got to start over. Tell
9 me when you're ready. Let me finish and then
10 you can go.

11 A. Got it.

12 Q. And I'll try to do the same for you.
13 So sometime between January 1, 2015
14 and March of 2015 you first started your work
15 as an expert witness for these IPR matters that
16 we're discussing today; correct?

17 A. I believe so. I can look at my notes
18 if you'd like more information.

19 Q. Thank you.

20 Has anyone other than Sidley Austin
21 asked you to consult on a VirnetX patent?

22 MR. DILLON: Objection, relevance.

23 A. Can you clarifier the meaning of
24 "asked"?

25 BY MR. PALYS:

1 Q. What do you understand that to mean?

2 A. That's exactly why I don't understand
3 it precisely that I asked you.

4 Q. You just used the word "ask," so how
5 are you using that term in that way?

6 A. Exactly. If your question intends to
7 find out whether someone offer me a consulting
8 engagement, an expert witness engagement, then
9 my answer is I don't remember other companies
10 offering me such an engagement.

11 Q. Okay, let's go to paragraph 1 of your
12 declaration, please.

13 You mention in paragraph 1 that you
14 have been asked to provide an opinion regarding
15 the state of the art of the technology
16 described in the '705 and '009 patents; is that
17 accurate?

18 A. Yes.

19 Q. Okay. And you also state in
20 paragraph 1 that you have been asked to provide
21 a description of various references that you
22 understand are prior art to these patents; is
23 that accurate?

24 A. Yes.

25 Q. Okay. And in paragraph 1 you also

1 mention that you have been asked to provide a
2 discussion of the meaning of certain words and
3 phrases in the claims of these patents; is that
4 accurate?

5 A. That is right.

6 Q. Regarding that last statement, why
7 did you only provide a discussion of certain
8 words and phrases in the claims of these
9 patents?

10 MR. DILLON: Objection, form.

11 Objection to the extent this question is
12 seeking privileged information. Subject
13 to that objection, you may answer the
14 question.

15 A. I believe it is reflected in the
16 sense that I've been asked to provide such an
17 opinion.

18 BY MR. PALYS:

19 Q. Can you expand on that a little bit
20 so I can understand your response, please?

21 MR. DILLON: Same objection.

22 A. I was requested to provide such a
23 discussion.

24 BY MR. PALYS:

25 Q. Did you select the certain words and

1 phrases in the claims of the '705 and '009
2 patent that you discuss in your declaration?

3 MR. DILLON: Objection to the
4 extent this question seeks privileged
5 information. Subject to that objection,
6 you may answer the question.

7 A. I will say that the final selection
8 of these certain words and phrases resulted
9 from a collaborative process.

10 BY MR. PALYS:

11 Q. A collaborative process with whom?

12 A. Discussion with counsel.

13 Q. Sidley Austin?

14 When you say "counsel," do you mean
15 Sidley Austin?

16 A. Yes.

17 Q. Any other counsel?

18 A. Not to my knowledge.

19 Q. Did that collaborative process
20 involve anyone else other than Sidley Austin?

21 MR. DILLON: Objection to the
22 extent this question is seeking
23 privileged information. Subject to that
24 objection, you may answer the question.

25 A. No.

1 BY MR. PALYS:

2 Q. So in paragraph 1, is that -- does
3 paragraph 1 accurately represent the scope of
4 the opinions that you provided in your
5 declaration?

6 MR. DILLON: Objection, form.

7 A. I believe it summarizes the work.

8 BY MR. PALYS:

9 Q. Did you provide any opinion as to
10 whether any of the various references that you
11 identify in paragraph 1 discloses any claim
12 features recited in the '705 patent?

13 MR. DILLON: Objection, form.

14 BY MR. PALYS:

15 Q. Do you understand my question?

16 A. I think so.

17 Q. Okay. You can respond.

18 A. I understand my opinion as written in
19 the declaration is relevant to the claims of
20 the '705 and the '009 patents.

21 Q. Did you provide any opinion in your
22 declaration whether any of the various
23 references that you identify in paragraph 1
24 disclose any claim features recited in the '705
25 patent?

1 MR. DILLON: Objection to form.

2 BY MR. PALYS:

3 Q. Do you understand my question?

4 A. Yes.

5 Q. Okay.

6 A. My opinion focused on technical
7 matters and analyzed the previous work,
8 analyzed obvious combinations of previous work;
9 and hence, my opinion affects whether what is
10 disclosed in the claims of these two patents
11 was new or nonobvious at the time.

12 Q. When you say enhance my opinion of --
13 "affects whether what is disclosed in the
14 claims of these two patents was new or
15 nonobvious at the time," can you explain what
16 you meant by that?

17 MR. DILLON: Objection, form.

18 A. What I mean is that on work of
19 technical nature, and I did not provide a legal
20 opinion.

21 BY MR. PALYS:

22 Q. Okay. So did you review the claims
23 of the '705 patent?

24 A. Yes.

25 Q. Okay. In your opinions in your

1 declaration did you provide an opinion as to
2 whether any of the identified -- any of the
3 various references that you mentioned in
4 paragraph 1 disclosed features that are recited
5 in those claims of the '705 patent?

6 MR. DILLON: Objection, form.

7 A. I analyzed the previous work and
8 combinations of previous work that yield
9 methods and systems that are substantially
10 similar to those disclosed in the claims of the
11 patents.

12 BY MR. PALYS:

13 Q. When you say "that are substantially
14 similar to those disclosed in the claims of the
15 patents," are you testifying that you analyzed
16 the claims of the '705 and '009 patents with
17 respect to the previous work, as you mentioned
18 in your previous testimony?

19 MR. DILLON: Form.

20 A. What I did as reflected in the
21 declaration is, on one hand, to review the
22 claims and come up with an opinion on the
23 meaning of those claims. So one of the
24 sections of my declaration describes what I
25 believe is the meaning of various terms.

1 That's some of the work I've done.

2 Then in the declaration I identify
3 and review previous work that is relevant to
4 the claims and to the VirnetX inventions in
5 '705 and '009.

6 And then in another part of my
7 declaration, I analyze combinations of such
8 preferences of such prior work, I should say.

9 BY MR. PALYS:

10 Q. So to make sure we're on the same
11 page, sir, when you say "previous work" or
12 "prior work," are you referring to the -- what
13 I'll refer to as prior art references that are
14 identified in your declaration?

15 A. Yes. The term is in the declaration,
16 "prior art."

17 Q. So when you say "previous work," you
18 mean the prior art references; is that right?

19 MR. DILLON: Objection, form.

20 A. From my, you know, technical
21 perspective of a scientist and an engineer, I
22 look at work that was done at the -- you know,
23 during a certain period of time. I understand
24 that prior art is a legal concept. Based on
25 what was explained to me about the meaning of

1 this legal concept, I believe that such
2 previous work that is identified in the
3 declaration is prior art.

4 MR. PALYS: Why don't we take a
5 break?

6 (Recess taken.)

7 MR. PALYS: I'm handing the witness
8 a document labeled Exhibit 1001. It's a
9 copy of U.S. Patent Number 8,868,705.
10 (Exhibit No. 1001, previously marked, was
11 referenced and indexed.)

12 THE WITNESS: Thank you.

13 MR. PALYS: I'm also handing the
14 witness a copy of document labeled 1003,
15 which is a copy of U.S. Patent
16 Number 8,850,009.

17 THE WITNESS: '705 and '009? Okay.
18 (Exhibit No. 1003, previously marked, was
19 referenced and indexed.)

20 BY MR. PALYS:

21 Q. So, sir, Exhibit 1001, do you
22 recognize that document?

23 A. Yes.

24 Q. I'm going to refer to that document
25 probably today as the '705 patent. Is that

1 okay with you?

2 A. Yes.

3 Q. You understand when I say the '705
4 document, we will be referring to Exhibit 1001?

5 A. Yes. We already agreed about it.

6 Q. Are you familiar with Exhibit 1003?

7 A. The '009 patent.

8 Q. Yes. Are you familiar with it?

9 A. I have reviewed it, yes.

10 Q. Can you -- let's start with the '705
11 patent. Can you turn to the claims, which will
12 be on the last page, page 105 of Exhibit 1001,
13 second-to-last page.

14 Okay, on page 105, you see there's
15 column numbers in the patent? Do you see those
16 column numbers 55 and 56?

17 Do you see that?

18 A. Yes.

19 Q. Are you familiar with how patents are
20 structured? So when I say go to column 56,
21 you'll know where to go to in the patent?

22 A. Yes, I'm familiar with the format
23 with two columns, column numbers and the row
24 numbers.

25 Q. Okay, perfect.

1 So Claim 1, which is on column 55,
2 line 43 of the '705 patent, do you see that?

3 A. Yes.

4 Q. Okay. And that claim goes from line
5 43 to line 67 of column 55; right?

6 A. 43 to 67, Claim 1, yes.

7 Q. Okay. The element of Claim 1 that
8 extends from line 43 to 49, do you see that?

9 A. Yes.

10 Q. I'm going to refer to those, that
11 claim element, as the preamble of Claim 1 for
12 purposes of our discussion today. Okay?

13 A. Okay.

14 Q. Okay. Did you provide an opinion in
15 your declaration as to whether any of these
16 prior works, as you say, disclose the preamble
17 of Claim 1 of the '705 patent?

18 A. Among the prior work that I analyze,
19 there are a patent by Nurettin Beser and
20 others. There are manuals of product by
21 Aventail Corporation. And there is the
22 description of the IP SEC standard in RFC2401.
23 These are the prior art elements on which I
24 focused the most in my declaration. And I
25 include in my declaration technical description

1 of how combining such prior art plus additional
2 elements as I identified in the declaration
3 allows the consideration of a secure
4 communication system that is analogous to what
5 is described in the preamble.

6 Q. So did you -- in your declaration,
7 can you point to me where you have an opinion
8 of where the prior art references that you
9 identified disclose the preamble of Claim 1 of
10 the '705 patent?

11 MR. DILLON: Objection, form.

12 A. As I believe I mentioned before, my
13 declaration is the technical opinion and so
14 I've addressed combinations.

15 I can point to you some specific
16 portions of my declaration that cover
17 combinations which I understand are relevant to
18 Claim 1; however, I've not conducted a legal
19 analysis of concepts like, you know,
20 disclosing.

21 BY MR. PALYS:

22 Q. Do you believe disclosing is a legal
23 analysis? Is that your testimony?

24 MR. DILLON: Objection, form.

25 A. A term like "disclosing" has clearly

1 a legal meaning, and if I used it, it's based
2 on what will be my own understanding.

3 BY MR. PALYS:

4 Q. Okay. So you don't have an opinion
5 anywhere in your declaration where you give an
6 opinion as to whether the prior art references
7 that you identify disclose any of the features
8 of the preamble of Claim 1 of the '705 patent;
9 correct?

10 MR. DILLON: Objection, form.

11 A. I did not provide the legal opinion;
12 I provided technical analysis and opinion about
13 combinations, primarily of the prior work that
14 I -- I've identified. And I describe what type
15 of combined system will result. And it is my
16 understanding that this combined system is
17 analogous to what is disclosed in Claim 1.

18 BY MR. PALYS:

19 Q. What is the basis for your
20 understanding that the combined system is
21 analogous to what is disclosed in Claim 1?

22 MR. DILLON: Objection, form.

23 BY MR. PALYS:

24 Q. Do you understand my question?

25 A. Yes, I believe I understand it.

1 So my basis is that the combinations
2 I have analyzed and the prior work I have
3 analyzed provides a system whose behavior and
4 whose properties are similar to that Claim 1
5 preamble, but I've not opined to that
6 similarity in my declaration. I've only opined
7 to the, you know, technical aspects.

8 Q. On Claim 1 of the '705 patent, do you
9 see there's several other elements? I'll refer
10 to them as steps. They're numbered 1, 2, and
11 3. They extend from line 50 to line 67 of
12 column 55.

13 Do you see that?

14 A. Yes, I see them.

15 Q. Okay. Did you provide any opinion as
16 to -- well, strike that.

17 You did not provide an opinion as to
18 whether any of the prior art that you identify
19 discloses any of the features of these claim
20 elements 1, 2, and 3 of Claim 1; is that
21 accurate?

22 MR. DILLON: Objection, form.

23 A. What I will say is that I have
24 analyzed in a similar manner as before
25 combinations of previous work and aspects of

1 previous work that together result in methods
2 and systems whose property I understand --
3 whose properties I understand are related to
4 the methods disclosed in items 1, 2, 3 of
5 Claim 1.

6 And one of the reasons for my
7 understanding is counsel is petitioning that
8 this patent '705 is invalid, and that's an
9 additional reason why I understand that the
10 work I'd done is related.

11 BY MR. PALYS:

12 Q. And so to move things along if we
13 can, would your answer be the same -- well, let
14 me wrap this up and try to --

15 A. Okay, okay.

16 Q. So for Claim 1, all the elements of
17 Claim 1 --

18 A. Yes.

19 Q. -- you didn't -- in your declaration,
20 you didn't provide an opinion as to whether the
21 elements of those claims are disclosed in any
22 prior art reference --

23 MR. DILLON: Objection.

24 Q. -- right?

25 MR. DILLON: Objection, form.

1 A. Let me try to answer in a way that
2 addresses the point that you are trying to
3 make.

4 BY MR. PALYS:

5 Q. Okay.

6 A. And that I hope is going to be
7 useful. My declaration does not indicate
8 explicitly specific correspondences between
9 claim components, phrases, elements, and the
10 previous work at combinations I have
11 identified.

12 My understanding is that counsel has
13 done that type of analysis in their petition.

14 Q. Okay. I'm going to try and use a
15 phrase that we can -- hopefully, we can share
16 as we move forward.

17 So when you say your declaration does
18 not indicate explicitly specific
19 correspondences between claim components, would
20 you be comfortable if we refer to that as
21 mapping the claim components to the previous
22 work combinations that you mentioned?

23 MR. DILLON: Objection, form.

24 A. I will not characterize it in that
25 way.

1 BY MR. PALYS:

2 Q. Okay.

3 A. Okay.

4 Q. How would you like to characterize
5 it? I'm trying to think of a word that we can
6 use as we move forward with these questions
7 regarding your indication of -- well, you know,
8 what? Strike that. Let's just use what you
9 said, correspondence between claim elements.
10 That's what you testified to.

11 So just so we have an understanding,
12 when you say "correspondence between claim
13 components," you were referring to claim
14 elements when you say "claim components";
15 right?

16 MR. DILLON: Objection, form.

17 A. I don't know if claim elements
18 components have a specific, you know, legal
19 meaning.

20 BY MR. PALYS:

21 Q. Okay.

22 A. I think that, informally speaking, we
23 are talking about, you know, about parts of the
24 claim, sure. Components, elements, okay.

25 Q. Okay.

1 A. So what I can say -- and I believe I
2 mentioned it before -- is that my declaration
3 has several components, several parts.

4 In one part of the declaration I have
5 analyzed the terms that are used in the claims
6 of the '705 and the '009 patents and I have
7 done my best to understand the meaning of those
8 terms under the standard I was told I should
9 follow, which is the broadest reasonable
10 interpretation in view of the specification in
11 the patents.

12 I also reviewed some of the documents
13 as part of the patent prosecution, I guess it's
14 called, the file history, the IPR proceedings,
15 to try to understand what, for example, the
16 patent owner, VirnetX, believes is the meaning,
17 what the board believes is the meaning, what is
18 my own understanding of the meaning. And so I
19 have entered into my declaration paragraphs
20 which address what I believe is the meaning.
21 So that is one connection that is established
22 between the patents we are discussing and my
23 declaration.

24 Q. Okay.

25 A. And then --

1 Q. Sorry.

2 A. -- the other connection is that when
3 I discuss combinations, I use terms that are
4 related to the terms that are used in the
5 interpretation.

6 But to clarify again, I have not done
7 what can be considered correspondence or
8 mapping where one would create, let's say, a
9 table, what is on the left and on the right. I
10 have not put any such correspondence in my
11 declaration so my opinion does not include what
12 people sometimes do.

13 Q. And that's true for all claims of the
14 '705 patent; right?

15 MR. DILLON: Objection, form.

16 A. I believe that throughout the
17 descriptions of prior work in combinations I
18 have not cited claim numbers.

19 What I believe is the work I've done
20 may be helpful to others in making the case for
21 correspondences specific, as you said,
22 mappings.

23 BY MR. PALYS:

24 Q. So just to make sure we're clear, you
25 haven't done what can be considered

1 correspondence or mapping, as you mentioned,
2 for any of the claims of the '705 patent in
3 your declaration.

4 A. I would like to state it in a
5 different way and not with your words.

6 So what I've done is not an
7 explicit -- so I've not included in the
8 declaration an explicit table with mappings,
9 but I provided work that can be used -- but I
10 provided opinions that can be used as the basis
11 for such mapping.

12 Q. And that is true for all the claims
13 of the '705 patent; correct?

14 MR. DILLON: Objection, form.

15 A. So this is the type of work that I
16 intended to do, and as you saw me now scanning
17 through the declaration to double-check that I
18 did not inadvertently added what you will call
19 mapping in an explicit way.

20 So you asked whether it is about the
21 other claims. I believe that I have provided
22 technical opinion that can be used as the basis
23 for a variety of such claims. So my opinion is
24 about combinations that are relevant to these
25 claims. I did not provide in the -- in the

1 declaration, which is my opinion on the matter,
2 such explicit correspondence.

3 BY MR. PALYS:

4 Q. Would your testimony be the same for
5 the claims of the '009 patent as well?

6 A. I've used the same approach for both,
7 yes.

8 Q. So yes?

9 A. Sorry, sorry. Let me rephrase the
10 answer.

11 So I've used the same approach and so
12 I have also regarding the claims of the '009
13 patent performed the steps of understanding the
14 meaning of terms in the claims. And then I've
15 also examined relevant prior work, and I also
16 considered combinations of prior work. And
17 also for 709 -- sorry, for '009 is applicable
18 what I mention about my approach, which is
19 analyze combinations that can be used as the
20 basis for someone to make legal arguments.

21 Q. You mentioned earlier that you didn't
22 provide legal analysis of the claims; is that
23 accurate?

24 MR. DILLON: Objection, form.

25 A. I will rephrase it by saying I

1 provided a technical opinion on the meaning of
2 terms in the claim. And I understand that my
3 technical opinion can be used to make legal
4 arguments and determinations.

5 BY MR. PALYS:

6 Q. Can you turn to page -- or paragraph
7 19 of your declaration, please. Actually,
8 sorry, let's go to paragraph 12. It's a
9 section called "Legal Standards Of
10 patentability."

11 Do you see that?

12 A. Yes.

13 Q. And in that section -- and you're
14 free to flip through to confirm -- you have a
15 section 4, "Anticipation," that's on page 6;
16 right? Is that right, sir?

17 A. Yes.

18 Q. And --

19 A. Anticipation starts on page 6.

20 Q. And then you also have a section on
21 obviousness on page 7, starting on page 7;
22 right?

23 A. Yes.

24 Q. And now looking at paragraph 19, you
25 state: "I understand the following standards

1 govern determination whether a patent claim
2 is," quote, "anticipated by the prior art"; is
3 that right?

4 A. That's what it is written.

5 Q. And in paragraph 24 you mention:

6 "I understand that a claimed
7 invention is not patentable if it
8 would have been obvious to a person of
9 ordinary skill in the field of the
10 invention at the time the invention
11 was made."

12 Is that accurate?

13 MR. DILLON: Objection, foundation.

14 A. It is accurate for what it is
15 written, part of 24. It is a different
16 section.

17 BY MR. PALYS:

18 Q. Right. Do you have -- you don't have
19 an opinion in your declaration anywhere whether
20 the prior art anticipates any of the claims of
21 the '705 or '009 patent; right?

22 A. My declaration does not make explicit
23 statements about claims anticipation but
24 provides the foundation on which others may
25 wish to make such claims -- such statements.

1 Q. Your declaration doesn't provide an
2 opinion as to whether any claimed invention
3 that's recited in the claims of the '705 or
4 '009 patent would have been obvious to a person
5 of ordinary skill in the -- in the field of the
6 invention at the time the invention was made;
7 correct?

8 MR. DILLON: Objection, form.

9 A. Similar to my previous answer, I
10 believe that my declaration provides a
11 technical analysis of combinations of previous
12 work that I consider obvious to someone of
13 ordinary skill in the art at the time.

14 And it is my understanding that this
15 work that I've done, this technical work, could
16 be used as the basis for making arguments of
17 obviousness related to the claims in the
18 patent.

19 BY MR. PALYS:

20 Q. Is that one of the reasons why you
21 provided your opinions to support a basis for
22 an obviousness position?

23 MR. DILLON: Objection, form.

24 A. My motivation was simply to conduct a
25 technical analysis of what I considered

1 relevant. I was not motivated to do this
2 analysis and write the opinion to address a
3 specific objective.

4 BY MR. PALYS:

5 Q. In paragraph 28 of your declaration,
6 which extends from pages 7 to 8, you state:

7 "Specifically, I understand that
8 the obviousness question requires
9 consideration of four factors."

10 Do you see that?

11 A. Page 8, yes.

12 Q. And one of the four factors is the
13 differences between the prior art and the
14 claims at issue.

15 Do you see that?

16 A. Yes.

17 Q. Did you perform such analysis for any
18 claim of the '705 or '009 patent?

19 MR. DILLON: Objection, form.

20 A. So I can say that I analyzed the
21 claims and what I consider is their meaning,
22 and that is reflected in one part of the
23 declaration.

24 Then another part, I've analyzed
25 prior work, and I understand that my technical

1 work can be used as the basis for making a
2 legal argument on the matter of obviousness.

3 BY MR. PALYS:

4 Q. Okay. When you stated that you
5 analyzed the claims and you considered what
6 their meaning is, are you saying that you
7 analyzed every term in the claims to understand
8 their meaning? Or only certain words and
9 phrases of the claims?

10 MR. DILLON: Objection, form.

11 A. What I did is I reviewed all the
12 language in the claims, and I eventually
13 provided a specific interpretation for terms
14 that I understood were the most important
15 related to the matter.

16 BY MR. PALYS:

17 Q. How did you determine what terms were
18 the most important related to the matter?

19 MR. DILLON: Objection, form,
20 privileged to the extent it's seeking
21 privileged information. Subject to that
22 objection, you may answer the question.

23 A. I believe this is a question you
24 already asked, maybe not in the same words, and
25 so I can only give the same answer as before,

1 which is that the selection was the result of a
2 collaborative process.

3 BY MR. PALYS:

4 Q. A collaborative process with Sidley
5 Austin?

6 A. As I said before, yes, with counsel,
7 that is, Sidley Austin.

8 Q. Did you perform an analysis of any
9 differences between the prior art and the
10 claims of the '705 and '009 patent in your
11 declaration?

12 MR. DILLON: Objection, form.

13 A. I provided technical analysis of
14 prior work and combinations, and the resulting
15 opinion, as I expressed in the declaration,
16 could be used as the basis to identify or show
17 the lack of differences between the prior art
18 and the claims at issue.

19 BY MR. PALYS:

20 Q. Right. So you're saying that your
21 technical analysis could be used as the basis
22 to identify or show the lack of differences
23 between the prior art and the claims at issue.
24 But you yourself didn't do that analysis; isn't
25 that accurate?

1 MR. DILLON: Objection to form.

2 A. I don't think this is an accurate
3 description. The way I would characterize my
4 work is provide a technical foundation or a
5 technical basis for such analysis. And so I
6 was directly involved when you asked about
7 myself, about the -- providing this technical
8 foundation.

9 BY MR. PALYS:

10 Q. So are you testifying that you did
11 perform an analysis regarding the differences
12 between the prior art and the claims at issue
13 in your declaration?

14 MR. DILLON: Objection, form.

15 THE WITNESS: Can you repeat again
16 the question? I'm afraid you're asking
17 me the same so I'm trying to understand
18 better.

19 MR. PALYS: Right.

20 BY MR. PALYS:

21 Q. So the question is: Did you perform
22 an analysis regarding the differences between
23 the prior art and the claims at issue in your
24 declaration?

25 A. So I'm happy to provide an answer,

1 which is the same as I gave before. I believe
2 that in the interest of the truth, this is not
3 a simple yes/no answer, so I've tried to
4 explain -- and you can refer to my previous
5 answers -- what has been my role and what kind
6 of work I have done.

7 Q. Sir, what did you do today to prepare
8 for your cross-examination?

9 MR. DILLON: Objection to the
10 extent this question seeks privileged
11 information. So subject to that
12 objection, you may answer the question.
13 Objection to form.

14 THE WITNESS: Are you asking me
15 about today or any time previously,
16 prior and until today?

17 BY MR. PALYS:

18 Q. I'm sorry, I was reading the text.
19 I'm asking, what did you do to prepare for your
20 cross-examination today?

21 A. Today?

22 Q. Yes.

23 MR. DILLON: Objection to the
24 extent this question seeks privileged
25 information. Subject to that objection,

1 you may answer the question.

2 A. Today, I took a quick look at some of
3 the exhibits.

4 BY MR. PALYS:

5 Q. You misunderstood my question. Okay,
6 so that's what you did today.

7 What did you do to prepare for
8 today's cross-examination? How about that?

9 A. Okay. This is a different question.

10 Q. It is. I apparently had a different
11 interpretation. I just want to know what you
12 did to prepare for your deposition.

13 MR. DILLON: Same objection.

14 A. I conducted a review of documents,
15 and I met with counsel.

16 BY MR. PALYS:

17 Q. Did you meet with anyone else other
18 than counsel?

19 A. Not for the purpose of preparing.

20 Q. Are you familiar with Michael Fratto?

21 MR. DILLON: Objection, relevance.

22 A. Yes.

23 BY MR. PALYS:

24 Q. How are you familiar with him?

25 MR. DILLON: Objection, relevance.

1 A. I understand he provided an expert
2 witness declaration.

3 BY MR. PALYS:

4 Q. And you reviewed that declaration;
5 isn't that right?

6 MR. DILLON: Objection, relevance,
7 form.

8 A. I remember being provided with the
9 declaration and taking a look at it.

10 BY MR. PALYS:

11 Q. And you, in fact, on page --
12 appendix A of your declaration, page 2
13 identifies Exhibit 1043, which is the
14 declaration of Michael Fratto; isn't that
15 right?

16 A. Exactly.

17 Q. And you relied on that declaration
18 for your opinions in your declaration?

19 MR. DILLON: Objection, relevance,
20 form.

21 A. I would say I considered it.

22 BY MR. PALYS:

23 Q. And are you familiar with Rogg Gwern
24 (ph)?

25 MR. DILLON: Objection, relevance.

1 A. I think I remember having seen his
2 name, but I'm not sure.

3 BY MR. PALYS:

4 Q. In what context?

5 A. I don't remember right now.

6 Q. Had you ever heard of VirnetX prior
7 to being retained for these proceedings?

8 A. Yes.

9 Q. In what context?

10 A. I knew that it is a company with a
11 patent portfolio, and I remember news items
12 about the company.

13 Q. Could you turn to paragraph 45 of
14 your declaration, please.

15 A. Paragraph or page?

16 Q. 45. It's on page 15, sir. Are you
17 there?

18 A. Page 15, yes, paragraph 45.

19 Q. Right above paragraph 45 there's a
20 section, "Effective filing date of the '009
21 patent." Do you see that? It's right above
22 paragraph 45.

23 A. So paragraph 44 are you talking
24 about?

25 Q. There's a heading right above

1 paragraph 45 saying "Effective filing date of
2 the '009 patent."

3 A. Oh, yes. I can see it, right.

4 Q. And in paragraph 46 under this
5 section, you state --

6 "Based on my review of these
7 applications, I believe that the two
8 independent claims of the '009 patent
9 rely on information that was first
10 included in the 783 application."

11 Correct?

12 A. It is what it is stated.

13 Q. Right.

14 And when you testified that based on
15 your review of these applications, were you
16 referring to the applications identified in
17 paragraph 45?

18 A. Yes.

19 Q. So you reviewed every one of those
20 applications; is that right?

21 A. As stated in paragraph 46, I did
22 conduct a review.

23 Q. And did you read every page of those
24 applications?

25 MR. DILLON: Objection, form.

1 A. My review was not exhaustive. I was
2 scanning through them, I'm sorry, to enrich my
3 understanding as it is stated in paragraph 46.

4 BY MR. PALYS:

5 Q. In paragraph 47, you state that --
6 you make a reference to Claim 1 of the '009
7 patent and then you say:

8 "Based on my review of the
9 documents, no application filed prior
10 to 783 application uses the terms,"
11 quote, "domain name," "domain name
12 service," and "DNS request."

13 Is that right?

14 A. Paragraph 46 does reflect what was my
15 conclusion at the time.

16 Q. Did you mean paragraph 47?

17 A. Again, what is written. I thought
18 you asked me about paragraph 47.

19 Q. Yeah. Your answer said paragraph 46.
20 I'm just correcting your -- did you mean
21 paragraph 47?

22 A. I definitely meant paragraph 47.
23 Sorry.

24 Q. No, that's all right.

25 And in paragraph 47 when you say

1 "based on my review of the documents," again,
2 "the documents," is that referring to all the
3 applications that are in paragraph 45?

4 A. "The documents" refers indeed to the
5 applications in paragraph 45.

6 Q. Is it your opinion because those
7 documents don't use the terms "domain name,"
8 "domain name service," and "DNS request," that
9 is why it is your understanding that the
10 effective filing date of the '009 patent claims
11 is no earlier than February 15, 2000, as you
12 mention in paragraph 49?

13 MR. DILLON: Objection, form.

14 A. My opinion is based on two aspects.
15 First of all, what is in paragraph 47. And
16 then my opinion as written in my conclusion of
17 the 49 is based also on what I observe in
18 paragraph 48. That doesn't -- did not seem to
19 be controversial, what is the effective filing
20 date of the '009 patent.

21 BY MR. PALYS:

22 Q. Did you review all of the documents
23 that you list on paragraph 48?

24 A. From my recollection, it's that I
25 reviewed documents that are mentioned in the

1 exhibits. And also, as indicated in the
2 declaration, I also was given other information
3 as it is indicated here. All this type of
4 review, as I said, has been cursory, since the
5 issue was not controversial.

6 Q. Was your review of the applications
7 cursory to support your opinion that you make
8 in paragraph 47 regarding use of the terms
9 "domain name," "domain name service," and "DNS
10 request"?

11 MR. DILLON: Objection, form.

12 A. I will not use maybe the same words.
13 I will certainly say that it was a targeted
14 review to find the appearances of certain
15 keywords.

16 BY MR. PALYS:

17 Q. In paragraphs 56 through 58, you seem
18 to summarize the prosecution history of the
19 '705 and the '009 patents; is that accurate?

20 A. I will say that 58, paragraph 58
21 addresses the conclusion of the process,
22 doesn't summarize the entire process.

23 Q. When you say "process," you mean
24 prosecution history?

25 A. Yes.

1 MR. PALYS: Take a break?

2 THE WITNESS: Yes.

3 (Recess taken.)

4 BY MR. PALYS:

5 Q. Can you please turn to paragraph 59
6 on page 22 of your declaration. There's a
7 section there right above paragraph 59 labeled
8 "Construction of terms used in the '705 and
9 '009 patent claims"; right?

10 A. Yes.

11 Q. Is this section relating to the
12 certain words and phrases in the claims of the
13 '705 and '009 patent that you provide a
14 discussion of the meaning of?

15 A. Section D and its subsections provide
16 such an explanation of my understanding of the
17 meaning.

18 Q. Of certain terms, right, and phrases?

19 A. Yes.

20 Q. And those terms include "intercepting
21 a request" identified on page 24; right?

22 A. Yes.

23 Q. Include "domain name," which is
24 identified on page 25; right?

25 A. That's right.

1 Q. "Secure domain name" identified on
2 page 26; right?

3 A. Yes.

4 Q. "Provisioning information" identified
5 on page 27; correct?

6 A. That's right.

7 Q. "Modulated transmission
8 link/unmodulated transmission link" identified
9 on page 29?

10 A. Indeed.

11 Q. And "phone" on page 31.

12 A. And "phone" on page 31.

13 Q. That's right.

14 And those were for the '705 patent;
15 correct?

16 A. Yes.

17 Q. All right. And for the '009 patent,
18 you provide an opinion regarding the term
19 "domain name service" or "DNS" -- I'm sorry,
20 "domain name service (DNS request)" identified
21 on page 32; correct?

22 A. Yes.

23 Q. "Interception of the DNS request"
24 identified on page 33?

25 A. Yes.

1 Q. The term "encrypted communication
2 link" identified on page 33; correct?

3 A. Yes.

4 Q. "Provisioning information" identified
5 on page 35; right?

6 A. Right.

7 Q. And "secure communications service"
8 identified on page 35?

9 A. Yes.

10 Q. "Indication" identified on page 36;
11 correct?

12 A. Yes.

13 Q. "Virtual private network
14 communication link" identified on page 38;
15 correct?

16 A. Right.

17 Q. "Domain name" identified on page 39;
18 correct?

19 A. Yes.

20 Q. And "modulation" identified on page
21 40; right?

22 A. Yes.

23 Q. Okay. And are there any other terms
24 other than the ones we just listed for the '705
25 and the '009 patent that you provide an opinion

1 regarding the interpretation of?

2 MR. DILLON: Objection, form.

3 BY MR. PALYS:

4 Q. Do you understand my question?

5 A. I believe I understand it.

6 This is the part of my declaration
7 what you went through that contains more formal
8 definitions, definitions within quotes, what is
9 my understanding of the meaning.

10 From other parts of my declaration,
11 one may conclude other related meanings, but my
12 definition of terms is exactly as it -- my
13 formal definition of terms is exactly as in the
14 sections we went through in the declaration.

15 Q. So are there any other terms in the
16 claims of the '705 or -- and '009 patent that
17 you provide a definition for in your
18 declaration?

19 A. I will say that my declaration also
20 contains that section which is called
21 "Technical Background," section 4.

22 In this section, I recall well-known
23 terminology about computer networks and
24 security, and these definitions that I recall,
25 they're not in the -- in the formal style of

1 the previous section, are terms that may appear
2 in the patents and claims.

3 I hope this answers what you are
4 looking for.

5 Q. Could you turn to paragraph 66,
6 please, of your declaration.

7 A. Yes.

8 Q. And you have the '705 patent in front
9 of you; right?

10 A. Uh-huh.

11 Q. If you could open that up to the
12 claim, Claim 1. So Claim 1 of the '705 patent
13 recites the phrase "intercepting from the
14 client device a request to look up an Internet
15 protocol (IP address)"; correct?

16 A. This is the beginning of item 1, yes?

17 Q. Right. And you identify that on
18 paragraph 66 as well; correct?

19 A. So what is identified in 66 I
20 understand is a subset of the sentence that you
21 quoted before starting at "request," and I
22 think you continued up to "Internet protocol,
23 IP." I don't know if this is how --

24 Q. Okay. You construed the phrase
25 "intercepting ... a request" --

1 A. Uh-huh.

2 Q. -- in Claim 1 of the '705 patent to
3 mean receiving -- to mean receipt of a message
4 by a DNS proxy server -- hold on. Let me start
5 over.

6 You interpreted the term
7 "intercepting ... a request" to include a proxy
8 computer or device receiving a request
9 pertaining to a first entity at another entity;
10 isn't that right?

11 A. So my interpretation according to the
12 standard of broadest reasonable interpretation,
13 if you want the specification, is exactly what
14 you see in paragraph 69. So as I stated it
15 includes a proxy computer or device receiving a
16 request pertaining to a first entity at another
17 entity.

18 Q. If you open up the '009 patent as
19 well and go to Claim 1, please. In column 56,
20 line 31, you see that Claim 1 includes the
21 phrase "interception of the DNS request"?

22 Do you see that?

23 A. Yes, I can see the phrase at line 31
24 "interception of the DNS request."

25 Q. And turn to paragraph 86 of your

1 declaration, please. In paragraph 86, your
2 construction "interception of the DNS request"
3 that's in the claims of the '009 patent is or
4 includes "a proxy computer or device receiving
5 a DNS request pertaining to a first entity at
6 another entity"; correct?

7 A. I believe you just quoted what is
8 indeed written in 86. Is that right? Did you
9 just verbatim quote it?

10 Q. The question is: Is that your
11 construction of that term?

12 A. Can you repeat it so I just can
13 double check my answer so that I can --

14 Q. Why don't you read it out loud, what
15 your construction is for "interception of the
16 DNS request"?

17 A. Perfect. So what I'm saying is that
18 the broadest reasonable interpretation of this
19 term includes a proxy computer or device
20 receiving a DNS request pertaining to first
21 entity at another entity.

22 Q. And that's your construction of that
23 term, "interception of the DNS request";
24 correct?

25 A. Yes.

1 Q. Now let's use the '705 patent. Go to
2 column 40 of that patent.

3 A. Yes.

4 Q. And in column 40, lines 1 through 24,
5 is a paragraph that begins with "According to
6 one embodiment, DNS proxies 2610 intercepts all
7 DNS lookup functions ..." Do you see that?

8 A. Can you tell me the specific line you
9 are referring to?

10 Q. It was lines 1 through 24 at column
11 40. Why don't you review those lines.

12 A. Thank you.

13 MR. DILLON: Joe, I think he's now
14 looking at the '009 patent. We're
15 talking about the '705 patent.

16 THE WITNESS: Exactly. Thank you
17 for that.

18 MR. PALYS: It was the '705 patent.
19 Sorry.

20 THE WITNESS: So you want me to
21 look exactly which lines, since I'm now
22 looking at this document? Can you
23 repeat the lines on column 40?

24 BY MR. PALYS:

25 Q. So you read lines 1 through 24,

1 column 40; right?

2 A. Column 40, 1 through 24.

3 Q. Right.

4 A. So you like me to read the, okay, up
5 to line or a sentence that started but not
6 ended.

7 Q. Okay.

8 A. Okay. Yes, I have reviewed it now,
9 thank you.

10 Q. Okay. When this passage -- you know,
11 like in line 1 of column 40, it refers to DNS
12 proxy intercepts all DNS functions. This
13 passage of the specification, when it refers to
14 intercepting, you agree that that's referring
15 to a scenario where a device receives something
16 intended for another?

17 MR. DILLON: Objection, form.

18 A. Yes. As I explain in my declaration,
19 on paragraph 68, this initial sentence
20 describes a scenario where a request is
21 intercepted.

22 BY MR. PALYS:

23 Q. In paragraph 68 you say:

24 "One of ordinary skill in the art
25 reading the patents would understand

1 the term 'intercepting' to mean
2 receiving a request at a device other
3 than the device for which the request
4 was intended."

5 A. Which paragraph did you say?

6 Q. 68, what you just referred me to. I
7 was reading from page 24, 25.

8 A. Yes, this is what it is written.

9 Q. Okay. So do you agree that the
10 broadest reasonable interpretation of this
11 term, "intercepting a request," includes
12 receiving and acting on a request where the
13 request is intended for a recipient at a
14 destination other than the destination at which
15 the request is intercepted?

16 MR. DILLON: Objection, form.

17 A. So that provided me with an alternate
18 wording, and my opinion remains exactly what
19 you see in the paragraph 69, which is based on
20 the discussion in the preceding paragraphs, 66,
21 67, and 68.

22 BY MR. PALYS:

23 Q. Okay. So when you used the word
24 "pertaining to" in your interpretation on
25 paragraph 69, is that based on your discussion

1 in paragraph 68?

2 Does the "pertaining to" mean that
3 the request -- let me start this over.

4 So your construction in paragraph 69
5 says that interpreting -- intercepting a
6 request includes a proxy computer or device
7 receiving a request pertaining to a first
8 entity at another entity; right?

9 A. That's the language, yes.

10 Q. Right. So what I'm trying to
11 understand is you also give an understanding of
12 what "intercepting" means in paragraph 68 where
13 the term means receive a request at a device
14 other than the device for which the request was
15 intended.

16 Do you see that?

17 A. I can see that.

18 Q. Right.

19 So what I'm trying to understand from
20 these two explanations that you give is the
21 "pertaining to" in paragraph 69, is does that
22 relate to the meaning that something is
23 intended for?

24 So in other words, receiving a
25 request intended for a first entity at another

1 entity?

2 MR. DILLON: Objection, form.

3 A. I picked a slightly different word,
4 "pertaining," instead of "intended for." And
5 under the broadest reasonable interpretation,
6 what I have been doing is to consider this case
7 of intended for and also a situation where
8 there may be no explicit intention, the request
9 is ordinarily processed by another entity or
10 received by another entity, will say more
11 specifically, ordinarily received by another
12 entity, and instead, it is received at the
13 first entity.

14 BY MR. PALYS:

15 Q. Let me help you out here. Figure 25
16 of the '705 patent, please. That's on page 65
17 of Exhibit 1001.

18 A. Figure 25, page 65, right?

19 Q. Yes, sir.

20 A. Yes.

21 Q. Make sure you're on the right page.

22 A. Actually, you asked for the '705?
23 Because they are very similar figures.

24 Q. Very similar figures, right.

25 So in figure 25, we see that the '705

1 patent is disclosing what's labeled here as
2 prior art.

3 You can see that; right?

4 A. Yes.

5 Q. And you agree that it shows a DNS box
6 2502 --

7 A. Yes.

8 Q. -- in the figure, right? What's
9 labeled as a target website, 2503; correct?

10 A. Correct.

11 Q. And a client 2501, right?

12 A. Yes.

13 Q. Okay. And the corresponding
14 disclosure for figure 25, just for your -- if
15 you want to refer back to it, is on column 39
16 of the '705 patent.

17 A. Yes.

18 Q. So you agree that figure 25's
19 describing here a conventional DNS process;
20 right?

21 A. I will agree that this figure
22 describes more specifically accessing a website
23 called target website by web browser, and the
24 intermediate step of issuing a DNS request,
25 receiving a response, and then requesting a

1 page from the website and receiving the page.

2 Q. So column 39 refers to this as a
3 conventional scheme; right? That's on line 8
4 of column 39.

5 A. Yes. It's repeated on line 19.

6 Q. And then line 1, the DNS you see in
7 figure 25, that's a conventional DNS; correct?

8 A. I'll say that the figure describes
9 the behavior of this DNS server as viewed by
10 what is referred to as user's computer 2501.
11 This figure does not describe the overall
12 operation of a DNS server.

13 Q. Are you disputing that figure 25, the
14 DNS 2502, isn't a conventional DNS?

15 MR. DILLON: Objection, form.

16 A. I'm only pointing out that this
17 figure describes part of the operation of a DNS
18 server. I'm not saying that this server is
19 unconventional as intended, I believe, by the
20 specification. This specification points to
21 this DNS server being a conventional one that
22 provides this lookup function so as described
23 in line 1, 2, and 3.

24 BY MR. PALYS:

25 Q. Right. I think we're saying the same

1 thing.

2 A. We're saying the same thing.

3 Q. It's a conventional DNS, and 2502 in
4 figure 25 is described as a conventional DNS.

5 A. Yes, it's referred to as a
6 conventional DNS.

7 Q. Exactly.

8 A. And the figure only illustrates a
9 portion of what it does. It's a -- it does
10 much more than what is shown here.

11 Q. Understood.

12 So the question is, so we have
13 conventional DNS. This figure's describing a
14 standard DNS request process; right? The text
15 and the figure -- figure 25 and its
16 corresponding text in column 39 is describing a
17 standard DNS lookup request with a conventional
18 DNS server; correct?

19 A. I believe it describe the portion of
20 the conventional DNS request as response as
21 viewed by the user's computer. Does not
22 describe the work that the DNS server does and
23 what other resources it may access in order to
24 provide the DNS response.

25 Q. So if this conventional DNS is

1 receiving a standard DNS request, would you
2 agree that the DNS request has been intercepted
3 by the DNS 2502?

4 MR. DILLON: Objection, form.

5 A. So can you provide more context?

6 Are you asking about interception of
7 a request in the context of the general
8 operation of a browser wishes to access a
9 website and using a DNS server, or are you
10 asking about the specific meaning of
11 "interception" in the claims?

12 BY MR. PALYS:

13 Q. So with your understanding of what
14 interception is in the context of the '705
15 patent, is the DNS request that's being sent,
16 the standard DNS request that's being provided
17 to the conventional DNS server, is that request
18 intercepted by the DNS?

19 MR. DILLON: Objection, form.

20 A. So figure 25 describes what is a
21 general process for a web browser to access a
22 website, and as part of the process requesting
23 and obtaining as a response information about
24 how to access the target website. In the
25 general context that I understand is exactly

1 meant here, which is describing the operation
2 of conventional name servers, also known as
3 conventional DNS servers, the request that
4 it -- that is issued by the user's computer is
5 intended to be processed by the DNS resolution
6 system.

7 Q. So is that request intercepted by the
8 DNS system?

9 A. I'm using in this general context the
10 word "intended to," and the word "intended to"
11 in a general context is different from
12 "intercepting."

13 THE WITNESS: Now can I take other
14 quick break, or can we have a longer
15 lunch break?

16 MR. PALYS: Sure, we can take a
17 break. That's fine. Which of the two,
18 lunch or quick? What do you prefer,
19 sir? You're driving the boat here.

20 THE WITNESS: It's almost 12:30.

21 MR. PALYS: Lunch?

22 THE WITNESS: Lunch break.

23 MR. PALYS: Your call.

24 THE WITNESS: Okay.

25 (Recess taken.)

1 BY MR. PALYS:

2 Q. Can you please turn to paragraph 70
3 of your declaration, sir.

4 A. Yes.

5 Q. In paragraph 70 it appears that you
6 have two different interpretations of the word
7 "domain name," and I just want to get
8 clarification from you which one you -- is your
9 interpretation. So if you could read -- review
10 paragraph 70, and then I'll ask my follow-up
11 question.

12 A. In paragraph 70, I started by
13 describing what I would consider the standard
14 meaning of the term, providing a short
15 description. Then I discuss additional
16 information I have considered. In particular,
17 as I address in the paragraph, the fact that I
18 have been informed that VirnetX proposed a
19 slightly different meaning. And I reflected on
20 the matter, and then I concluded that my
21 opinion of the broadest reasonable construction
22 of "domain name" in view of the specification
23 is a name corresponding to an IP address. So I
24 accepted the proposed interpretation as
25 mentioned here of VirnetX.

1 Q. Thank you.

2 Can you turn to paragraph 126 of your
3 declaration? And in that paragraph, you make a
4 reference to "The domain name system (DNS)
5 translates host names, e.g., www.apple.com";
6 right?

7 A. Referring to 126 or also other
8 paragraphs?

9 Q. In paragraph 126, you refer to
10 www.apple.com. Do you see that?

11 A. Yes.

12 Q. Is apple.com a domain name?

13 A. Apple.com is generally considered to
14 be a domain name.

15 Q. Okay. And would that domain name,
16 apple.com, correspond to an IP address of a
17 network device?

18 MR. DILLON: Objection, form,
19 relevance.

20 A. I will say that in a general context,
21 domain name systems can be used by providing
22 them to a DNS resolution system or DNS system,
23 which will attempt to provide an IP address or
24 other resource associated with the host name.

25 I'm trying to summarize what will be

1 a more complex subject.

2 BY MR. PALYS:

3 Q. But does that IP address correspond
4 to a device? Like the apple.com, it will have
5 an IP address; right?

6 MR. DILLON: Objection, form.

7 A. So in a general context, if I use
8 computing device or a network device and ask to
9 the DNS system that starts with this computer
10 device and we extend to other devices about
11 www.apple.com, the device will attempt to find
12 one or more IP addresses for this domain name.
13 And I believe that apple.com currently does
14 provide this type of information. Sorry, it
15 does correspond to some IP address. I'm not
16 sure if it is the one listed here.

17 Q. Is the IP address, say, for the
18 domain name in this example, apple.com, does
19 that IP address correspond to a device?

20 MR. DILLON: Objection, form,
21 relevance.

22 THE WITNESS: So can you actually
23 repeat the question so I understand
24 better?

25 BY MR. PALYS:

1 Q. All right. So there's a domain name,
2 apple.com, right? Corresponds to an IP
3 address; right?

4 A. I was asking you to repeat the entire
5 question.

6 Q. I'm giving you the question now, sir,
7 okay? So there's the domain name apple.com.

8 A. Yes, there is such an example.

9 Q. There is an IP address that
10 corresponds to that domain name; correct?

11 A. There might be an IP address that
12 corresponds to the domain name.

13 Q. And that IP address, does that
14 correspond to a device, the IP address?
15 Do you understand my question?

16 A. Now I understand your question.
17 Thanks for splitting it into components.

18 Q. No problem.

19 A. So what I'll say is that in a general
20 context, and omitting a lot of details, as I do
21 in paragraph 126 of my declaration, IP
22 addresses are generally associated with devices
23 or with network interfaces of devices; however,
24 the use in the computer networks community of
25 IP addresses has also made alternate uses of

1 them.

2 Q. What kind of alternate uses?

3 A. Again, omitting details, I will say
4 that an IP address could be used to indicate
5 that certain circumstances occur, and that's
6 speaking in a very general, broad context.

7 Q. In the context of the '705 and the
8 '009 patents, is the domain name, for example,
9 website.com, is that a standard or -- yeah,
10 like a standard domain name?

11 A. Can you point me to the part of the
12 patent you are referring to?

13 Q. Sure. We can go to the '705 patent,
14 column 52, lines 37 through 40.

15 A. Sorry, so column 52 and then which
16 line?

17 Q. 37 through 40.

18 A. 37 through 40? Okay.

19 So you were asking me before about IP
20 addresses and devices, and now you are pointing
21 me to a section of this patent '705 that
22 discusses what is indicated here as attempting
23 to register secure domain name website .SCOM,
24 and so if you could please actually ask me
25 again the specific question.

1 Q. Does the '705 and the '009 patent
2 disclose nonsecure domain names and secure
3 domain names?

4 MR. DILLON: Objection, form,
5 relevance.

6 THE WITNESS: Are you asking me a
7 question now?

8 BY MR. PALYS:

9 Q. Sir, yeah, I'm asking a question.
10 Can you just listen to the question, please?

11 A. Yeah. You have made an assertion, so
12 are you asking me to confirm it or not?

13 Q. So my question was: Does the '705
14 and '009 patent disclose nonsecure domain
15 names?

16 A. These patents do use the term
17 "nonsecure domain name" as indeed, for example,
18 on line 40 on that column.

19 Q. So the example on line 40 is
20 website.com you'd agree is an example of a
21 nonsecure domain name; correct?

22 MR. DILLON: Objection, form.

23 A. So here's what I can say. If you can
24 turn to paragraph 71 and then 72 and 73 of my
25 declaration, you will see what is the opinion I

1 have of the broadest reasonable interpretation
2 of the term "secure domain name." And I give
3 here what is my interpretation at the end of
4 paragraph 73.

5 Now, you asked me about the sentence
6 that uses the language "nonsecure domain name,"
7 and the way I view this term is being the
8 negation of secure domain name. So the patent
9 talking about a domain name website.com and the
10 patent specification indicating that this is
11 something that is not a secure domain name.

12 Q. Okay. In paragraph 73 you
13 acknowledge that, for example, .SCOM is a
14 nonstandard top-level domain name; correct?

15 A. Actually, not making this
16 acknowledgment. I am simply quoting the
17 specification in the '705 patent, quoting from
18 the specification in the '705 patent. Okay?

19 Q. So do you agree that .SCOM is a
20 nonstandard top-level domain name in the
21 context of the '705 and '009 patent?

22 A. I do not agree to your exact
23 sentence. And I believe this is reflected in
24 paragraph 73.

25 Q. So it's your opinion that a .SCOM is

1 not an example of a nonstandard top-level
2 domain name in the context of the '705 and '009
3 patent; is that right?

4 MR. DILLON: Objection, form.

5 A. So I disagree with the exact form of
6 your statement as being my opinion. My opinion
7 simply states that what I consider the broadest
8 reasonable interpretation of this term, "secure
9 domain name," is a name that corresponds to a
10 secure computer network address. And I have a
11 brief discussion before that further elaborates
12 on some of what led me to this conclusion.

13 BY MR. PALYS:

14 Q. All right. So my question was
15 whether you agree that .SCOM is a nonstandard
16 top-level domain name in the context of the
17 '705 and '009 patents.

18 MR. DILLON: Objection, form.

19 A. So for clarification, are you asking
20 me that generally at a certain period in time a
21 top-level domain such as dot com -- sorry,
22 .SCOM is considered nonstandard?

23 BY MR. PALYS:

24 Q. I can repeat the question. That's my
25 question. It's whether you agree that .SCOM is

1 a nonstandard top-level domain name in the
2 context of the '705 and '009 patent. I don't
3 believe you answered it yet. That's why I keep
4 asking you.

5 A. I see. What I can say is when I
6 looked at this specific language in the patent,
7 I noted that the specification refers to such
8 TLDs, top-level domain names, as nonstandard.
9 But also what I noted is that the specification
10 establishes some sort of equivalence of these
11 type of nonstandard TLDs with secure aspects of
12 domain names or network addresses.

13 And after reflecting on this, I
14 opined that security is not in general,
15 according to the broadest reasonable
16 interpretation, not specific of a name, but
17 security is about a computer network, about
18 computers there, devices on that network.

19 So I have tried to understand the
20 language that is used and tried to think how I
21 would interpret "secure domain name."

22 Q. Could you go to the claims for the
23 '705 patent, sir.

24 A. Yes.

25 Q. On Claim 1, column 55 --

1 A. Yes.

2 Q. -- line 50, 51 there's a phrase or
3 limitation, "intercepting from the client a
4 request to look up an Internet protocol (IP)
5 address."

6 Do you see that?

7 A. Yes.

8 Q. What is your interpretation of a
9 request to look up an Internet protocol (IP)
10 address in Claim 1?

11 MR. DILLON: Objection, scope.

12 A. I believe that I already indicated
13 what is my interpretation of the concept of
14 intercepting within this patent.

15 BY MR. PALYS:

16 Q. Right.

17 A. Okay.

18 Q. But my question relates to the part
19 of that phrase that starts with "the request to
20 look up an Internet protocol (IP) address,"
21 that portion.

22 Did you provide or do you have a
23 broadest reasonable interpretation of that
24 term?

25 MR. DILLON: Objection, scope.

1 A. So looking back at the claim
2 construction section of my declaration, I did
3 not provide such a formal definition for the
4 fragment that you asked me to look at.

5 BY MR. PALYS:

6 Q. Does your declaration have an opinion
7 on any interpretation of that term?

8 MR. DILLON: Objection, form.

9 MR. PALYS: Let me withdraw the
10 question.

11 BY MR. PALYS:

12 Q. Did you perform a claim construction
13 analysis on that phrase, that term, "request to
14 look up an Internet protocol (IP) address" in
15 your opinions for the '705 and '009 patents?

16 A. So before, you were asking about
17 '705. Now you're asking me about '705 or '009?

18 Q. I meant your declaration, which
19 addresses both patents.

20 A. Okay.

21 Q. So I'll rephrase it for you.

22 So did you perform a claim
23 construction analysis for the term "request to
24 look up an Internet protocol (IP) address" in
25 your declaration?

1 A. So what I can say is that in the
2 claim construction for the '009 patent, I
3 discussed the phrase "domain name service
4 request," or "DNS request."

5 And the DNS request, as I explain, is
6 a request for a resource corresponding to a
7 domain name. And one of the resources that are
8 generally associated with domain names is one
9 or multiple IP addresses.

10 Q. So you mentioned the '009 Claim 1.
11 So do you have that patent there too?

12 A. I also -- yes.

13 Q. Can you go to Claim 1?

14 A. Yes.

15 Q. And in that same portion of the claim
16 that you just referenced, it will be on line
17 starting around line 29 of column 56 --

18 A. Yes.

19 Q. -- right?

20 There, we see a request to look up a
21 network address of a second network device.

22 A. Yes.

23 Q. Okay. And in Claim 1 of the '705
24 patent we were referring to there's this
25 request to look up an Internet protocol (IP)

1 address; right?

2 A. Right.

3 Q. And in '009 -- and I know I'm
4 bouncing around, but stay with me.

5 A. Yes.

6 Q. On line 29, the domain name service,
7 the DNS request to look up a network address,
8 would -- is there a difference between a domain
9 name service request to look up a network
10 address and a request to look up an Internet
11 protocol or an IP address?

12 MR. DILLON: Objection, form.

13 A. In general, an IP address is a
14 particular type of a network address.

15 BY MR. PALYS:

16 Q. Is there a difference in that context
17 for a domain name service request to look up a
18 network address as opposed to a -- to a request
19 to look up an IP address?

20 A. Are you meaning the '009, the '705,
21 or some other context?

22 Q. Well, again, in the '009 and '705
23 patent we're referring to these limitations to
24 request a lookup -- the '705 says "request to
25 look up an IP address"; right?

1 A. Yes, correct.

2 Q. And '009 has a domain name service
3 request to look up a network address. And you
4 mentioned that, in general, an IP address is a
5 particular type of network address; right?

6 A. Yes, that is the general --

7 Q. Right.

8 A. -- notion.

9 Q. Is there a difference -- when you
10 look at the '705 patent, we notice it doesn't
11 have a DNS request; right? It just says "a
12 request to look up an IP address" in line 53;
13 right?

14 A. Which patent again?

15 Q. '705.

16 A. Okay, '705.

17 Q. So on line 53, it says determining
18 whether the -- I'm sorry, at line 50, yeah,
19 "intercepting from the client device a request
20 to look up an IP address"; right?

21 A. Right, right.

22 Q. And in the '009 patent in Claim 1,
23 you refer to a domain name service (DNS)
24 request to look up an IP address. So you see
25 the distinction in the language of the claims

1 between both portions of the '009 and '705
2 patent?

3 A. What I can say is that scanning again
4 through the claims, I cannot see an explicit
5 reference in '009 to a specific IP address
6 instead of a generic network address.

7 On the other hand, other elements of
8 the claim, including referring to a domain name
9 service, referring to telephony devices,
10 virtual private network communication links,
11 they all suggest that this address could be an
12 IP address.

13 Q. So my question is: In the '009
14 patent it uses the phrase "domain name service
15 (DNS) request to look up a network address."
16 Okay?

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

18 Q. In the '705 it uses the phrase "a
19 request to look up an Internet protocol
20 address." Okay?

21 A. Yes. This is what it says there,
22 yes.

23 Q. Okay. Is there a difference between
24 that phrase in the '009 patent that uses
25 "domain name (DNS) request to look up a network

1 address of a second network device" and the
2 phrase in the '705 patent where it says
3 "request to look up an IP address" beyond the
4 use of a network address and an IP address?

5 MR. DILLON: Objection, form.

6 A. So I -- I -- if you want, I can
7 answer. So I can refer back in the '009 to a
8 discussion about domain name servers and the
9 use of what is called DNS proxies and the
10 discussion about what kind of operation is
11 performed. And here, the discussion in this
12 context refers to IP addresses. Maybe I should
13 just summarize it going back to the --

14 BY MR. PALYS:

15 Q. Let me try it this way.

16 A. Okay.

17 Q. Try it one more time.

18 So the '009 patent uses -- says
19 "domain name service (DNS) request." That's on
20 line 29 of Claim 1, or column 56; right?

21 A. Yes.

22 Q. The '705 patent uses on line 50 just
23 the term "a request." Okay? Do you see that?

24 A. Yes.

25 Q. And what I'd like to know is what's

1 the significance of the addition of a DNS or
2 domain name service to the phrase -- to the
3 request that's in '009 patent as opposed to the
4 request that's in the '705 patent, as I just
5 pointed out?

6 MR. DILLON: Objection, form.

7 A. My understanding is that in the '009
8 patent, in these lines that we are talking
9 about on -- about Claim 1 of '009, the request
10 in question is a request that follows the DNS
11 protocol for such requests. That is my
12 understanding of the meaning of a domain name
13 service request.

14 BY MR. PALYS:

15 Q. Okay, let's shift gears for a second.
16 Can you go to paragraph 148 of your dec?

17 A. Paragraph, sorry. Wrong page. Okay.

18 Q. Page 58.

19 A. Yes.

20 Q. And in this paragraph and the
21 following subsequent paragraphs you discuss RFC
22 publications; correct? Looking at the title
23 right above paragraph 148.

24 A. Yes, I describe RFCs and their
25 publication process.

1 Q. So are you familiar with the RFC
2 process?

3 A. Yes.

4 Q. And what's the basis of your
5 familiarity with the RFC process?

6 A. My business includes having viewed
7 RFCs, having discussed RFCs, understanding for
8 a while how the RFC process helps in general
9 the developer community and manufacturers and
10 researchers reach standards that facilitate the
11 use of the Internet and, more generally,
12 communications and computing.

13 Q. Were you ever personally involved in
14 the release of an RFC document?

15 A. Can you clarify the meaning of
16 "release"?

17 Q. Well, previously I asked you if you
18 were familiar with the release process for the
19 RFC documents and you said you were, so I'm not
20 sure where your misunderstanding of the term
21 "release" comes from now.

22 A. Sorry, I thought you had said of the
23 publication process. But -- so I have not been
24 personally involved in the actions of
25 submitting drafts and proposed RFCs. I've not

1 been involved in the IETF organization, so I've
2 not been one of their employees or
3 collaborators, so I have not participated in
4 this type of aspect of the release.

5 Q. You reviewed the RFC 2026; isn't that
6 right?

7 A. Yes.

8 Q. And is it your understanding or --
9 well, just let me ask it this way. Would the
10 RFC 2026 have a retroactive effect to earlier
11 released RFCs?

12 MR. DILLON: Objection, form,
13 foundation.

14 THE WITNESS: Can you clarify
15 "retroactive effect"?

16 BY MR. PALYS:

17 Q. Yeah. Would the release process --
18 well, let me take a step back.

19 You understand the RFC 2026 describes
20 some release processes for the RFC standards;
21 right?

22 A. So the way I characterize this is the
23 development and publication process, and that
24 is addressed in RFC 2026, as I point out in
25 paragraph 149.

1 Q. Okay. Would the RFC development and
2 publication process as described in RFC 2026
3 apply to earlier released RFC documents?

4 MR. DILLON: Objection, relevance,
5 scope.

6 A. When you say "earlier," you mean
7 before the publication of RFC 2026, or some
8 other meaning?

9 MR. PALYS: So I'm handing the
10 witness a copy of Exhibit 1036, which is
11 a copy of RFC 2026 provided by Apple.
12 (Exhibit No. 1036, previously marked, was
13 referenced and indexed.)

14 BY MR. PALYS:

15 Q. So my question, once you've had a
16 chance to review that -- I'll give you a
17 moment.

18 A. Uh-huh. Is it time to ask for a
19 break or first you need to ask your question?

20 Q. I would like to finish this line of
21 questioning.

22 A. So let me review.

23 Q. I'm sorry.

24 A. No, that's fine. I have taken a look
25 now. I didn't have time to read it all. I

1 already reviewed before.

2 Q. You didn't memorize it?

3 So the question was the RFC 2026 that
4 you have in your hand, would the development
5 and publication process that is disclosed in
6 RFC 2026 apply to RFCs that were released prior
7 to the October 1996 date that you see in the
8 top right corner of Exhibit 1036?

9 MR. DILLON: Objection, relevance,
10 scope.

11 A. So like other RFCs, this specific RFC
12 as indicated at the top left makes obsolete or
13 replaces another RFC numbered 1602. And these
14 other RFCs also addresses the Internet
15 standards process, and it's not considered on
16 that. The current 2026 we are talking about is
17 labeled revision 3.

18 BY MR. PALYS:

19 Q. So the 1602 you just mentioned up in
20 the top left --

21 A. Yes.

22 Q. -- would that have been the RFC
23 development and publication process that would
24 have been in effect before this RFC 2026 came
25 into effect?

1 MR. DILLON: Objection, scope,
2 relevance.

3 A. RFC 1602 was the previous description
4 of the IETF standards process before the
5 publication of RFC 2026.

6 BY MR. PALYS:

7 Q. In paragraph 149 of your dec you
8 refer to Section 2.1 of RFC 2026; right?

9 A. Yes.

10 Q. And in paragraph 149, you state "That
11 RFC," which you're referring to the 2026;
12 right? "That RFC explains that that RFC
13 publications and," quote, "Internet drafts,"
14 end quote, "are widely disseminated on the
15 Internet." And then you follow along with
16 reference to Section 2.1 of RFC 2026; correct?

17 A. That's right.

18 Q. All right.

19 A. Now can I take a break?

20 Q. Just one question on this thing right
21 here. How about that?

22 A. Last question?

23 Q. Last question, just literally.

24 A. I just want to make sure.

25 Q. I apologize. I forgot about the

1 break.

2 A. Okay.

3 Q. So my question is this: Where you
4 cite to in the RFC 2026 doesn't make any
5 mention of Internet drafts; correct?

6 A. So the sentence that says -- that RFC
7 explains refers to RFC publications and drafts.
8 And then I give a quote of text that refers
9 explicitly to RFC documents, and their series
10 being an archival series and other concepts in
11 that quote.

12 MR. PALYS: Okay, we can take a
13 break.

14 (Recess taken.)

15 MR. PALYS: I'm handing the witness
16 a copy of Apple Exhibit 1007. It's a
17 copy of U.S. Patent Number 6,496,867 to
18 Beser.

19 (Exhibit No. 1007, previously marked, was
20 referenced and indexed.)

21 BY MR. PALYS:

22 A. Beser or Beser?

23 Q. I was just going to ask you that. I
24 really was. So let me ask this first question.
25 Are you familiar with Exhibit 1007, sir?

1 A. Yes.

2 Q. How do you pronounce the inventor
3 named on the patent of Exhibit 1007?

4 A. I have been wondering myself.

5 Q. I refer to it as Beser. And what do
6 you refer to it as?

7 A. I have been using Beser, but I can
8 adopt your pronunciation.

9 Q. I don't want you to adopt, I just
10 want to make sure that you're not confused.

11 So when I say "Beser," I mean
12 Exhibit 1007. And I will understand when you
13 say "Beser," you're talking about the same
14 exhibit. And none of this will matter on the
15 transcript because she can't print the
16 pronunciations out, so I think we're good.

17 A. Sounds good. We're not going to
18 discuss if the S is a special S or the Latin S.

19 Q. Okay. So you have Beser in front of
20 you. Can you also keep your declaration out
21 and turn to page -- paragraph 315, please.

22 A. Yes.

23 Q. And paragraph 315 right above it is
24 "Establishing an IP Tunnel" as a title; right?

25 A. Yes.

1 Q. And you say in paragraph 315: "The
2 Beser tunneling method is illustrated in
3 general terms in figure 4 shown below," and you
4 provide a copy of figure 4 of Beser; correct?

5 A. Exactly.

6 Q. Okay. What is the purpose of the
7 tunneling method disclosed by Beser?

8 MR. DILLON: Objection, form.

9 A. So the general purpose is the one of
10 initiating a tunneling type of communication
11 between two devices, referred to as originating
12 device and terminating device. The method
13 describes the involvement of what are called
14 first network device, second network device,
15 and the trusted third-party device.

16 BY MR. PALYS:

17 Q. On column 2 of Beser starting at line
18 36 to 40, Beser talks about a desire to, quote,
19 "establish a tunneling association that hides
20 the identity of the originating and terminating
21 ends of the tunneling association from the
22 other users of a public network"; right?

23 A. Yes.

24 Q. Okay. So looking at -- let's look at
25 the figure 4 of Beser again if we could. And

1 the first step of figure 4 of this tunneling
2 method is to receive a request to initiate a
3 tunneling association on a first network
4 device; correct?

5 A. Yes. This is the label inside the
6 box.

7 Q. And that's labeled 102; correct?

8 A. 102, yes.

9 Q. Would it be fair to say that -- a
10 user that sends a tunneling request has a
11 desire to establishing a tunneling association
12 that hides the identity of the originating and
13 terminating ends of the tunneling association
14 from the other users of a public network --

15 MR. DILLON: Objection.

16 Q. -- as disclosed by Beser?

17 A. Okay, you --

18 MR. DILLON: Objection, form.

19 THE WITNESS: You spoke quite fast.

20 Can you say that again?

21 BY MR. PALYS:

22 Q. So earlier, we pointed to what Beser
23 referenced in column 2 about its desire to
24 establish a tunneling method --

25 A. Yes.

1 Q. -- in column 2, lines 36 through 40;
2 right?

3 A. Yes.

4 Q. And in figure 4, step 102, there's a
5 receiver request initiated tunneling
6 association on a first network device; right?

7 A. Yes.

8 Q. So my question is: Would it be fair
9 to say that a user that sends a tunneling
10 request such as described by Beser, wouldn't it
11 be fair to say that it's desirable to that user
12 to establish a tunneling association in the
13 same way that's disclosed in column 2, lines 36
14 through 40?

15 MR. DILLON: Objection, form,
16 foundation.

17 A. I believe column 2, 36 through 40
18 addresses one of the goals of the patent, which
19 is to describe certain invention, certain
20 method.

21 You asked about the intention of the
22 user. I believe this paragraph is the -- talks
23 about the intention of the applicant, of the
24 inventor.

25 BY MR. PALYS:

1 Q. Right. So I'm asking you if -- with
2 respect to figure 4 in this tunneling method
3 that's described by Beser and in step 1 of 2,
4 it's receive a request to initiate a tunneling
5 association. So something that's sending this
6 request initiating a tunneling association, you
7 know, it could be a user using a device; right?

8 MR. DILLON: Objection, form.

9 A. My understanding of this patent is
10 that a request is generated, and the request is
11 described within the patent specification. For
12 example, in figure 6, it's a request that
13 starts at the device.

14 And I understand that the sending of
15 the request may have been triggered by some
16 user action, since you asked about a user. May
17 or may have not been.

18 BY MR. PALYS:

19 Q. Any instance where a user may have
20 triggered the action to send a request for a
21 tunneling association, would it be fair to say,
22 given what Beser says in the background of its
23 patent, that it would -- that there would be a
24 desire for that user to establish a tunneling
25 association that hides the identity of the

1 originating and terminating ends of the
2 tunneling association consistent with how Beser
3 discloses in column 2, lines 36 through 40?

4 MR. DILLON: Objection, form,
5 foundation.

6 A. So that it is possible that the user
7 may have an interest in this property, the
8 property being what is described in these
9 lines, hiding the identities.

10 BY MR. PALYS:

11 Q. Okay. In figure 4, the second step
12 of the tunneling method of Beser is identified
13 as step 104; correct?

14 A. Yes.

15 Q. Okay. And that says "inform a
16 trusted third-party network device of the
17 request on a public network"; correct?

18 A. Yes, that's the text.

19 Q. Okay. And if you turn to column 8 of
20 Beser, column 8, lines 21 through 22, that's --
21 in column 8 lines 21 through 22, that's
22 referring to step 102 of the tunneling method
23 of figure 4; correct?

24 A. Yes.

25 Q. In that passage, Beser states that

1 "the first network device receives a request to
2 initiate the tunneling connection"; correct?

3 A. Right.

4 Q. And you kind of mentioned first
5 network device and second network device
6 earlier. And here, Beser makes a reference to
7 the first network device.

8 Do you agree that that first network
9 device that's referenced by Beser is referring
10 to first network device 14 in, for example,
11 figure 6, I think you referred me to?

12 A. I agree that in figure 6, it is
13 referred to as first network device.

14 Q. I believe like even figure 1 used the
15 same -- well, it refers to an element 14 also;
16 right?

17 A. Figure 1 does contain element 14.

18 Q. And so my question is: In column 8
19 where we just read, lines 21 through 22, when
20 Beser references "the first network device,"
21 you agree that the first network device he is
22 referring to is device 14 as disclosed in these
23 figures?

24 A. Column 8 starting at line 21, it is a
25 description referring to figure 4. Now you're

1 asking me whether it also refers to figure 1?

2 Q. I'm asking you if "the first network
3 device" that's referenced in that line 21 and
4 22, is that the first network device 14 that we
5 see disclosed throughout Beser?

6 A. All I can say is it's my
7 understanding that in column 8, line 21, there
8 is a general description of Beser's method.

9 Now, you pointed to figure 1 when
10 another device is referred to as a first
11 network device. This figure describes an
12 example of the application of the general
13 method. For example, it shows a phone device,
14 you know, as communicating via private network
15 to device 14. So it appears to be the more
16 specialized description, an example of how it
17 could be used in a -- in an application.

18 Q. Right.

19 And in Beser, there's other figures
20 of a first network device than just a black --
21 or a, you know, like a black box like figure 6;
22 correct?

23 Figure 6 shows first network device
24 14; correct?

25 A. So figure 6 has a box labeled "first

1 network device" with a reference with a label
2 14 and figure 6 also describes a specific --
3 you know, one of the possible uses of the
4 method when the originating device and
5 terminating device are telephony devices. But
6 that's not the only scope of Beser's invention.

7 Q. Right.

8 So let me ask you this. Is it your
9 opinion that the tunneling method of figure
10 4 -- you agree that that tunneling method --
11 does that apply to the system that's shown in
12 figure 1 of Beser?

13 MR. DILLON: Objection, form.

14 A. What I can say is that the steps of
15 figure 4, which is a flow diagram of steps on
16 the method, explained in great generality
17 without describing variations and details in
18 this figure, is a method that Beser discusses
19 as could be applied to the specific network
20 diagram of figure 1 but can be used in a
21 variety of other contexts outside of the
22 specific types of devices like phones on this
23 figure.

24 BY MR. PALYS:

25 Q. Understood.

1 So in figure 6, we can see a request
2 112; right?

3 A. Yes.

4 Q. All right. And that request is being
5 sent from the originating telephony device 24
6 to the first network device; correct?

7 A. My understanding of figure 6 is that
8 the message is received by the first network
9 device; however, my understanding as also
10 described in my declaration is that the
11 operation of the first network device is to
12 intercept and evaluate the request.

13 Q. And you're referring to a particular
14 paragraph in your declaration?

15 A. Yes, paragraph 317.

16 Q. In column 8 of, again, of Beser,
17 lines 48 through 49, Beser describes that step
18 104, method 100, "the trusted third-party
19 network device is informed of the request";
20 correct?

21 A. Yes, this is the language.

22 Q. Now, here where Beser makes a
23 reference to "the trusted third-party network
24 device," similar to my question regarding the
25 first network device.

1 The trusted third-party network
2 device that Beser describes at 30, you know,
3 throughout the patent, would you agree that the
4 reference in step 104 to "the trusted
5 third-party network device" can refer to the
6 trusted third-party network device 30 that
7 Beser describes elsewhere in the patent?

8 MR. DILLON: Objection, form.

9 A. Sorry, I didn't understand the end of
10 your question. You're asking me whether the
11 device labeled "trusted third-party network
12 device" and now the -- in column 8, line 48,
13 whether this refers to which other device?

14 BY MR. PALYS:

15 Q. Well, earlier you finally got to the
16 point where figure 1, you agreed that the
17 method of figure 4 could be implemented in a
18 system disclosed in figure 1, albeit there
19 could be other differences, but at some level,
20 the tunneling method disclosed by Beser in
21 figure 4 could be implemented in the system
22 shown in figure 1; correct?

23 A. Yes, it could be applied to this
24 network configuration.

25 Q. Okay. So I want to make sure we're

1 on the same level so we don't have to keep
2 repeating questions.

3 So in figure 1, you see an element
4 labeled 24; right?

5 A. Yes.

6 Q. In figure 1?

7 A. 24, you're asking me? Okay.

8 Q. You agree that's the originating
9 telephony device Beser refers to?

10 A. So as Beser or Beser says in column
11 4, lines 44 and on, device 24 that you asked me
12 about is referred here as an originating device
13 for the data flow.

14 And then it is also mentioned that 24
15 and similarly 26 are referred to as telephony
16 devices or multimedia devices.

17 When I looked at figure 1, the type
18 of icon used for this device looks like
19 telephony device.

20 Q. All right. You understand when I --
21 can we agree that when I refer to the
22 originating device for 24, you'll know what I'm
23 referring to in figure 1 as 24, element 24?

24 A. So if we discuss figure 1 and you
25 mention 24 --

1 Q. Tell you what. Let me just take a
2 step back. Why don't you tell me.

3 What is element 24 in figure 1?

4 A. As I mentioned in my declaration in
5 paragraph 24, 24 in the example illustrated in
6 figure 1 refers to an originating device.

7 Q. What's element 30?

8 A. 30 would be the trusted third-party
9 network device.

10 Q. The trusted third-party network
11 device that's referred to in the flow chart of
12 figure 4, you believe that's a different type
13 of trusted third-party device than element 30
14 that you just identified for figure 1?

15 A. So figure 1 refers to a trusted
16 third-party device. The description of figure
17 1 discusses various possible types of such
18 third-party device. And the invention
19 describes, indeed, in the figure -- so which
20 figure do you ask me, 6, or which other --
21 which figures? Or 4? Did you ask me whether
22 it is the same as in figure 4?

23 Q. I referred to figure 4 and figure 1.

24 A. Yes. So what is referred to as
25 trusted third-party network device, for

1 example, in 104 would correspond to what is
2 defined in figure 1 with item 30. Again,
3 figure 1 is meant to be an illustration and so
4 there is an icon that looks like a workstation
5 desktop or server.

6 Q. Right.

7 So the trusted third-party device
8 that's identified in the method, figure 4,
9 could refer to the trusted third-party device
10 30 that's shown in figure -- or that's
11 disclosed with reference to figure 1?

12 A. I'll say that this is an example of a
13 trusted third-party device --

14 Q. Right.

15 A. -- that's described in the method.

16 Q. Good.

17 And how about in figure 6, the box
18 "trusted third-party network device 30"? Would
19 that be another example of a trusted
20 third-party device or network device that's
21 referred to in the method of figure 4?

22 A. So figure 6 is a specific diagram
23 illustrating flow of messages in Beser's
24 method. It considers the scenario where
25 originating and terminating devices are

1 telephony devices.

2 And when I look at figure 1, you have
3 a senior type of scenario where this method
4 could be applied within the context of figure 1
5 if figure 1 is meant to indicate both 24 and 26
6 as telephony devices to play the role of the
7 trusted third party, so device 30 in figure 1
8 would play that role.

9 Q. In figure 6 you mention that device
10 24 sends a request 112 to first network device;
11 right?

12 A. Are you asking me what I'm stating in
13 my declaration or what are the exact words in
14 Beser?

15 Q. If you look at figure 6 of Beser, I'm
16 just asking do you agree that Beser discloses
17 device 24 sending a request 112 to first
18 network device 14?

19 A. What I believe is that in this figure
20 and the accompanying description in the
21 specification, the request is received by the
22 first network device, which does perform a role
23 of intercepting data packets, network packets,
24 including requests and other packets.

25 I don't think that the figure in view

1 of the description says that it was sent by the
2 originating telephony device to the first
3 network device so I'm using a different
4 language in my declaration, which is in 317,
5 paragraph 317.

6 THE WITNESS: And can I have a
7 two-minute break, bathroom break?

8 MR. PALYS: Okay.

9 THE WITNESS: I'll be back right
10 away.

11 MR. PALYS: Thank you.

12 (Recess taken.)

13 BY MR. PALYS:

14 Q. So on column 11 of Beser, lines 13 to
15 16, okay, Beser says -- and we're talking about
16 step -- or the -- the informed step at 114 on
17 figure 6. You can see that at line 9. That
18 says it's step 114.

19 A. Yeah, let me make sure I see it.

20 Q. So figure 6.

21 A. Figure 6 starts at column 12?

22 Q. Right. So -- no, on column 11,
23 right --

24 A. Yes.

25 Q. -- it's referring to the informed --

1 wait, the informed step of figure -- that's
2 figure 5, right? Yeah. I got it.

3 A. It appears it's 5.

4 Q. Yeah, yeah, yeah. So the informed
5 step of figure 5 right says "inform a trusted
6 third-party network device of the request on a
7 public network"; correct?

8 A. Yes, column 11, line 9 talks about
9 that trusted third-party device is informed of
10 the request and that she received the
11 information -- it received the information on a
12 public network.

13 Q. All right. And then column 13 to
14 line 16, Beser says "for each transfer of a
15 packet from first network device 14" -- sorry,
16 it's column 11. Let me start over.

17 Column 11, lines 13 to 16 of Beser
18 states "for each transfer of a packet from the
19 first network device 14 to the trusted
20 third-party network device 30, a first network
21 device construction IP 58 packet"; correct?

22 A. Yes, this is what it is written.

23 Q. So the first network device 14's
24 constructing an IP packet during the inform
25 step; correct?

1 A. So this -- this language identifies
2 messages being transmitted as being transmitted
3 within IP packets.

4 Q. Do you agree with the statement in
5 lines 13 through 16 of column 11 of Beser?

6 MR. DILLON: Objection, foundation.

7 A. I'm not sure about the meaning of
8 "agreeing" in this context. I am noting what
9 Beser says in those lines.

10 BY MR. PALYS:

11 Q. Do you have any reason to believe
12 that Beser's description in lines 13 through 16
13 is inaccurate?

14 A. I believe it is accurate to transmit
15 packets over public IP network. One needs to
16 construct IP packets.

17 Q. So my question is: Do you believe or
18 do you agree with the statement in lines 13
19 through 16 of column 11 of Beser?

20 MR. DILLON: Objection, foundation,
21 form.

22 BY MR. PALYS:

23 Q. Let me strike that.

24 A. I do not understand. We are
25 discussing a fragment of a specification, and I

1 agree that that is the specification that Beser
2 gives of his method --

3 Q. All right. Do you have --

4 A. -- not his coinventors.

5 Q. Do you have any reason to believe
6 that Beser's statement in 13 -- column 11,
7 lines 13 through 16, is inaccurate?

8 A. Can you say inaccurate with respect
9 to what other context or evidence?

10 Q. To the description of Beser in the
11 context of Beser.

12 A. So are you asking whether it is
13 consistent with Beser's other elements of the
14 specification?

15 Q. I'm asking the question I asked
16 several times now, which was: Do you have any
17 reason to believe that Beser's description in
18 column 11, lines 13 through 16, is inaccurate?

19 MR. DILLON: Objection, form,
20 foundation.

21 A. It appears to me that this is
22 consistent with a possible implementation of
23 step 114 in figure 5, which is what this text
24 refers to.

25 BY MR. PALYS:

1 Q. Does Beser disclose any
2 implementations that are inconsistent with the
3 description in column 11, lines 13 through 16?

4 A. You're referring to figure 5, or to
5 the entire patent specification?

6 Q. Does Beser disclose any
7 implementations that are inconsistent with the
8 description in column 11, lines 13 through 16?

9 A. I'd ask for a clarification of the
10 scope. I understand you repeated the question.

11 Q. Any implementations, so not just
12 figure 5. Anywhere in the patent.

13 A. Thank you. That's what I wanted to
14 know.

15 Q. Does Beser disclose any
16 implementations that are inconsistent with the
17 description in column 11, lines 13 through 16?

18 A. I don't recall issues of
19 inconsistency, meaning contradicting. I
20 understand that Beser discusses several
21 variations of the steps of the method, and
22 that's several details.

23 For example, later in the same
24 paragraph that you -- where the lines you refer
25 to are, Beser discusses how IP packets may

1 require encryption or authentication.

2 Q. Okay. And right after in the same
3 paragraph, since we're going there, lines 16
4 through 20 says "the header 82 of the IP 58
5 packet includes the public network 12 address
6 of the trusted third-party network device 30 in
7 the destination address field 90 and the public
8 network 12 address of the first network device
9 14 in the source address field 88."

10 Did I read that right?

11 A. Yes.

12 Q. Okay. Do you have -- does Beser
13 disclose any implementations that are
14 inconsistent with the description of column 11,
15 line 16 through line 20?

16 A. I would like to refer to column 9 and
17 column 8 of the specification, the discussion
18 that refers to various network layers for
19 communication between devices. All set.

20 Q. So you referenced --

21 MR. DILLON: Do you want to just
22 reask the question?

23 MR. PALYS: No, I just want to see
24 what his answer is, which I don't see
25 here.

1 BY MR. PALYS:

2 Q. So you said you referred to column 9
3 and column 8?

4 A. Yes.

5 Q. You said the discussion, it refers to
6 various network layers of communications
7 between devices.

8 A. Yes.

9 Q. That's what you testified.

10 A. That's exactly what I said.

11 Q. Are you stating in your response that
12 those are disclosures of implementations that
13 are inconsistent with their description in
14 column 11, lines 13 through 16?

15 A. What I was referring to is that the
16 informing component of the invention may be
17 related to information contained as indicated
18 in the patent in a different layer than the IP
19 layer.

20 Q. Where does Beser show an inform
21 message sent using those other layers that you
22 mentioned in your answer?

23 MR. DILLON: Objection, form.

24 A. I'm referring to the bottom of column
25 8.

1 BY MR. PALYS:

2 Q. What line, sir?

3 A. Starting at 55.

4 Q. And ending where, sir?

5 A. Sorry, what did you say?

6 Q. It starts at line 55. Where does it
7 end?

8 A. In this column, that portion I
9 mentioned that indicates various layers, 65.

10 Q. So column 8, lines 55 through 65?
11 That's what you're referring to, sir?

12 A. That's one of the examples of various
13 layers that carry the information.

14 Q. Can you identify other areas where
15 Beser shows an inform message sent using those
16 other layers?

17 A. If you look at the lines that receive
18 the previous set of lines, starting at 48, we
19 have a discussion that says the information may
20 be received in the transport layer.

21 Q. Does the passages that you just
22 mentioned in column 8 describe the source of
23 those messages sent using those other layers?

24 A. Referring just to the last passage or
25 the two passages that I mentioned in my last

1 two answers?

2 Q. The two passages, so that would
3 include, if I understand it correctly, from
4 column 8, line 48 to line 65.

5 A. So this passage refers to receiving
6 information, so the -- that is the trusted
7 third-party network device of being informed of
8 a request. It goes on to discuss the various
9 layers that make it happen.

10 And then starting at line 60, there's
11 a discussion on what the message that carries
12 the information may include. And it's referred
13 to that it may include a distinguished --
14 distinctive sequence of bits.

15 Q. So I'm not sure your response really
16 addressed my question, so I'm going to try it
17 again. And I'm not trying to be rude, I just
18 want to make sure I understand your response.

19 My question was: Those passages that
20 you identified in column 8, do they describe
21 the source of those messages sent using the
22 other layers?

23 A. By itself within this passage without
24 the context of the remaining specification,
25 this passage does not explicitly describe the

1 source.

2 Q. Is there anywhere in the
3 specification, any passage in Beser that
4 describes the source of the message sent using
5 those other layers?

6 A. So as I indicated in my declaration,
7 at item 317, the first network device may have
8 received a packet that contains an indicator of
9 the desired establishment of a tunnel, and this
10 type of an indicator is the one that I believe
11 is also referred to in the quoted passage.

12 Q. So your response when you're
13 referring to paragraph 317, were you -- in your
14 paragraph 317 you refer to Beser at column 8,
15 33 through 43; correct?

16 A. Yes, this paragraph refers to that
17 other passage.

18 Q. And in your response, you stated that
19 the first network device may have received a
20 packet that contains an indicator of the
21 desired establishment of a tunnel; right?

22 A. Yes.

23 Q. That's not the indicator that the
24 third-party device receives, though; right?

25 A. What I was referring to is the

1 possible implementation of the intercepting
2 action at the first network device, which is
3 illustrated in the passage 21 through 47, and
4 the analogous technique that is described in
5 the other passage, which starts at 48 and then
6 continues to the end of column 8 and continues
7 in column 9 up to line 5, consisting of
8 indicator bits.

9 Q. These portions that you just
10 identified in your response still has nothing
11 to do with -- or these portions that you just
12 described in Beser in column 8 and column 9
13 still do not describe the source of the
14 messages using these other layers; right?

15 MR. DILLON: Objection, form.

16 A. So when there is no explicit
17 indication of source in the passage that I
18 mentioned starting at 48, page 8, ending at 5,
19 page 9, in the portion 1 to 5, at column 9,
20 there is a discussion of examining the content
21 of the message. And as any message, the
22 content may include information such as a
23 source.

24 BY MR. PALYS:

25 Q. But Beser doesn't state that in that

1 portion you just identified in column 8 and
2 column 9, Beser; correct?

3 MR. DILLON: Objection, form.

4 A. Like I said, it would -- Beser states
5 that the informing message received by the
6 trusted third-party should be examined for its
7 content and should not be ignored.

8 BY MR. PALYS:

9 Q. Turn to paragraph 322 of your
10 declaration, please.

11 A. Yes.

12 Q. I think I led you astray. Sorry
13 about that. Actually, I would want to talk
14 about the third step in Beser's process, figure
15 4. So if you'd have Beser there, look at
16 figure 4 and step 3, which is labeled step 106
17 in figure 4.

18 Do you see that?

19 A. Yes.

20 Q. And step 106 in figure 4 states
21 "associate a public network address for a
22 second network device on the trusted
23 third-party network device."

24 Do you see that?

25 A. Yes.

1 Q. Now, in column 8 of Beser, line 65
2 where we were just at, lines 65 through line 1
3 of Beser, right? We were just there.

4 A. Sorry, can you say again which line
5 on column 8?

6 Q. 65.

7 A. 65, yes.

8 Q. To column 9, line 1. We were just
9 talking about that --

10 A. Uh-huh.

11 Q. -- that portion. This passage
12 explains that the packet that's received by the
13 third-party network device includes a
14 distinctive sequence of bits, right, that
15 indicates to the tunneling application that it
16 should examine the informing message for its
17 content and not ignore the datagram; correct?

18 A. That's it.

19 Q. Okay. Would you agree that Beser
20 does not really explain here what happens if a
21 packet for a datagram is ignored by the trusted
22 third-party network device?

23 MR. DILLON: Objection, form.

24 BY MR. PALYS:

25 Q. Do you understand my question?

1 A. Yes, I understand.

2 So what I understand is that this
3 passage describes whether the tunneling
4 application and the trusted third-party device
5 should process, examine, inspect, or ignore.

6 Q. It does -- sorry. Are you done?

7 A. No.

8 Q. Okay.

9 A. However, the trusted third-party may
10 have other applications running and so there
11 could be some other processing.

12 Q. When you say "trusted third-party may
13 have other applications running," what is
14 your -- what is your basis for that testimony
15 from -- strike that.

16 What is your basis for your testimony
17 that the trusted third-party may have other
18 applications running from Beser?

19 A. So I'm referring to paragraph 307 of
20 my declaration where I'm saying that Beser
21 describes the trusted third-party network
22 device as a conventional device which is
23 modified to include the tunneling application
24 or other type of support for IP tunnels.

25 And so I -- I stated that this

1 trusted third-party device could be a domain
2 name server in the conventional sense of its
3 operation, however, modified to include the
4 tunneling application described by Beser for
5 the additional functionality of Beser's method.

6 Q. So your reference to Beser in
7 paragraph 307 doesn't describe what happens if
8 a datagram is ignored, though; correct?

9 Let me rephrase my question.

10 So your reference to Beser in
11 paragraph 307 doesn't explain where Beser
12 discloses what happens if a datagram is
13 ignored; correct?

14 A. I did refer to 11, page 11, 32, 36.
15 And there, there is mention that the trusted
16 third-party device could be a domain name
17 server, DNS server.

18 So the tunneling application will not
19 detect special tunneling processing for the
20 modified domain name server.

21 My understanding is that the trusted
22 third-party device would use the default
23 conventional functionality for which it was set
24 up, which would be to perform domain name
25 services.

1 Q. Beser doesn't really equate ignoring
2 a datagram with processing a data packet
3 normally, though; right?

4 MR. DILLON: Objection, form.

5 A. So my understanding from the
6 specification is that the behavior I've just
7 explained, which is default to the conventional
8 purpose of the device, is something that would
9 be obvious, whatever occurred or would have
10 occurred.

11 THE WITNESS: So can I propose a
12 break or understand if we're going to
13 continue tomorrow or not? And that
14 may --

15 MR. PALYS: Let's go off the
16 record.

17 (Recess taken.)

18 BY MR. PALYS:

19 Q. In Beser, is the operation of a
20 third-party network device affected at all by
21 the particular originating end device that
22 makes the tunneling request?

23 MR. DILLON: Objection, form.

24 BY MR. PALYS:

25 Q. Do you understand my question?

1 A. I'm trying to think to be sure that I
2 understand it.

3 Is your question about the
4 originating device, or originating and
5 terminating as having an impact on the trusted
6 third-party?

7 Q. Yeah, is the operation of the trusted
8 third-party network device affected at all by
9 the particular originating end device that
10 makes the, you know, the tunneling request?

11 MR. DILLON: Objection, form.

12 BY MR. PALYS:

13 Q. Do you understand my question?

14 A. By particular -- so can you give an
15 example?

16 Q. Sure.

17 A. Are you saying, for example, whether
18 it is a phone or whether it is some type of
19 device?

20 Q. That could be one example. Let's go
21 with that one first, okay?

22 Does it matter to a trusted
23 third-party network device in Beser what type
24 of originating device is sending the tunneling
25 request?

1 A. So I believe my understanding is
2 reflected, for example, in paragraph 308 of my
3 declaration. So the trusted third-party device
4 processes identifiers and then tries to perform
5 a mapping of this identifier to an IP address.
6 It matters to the extent that this unique
7 identifier may come from the originating
8 device.

9 Q. I'm not sure I understand what you
10 mean by "it matters to the extent that this
11 unique identifier may come from the originating
12 device." I wonder if you could explain that a
13 little more for me.

14 A. Okay. So I'm referring, for example,
15 to paragraph 318 where I say that the request
16 from the originating end device includes a
17 unique identifier. So this request, it comes
18 from the originating end device, possibly
19 through the software on the device. The
20 tunneling software on the device produces the
21 request, and the request includes the unique
22 identifier.

23 Q. The type of originating device, does
24 it matter to Beser -- does it matter to the
25 trusted third-party network device as to the

1 type of originating device that is sending the
2 tunneling request?

3 MR. DILLON: Objection, form.

4 A. By "type," you mean like brand of the
5 device or color, those kind of aspects? Is
6 that what you mean?

7 BY MR. PALYS:

8 Q. It could be all of those, so let me
9 give you an example.

10 So when the trusted third-party
11 network device processes a tunneling request in
12 Beser, does it matter who the user is
13 associated to the originating device 24?

14 A. It's not clear to me the meaning
15 "does it matter." Seems very generic.

16 Q. Does the trusted third-party network
17 device process tunneling requests in the same
18 way for -- well, I'll start over.

19 Does the trusted third-party network
20 device process a tunneling request in the same
21 way regardless of the user who is associated
22 with device 24?

23 A. In 24 in which figure? Like --

24 Q. Okay, let me rephrase it.

25 Does the trusted third-party network

1 device process a tunneling request in the same
2 way regardless of the user that's associated
3 with the originating device?

4 A. Okay. I understand.

5 So the trusted third-party follows
6 uniform method. One of the steps of the
7 uniform method is processing, so performing a
8 lookup in database or other data structures
9 toward the trusted third-party device, and
10 this -- and the outcome of the lookup will
11 depend on the unique identifier that was
12 received and also will depend on the content on
13 the database.

14 So to the extent that different
15 devices may generate different identifiers, the
16 outcome of the operation may be different, but
17 the steps performed will be the same.

18 Q. All right. And in that same scenario
19 the way you've just described it, the user,
20 would that have any effect on the identifiers
21 and the other components that you just
22 described in terms of Beser's process?

23 A. So as part of Beser's invention, a
24 user may control, may interact with the
25 originating device.

1 So in a scenario, for example, like
2 the one of figure 1, where the device is a
3 phone, a telephonic device, and a user
4 interacts with the device and, for example, may
5 enter into the device its specific number which
6 could be one of the unique identifiers, then
7 the unique identifier, once it reaches the
8 trusted third-party device, is going to affect
9 together with the content what is the outcome
10 of the process.

11 But the method would be the same
12 irrespective of who is the user, what is the
13 type of the device.

14 Q. Right.

15 So in that scenario, you're looking
16 at figure 1 of Beser. So at device 24 in this
17 example, let's say you were the user that typed
18 in those numbers. Beser would perform the
19 process as we just disclosed; right?

20 It would perform its tunneling
21 process; right?

22 Take your same example you just
23 disclosed to me, and you are the user. That's
24 the hypothetical. Do you follow me?

25 A. So --

1 Q. You typed in the numbers on that
2 phone. That's the hypothetical I'm giving you.

3 A. Or somebody else --

4 Q. No, you.

5 A. -- types in the same number? Is that
6 the difference --

7 Q. No.

8 A. -- you're trying to make?

9 Q. Do you understand my -- I'm sorry.

10 A. Yeah, no, I'm not sure I understand
11 how different is this question.

12 Q. The very same example you just got
13 done describing with me --

14 A. Uh-huh.

15 Q. -- just add to that example that you
16 are the user who's typing in that number, okay?
17 That's the hypothetical.

18 Do you understand the hypothetical
19 that I'm proposing to you?

20 A. Okay, so you are proposing to discuss
21 how Beser's method in a telephony scenario will
22 operate if I am operating this phone? Is that
23 what you're describing, asking me? That's how
24 I understand the question.

25 Q. I just -- the hypothetical for figure

1 1 that you see there, sir, the originating
2 device 24, let's say there's a user, user 1.

3 A. Okay.

4 Q. There's a user 1 operating device 24
5 in figure 1, okay?

6 A. Yes.

7 Q. Beser's going to perform its
8 tunneling methods however you described it with
9 user 1 being the user operating device 24,
10 okay?

11 A. Okay.

12 Q. All right. Now, would Beser operate
13 in any different way if a different user, user
14 2, was operating the same exact device 24?

15 A. I will say if user 2 causes the
16 tunneling software on device -- on the
17 originating device 24 in figure 1, so causes
18 this software to generate a different unique
19 identifier than the one by user 1, then the
20 outcome may depend on what is -- so is going to
21 depend on what is stored in the database for
22 let's call it identifier 1 and identifier 2 --

23 Q. Okay.

24 A. -- which could be the same, could be
25 different, because the same answer in the

1 lookup performed could cause different answers.

2 Q. What if those two different users
3 entered the same unique identifier? Would
4 Beser operate the same way?

5 A. Can you tell me whether these users
6 are performing it, for example, one right after
7 the other at different times in different
8 periods?

9 Q. Different times.

10 Say user 1 comes up to the device,
11 puts in a unique identifier 1. Some time
12 period after that, user 2 goes up to the same
13 device and enters identifier 1, the same
14 identifier. Would Beser operate the same way
15 that -- for user 1 entering in that unique
16 identifier as it would for user 2 entering the
17 same unique identifier?

18 A. Now, are you asking me about the
19 trusted third-party, or the entire method?
20 Because the previous questions were focused on
21 the trusted third-party.

22 Q. Let's say the trusted third-party.
23 Would the trusted third-party process a
24 tunneling request in the same way in that
25 scenario I just proposed for different users

1 entering the same unique identifier for device
2 24?

3 A. I understand that these general steps
4 would be the same. The outcome of the lookup
5 that is performed by the trusted third-party
6 would be in the -- its database, so one of the
7 specific steps that I have describe may or may
8 not have the same outcome. It depends on the
9 configuration of the database, what is stored
10 in the database at the time that user 2
11 operated the device versus the time when user 1
12 operated the device. The database may have
13 changed in between.

14 Q. Let's assume the database has not
15 changed. It's the same database, same unique
16 identifier, just different users.

17 A. What I can say is in reference to my
18 declaration at paragraph 31, 10, trusted
19 third-party device performs the same action,
20 which is a lookup of an IP address in its
21 database containing as search argument the
22 identifier.

23 There are many ways of configuring
24 databases, but in general, if in a database
25 that has not changed over time, that is exactly

1 the same as before, in a situation where the
2 same argument is given at one time and at
3 another time, the database will generally
4 return the same answer.

5 Q. Could you turn to the '705 patent,
6 Claim 1, please. In step 3 of Claim 1 starting
7 on line 57 of column 55, you see it starts with
8 "in response to determining"? Do you see that
9 limitation?

10 A. Sorry, so we're looking at?

11 Q. The '705.

12 A. I was looking at Beser. Sorry.

13 Q. It's late.

14 A. '705, okay.

15 Q. '705, Claim 1. Column 55, line --

16 A. Yes.

17 Q. -- 57, so step 3.

18 A. Yes.

19 Q. On line 60, you agree that the claim
20 requires providing provisioning information
21 required to initiate the creation of the
22 encrypted communication channel between the
23 client device and the target device such that
24 the encrypted communication channel supports
25 secure data communications transmitted between

1 the two devices; correct?

2 A. I was not following word by word, but
3 I believe that you read a fragment of the
4 patent.

5 Q. Would you agree that in Claim 1 the
6 provisioning information is required to
7 initiate the creation of the encrypted
8 communication channel?

9 Sorry, I said that wrong.

10 Would you agree that Claim 1, in
11 Claim 1, the provisioning information
12 provided -- would you agree that in Claim 1,
13 the provisioning information that is provided
14 is information required to initiate the
15 creation of the encrypted communication
16 channel?

17 MR. DILLON: Objection to
18 foundation.

19 THE WITNESS: Sorry?

20 MR. DILLON: Objection, foundation.

21 A. So with reference to this claim, what
22 is being disclosed is that the encrypted
23 communication channel uses provisioning
24 information that is obtained in a certain step.

25 MR. PALYS: Short break, couple

1 minutes.

2 (Recess taken.)

3 THE WITNESS: I would like to make
4 a clarification about a previous answer
5 that I've given.

6 BY MR. PALYS:

7 Q. Okay.

8 A. Can I go ahead?

9 Q. Sure.

10 A. Okay. So this was the previous
11 answer I had given regarding whether a database
12 that has the same content and is given the same
13 query argument would not return or not the same
14 answer to the question.

15 And so my response was brief, and I
16 mentioned a general behavior of same query,
17 same content, same answer, but I failed to
18 elaborate on other scenarios where same query,
19 same content may yield a different answer. And
20 that is relevant to the question, and so here's
21 what I would like to add as a clarification.

22 It is possible that the -- a database
23 will be configured to give different answers
24 depending on the time of the day.

25 Also, as another example, the

1 database may take into account statistics,
2 counters about its previous operation. And so
3 may decide based on this information that it
4 stored, which is information about its
5 operation and not about the actual database
6 content, may decide to provide different
7 answers.

8 I thought also about clarifying that
9 now with specific reference to Beser, when we
10 look at -- let me point you to the specific.
11 So when we look at the second network device,
12 that depending on how many queries have been
13 performed for the same identifier that the IP
14 of another second network device would be
15 returned, it could be that at a different time
16 of the day for the same unique identifier,
17 another second network device would be the one
18 whose IP address is associated with the unique
19 private identifier.

20 I'll also like to add another -- and
21 again, this is not an exclusive list; it's just
22 some examples. So it's yet another example.
23 The database may contain algorithms that are
24 executed which generate random values or derive
25 values from random values.

1 And these random values or values
2 derived from random values may be used during
3 the query execution process to generate the
4 answer. And so the answer -- so this is yet
5 another example of how the answer could be
6 different.

7 I thought it would be good to give
8 you some examples instead of leaving it
9 mysteriously as in general, but specifically I
10 did not say what -- what other different
11 instances there could be.

12 Q. So the examples that you just
13 discussed, none of those are expressly
14 disclosed in Beser; right?

15 A. So I believe that given the type of
16 applications contemplated, for example, the
17 telephony application, that such a behavior
18 could be possible. For example, in a telephony
19 application, there could be the issue of
20 overloading a certain communication path and so
21 it is possible that a different second network
22 device may be selected.

23 I believe it is reasonable within
24 this context that someone looking at this
25 specification at the time will have concluded

1 that this was a possible behavior.

2 Q. But none of that is expressly
3 disclosed in Beser, what you're describing as
4 what could be possible in your opinion based on
5 Beser; right?

6 MR. DILLON: Objection to form.

7 A. So what I will say is it would be
8 obvious to someone of ordinary skill in the art
9 as of the beginning of 2000, as of the date
10 we're being referring to, which I think is
11 February 15, 2000 -- and let me double check.
12 Yes, February 15, 2000 -- that such combination
13 would be possible and desirable, so I believe
14 this was an obvious case.

15 I will need possibly more time to
16 look again at the specification and to see
17 whether it is explicitly or implicitly or
18 implied.

19 BY MR. PALYS:

20 Q. During today when you've had breaks,
21 have you had any discussion with your counsel
22 regarding the substance of your testimony
23 today?

24 A. Not.

25 Q. Okay.

1 A. It was explained to me that this was
2 not permissible and so I absolutely --

3 Q. Don't tell me what you talked to --

4 A. I was telling you that I didn't do it
5 because I knew that it was not --

6 Q. Okay, stop. I take your answer.
7 That's fine.

8 A. Okay.

9 MR. PALYS: Okay. All right, thank
10 you. I'm going to hand to you a copy of
11 Exhibit 1009, which is a copy of
12 Aventail Connect administrator's guide.
13 (Exhibit No. 1009, previously marked, was
14 referenced and indexed.)

15

16 BY MR. PALYS:

17 Q. You're familiar with Aventail
18 Connect, with Exhibit 1009?

19 A. Yes, I'm familiar with it.

20 Q. This is the exhibit that you identify
21 in your declaration as Exhibit 1009; right?

22 A. Yes, this is what I have identified
23 in section 5A.

24 Q. Oh, 5A, right.

25 A. It's page 56.

1 Q. Can you turn to page 89 of your
2 declaration, please.

3 A. Yes.

4 Q. There's a flow chart on that page;
5 right?

6 A. Yes.

7 Q. And you created that flow chart?

8 A. This flow chart is my opinion of the
9 operation of the Aventail Connect software and
10 its interaction with Aventail extranet server.

11 Q. Can you turn to page 11 of
12 Exhibit 1009, please?

13 A. Yes.

14 Q. And starting on the bottom of page
15 11, there's a section, "How does Aventail
16 Connect work?"

17 Do you see that?

18 A. Yes.

19 Q. And that extends to page 12?

20 A. That's right.

21 Q. And there's three main steps in
22 those -- in that section, step 1, step 2, and
23 step 3. Do you see that?

24 A. Yes, I see that.

25 Q. Okay. Does your flow chart on page

1 89 of your declaration reflect steps disclosed
2 in pages 11 and 12 of "How does Aventail
3 Connect Work?"

4 A. This is the summary of the operations
5 as I understand them of Aventail Connect in a
6 flow chart format as opposed to numbered and
7 subitem steps. It is informed both by what you
8 mentioned in pages 11 and 12, but also my
9 understanding of the general operation of the
10 Aventail product as I derived it, also from
11 other parts of the exhibit.

12 Q. Your flow chart?

13 A. Yes.

14 MR. PALYS: Okay. I'm going to be
15 handing you a copy, a marked-up copy
16 that I just made, of pages 11 and 12 of
17 Aventail. I'm going to mark these as
18 VirnetX Exhibit 2012.

19 (VirnetX Exhibit No. 2012 was marked for
20 identification.)

21 MR. PALYS: Exhibit 2012 is a
22 two-page exhibit, again, a marked-up
23 version of pages 11 and 12 of
24 Exhibit 1009. And you can show counsel?
25 Because I only have one copy.

1 MR. DILLON: We will object to
2 Exhibit 2012 on relevance grounds.

3 BY MR. PALYS:

4 Q. Okay. So, sir, you see Exhibit 2012
5 in front of you. It's a copy -- you agree that
6 it's a copy of pages 11 and 12 of Exhibit 1009?

7 A. I disagree, because it is more than a
8 copy. It is a copy plus your markup.

9 Q. Right.

10 Other than the markups, do you agree
11 that those are copies of 11 and -- pages 11 and
12 12? And I'm going to explain the markups in a
13 minute. It's either I do that or I'm going to
14 have you write each of those, so we can do it
15 either way. So I just need you, whether you
16 agree or disagree that pages 11 and 12, other
17 than the markups that I just made, are copies
18 of -- pages 11 and 12 of Exhibit 2012, other
19 than --

20 A. What I can say is that --

21 Q. -- the markups I made, are copies of
22 pages 11 and 12 of Exhibit 1009.

23 A. What I will agree is that based on a
24 quick look that I've done now, it appears to be
25 a copy plus added markup of those pages 11 and

1 12. But in the last 30 seconds, I have looked
2 at it. I've not done a word-by-word comparison
3 to know it for sure.

4 Q. Okay. So is there any reason why you
5 would think that the copies of pages 11 and 12
6 that I provided to you in Exhibit 2012, other
7 than my markups, are any different than pages
8 11 and 12 of Exhibit 1009?

9 Tell you what, sir. Give me the
10 documents back.

11 A. Can I answer, actually?

12 Q. Sure.

13 A. I don't have a reason to believe that
14 you have done anything but marking up, just
15 that I don't want to make definite statements
16 without having done the word-by-word check.

17 Q. I will represent to you that the two
18 copies, pages 11 and 12 of Exhibit 2012 without
19 my markups, are copies of pages 11 and 12 of
20 Exhibit 1009.

21 A. Thanks. And I can work under this
22 assumption.

23 Q. Okay. Now, the markup that I
24 provided on pages -- on Exhibit 2012 is to help
25 move this discussion along, that's all.

1 A. Uh-huh.

2 Q. And what I've done -- and you can see
3 on pages 11 and 12 of 2012 -- was simply label
4 each of the steps under "How does Aventail
5 Connect work?" with numbers. Do you see them?

6 Now, if you feel more comfortable,
7 sir, you can take your version or copy of
8 Exhibit 1009 and make the same changes if you
9 want on your version and you can go off the
10 true copy, or you can work off of Exhibit 2012.
11 It's your choice.

12 A. So what I can say is that in my
13 declaration, I have included a summary flow
14 chart and accompanying informing description of
15 the steps. I have not reasoned based on this
16 style of markup. I notice that this style of
17 markup, sometimes it identifies individual
18 bulleted items and other times, it identifies a
19 group of two bulleted items. And so I believe
20 I would like to have time to address an exhibit
21 that I was not given before in this way.

22 Q. Could you hand me that exhibit,
23 please? We're going to work off your -- we
24 will get back to this.

25 A. Okay.

1 Q. Okay, so if you could -- this is
2 going to take a little longer than two and a
3 half hours now.

4 So Exhibit 11 or, sorry,
5 Exhibit 1009, page 11, do you see where it says
6 "step 1, the application does a DNS lookup to
7 convert the host name to a DNA address"?

8 A. Yes, I can see the sentence.

9 Q. That whole paragraph under step 1,
10 not the bullet points, but the first paragraph
11 is step 1.

12 A. So the one that ends with "does the
13 following"? Is that the scope?

14 Q. Yes. That's where it ends. Do you
15 see that?

16 A. Yes.

17 Q. Can you take a green highlighter,
18 please, and just put a box around that
19 paragraph, please? Draw a box around it for
20 me.

21 A. You want me to draw a box here?

22 Q. Yes, around the paragraph around step
23 1.

24 A. Can I ask a procedure question?

25 Q. Sure.

1 A. So I'm prepared to answer questions.
2 I -- I wonder if I am expected to perform
3 tasks.

4 Q. Are you refusing to draw a box around
5 paragraph -- or paragraph 1 in Exhibit 1009?

6 A. I'm definitely not afraid.

7 Q. I didn't ask you if you were afraid.
8 Sir. I'm asking if you are refusing to do it.

9 A. I'm hearing no objection from
10 counsel, so I guess it's -- it could be part of
11 a deposition, so I will be happy to draw it for
12 you.

13 Q. Okay. Would you please do that?

14 A. Okay. So you want me to highlight --
15 so to draw a box around the part of step 1 that
16 starts with "the application does the DNS
17 lookup" all the way to the third line that says
18 "does the following"? Is that the task?

19 Q. Yes, please.

20 A. Okay.

21 Q. And next to that box -- you can use
22 the highlighter -- can you just label that box
23 1A, please? To the left or to the right. You
24 choose.

25 A. So can I ask you if your goal is to

1 refer to the labeled items in the next
2 questions?

3 Q. I'm sorry?

4 A. Can I ask you if you are asking me to
5 perform this task to make it easier later on to
6 refer to these items and to these fragments of
7 text.

8 Q. That's what this was an attempt to
9 do, so we can talk about the right proper areas
10 of those sections.

11 A. Okay. Now that I understand, you
12 want me to write which label?

13 Q. Okay. I'm sorry.

14 A. So now that I understand what is the
15 intent, which label should I write?

16 Q. Can you just label it step 1? Just
17 1, the number 1.

18 A. The same one that is already here
19 inside the box?

20 Q. Off to the side, sir.

21 A. So you want to put 1 here?

22 Q. Yes.

23 A. Yes.

24 Q. Okay, thank you.

25 Now can you draw a box around the

1 paragraph for the first bullet point under step
2 1 and label that box 1A?

3 A. So the first bullet; right?

4 Q. Uh-huh.

5 A. Not the second? I think this is
6 different from the exhibit that you showed me.
7 So you still want me to perform this task, just
8 the first bulleted item?

9 Q. Yes, please.

10 A. Okay. So just to confirm, it is the
11 paragraph that starts with "if the host name
12 matches the local domain string" all the way
13 through the fourth line from there that ends
14 with "as if Aventail Connect were not running"?

15 Q. Yes, please do that.

16 A. Okay. So I'm drawing another box.

17 MR. BROUGHAN: After you finish
18 doing that, can we talk for a second?

19 MR. PALYS: Sure.

20 BY MR. PALYS:

21 Q. Did you label it?

22 A. Which number should I put there?

23 Q. 1A, please.

24 MR. PALYS: Okay. I'm sorry did
25 you want to go off the record or stay

1 on?

2 MR. BROUGHAN: Just a scheduling
3 issue in terms of time.

4 MR. PALYS: Go ahead.

5 MR. BROUGHAN: If you think it's
6 going to be another two, two and a half
7 hours --

8 MR. PALYS: That's what we talked
9 about before we started.

10 MR. BROUGHAN: We talked about it
11 like an hour ago.

12 MR. PALYS: Then your witness came
13 in with a follow-up question.

14 MR. BROUGHAN: No, I understand
15 what happened. I'm just saying that if
16 you think it's going to be two, two and
17 a half hours, that's pretty long. I'm
18 suggesting that maybe we would want to
19 go through this detailed process in the
20 morning rather than tonight.

21 MR. PALYS: It's your call. But I
22 need to know now out of professional
23 courtesy because we had this
24 conversation earlier.

25 MR. BROUGHAN: I understand.

1 MR. PALYS: Are we stopping or are
2 we going?

3 (Recess taken.)

4 MR. PALYS: After discussion with
5 counsel, we've decided we're going to
6 break for the day.

7 Sir, I just want to remind you of
8 your obligations under these
9 proceedings. This deposition is still
10 maintained and you're not to talk with
11 counsel about the substance of your
12 testimony, your deposition. Do you
13 understand?

14 THE WITNESS: Yes, I understand.

15 MR. PALYS: All right. Anything?

16 MR. BROUGHAN: No. We agree.

17 MR. PALYS: So we are off the
18 record.

19

20 (Deposition adjourned at 5:58 p.m.)

21

22

23

24

25

J U R A T

I, _____, do hereby certify under
penalty of perjury that I have read the foregoing
transcript of my deposition taken on _____;
that I have made such corrections as appear noted
herein in ink, initialed by me; that my testimony as
contained herein, as corrected, is true and correct.

DATED this ____ day of _____, 20 __, _____
at _____, _____.

SIGNATURE OF WITNESS

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

2 DISTRICT OF COLUMBIA:

3 I, MARY ANN PAYONK, shorthand reporter,
4 do hereby certify that the witness whose
5 deposition is hereinbefore set forth was duly
6 sworn, and that such deposition is a true,
7 correct, and full record of the testimony
8 given.

9 I further certify that I am not related
10 to any of the parties to this action by blood
11 or by marriage, and that I am in no way
12 interested in the outcome of this matter.

13 IN WITNESS WHEREOF, I have hereunto set
14 my hand this 17th day of November, 2015.

15
16 _____
17 MARY ANN PAYONK, Shorthand Reporter
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- INDEX TO WITNESSES -

WITNESS	PAGE
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DR. ROBERTO TAMASSIA

Examination by Mr. Palys 4

- INDEX TO REFERENCED EXHIBITS -

(Previously marked)

NO.	PAGE
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Exhibit No. 1001 U.S. Patent Number 41

8,868,705

Exhibit No. 1003 U.S. Patent Number 41

8,850,009

Exhibit No. 1005 Tamassia declaration 5

Exhibit No. 1007 U.S. Patent Number 108

6,496,867

Exhibit No. 1009 Aventail Connect 155

administrator's guide

Exhibit No. 1036 RFC 2026 105

- INDEX TO EXHIBITS -

NO.	DESCRIPTION	MARKED
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Exhibit No. 2012 Marked-up version of 157

pages 11 and 12 of Ex. No. 1009

* * *

1 NAME OF CASE: Apple vs. VirnetX

2 DATE OF DEPOSITION: November 12, 2015

3 1. To clarify the record.

2. To conform to the facts.

4 3. To correct transcription error.

5 Page _____ Line _____ Reason _____

6 From _____ to _____

7 Page _____ Line _____ Reason _____

8 From _____ to _____

9 Page _____ Line _____ Reason _____

10 From _____ to _____

11 Page _____ Line _____ Reason _____

12 From _____ to _____

13 Page _____ Line _____ Reason _____

14 From _____ to _____

15 Page _____ Line _____ Reason _____

16 From _____ to _____

17 Page _____ Line _____ Reason _____

18 From _____ to _____

19 Page _____ Line _____ Reason _____

20 From _____ to _____

21 _____
22 DR. ROBERTO TAMASSIA

23 SUBSCRIBED AND SWORN TO BEFORE ME

24 THIS _____ DAY OF _____, 2015.

25 _____
(Notary Public)

My Commission expires: _____

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD

3
4 APPLE INC.

5 Petitioner

6 v.

7 VIRNETX, INC.

8 Patent Owner

9
10 Case No. IPR2015-00810

11 Patent No. 8,868,705

12 Case Nos. IPR2015-00811

13 and IPR-2015-00812

14 Patent No. 8,850,009

15
16
17
18 DEPOSITION OF DR. ROBERTO TAMASSIA

19 Volume Two

20 Washington, D.C.

21 November 13, 2015

22
23
24 Reported by: Mary Ann Payonk

25 Job No. 99552

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November 13, 2015
9:00 a.m.

Deposition of DR. ROBERTO TAMASSIA,
Volume Two, held at the offices of Sidley
Austin, 1501 K Street, N.W., Washington, D.C.,
pursuant to Notice before Mary Ann Payonk,
Nationally Certified Realtime Reporter and
Notary Public of the District of Columbia,
Commonwealth of Virginia, States of Maryland
and New York.

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14 1501 K Street, N.W.

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1 DR. ROBERTO TAMASSIA

2 recalled as a witness, having been duly
3 sworn, was admonished of his former
4 oath, examined and testified further as
5 follows:

6 EXAMINATION (Cont'd.)

7 BY MR. PALYS:

8 Q. You've got your declaration open to
9 you. Do you have paragraph 89?

10 A. Page 89?

11 Q. Yeah, paragraph -- page 89, you're
12 right, paragraph 218. You have that in front
13 of you; right?

14 A. Right in front of me.

15 Q. That's that flow chart that you
16 created; right?

17 A. I believe this is where we left
18 yesterday.

19 Q. Right.

20 And in paragraph 218, you state that
21 you're going to provide a flow chart that you
22 prepared illustrating these steps. You say
23 "these steps"; right?

24 A. That's what it reads, right.

25 Q. Right.

1 And you're referring to the steps in
2 pages 11 and 12 of Aventail Exhibit 1009;
3 right?

4 A. Yes. So what I meant is providing a
5 general illustration of the overall process, a
6 chart that shows what kind of mechanisms are
7 going to be used by the Aventail Connect
8 software and how it will use certain
9 configuration parameters and how it will
10 interact with the Aventail external server.

11 Q. One thing I forgot to ask you. Since
12 we broke last night, did you at all review your
13 transcript from yesterday? Your testimony from
14 yesterday?

15 A. I did not have access to it.

16 Q. And did you talk to anyone about your
17 testimony yesterday or the testimony that
18 you're about to give today regarding -- since
19 we broke yesterday?

20 A. I only mentioned to my girlfriend
21 that I was done for the day and I will continue
22 the next day.

23 Q. Okay, all right. So no
24 communications with counsel at all?

25 A. There was no communication.

1 Q. Nothing about the substance of your
2 testimony?

3 A. Absolutely not, just the time when I
4 will show up here.

5 Q. I appreciate that. Thank you.

6 Okay, back to your flow chart.

7 Actually, on page 11 of Aventail, this
8 describes those steps that are reflected in
9 your flow chart. There's a step labeled "Step
10 1." Do you see that?

11 A. Yes.

12 Q. And I believe yesterday you
13 highlighted the first paragraph of step 1 and
14 labeled it 1 in your version of Exhibit 1009;
15 right?

16 A. Yes, you asked me to do so, yes.

17 Q. And step 1 includes all the bullet
18 points, the three bullet points that extend
19 from page 11 to page 12; correct?

20 A. Can you say that again?

21 Q. Step 1 includes the items, the three
22 bullet points that extend from page 11 to page
23 12. Do you see that?

24 A. Yes. So the first step consists also
25 of these subcomponents which are not numbered

1 but are the bulleted parts.

2 Q. Right.

3 And I'm wondering, depending on how
4 you want to proceed, you already labeled one of
5 those bullet points as 1A.

6 A. Yes, already, from yesterday.

7 Q. Did you want to label the second
8 bullet point 1B on that version right there?
9 If you'd do that.

10 A. Yes, I'm happy do that.

11 Q. And it looks like 1B extends to the
12 next page.

13 A. Right.

14 Q. And if you could -- sorry. Thank
15 you, sir. And if you could label the next, the
16 last bullet point 1C. Thank you.

17 Now, right after 1C, there's another
18 step 2. Do you see that?

19 A. Yes.

20 Q. Okay. And under step 2, there's a
21 subitem A. Do you see that?

22 A. Yes.

23 Q. I'm going to refer to that as 2A,
24 okay?

25 A. Sure.

1 Q. If you want, you can label that one
2 2A or if you can follow along --

3 A. It's implied, yes.

4 Q. Now, there's three bullet points
5 under 2A. Do you see that?

6 A. Yes.

7 Q. I was wondering if you could label
8 the first bullet point as 2A1 or 2AI, however
9 you want to represent that.

10 A. I can write 1, 2, and 3 --

11 Q. Perfect.

12 A. -- on the document.

13 Q. That'll work.

14 And after 2A3, there's a step -- a
15 subset B. That's 2B; right?

16 A. Yes.

17 Q. Okay. And if you could label the
18 three bullet points under that however you
19 want, 1, 2, 3, like you did before.

20 Perfect.

21 And then after that, there's a step
22 C. That's 2C; correct?

23 A. Yes, that is 2C.

24 Q. And then following that, there's step
25 3; right?

1 A. Right.

2 Q. Okay, thank you.

3 So on page 11 of Aventail, step 1,
4 that entire step, step 1, that's an optional
5 step; correct? Or --

6 A. Just to make sure, when you say "1,"
7 do you refer to the entirety including also 1A
8 and 1B, 1C, or only the preamble, which is the
9 paragraph I have boxed in?

10 Q. I would say all of step 1B and -- 1A,
11 1B, and 1C, and 1.

12 A. Okay.

13 Q. And I'll refer to the paragraph we
14 labeled 1 where it says "this entire step is
15 skipped."

16 A. So what happens is that an
17 application can try to establish connection
18 either using a domain name or host name or an
19 IP address. The entire step 1 describes in the
20 substeps how host names can be mapped to IP
21 addresses.

22 If the application already knows the
23 IP address, it wants to connect to and issues a
24 connection request based on an IP address, then
25 as indicated in the preamble, this step,

1 referred to as entire step, is skipped.

2 Q. So it's optional when the application
3 already knows the IP address; right?

4 A. Yes.

5 Q. And once step 1, the entirety of step
6 1 that includes all the substeps A, B, and C,
7 once that's complete, and assuming it's not
8 skipped, the Aventail application proceeds to
9 step 2; right?

10 A. So first of all, in this context of
11 this description, the term "application" refers
12 to an application which could be, for example,
13 a web browser that is running on a client
14 machine. And then it also describes how
15 Aventail Connect, which is the client component
16 of the Aventail platform, how it intercepts
17 process and forward what are the requests from
18 the application.

19 So I wanted to clarify what I
20 considered the meaning of "application," since
21 you referred to it as the Aventail application.
22 I would like to make a distinction between the
23 application that is running on the client
24 machine versus Aventail Connect.

25 Q. Okay. So let me rephrase the

1 question a little bit then.

2 Once step 1, the entire step A, B,
3 and C, is complete, and assuming it's not
4 skipped, the Aventail process proceeds to step
5 2; correct?

6 A. What I will say is that step 2 is
7 executed also when step 1 is skipped, so the
8 processing done by Aventail Connect on an
9 IP-based connection request is still performed.
10 So it's a somehow different description than
11 the one that you stated.

12 Q. Well, right. In my question, I said
13 assuming it wasn't skipped, so I think we're
14 saying the same thing.

15 A. Yeah, yeah. I clarified that even
16 outside of your hypothetical --

17 Q. Step 2 follows step 1 if step 1 -- if
18 step 1 is not skipped, right, step 2's going to
19 follow step 1?

20 A. Yes.

21 Q. Okay. And if step 1 is skipped, step
22 2 is performed as well?

23 A. Yes.

24 Q. Okay. And is step 2 initiated by the
25 device that includes the Aventail application;

1 right?

2 A. So as described, when the client
3 application makes a connection, which is now
4 based on an IP, then the connection handshake,
5 which is the initial establishment of the
6 connection, is again intercepted, examined, and
7 processed by the Aventail Connect module.

8 Q. So step 2 is initiated by the client,
9 though, that includes Aventail. Yeah, the
10 Aventail application.

11 A. I'll say that the way they described
12 that page 12 in the beginning of step 2 is that
13 various processing described in step 2 begins
14 once the application makes what I'm referring,
15 for example, in my diagram as connection
16 request using an IP address.

17 Q. So when you say "the application,"
18 referring to the client application?

19 A. What I'm referring here is the
20 client -- when the client application starts
21 this request, then the processing in step 2
22 done by Aventail Connect is triggered.

23 Q. If you could turn back to page 8 of
24 Aventail, please. And on page 8 there's a
25 section saying "WinSock connection to a remote

1 host." See that?

2 A. Yes.

3 Q. And there, it says "Via WinSock, an
4 application goes through the following steps to
5 connect to remote hosts on the Internet or
6 appropriate action path."

7 Do you see that?

8 A. Yes.

9 Q. You see the steps 1, 2, and 3 that's
10 listed on page 8?

11 A. Yes.

12 Q. Those steps -- and on page 11.

13 A. Uh-huh.

14 Q. The paragraph right above page 11,
15 the paragraph right above what you labeled as
16 step 1.

17 A. Yes.

18 Q. It says:

19 "The following three steps are
20 identical to the standard WinSock
21 communication steps described above."

22 That's referring to the steps that
23 are on page 8, right, when page 11 says "The
24 following 3 steps are identical to the standard
25 WinSock communication steps described above"?

1 A. My understanding is that this
2 reference on page 11 to the standard WinSock
3 is -- is about the processing that is outlined
4 on page 8.

5 Q. And then on page 8 when it says "Via
6 WinSock, an application goes through the
7 following steps," is that application the
8 client application you were referring to before
9 in your previous testimony?

10 MR. DILLON: Objection, form.

11 A. So, yeah, so when pages 11, 12 refers
12 to an application, which is also called client
13 application, this reference is of behavior
14 parallel those that are described in page 8,
15 and what is in page 8 is the standard type of
16 connection using TCIP in a Windows operating
17 system machine. So that's why the reference to
18 a specific software called WinSock.

19 BY MR. PALYS:

20 Q. And on page 12, I'm looking at step
21 2. The application sends a connection request;
22 right?

23 A. Yes, that's the beginning of step 2,
24 page 12.

25 Q. Sorry.

1 A. Done.

2 Q. Okay. Apologize.

3 In your flow chart that you have on
4 page 89, you have a box on the left-hand side
5 that says "request connection using IP
6 address."

7 Do you see that?

8 A. Yes, I see.

9 Q. Does that correlate to step 2 here on
10 page 12?

11 A. Yes, this box is correlated to the
12 beginning of step 2.

13 Q. I'm going to try to do something to
14 make things speed along again, kind of like the
15 markup.

16 A. Okay.

17 Q. I can do it or have you do it. It's
18 up to you. What I want to do is number each of
19 your flow charts so I know when I say step 3,
20 you'll know what we're talking about. I can
21 have you do it or I can do it, whatever you're
22 comfortable with.

23 A. You would like me to label each box,
24 or only some boxes that you're interested in
25 now?

1 Q. I understand. But this way, we will
2 have numbers next to them and then you'll know
3 exactly which box I'm referring to without
4 having to repeat the text inside of it.

5 A. Can I use letters for them?

6 Q. However you want to do it. Whatever
7 you're comfortable with.

8 A. Okay.

9 Q. You can go down the sequence, and
10 that way, I know what you're talking about. I
11 can see it.

12 A. I'll just check that I have looked at
13 all the boxes and have done it.

14 Q. Let's let your counsel make a copy so
15 they will know exactly where I'm going. I
16 believe I have it. Thank you.

17 A. We don't have access to a machine?

18 Q. I just realized your comment on
19 letters makes more sense because we're using
20 numbers for this. Good call.

21 So what you've labeled as step G
22 correlates to step 2 on page 12 of Aventail;
23 correct?

24 A. I prefer to refer to what is in the
25 square boxes as actions. So again, we have a

1 different terminology from what is in the flow
2 chart and what is in the Aventail, and what is
3 in the Aventail outline of the steps.

4 I also want to add as we're entering
5 this discussion that my intention here with
6 this flow chart was to provide to the board and
7 to anyone what is my general overall
8 understanding of the methodology that is
9 employed by Aventail.

10 My understanding of relevant
11 configuration mechanisms and the relevant
12 technique, such as DNS interception, IP
13 interception, use of local tables, local
14 resources, use of proxying DNS lookups and use
15 of proxying of connections as in the SOCKS
16 standard, which is followed by Aventail, on
17 purpose, I did not try to follow exactly, for
18 example, the sequence of steps as in Aventail
19 so as to illustrate a more general view and
20 possibly simplify it over what is in the
21 Aventail reference.

22 And so in the following discussion,
23 it could be that there is no exact one-to-one
24 correspondence between step or substep of
25 Aventail and a box for action or box for

1 decision in my chart.

2 Q. Okay. So to the extent you can
3 correlate the two, if I ask you to do that, and
4 if you can't, just let me know. I will note,
5 though, you said in paragraph 218 that you're
6 explaining each of those steps in pages 11 and
7 12 in the flow chart below.

8 A. So my meaning is an illustration, and
9 I hope that I have explained now what I
10 intended with this illustration.

11 If I wanted to do a mirror of what is
12 in the Aventail manual, then I would follow
13 exactly the steps and substeps, but I thought
14 that it will be more useful to give a higher
15 level view and highlighting flows of actions
16 and significant decisions instead of mimicking,
17 essentially copying what was in the steps.

18 Q. Okay. In step 2 of Aventail, is the
19 connection request that's disclosed in step 2
20 on page 12, that's different from the DNS
21 lookup that's mentioned on step 1 of page 11?

22 A. The way that the Aventail manual
23 describes this connection request mirrors the
24 connection request on page 8, item 2.

25 And this connection request is an

1 IP-based request for the application to access
2 a certain remote host and to obtain a resource
3 from the host, as indicated in the content of
4 the request.

5 Now, your question seems to be
6 related to some details of how the DNS protocol
7 works, so the DNS protocol is an
8 application-level protocol. And the DNS
9 protocol relies on a client machine to either
10 have local information about IP addresses
11 associated with domain name, or querying or
12 requesting the information to a name server
13 that will process the query to give the
14 information.

15 This query itself done in DNS is a
16 query that follows the standard TCP/IP protocol
17 and so this query, when issued, is generally a
18 query that uses a -- the IP address of a name
19 server.

20 Q. So my question is: Is the DNS lookup
21 that's identified in step 1 of page 11, is that
22 different from the connection request that's
23 identified in step 2 on page 12 of Aventail?

24 MR. DILLON: Objection, form.

25 A. What I'll say is that what is on

1 pages 11, 12 is a summary for administrators
2 that gives a general idea of the operation of
3 Aventail.

4 To understand more details which
5 could be related to the question you have
6 asked, it will be useful to read the source
7 code or acquire additional information about
8 Aventail Connect.

9 In general, if one considers the text
10 here, and also if one considers the logic that
11 is described in this chart, a possible path of
12 action, so a possible sequence of events could
13 be that the client in decision box B knows the
14 IP address of a name server and so one could
15 interpret what are the next steps, as the
16 request in G is an IP-based DNS access request.

17 But this level of detail of whether
18 this type of path or sequence of events is
19 applicable to the detailed operation is
20 something that I've not considered. But I have
21 discussed with all my technical understanding
22 of the protocol how DNS requests are performed,
23 which are application-level requests typically
24 issued as a UDP request, knowing the IP address
25 of a first DNS server.

1 Q. But is the DNS lookup that's
2 identified on page 11 different from the
3 connection request that's mentioned on step 2
4 of page 12?

5 MR. DILLON: Objection, form.

6 A. Are you asking about the DNS lookup
7 in general for client application in a system,
8 or specifically as described in the Aventail
9 reference?

10 BY MR. PALYS:

11 Q. As specifically described in the
12 Aventail reference, it says the application
13 does a DNS lookup in step 1; right?

14 A. Yes.

15 Q. Okay. Is that DNS lookup that's
16 referenced in Aventail different from the
17 connection request that's disclosed in step 2
18 on page 12 of Aventail?

19 MR. DILLON: Objection, form.

20 A. My answer is that it is different,
21 because step 2 identifies a general connection
22 request that encompasses a plurality of
23 services, while a DNS request is a request for
24 a unique specific service.

25 BY MR. PALYS:

1 Q. Can you turn to paragraph 238 of your
2 declaration, please?

3 In paragraph 238, you say "once the
4 DNS query has been resolved, step 1." Do you
5 see that?

6 A. Yes.

7 Q. Is that DNS query that you refer to
8 in paragraph 238 the DNS lookup that's
9 disclosed on step 1 of page 11?

10 A. Paragraph 238, I'm referring to the
11 DNS query or DNS lookup that you identified in
12 step 1.

13 Q. If you go back on page 12 of
14 Aventail, look at step -- what I believe is
15 step 2A1. It says "If the request contains a
16 false DNS entry from step 1, it will be
17 processed."

18 Do you see that?

19 A. Yes.

20 Q. Is this item 2A1 reflected in any way
21 in your flow chart?

22 A. So item 2A1 refers to a false DNS
23 entry, so there are several parts in my flow
24 chart that are relevant to this step and so I
25 can comment on them.

1 So boxes H and K refer to false DNS
2 entries that are created by the Aventail
3 Connect module. It is possible that the false
4 DNS entry may be actually part of an IP address
5 known by the client and so it could happen that
6 it would be a consequence of the decision in
7 step B and this IP address going on the link B
8 to G in the flow chart.

9 Later on, there are other references
10 to false DNS entry, to a false address. So
11 decision M identifies the general behavior of
12 Aventail Connect when such a false address is
13 encountered, and this triggers a behavior which
14 is proxied DNS resolution that is going to be
15 performed now by the Aventail extranet server
16 as identified in box N on behalf of the
17 original client application.

18 And box N identifies also that this
19 proxied DNS resolution implies that the host
20 name of which Aventail Connect has kept track
21 of coming from the client request is going to
22 be forwarded to the Aventail extranet server.

23 Q. So when box N then, which says "send
24 host name to Aventail extranet server for
25 resolution," does that correspond to step 2B3

1 on page 12 of Aventail?

2 A. Box N is indeed related to step 2B3.

3 That's what you asked me, right?

4 Q. Yes.

5 A. Okay.

6 Q. Okay. In step 2B on 12 it says "when
7 the connection is completed, Aventail Connect
8 begins the SOCKS negotiation."

9 Do you see that?

10 A. Yes.

11 Q. So step B and its subparts occurs
12 after the connection is complete; right?

13 MR. DILLON: Objection, form.

14 A. My understanding of step 3 -- I'm
15 sorry, of step 2B, which is what you asked me
16 about, so that the phrase when the connection
17 is completed refers to when Aventail Connect
18 has determined that a SOCKS negotiation is to
19 be performed.

20 BY MR. PALYS:

21 Q. And it says that is performed when
22 the connection is completed; right?

23 A. So that's what it says. As I
24 mentioned before, I have given somewhat broader
25 interpretation, given the context.

1 Q. So are you disagreeing with what the
2 document says when it says "when the
3 connection's completed, Aventail Connect begins
4 SOCKS negotiation"?

5 MR. DILLON: Objection, form.

6 A. What do you mean by disagreeing in
7 this case?

8 BY MR. PALYS:

9 Q. I'm just trying to understand your
10 response. I'm sorry, you said that's what
11 it -- so that's what it says. "As I mentioned
12 before, I have given somewhat broader
13 interpretation, given the context."

14 A. Uh-huh.

15 Q. So my question is: Your broader
16 interpretation, is that inconsistent with what
17 is mentioned here on step 2B of page 12?

18 A. I don't think it is inconsistent. I
19 have viewed this phrase at the beginning of B
20 as related to the task that is referred to in
21 A, which is checking the connection request.
22 So a way of interpreting is when checking the
23 connection request is completed.

24 Q. So your interpretation of 2B is that
25 that's really saying when a connection

1 request -- well, I'm sorry, when the -- when
2 checking the connection request is completed?

3 MR. DILLON: Objection to form.

4 A. I have not provided in my declaration
5 specific interpretation of when the connection
6 is completed. I believe, however, that this
7 phrase, as I said before, refers to whether the
8 connection request inspection leads to what is
9 called SOCKS processing of a request, referred
10 to here as SOCKS negotiation.

11 And I mention, for example, in
12 paragraph 243 that reading this description in
13 B, B1, B2 and B3, I have identified how those
14 steps corresponds to the standard SOCKS proxy
15 processing of requests.

16 BY MR. PALYS:

17 Q. So your -- how you interpreted step
18 2B, that is part of your basis for your
19 understanding of how Aventail operates as
20 disclosed in the -- in Exhibit 1009; correct?

21 A. So I've interpreted the step 2B in
22 its entirety as the establishment of a SOCKS
23 proxying of the connection.

24 Q. I'm a little confused and I need to
25 clarify something to make sure I understand

1 this right. When we're talking about
2 connections in Aventail, how it's disclosed
3 here, that's the connection between the client
4 and the -- I think it's referred to as the
5 extranet server; right?

6 MR. DILLON: Objection, form.

7 A. Can you refer to a specific instance
8 of connection?

9 BY MR. PALYS:

10 Q. Well, the connection that's -- we
11 have been talking about connection with respect
12 to the steps that are on pages 11 through 12,
13 so when -- or where Aventail discloses the
14 connection, I'm just trying to understand.

15 This is a connection between the
16 client and the -- I believe it's called an
17 extranet server in Aventail; right?

18 Actually, go to -- if you could go to
19 page 72 of Aventail, try it that way. On page
20 72 there's a figure of a system; right?

21 A. Right.

22 Q. And I believe you referenced this
23 figure in your declaration.

24 A. Yes, I believe so. I can double
25 check, but yeah.

1 Q. And paragraph -- or page 64 of your
2 declaration, I believe that's the same figure;
3 right?

4 A. Yes, the same figure.

5 Q. Okay. So in this figure, there's a
6 server labeled "Aventail VPN Server." Do you
7 see that --

8 A. Yes.

9 Q. -- server?

10 And right above it on page 72 do you
11 see this reference to Aventail extranet server?

12 A. Yes.

13 Q. And then actually on page 10 it
14 refers to an Aventail extranet server as well
15 on the first paragraph.

16 A. Page 10 of the Aventail exhibit?

17 Q. Yes, yes. Sorry, like three lines
18 down or two lines down in the first paragraph
19 it says "2N, Aventail Extranet Server."

20 Do you see that?

21 A. Yes, uh-huh.

22 Q. And it says -- it even refers to the
23 connection in line 2 there.

24 A. I -- I see that it refers to a
25 connection.

1 Q. Right. So what I'm trying to
2 understand is this connection that Aventail
3 discloses. That's between the client and the
4 extranet server; right?

5 MR. DILLON: Objection, form.

6 A. So let me clarify what I believe is
7 the meaning of "connection" in the various
8 parts of this exhibit. So you mentioned page
9 10, line 2 after the note, right?

10 BY MR. PALYS:

11 Q. Uh-huh.

12 A. I believe that this connection is a
13 connection end to end from the client
14 application to remote host.

15 Similarly, when I look on page 12,
16 item 2, again I consider here "connection" as
17 referring to an end-to-end connection that the
18 client wants to establish with the remote host.

19 Q. So when it says "when the connection"
20 is completed," you're referring to that as a
21 connection between the client and the remote
22 host; is that right?

23 MR. DILLON: Objection, form.

24 A. No, this is not how I interpret it.

25 BY MR. PALYS:

1 Q. How do you interpret it again?

2 A. I believe that, as I already said, I
3 viewed this sentence in the overall context of
4 the determination of whether the Aventail
5 Connect module should begin establishing a
6 SOCKS negotiation or SOCKS negotiation and
7 subsequent processing to establish this
8 end-to-end connection via the proxy server or
9 SOCKS server.

10 Q. When you say "SOCKS server," are you
11 referring to extranet server?

12 A. As I mention in paragraph 174 of my
13 declaration, the Aventail extranet server is a
14 server that operates according to the SOCKS
15 protocol.

16 Q. Right. So I just want to make sure
17 we're using the same terms.

18 So when you say "SOCKS server,"
19 that's the same thing as the Aventail extranet
20 server; correct?

21 MR. DILLON: Objection, form.

22 BY MR. PALYS:

23 Q. Do you understand my question?

24 A. Are you referring to which context?

25 Q. In your answer, you mentioned a SOCKS

1 server.

2 A. Yes.

3 Q. Is that SOCKS server that you
4 mentioned, is that different from the Aventail
5 extranet server that you describe in your
6 declaration?

7 A. What I've explained is that the
8 functionality of the Aventail extranet server
9 includes the functionality of the SOCKS
10 protocol, and in particular, version 5.

11 Q. Previously you testified when we were
12 talking about step 2B that you -- this sentence
13 in the overall context of the determination of
14 whether the Aventail Connect module should
15 begin establishing a SOCKS negotiation or SOCKS
16 negotiation and subsequent processing to
17 establish this end-to-end connection via the
18 proxy server or SOCKS server, okay?

19 My question is: When you referred to
20 a SOCKS server in your answer, is that SOCKS
21 server different from the Aventail extranet
22 server that you identify in your declaration?

23 A. In the previous sentence, I refer to
24 a SOCKS server as a type of proxy server
25 because SOCKS provides proxy functionality.

1 And this -- my understanding as, for example,
2 in paragraph 173 of the declaration, that the
3 SOCKS protocol is realized by the Aventail
4 Connect module on the client machine and the
5 Aventail extranet server proxy SOCKS
6 functionality, as I said, working together.

7 And I also added that in the Aventail
8 scheme there can be multiple clients that could
9 connect with the same Aventail server.

10 Q. Step 2B, when it says "Aventail
11 Connect begins SOCKS negotiation," what is
12 Aventail Connect beginning SOCKS negotiation
13 with?

14 A. Can you repeat?

15 Q. What is Aventail Connect beginning
16 the SOCKS negotiation with?

17 MR. DILLON: Objection, form.

18 BY MR. PALYS:

19 Q. Do you understand my question, sir?

20 A. I think I -- I understand now.

21 Q. Thank you.

22 A. I believe that, as I explained in my
23 declaration in paragraphs 173 and 174, that the
24 negotiation is performed by two parties, one
25 being the Aventail Connect module and the other

1 being the SOCKS 5 component of the Aventail
2 Extranet Center.

3 MR. PALYS: Let's take a break. I
4 think we have been going about an hour.
5 (Recess taken.)

6 BY MR. PALYS:

7 Q. On page 12, sir, step 2A2, if you
8 could go there, please.

9 A. Yes.

10 Q. There, Aventail says:

11 "Aventail Connect will call
12 WinSock to begin the TCP handshake
13 with the server designated in the
14 configuration file."

15 Do you see that?

16 A. Yes, I can see.

17 Q. "The server" that's identified in
18 that sentence, where it says "TCP handshake
19 with the server," is that the Aventail extranet
20 server?

21 A. Just to be clear, you asked about
22 step 2A2?

23 Q. Right. In the sentence that says
24 "Aventail Connect will call WinSock to begin
25 the TCP handshake with the server," I just want

1 to understand if the "the server" in that
2 sentence is referring to the Aventail extranet
3 server.

4 A. I believe I addressed this point in
5 my declaration in items 239, 240, and 241. So
6 this refers to the Aventail Connect module,
7 which itself makes use of standard operating
8 system modules, in this case, WinSock for
9 communication. And it refers to rules about
10 proxy connections.

11 And I believe that this includes the
12 SOCKS processing of the connection as
13 described, and so a SOCKS processing of a
14 connection in Aventail would be typically
15 performed with one of their SOCKS servers,
16 which can be components of the Aventail
17 extranet server.

18 Q. And what's involved with the TCP
19 handshake that occurs between the Aventail
20 Connect and the -- the extranet server in step
21 2A2?

22 A. So since the sentence refers to
23 WinSock for beginning TCP handshake, then this
24 fragment refers to standard TCP SYN-ACK
25 handshake.

1 Q. In step 2B1, the Aventail Connect
2 sends a list of authentication methods to the
3 server; right?

4 A. Yes. So step 2B1 refers to the
5 component of SOCKS 5 negotiation that is about
6 authentication technique that are mutually
7 acceptable by the client and server.

8 Q. These authentication methods
9 mentioned in step 2B2 are described in Aventail
10 at pages starting at 42 to roughly 52; is that
11 accurate?

12 A. So authentication methods and how
13 they are supported by Aventail Connect
14 configuration tool are described in the guide,
15 and the description starts at page 42.

16 Q. And you provide a list of these
17 authentication methods, I believe, in
18 paragraphs 199 to 205 of your declaration;
19 correct?

20 A. So I believe the -- the two portions
21 of the declaration that address authentication
22 modules. So starting at 199, I refer to what
23 exhibit this manual considers the configuration
24 of Aventail Connect to identify authentication
25 modules that will be supported.

1 So under selection -- so under
2 "Select Authentication Modules," which is on
3 page 27, it is one of the bullet items on page
4 27, so this portion of the manual discusses how
5 at the time of installation of Aventail
6 Connect, one can specify what the modules are,
7 available modules.

8 Q. When you say "specify available
9 modules," that's for the client; correct?

10 A. So this is for the administrator of
11 the client machine to configure the operation
12 of Aventail Connect.

13 Q. On the client?

14 A. This manual is for, yes, the
15 administration of Aventail Connect, which runs
16 on the client.

17 Q. In step 2B2 on page 12 of Aventail,
18 the server selects one of the authentication
19 methods; right?

20 A. Yes, it is stated in this way.

21 Q. I believe on paragraph 244 you
22 describe the selection of an authentication
23 method by the server; correct?

24 A. So paragraph 244 refers to a
25 different exhibit which addresses the

1 configuration of the Aventail Extranet Center
2 and its operation in terms of negotiating with
3 Aventail Connect an authentication method. And
4 then I've quoted text from that manual.

5 Q. So in Aventail, the server selects an
6 authentication method based on the client's
7 preferences of the authentication methods that
8 was configured for the client?

9 MR. DILLON: Objection, foundation,
10 form.

11 A. So does your question address only
12 the operations performed by the server, or how
13 the server and the client together end up with
14 a selection of authentication method?

15 BY MR. PALYS:

16 Q. I guess what I wanted to know is a
17 little more like in step 2B2 of page 12 when it
18 says once the server selects an authentication
19 method and how it's disclosed in Aventail, the
20 process of the server making a selection of an
21 authentication method, if you could give me a
22 description of that.

23 MR. DILLON: Objection to form.

24 A. So I can point to what I wrote in
25 paragraph 244 and the specific quote from this

1 other manual, which is the manual for the
2 Aventail Extranet Center. So the Extranet
3 Center includes in its processing the
4 considerations that are mentioned in this
5 quote. So one is information about the client
6 machine, so what is referred to as the user
7 source in the quoted text.

8 The server has rules about -- based
9 on the user source, which could be host name,
10 domain name, IP, meaning IP address, range of
11 subnet. What are its -- what are its specified
12 authentication rules.

13 And then something else that is taken
14 into consideration is the methods that were
15 offered by Aventail Connect, and so based on
16 these two types of information and possibly
17 other information, then a mutually -- mutually
18 agreeable -- agreeable method is identified.

19 BY MR. PALYS:

20 Q. When you say "based on these two
21 types of information and possibly other
22 information," what other information were you
23 referring to?

24 A. I was just referring to the fact that
25 this text in 244 is out of possibly broader

1 context, and I will have to examine more in
2 detail the broader context to see whether there
3 are other considerations in the selection of
4 the modules.

5 Q. The other context of this other
6 document?

7 A. Of this manual for the server.

8 Q. I think that's Exhibit 1011; right?

9 A. Uh-huh, yes.

10 Q. If you turn to -- let's go back to
11 that system diagram on page 72 -- actually,
12 your figure in your declaration's actually a
13 little more clear. Let's to go that one. I
14 think that was on page --

15 A. So not 72?

16 Q. Well, yeah, I mean, keep that open,
17 but I'm going to go to your dec. It's a bigger
18 picture.

19 A. This is my declaration, actually.

20 Q. Yes, that's it then.

21 A. Because it's bigger.

22 Q. Sorry, I couldn't see.

23 A. And you have a different page.

24 Q. That's fine.

25 A. 64 to 72. It's the same figure.

1 Q. Okay. Well, I'm on 64. Let's go
2 there.

3 A. Okay.

4 Q. Okay. So that figure which is on
5 page 72 of Aventail, again, we talked about how
6 the figure had this Aventail VPN server here,
7 right, in the middle?

8 A. Yes, this figure labels in Aventail
9 VPN server.

10 Q. And that's the extranet server;
11 right? That's what page 72 referred to it as.

12 MR. BROUGHAN: Are you looking at
13 64 or 712?

14 MR. PALYS: Page 64 of his dec,
15 page 72 of Aventail. It's the same
16 figure.

17 MR. BROUGHAN: Okay.

18 BY MR. PALYS:

19 Q. You can see, if I can point you to
20 the title again right above the figure.

21 A. So the Aventail extranet server
22 provides a VPN functionality. And looking at
23 page 73, in the second paragraph, it is stated
24 that in our example, the Aventail extranet
25 server is configured to use internal IP address

1 10.1.1.1, and in the figure one can see
2 10.1.1.1 next to the private network interface
3 of what is labeled Aventail VPN server. And so
4 my understanding has been that the Aventail VPN
5 server in the figure and what is described on
6 page 73 as Aventail extranet server are indeed
7 the same server.

8 Q. So the Aventail extranet server, that
9 proxies traffic to a plurality of remote hosts;
10 correct?

11 MR. DILLON: Objection, form.

12 A. I'll say that the functionality of
13 the server enables a client machine that is
14 equipped with Aventail Connect to establish
15 communications or to communicate with not only
16 a plurality of servers but also a plurality of
17 services that may be available on such servers.

18 THE WITNESS: Can I take a quick
19 one-minute break? You don't need to
20 leave the room, I'm just going to come
21 right back.

22 MR. PALYS: Okay.

23 (Discussion held off the record.)

24 BY MR. PALYS:

25 Q. When choosing which authentication

1 method to use, as you describe in paragraph 244
2 of your declaration, does the server consider
3 its remote hosts?

4 A. I don't remember considering this
5 aspect of the functionality, but I could look
6 it up.

7 Q. What would you have to look at to
8 look it up?

9 A. I think I will want to review again
10 the exhibits to refresh my memory.

11 Q. Which exhibits?

12 A. The exhibits about the functionality
13 of Aventail and also look again at my
14 declaration just in case I don't remember and I
15 mentioned it somewhere.

16 Q. When you say "the exhibits," that --
17 about the functionality of Aventail, does that
18 include Exhibit 1009?

19 A. That would include also 1009 to the
20 extent that it describes also the server
21 functionality you asked me about.

22 Q. What other exhibits about the
23 functionality of Aventail would you have to
24 look at to answer that question?

25 A. I think I mentioned the Aventail

1 manuals that were provided as exhibits.

2 Q. Can you help me identify exactly what
3 exhibits you're referring to? Would that
4 include Exhibit 1011?

5 A. I believe I will have to start by
6 looking at 1009, 1010, 1011, which are the
7 Aventail manuals. And those that I want to
8 look again is 1018, which describes the SOCKS
9 protocol. And this will be the starting point.

10 Q. What else would you need to look at?

11 A. After reviewing these exhibits, then
12 I will make a determination of what else would
13 I want to look at.

14 Q. So if those exhibits didn't provide
15 any information in answering that question,
16 what else would you look at?

17 A. It really depends on what type of
18 other information I find in those exhibits. I
19 cannot anticipate what would be my decision
20 process at that point.

21 Q. You didn't consider this -- you
22 didn't consider whether the -- choosing the
23 authentication methods to use as you described
24 in paragraph 244 -- strike the question.

25 A. Okay.

1 Q. So in paragraph 244, you cite
2 Aventail at page 12, the top of page 102. In
3 paragraph 24, you say:

4 "One of ordinary skill in the art
5 reading the Aventail Connect
6 administrator's guide would understand
7 that the Aventail Connect client sends
8 a list of authentication methods to
9 the Aventail extranet server, and the
10 server is responsible for choosing
11 which authentication method to use."

12 Do you see that?

13 A. On page 101?

14 Q. Right.

15 A. Yes.

16 Q. On page 12 that you cite, page 12 of
17 Aventail that you cite, that doesn't describe
18 whether the server considers its remote host
19 when choosing which authentication method to
20 use; correct?

21 A. I will say that step 2B2 only
22 mentions explicitly the selection but does not
23 provide additional details on how this
24 selection is performed.

25 Q. And in paragraph 244, you refer to

1 Exhibit 1011 at page 36 to, quote, "confirm
2 that this is how Aventail's Extranet Center
3 operated"; correct?

4 A. What I have included in 244 is text
5 that is relevant to what you see in
6 Exhibit 1009, page 12, step 2B2.

7 This fragment may not reflect the
8 entire processing that is done by the server.
9 It describes some of the functionality, which
10 may or may not be the complete functionality.

11 Q. So there could be other portions of
12 Exhibit 1011 that you didn't refer to that
13 provide an understanding of how the server
14 would select an authentication method; right?

15 MR. DILLON: Objection, form.

16 BY MR. PALYS:

17 Q. Do you understand my question, sir?

18 A. If you could repeat it.

19 Q. You said the fragment, which is
20 referring to the portion of Exhibit 1011 that
21 you identify in paragraph 244, may not reflect
22 the entire processing that is done by the
23 server. It describes some of the functionality
24 which may or may not be the complete
25 functionality, which you refer to would be

1 relevant to what you see in Exhibit 1009, page
2 12, step 2B2. Okay?

3 A. Right.

4 Q. All right. So my question is there's
5 other descriptions -- are there other
6 descriptions in Exhibit 1011 that you did not
7 point to that would provide further explanation
8 and confirmation of how the extranet server
9 operated in connection with step 2B2 on page
10 12?

11 MR. DILLON: Objection, form.

12 A. I believe what I previously stated is
13 that I do not remember if there is such
14 additional description.

15 BY MR. PALYS:

16 Q. The portion that you cite -- the
17 portion of Exhibit 1011 in paragraph 244 that
18 you refer to, you would agree that nowhere in
19 this portion does it disclose that the extranet
20 server considers the remote host when selecting
21 the authentication method.

22 A. So I just looked again at pages 70 to
23 73 of Exhibit 1009. So these two pages provide
24 what is called an example network
25 configuration, and the scenario for using

1 Aventail extranet server.

2 Q. I don't believe you answered my
3 question, sir.

4 A. Because I'm not finished.

5 Q. I'm sorry. You were looking at me.

6 A. Sorry, sorry. Because you were kind
7 of going through the pages.

8 Q. Please continue.

9 A. Okay. So I found here references.
10 For example, in the paragraph after the figure,
11 there is a sentence that says:

12 "The Aventail extranet server
13 depicted in this example is used to
14 provide secure and monitored access."

15 Q. If I could interrupt, could you tell
16 me what page you're looking at?

17 A. 72, the paragraph after the figure.

18 Q. Please continue. Sorry.

19 A. Then the last paragraph of page 72
20 starting at the third line from the bottom,
21 there is a sentence:

22 "Depending on the security policy
23 and the Aventail extranet server
24 configuration, Aventail Connect will
25 automatically proxy their allowed

1 application traffic into the private
2 network."

3 Then on page 73, starting at the top
4 on the second line, there's an additional
5 reference to "security policy," and the
6 sentence continues by saying:

7 "Proxy mobile users traffic only
8 to those resources allowed."

9 So it's conceivable from these
10 passages that one of the functionalities of
11 Aventail VPN server is the one of performing
12 access control to determine which clients can
13 access which resources on their private network
14 attached to the Aventail extranet server.

15 Now, since your question was about
16 paragraph 244, I can say again that I'm not
17 sure if there is an implicit reference to such
18 access control and security policies or not in
19 the text that I've quoted.

20 Q. When you referred to security policy
21 when you were pointing to pages 72 and 73 of
22 Aventail, the security policy, is that the
23 authentication method for the clients that we
24 were talking about earlier?

25 A. "Security policies" I believe is

1 intended here as a general term. Security
2 policies in general include rules such as which
3 clients, which of their applications can access
4 which servers, which resources on servers, and
5 this also may incorporate other considerations,
6 including which authentication method allows to
7 grant access for which combination of
8 authentication methods.

9 So as I said before, I've not -- I
10 don't believe I've addressed in greater detail
11 in my declaration what is this aspect of the
12 operation of the extranet server.

13 Q. When you said you believe what's
14 intended by the security policy on pages 72 and
15 73 of Exhibit 1009 to include in general rules
16 such as which clients, which of their
17 applications can access which servers, which
18 resources on servers, that description is not
19 disclosed expressly in Aventail, is it?

20 A. As I said, I don't remember. I am
21 referring to what is suggested by those
22 passages to someone with ordinary understanding
23 of the meaning of "security policy" reading at
24 the time it was published the Aventail manual.

25 Q. That's your opinion here today;

1 right?

2 A. My opinion -- so I believe that my
3 answer says that I believe that someone at the
4 time would have interpreted those passages that
5 I quoted on pages 70 to 73 as referring to
6 security policies in general, as I described
7 them.

8 But I would want to add again that
9 paragraph 244, I did not express any detailed
10 opinion about that. I quoted something that is
11 relevant to the portion of the negotiation of
12 authentication methods performed at the server
13 side.

14 Q. SSL is one type of an authentication
15 method that the server can select for a client;
16 correct? Let me rephrase that.

17 A. Yeah.

18 Q. In Aventail as it's disclosed, SSL is
19 one type of authentication method that the
20 server can select for a client; correct?

21 A. As I mention in 244, one of the
22 authentication modules supported by Aventail is
23 SSL.

24 Q. You said -- do you mean paragraph
25 245?

1 A. 245, yes.

2 Q. If the server selects SSL as one of
3 the authentication methods, is that
4 selection -- that selection is not based on any
5 remote host, though; correct?

6 MR. DILLON: Objection, form.

7 BY MR. PALYS:

8 Q. You understand my question, sir?

9 A. I believe so, yes. And I believe you
10 are going back to a similar topic as the
11 previous question, so I'm going to try to think
12 and answer.

13 Q. Okay.

14 A. I guess my answer similar to the
15 previous one. Again, I don't remember the
16 detail of the operation.

17 Q. In paragraph 245 of your declaration,
18 you -- are you there, sir?

19 A. Yes.

20 Q. Okay. Just wanted to make sure. You
21 state:

22 "One of the authentication
23 modules that Aventail supports is SSL,
24 and if this module's enabled for a
25 source, then an encrypted channel will

1 be created," et cetera, et cetera.

2 Where you say "if this module is
3 enabled for a source," is the source the
4 client?

5 A. Paragraph 245 referring to a source,
6 I believe that the source should be interpreted
7 in the context of this other quoted passage
8 within 245 so the source does refer to the
9 client.

10 Q. So this means for certain client
11 devices, encryption may not be an option that
12 the Aventail server can select; correct?

13 MR. DILLON: Objection, form.

14 A. So far, we have discussed SSL, and
15 now you asked me a different -- so you asked me
16 about a different term, "encryption." And I
17 was wondering if are you using "encryption" as
18 equivalent to "SSL" or if you mean a different
19 concept.

20 BY MR. PALYS:

21 Q. SSL is one of the authentication
22 methods disclosed in Aventail; correct?

23 A. Yes.

24 Q. Okay. Is it your opinion that SSL
25 doesn't involve encryption as disclosed in

1 Aventail?

2 A. I did not say that.

3 Q. I know. I'm asking the question.

4 A. So say it -- can you repeat the
5 question?

6 Q. Is it your opinion that SSL doesn't
7 involve encryption as disclosed in Aventail?

8 A. No, it is not my opinion.

9 Q. Okay.

10 A. Because SSL, it is a known protocol
11 that involves encryption. I think we're on the
12 same page.

13 Q. Okay. So my question was, or is, for
14 certain client devices, SSL may not be an
15 option that the Aventail server can select;
16 correct?

17 MR. DILLON: Objection, form.

18 BY MR. PALYS:

19 Q. Do you understand my question?

20 A. I believe I understand the question.
21 And what I understand is that it is possible
22 that the outcome of a negotiation could be that
23 the SSL authentication module is not selected
24 at the end of the negotiation.

25 Q. Is it possible that at the outcome of

1 the negotiation that the SSL authentication
2 module is not enabled for a client?

3 MR. DILLON: Objection, form.

4 BY MR. PALYS:

5 Q. Do you understand my question?

6 A. As I'm seeing it, yes.

7 Q. I noticed you're looking at --

8 A. Can I use that or I cannot?

9 Actually, I should not, right?

10 Q. Yeah. I actually want to make a note
11 that you've been looking at the transcript.
12 You were doing some of that yesterday and
13 you're doing it today on the live notes.

14 A. Is that a behavior that is not -- I'm
15 not sure how I was reading it.

16 Q. That's fine.

17 A. Okay.

18 Q. So let's get back to the question.

19 A. Okay, let's get back to the question.

20 Q. Is it possible that the outcome of
21 the negotiation that the SSL authentication
22 module is not enabled for a client?

23 MR. DILLON: Object to form.

24 BY MR. PALYS:

25 Q. Do you understand my question?

1 A. I think I understand the question.

2 I believe that a better way of
3 phrasing the outcome is that the SSL
4 authentication module is not selected and thus,
5 it's not enabled for the communication between
6 the client and server.

7 MR. PALYS: Let's take a break.

8 (Recess taken.)

9 BY MR. PALYS:

10 Q. Can you turn to page 11 of Aventail,
11 please.

12 A. Yes.

13 Q. On step 1B.

14 A. Yes.

15 Q. This is reference to HOSTENT. Do you
16 see that?

17 A. Yes.

18 Q. And HOSTENT as disclosed by Aventail,
19 that's the false IP address that you referred
20 to in your flow chart on page 89 of your
21 declaration?

22 MR. DILLON: Objection, form.

23 BY MR. PALYS:

24 Q. Do you understand my question?

25 A. I understand what you asked.

1 Q. So, for example, let me point you to
2 step H. There's a false DNS entry there in
3 that step. Do you see that?

4 A. So box H in my chart is related to
5 step 1B.

6 Q. So the false DNS entry in step H, is
7 that the HOSTENT that's referenced in step 1B
8 of Aventail?

9 A. So the false DNS entry, box H, is
10 related to the false DNS entry in 1B.

11 Q. Right. And the false DNS entry in 1B
12 refers to HOSTENT; correct?

13 A. There is the word "HOSTENT" after
14 "DNS entry" in parentheses.

15 Q. And you agree that that HOSTENT is
16 referring to the false DNS entry in step 1B?

17 A. I've not looked at that detail. I
18 don't remember looking at that -- the exact
19 meaning of the parentheses. It didn't seem to
20 be relevant to understanding the global
21 operation of Aventail Connect.

22 Q. Can you tell me what HOSTENT means in
23 step 1B?

24 A. I can say that it could refer to the
25 false DNS entry, the phrase that just precedes

1 it. It appears to be a term obtained by
2 combining the word "host" and "ENT," which
3 could be the prefix of "entry."

4 Q. Can you imagine a scenario in
5 Aventail where a false DNS entry is not sent by
6 Aventail Connect and still an encrypted
7 connection is established between the client
8 and the server based on an SSL authentication
9 method?

10 MR. DILLON: Objection, form,
11 foundation.

12 BY MR. PALYS:

13 Q. Do you understand my question?

14 A. So you have asked me a question with
15 several hypotheticals and I wonder if we can
16 clarify each of them one at a time.

17 Q. Sure.

18 So what I'm asking you, if you can
19 tell me whether Aventail discloses a scenario
20 where a false DNS entry would not be sent by
21 the Aventail Connect application and still an
22 encrypted connection is established between the
23 client and the server based on the SSL
24 authentication method.

25 MR. DILLON: Objection, form,

1 foundation.

2 A. So can you clarify what you intend
3 with -- I believe you asked me about an
4 encrypted connection or an SSL connection
5 between the client and the server.

6 BY MR. PALYS:

7 Q. Right. We've already talked about
8 that SSL includes encryption; right?

9 A. But I was asking you whether your
10 question specified encrypted or SSL, because
11 the two terms are not equivalent. SSL using
12 encryption, but encryption is a general
13 technique, and encryption could use other forms
14 that are not SSL.

15 Q. Right. But you agree that the SSL
16 authentication method as disclosed in Aventail
17 uses encryption; right?

18 MR. DILLON: Objection to form.

19 A. Can you refer to which step in
20 particular of the protocol you are referring to
21 now, or portions of?

22 BY MR. PALYS:

23 Q. I think my question is just what it
24 is. It says: You agree that the SSL
25 authentication method as disclosed in Aventail

1 uses encryption; right?

2 MR. DILLON: Objection, form.

3 A. SSL authentication indeed is based on
4 the SSL protocol, which is a protocol that
5 makes use of encryption.

6 BY MR. PALYS:

7 Q. Okay. Can you refer to your flow
8 chart on page 89 of your --

9 A. Yes.

10 Q. -- of your declaration. And step I,
11 that's part of -- well, at least relates to
12 step 1B of page 11 of Aventail; correct?

13 MR. DILLON: Objection, form.

14 A. That part which is about matching
15 redirection rules for a host name is related to
16 1B, indeed.

17 BY MR. PALYS:

18 Q. So I'm following your flow chart here
19 starting at step I. So in a scenario where the
20 host name does not match a redirection rule,
21 right, we would follow the flow up top to step
22 F, right, following the "No" arrow; correct?

23 A. You're referring the arrow between I
24 and F?

25 Q. Yes, sir.

1 A. So in my flow chart, the arrow from I
2 to F can be followed only if previously we
3 followed the arrow from J to I.

4 Q. I understand. But just follow my
5 question. All I'm asking is the flow from I to
6 F, right, in your flow chart relates to when
7 the host name does not match a redirection
8 rule; correct?

9 A. No, I will not say that, because
10 it -- that flow refers to when in my chart all
11 the previous steps have been executed. So it's
12 not that the matching of the redirection rule
13 is considered by itself. It's considered only
14 if the other conditions and the appropriate
15 outcome has been evaluated.

16 Q. Then let's do that.

17 A. Okay.

18 Q. So let's go from I to J and let's
19 assume that the DNS proxy was not enabled,
20 right?

21 So you agree that you would go from J
22 to I; correct?

23 A. Right.

24 Q. And before that, if the host name was
25 not on a local lookup table, you'd go from D to

1 J; correct?

2 A. Right, yeah. That's how the flow
3 chart discusses it.

4 Q. So assuming that flow D to J to I,
5 now we're going from I to F in your flow. Do
6 you follow me?

7 A. Right, yes.

8 Q. Okay. So in that scenario --

9 A. Yes.

10 Q. -- we have a host name that does not
11 match the redirection rule, okay? That's how
12 we got from I to F, okay?

13 A. Sorry, but I have to disagree that we
14 got with just that condition. That we got with
15 all the conditions on the part of --

16 Q. Follow along here. I'm not trying to
17 fight with you.

18 All the conditions that get you to I
19 apply. Can we stay in that world?

20 A. Yes.

21 Q. That scenario?

22 A. Yes. This is the right way I will
23 state it. Thank you.

24 Q. So now we're at step I of your flow
25 chart, and all the conditions were met to get

1 to you step I.

2 A. Good.

3 Q. Now, when we go from I to F, that's a
4 host name that's not matching a redirection
5 rule that gets you from I to F in your flow;
6 correct?

7 A. At that point, yes.

8 Q. Now, like in step 1B of page 11 of
9 Aventail again says if -- here it says "if the
10 host name matches a redirection rule."

11 Here, we're saying in this scenario
12 that we just described the host name is not
13 matching a redirection rule, okay? So that's
14 our scenario.

15 A. I believe the scenario, we got all
16 the way to F in my flow chart, right?

17 And you are comparing this scenario
18 with -- in the way it is explained on page 11
19 and 12, we are considering step 1B; right? I
20 believe, we are looking, at these two
21 scenarios.

22 Q. So just let me rephrase my question
23 again.

24 A. Okay.

25 Q. Same situation that we were talking

1 about before. So in step D where we have a
2 host name that's not on the local lookup table,
3 okay? So we're following the flow from D to J;
4 correct?

5 A. Sure. We have reached D and we go to
6 J.

7 Q. Okay.

8 A. And then we go to I and then we go to
9 F.

10 Q. All right. So you don't have --

11 A. This is the area.

12 Q. Okay, good. So if the DNS proxy's
13 not enabled and the host name does not match
14 the redirection rule, you're going to perform a
15 conventional DNS lookup, right, as you
16 reference in step F?

17 A. And this happens -- again, sorry to
18 say it -- if in B the client knows the host
19 name and not the IP address. So we are
20 following all the part A, B, C, D, right, J, I,
21 F. And at this point, following this
22 determination in I, when we are in F, the
23 action in F is what is called here a
24 conventional DNS lookup that provides the IP
25 address.

1 Q. Okay. Then we flow from F to step G,
2 which I believe earlier we related to that step
3 2 on page 12 of Aventail; correct?

4 MR. DILLON: Objection, form.

5 BY MR. PALYS:

6 Q. Do you understand my question?

7 A. I understand your question.

8 G is the beginning of step 2. Step 2
9 consists of various actions.

10 Q. Okay. So in that scenario we were
11 following in your flow chart where we performed
12 a conventional DNS lookup in step F and we went
13 to request a connection in step G and, as you
14 mentioned, it's -- step 2 has several parts.
15 Let's say step 2A and 2B, for example, on page
16 12.

17 A. Yes.

18 Q. Following that process, is it true
19 that a connection can still be made using the
20 SSL authentication method for that client?

21 MR. DILLON: Objection, form.

22 BY MR. PALYS:

23 Q. Do you understand my question, sir?

24 A. Yes, I understand.

25 And I would like to point out to the

1 part that leads from L to M to P to Q and the
2 fact that in step P, redirection rules for
3 addresses are going to be examined. And if
4 there is a match for that address that we
5 obtained in F, then we go to Q. And Q is about
6 proxying of performing the VPN connection, and
7 so -- it's about performing the VPN connection
8 as mentioned in the box, and that these could
9 include SSL authentication.

10 Q. Okay, same scenario where we were
11 following from D to -- to step D to J to I to F
12 to G in your flow chart. Do you follow me so
13 far?

14 A. Yes.

15 Q. Okay. So same scenario, but
16 following the flow from step L to M to step P
17 to step O, okay? Did you follow me?

18 A. Yes.

19 Q. Okay. In that scenario, can a TCP
20 connection be established between a client and
21 a server? Let me rephrase that.

22 In that scenario, can a TCP
23 connection be established between a client and
24 a server where the SSL authentication method
25 was selected?

1 MR. DILLON: Objection, form.

2 BY MR. PALYS:

3 Q. Do you understand my question?

4 A. So the scenario you have described
5 results in the client connecting conventionally
6 to the destination. And in this scenario, it
7 is possible that SSL authentication be used
8 because SSL authentication is a standard
9 protocol that can be employed by a client
10 connecting to a destination server.

11 Q. Do you still have the '009 patent
12 there, sir?

13 A. I have it.

14 Q. Okay. I've got to find mine. Can
15 you turn to the claims, please.

16 A. Yes.

17 Q. In Claim 1 of the '009 patent there
18 is a limitation that starts with "receive
19 following interception of the DNS request." I
20 believe it starts on column 56, line 31.

21 Do you see that?

22 A. Yes.

23 Q. Can you read -- you can do this to
24 yourself -- that limitation that goes from 31
25 to 38 and then let me know when you're done.

1 I'll ask you a question.

2 A. Yes, I've read it.

3 Q. Okay. This claim element says:

4 "Following interception of the
5 DNS request and a determination that
6 the second network device is available
7 for the secure communication
8 service" --

9 Oh, I'm sorry, it's "received"
10 following all the things that I just mentioned.

11 A. Yes.

12 Q. Do you agree that this limitation is
13 requiring three -- that three separate things
14 are to be received?

15 MR. DILLON: Objection, foundation,
16 form, scope.

17 A. What do you mean by "separate
18 things"?

19 BY MR. PALYS:

20 Q. So you reviewed the claims of the
21 '009 patent; right?

22 A. Yes, I did.

23 Q. And in this received limitation, do
24 you agree that Claim 1 is -- requires to
25 receive following interception of the DNS

1 request and a determination that the second
2 network device is available for the secured
3 communication service, one -- oh, a first
4 thing, which is an indication that the second
5 network device is available for the secure
6 communication service?

7 Do you agree with that?

8 MR. DILLON: Objection, foundation.

9 BY MR. PALYS:

10 Q. Do you understand what I'm asking
11 you, sir?

12 A. I understand that this -- you call it
13 limitation of Claim 1, right? That this
14 contains an itemized list, a numbered list,
15 number 1, number 2, and number 3.

16 And going back to your previous
17 question so we can make progress, the
18 understanding that I formed is that these three
19 items are related.

20 And so, for example, if item 3,
21 "provisioning information for encrypted
22 communication leak" is sent, this could
23 possibly imply that 1 also holds, because
24 otherwise, there will be no reason for sending
25 provisioning information if no secure

1 communication service can be provided.

2 And likewise, when we're talking
3 about provisioning, provisioning could be
4 interpreted as including also, for example, a
5 network address as part of provisioning. So
6 I've not interpreted this as strictly referring
7 to items that should be viewed separate as some
8 of the items. So could be included in the
9 other items.

10 Q. Would you agree that that limitation,
11 the receive limitation, requires that an -- an
12 indication, it requests a network address, and
13 the provisioning information as recited in that
14 claim to be received?

15 MR. DILLON: Objection, foundation.

16 A. I'd like to point to paragraph 76 of
17 my declaration. And there, I have given my
18 broadest reasonable interpretation of
19 "provisioning information." I think relation
20 that enables communication in a virtual private
21 network where the virtual private network uses
22 encryption.

23 BY MR. PALYS:

24 Q. All right. My question wasn't what
25 your understanding of "provisioning

1 information" was, it was whether -- what's your
2 understanding of that limitation, starting with
3 "receive" in column 56, line 31, to line 38,
4 whether you agree that that limitation requires
5 three these -- the three things that are
6 enumerated in the claim: One, the indication;
7 two, the request to network address; then
8 three, the provisioning information as recited
9 in the claim to be received?

10 MR. DILLON: Objection, form,
11 foundation.

12 A. As I mentioned before, my
13 interpretation's that although they are listed
14 as three separate items in an enumeration, that
15 the actual implementation of these items could
16 be such that one item includes another one or
17 both of the others.

18 BY MR. PALYS:

19 Q. But to receive, you still have to
20 receive all three of them; right?

21 MR. DILLON: Objection, form,
22 foundation.

23 A. I will say that to receive several
24 items, you may actually just receive one,
25 inspect it, and see that this item in turn

1 contains the other items.

2 THE WITNESS: Is this a good time
3 to estimate how long to take or shall we
4 wait some more for the estimation?

5 MR. PALYS: If we can just keep
6 going with the questions when we take a
7 break I'll answer that question, okay?
8 So we're almost done, just to let you
9 know.

10 THE WITNESS: Okay, thank you.
11 That's what I wanted to know. Thank
12 you.

13 BY MR. PALYS:

14 Q. Earlier you mentioned when we were
15 talking about this limitation that -- in
16 Claim 1 that your interpretation was that
17 although those three items were listed as three
18 separate items in an enumeration, that the
19 actual implementation of these items could be
20 such that one item includes another one or both
21 of the others.

22 A. Yes, that's what I believe I said.

23 Q. Sorry.

24 A. That's what I believe I said. You
25 are reading it, so --

1 Q. I don't want to misrepresent you.
2 What do you mean by "one item includes another
3 one"?

4 A. I will say that it means that the
5 other item comprises the first item.

6 Q. What do you mean by that?

7 MR. DILLON: Objection, form.

8 A. I'm not using any special meaning of
9 these words.

10 BY MR. PALYS:

11 Q. Can you give me an example of how one
12 of those items could include another one?

13 MR. DILLON: Objection, form,
14 foundation.

15 BY MR. PALYS:

16 Q. Do you know what I'm talking about in
17 terms of the items in Claim 1?

18 Sir, do you understand my question?

19 A. Yes. Yes, yes, yes. I was thinking
20 before answering.

21 Q. I just want to make sure you
22 understood my question.

23 A. I believe I already mentioned that
24 item numbered 3, provisioning information,
25 could include as part of itself the item that

1 here is separately listed as network address.

2 Q. When you -- in your response when you
3 said the provisioning information could include
4 as part of itself that item that's separately
5 listed as network address, do you mean that the
6 provisioning information can include the
7 network address and something else?

8 MR. DILLON: Objection, form,
9 foundation.

10 A. So I'm again referring to my
11 interpretation in paragraph 76 of the
12 declaration where I interpreted provisioning
13 information and -- as information that enables
14 communication in virtual private network where
15 the virtual private network uses encryption;
16 hence, my interpretation is that this provision
17 information will include also information
18 related to encryption.

19 BY MR. PALYS:

20 Q. All right. But in your example when
21 you said that the provisioning information in
22 the claim could include as part of itself the
23 items separately listed as a network address,
24 does that mean it could include the network
25 address and something else?

1 MR. DILLON: Objection, foundation.

2 A. Yes, I meant that in the context of
3 patent '705 that references to provisioning
4 information are references to a variety of
5 information that enables this type of
6 communication. And so besides what I just
7 indicated that it may include, that is, the
8 network address of the second device, it may
9 include also address type of information for
10 the purpose of enabling a VPN communication.

11 BY MR. PALYS:

12 Q. The provisioning information in
13 Claim 1 of the '009 patent can not only be a
14 network address; correct?

15 MR. DILLON: Objection, foundation.

16 A. One could envision a scenario where
17 the type of information that is related to
18 encryption within provisioning information is
19 already available to the device. And in such a
20 scenario, it may be possible that the only
21 additional provisioning information could be a
22 network address.

23 THE WITNESS: Can I go for a longer
24 break now?

25 MR. PALYS: Almost done.

1 THE WITNESS: Can you tell me the
2 number of questions? Because I'm afraid
3 if it's more than one, I would prefer to
4 take a longer break.

5 MR. PALYS: If you want to take a
6 break, I can't stop you, sir.

7 THE WITNESS: I was asking you if
8 you just have one question or --

9 MR. PALYS: I can't tell you if I
10 have one question because it depends on
11 your answer. If you want to take a
12 break now, you're free to take a break.

13 MR. DILLON: How about if we stay a
14 little bit longer, then we'll see?

15 THE WITNESS: Give me a one-minute
16 break and then go a little bit longer,
17 as some has suggested.

18 MR. PALYS: I will never stop a
19 witness from taking a break, so if you
20 want to, go ahead.

21 THE WITNESS: Thank you.

22 (Recess taken.)

23 BY MR. PALYS:

24 Q. In your scenario where the type of
25 information that is related to encryption

1 within the provisioning information is already
2 available to the device, and you say there's a
3 possibility that you can get additional
4 provisioning information that could be the
5 network address, in that scenario, is the --
6 the provisioning information that's already
7 available to the -- available in the device,
8 that would be the provisioning information for
9 an encrypted communication link; right?

10 MR. DILLON: Objection, form,
11 foundation.

12 A. My scenario meant any provisioning
13 information besides the network address. So
14 all of the provisioning information is already
15 available to this device except the address and
16 so it could go beyond encryption, what is
17 available to the device.

18 MR. PALYS: Okay. Let's take a --
19 you guys stay here. Let's take a
20 30-second break.

21 THE WITNESS: Of course.

22 (Recess taken.)

23 BY MR. PALYS:

24 Q. Can you hand me your declaration that
25 you marked up in your -- the Aventail document?

1 A. Yes.

2 Q. Thank you. In the Aventail document
3 in Exhibit 1009 on pages 11 and 12 you recall
4 you made some markups on pages 11 and 12?

5 A. Yes.

6 Q. Do me a favor and just initial --
7 well, I'm going to mark this page first as
8 Exhibit 2013.

9 (VirnetX Exhibit No. 2013 was marked for
10 identification.)

11 MR. PALYS: I took pages 11 and 12
12 from the Exhibit 1009 that you were
13 looking at. Let's go off the record.
14 (Discussion held off the record.)

15 MR. PALYS: Okay, so I marked pages
16 11 and 12 that you marked up in green
17 highlighter from Exhibit 1009 as VirnetX
18 Exhibit 2013. Can you do me a favor and
19 just initial somewhere -- here, I'll
20 give you a pen -- on the top of page 11.

21 THE WITNESS: Sorry, what should I
22 initial?

23 MR. PALYS: Top right's fine.

24 THE WITNESS: Top right?

25 MR. PALYS: Yeah.

1 THE WITNESS: Okay.

2 MR. PALYS: You see that's the
3 document we were talking about?

4 THE WITNESS: You want me now to
5 initial something else?

6 MR. PALYS: Yes, I do. I'm going
7 to hand you now the flow chart on page
8 89 that you marked up from Exhibit 1005.
9 So page 89 that you marked up in green
10 with letters for your flow chart I am
11 marking as VirnetX Exhibit 2014.

12 (VirnetX Exhibit No. VirnetX was marked
13 for identification.)

14 BY MR. PALYS:

15 Q. So Exhibit 2014 is a copy -- is your
16 marked-up copy on page 89 that happens to be a
17 two-sided exhibit. So on the other side is
18 page 88, as you can see.

19 A. Yes.

20 Q. I would appreciate it if you could
21 just initial on the top right that this is the
22 document you were -- you had marked up.

23 Thank you.

24 MR. PALYS: And after that, we have
25 no further questions for this witness.

1 MR. DILLON: Petitioner has no
2 questions on redirect. Thank you.

3 MR. PALYS: I believe we're done.
4

5 (Deposition adjourned at 1:05 p.m.)
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1 C E R T I F I C A T E

2 DISTRICT OF COLUMBIA:

3 I, MARY ANN PAYONK, shorthand reporter,
4 do hereby certify that the witness whose
5 deposition is hereinbefore set forth was duly
6 sworn, and that such deposition is a true,
7 correct, and full record of the testimony
8 given.

9 I further certify that I am not related
10 to any of the parties to this action by blood
11 or by marriage, and that I am in no way
12 interested in the outcome of this matter.

13 IN WITNESS WHEREOF, I have hereunto set
14 my hand this 18th day of November, 2015.

15
16 _____
17 MARY ANN PAYONK, Shorthand Reporter
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PAGE

173

MARKED

with hand markings

* * *

1 NAME OF CASE: Apple vs. VirnetX

2 DATE OF DEPOSITION: November 13, 2015

3 1. To clarify the record.

2. To conform to the facts.

4 3. To correct transcription error.

5 Page _____ Line _____ Reason _____

6 From _____ to _____

7 Page _____ Line _____ Reason _____

8 From _____ to _____

9 Page _____ Line _____ Reason _____

10 From _____ to _____

11 Page _____ Line _____ Reason _____

12 From _____ to _____

13 Page _____ Line _____ Reason _____

14 From _____ to _____

15 Page _____ Line _____ Reason _____

16 From _____ to _____

17 Page _____ Line _____ Reason _____

18 From _____ to _____

19 Page _____ Line _____ Reason _____

20 From _____ to _____

21 _____
22 DR. ROBERTO TAMASSIA

23 SUBSCRIBED AND SWORN TO BEFORE ME

24 THIS _____ DAY OF _____, 2015.

25 _____
(Notary Public)

My Commission expires: _____